Good afternoon. Thank you all for joining this meeting. My name is Nia Wellendorf. I'm the Program Administrator for the Water Quality Standards program within the DEAR. My program includes the Aquatic Ecology and Quality Assurance Section, or AEQAS, which is the group that maintains DEP's QA Rule. Jessica Patronis is the administrator of that section.

AGENDA

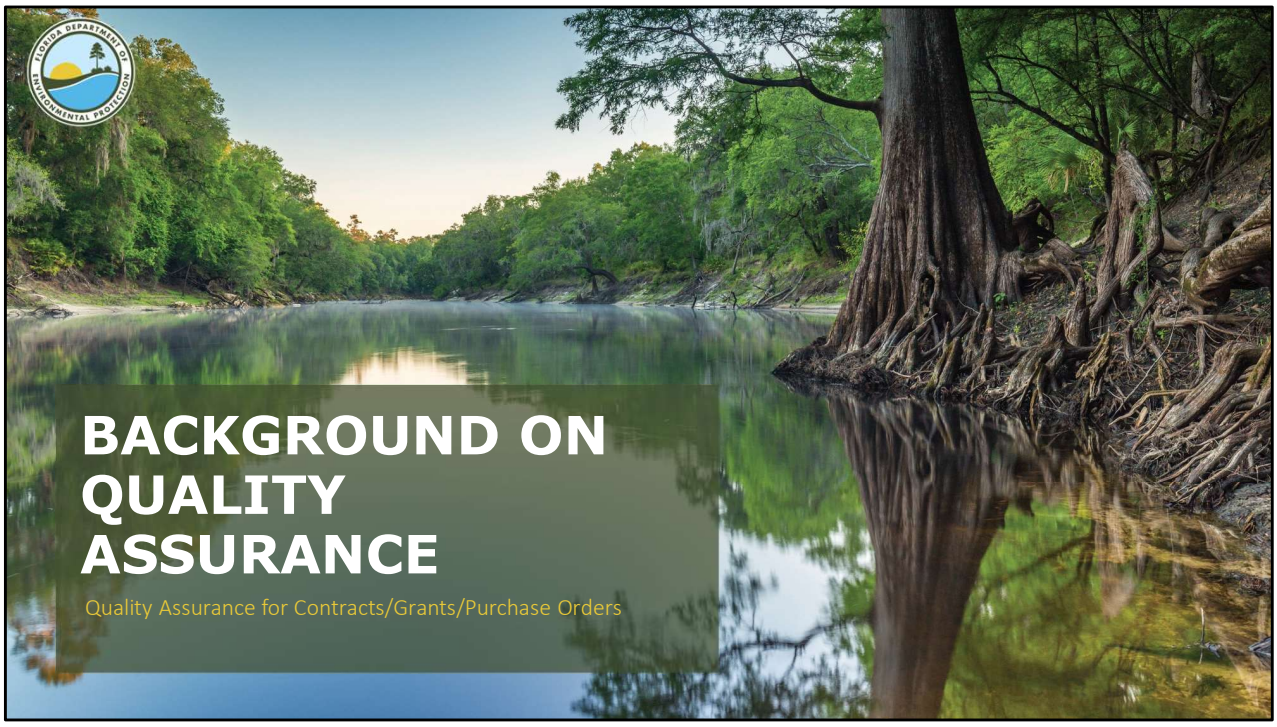
- DEP quality assurance (QA).
- QA requirements for contracts, grants and purchase orders.
- QA documents and responsibilities.
- Contract/grant examples.
- QA requirements for purchase orders.
- QA resources.
- Website review.

Here are the topics we will cover today. I'll briefly review DEP's quality assurance authority and rules, then get into the QA requirements for contracts, grants, and purchase orders. We'll talk about the various documents and who is responsible for discussing QA requirements and reviewing documents. I'll share some contract and grant examples and specific requirements for purchase orders. Then a review of where you can find all of this information on our website.

LEARNING GOALS

- Understand DEP QA requirements for contracts, grants and purchase orders.
- Know when to ask questions.
- Know where to find the answers.

Our goals are for you to understand the QA requirements, how to determine which should be included in your agreements, when to ask questions, and where to find the answers.



Now I will provide a broad overview of DEP's authority and obligations related to quality assurance.

AUTHORITY AND OBLIGATION

Section 403.0623, Florida Statutes

Directs DEP to "establish, by rule, appropriate quality assurance requirements for environmental data submitted to the department and the criteria by which environmental data may be rejected by the department."

Chapter 62-160, Florida Administrative Code (F.A.C.)

DEP's "QA Rule" contains requirements for field and lab data submitted to DEP.

Florida Statute directs DEP to "establish, by rule, appropriate quality assurance requirements for environmental data submitted to the department and the criteria by which environmental data may be rejected by the department." Chapter 62-160, the QA rule, addresses that mandate. It contains requirements for field and lab data submitted to DEP. QA Rule requirements applies to data submitted to the agency, for compliance or assessment purposes, but also applies to work paid for by DEP. If we are paying for work to be done through contracts, grants, or POs, there is an expectation that DEP wants and will use the data in some form or another. That means the work must meet QA Rule requirements.

AUTHORITY AND OBLIGATION

DEP Policy 972

QA Policy establishes internal agency policy and distributed responsibility for QA throughout DEP.

Quality Management Plan (QMP)

Explains DEP's QA processes to EPA, and is a requirement for funding and delegation of federal programs to DEP.

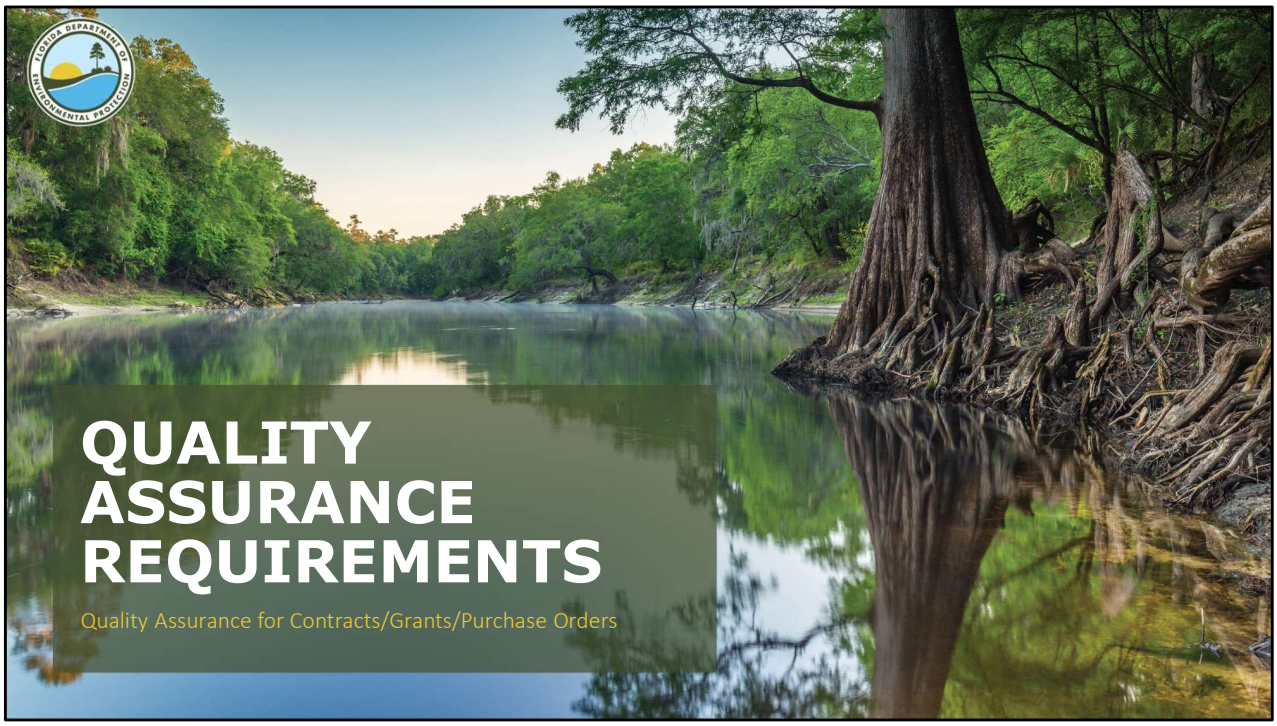
DEP also has a QA policy, DEAR 972, that applies to the whole agency and establishes QA policy for the agency. In that policy, each division, program, and employee has a responsibility with regards to QA consistent with their job duties. The QA policy requires that all work units have a QA officer. If you don't know who your QA officer is, ask your boss. Ideally, that person would be knowledgeable about the topics we'll be reviewing today and is your first line for QA assistance. The QMP is a document we prepare for EPA regarding how EPA delegated programs carry out their quality system.

LEARNING MORE ABOUT QA

- On PeopleFirst in the Learning Management System (LMS)

- Search: **Intro to Quality Assurance**
  - Self-guided training with a quiz.
  - Estimated time for completion is 30-45 minutes.

There is a general Intro to QA training on the PF LMS system. If you have not taken it, we recommend it.



Delving into specifics of QA requirements for contracts, grants, and purchase orders.

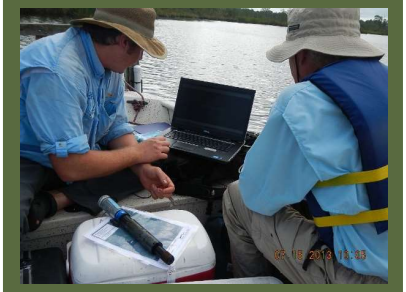
QA REQUIREMENTS: CONTRACTS, GRANTS, PURCHASE ORDERS

- Field and laboratory work conducted under legal agreement (contract/grant/PO) with DEP must adhere to DEP QA Rule (Chapter 62-160, F.A.C.).
  - Scientific validity.
  - Legal defensibility.
- State funds spent.
  - DEP will use the data.
  - DEP will make decisions based on the data.

Field and laboratory work conducted under legal agreements with DEP must adhere to the QA Rule, both to ensure the scientific validity and legal defensibility of the work. These projects are being done with state money, and it's our job to be responsible with the state's money. That means that the study design or intended activities must be well thought out so they will address whatever the issues or questions are, and that the resulting data are of sufficient quality that we can use the data and make decisions based on the data.

QA REQUIREMENTS: FIELD SAMPLING

- Follow DEP SOPs, if applicable.
- Use appropriate equipment.
- Preserve samples correctly.
- Meet holding times, as required in DEP SOPs.
- Record all required information to be kept with the sampling record.
- Make sure field meters are reading accurately.



If there's field sampling in the agreement, the sampling must be conducted using DEP SOPs, except in cases where a research method is being used or we don't have an SOP for the activity. We'll get into what to do in those cases later. They must be using appropriate equipment for the substances being measured. For example, you can't use plastic bottles if you're analyzing for chemicals that can leach from that plastic. Samples have to be preserved, which usually means kept in ice, but could mean acidification. Samples must be analyzed within holding times, laid out in the SOPs. Samplers must keep required documentation of the sampling events, and conduct the proper calibrations and verifications of field meters, again – following DEP SOPs.

QA REQUIREMENTS: LAB ANALYSIS

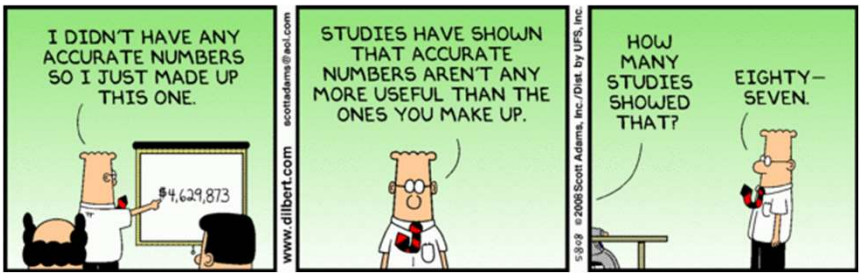
- Hold certification from Department of Health (DOH) for specific test methods.
- Follow documented methods.
- Run required blanks and standards.
- Have sufficient method detection limits (MDL) for the project objectives.
- Report results with appropriate qualifier codes, as required in the QA Rule.

A – Value reported is the arithmetic mean (average) of two or more determinations.
U – Indicates that the compound was analyzed for but not detected.
I – The report value is between the laboratory method detection limit and the laboratory quantitation limit.
B – Results based upon colony counts outside the acceptable range.

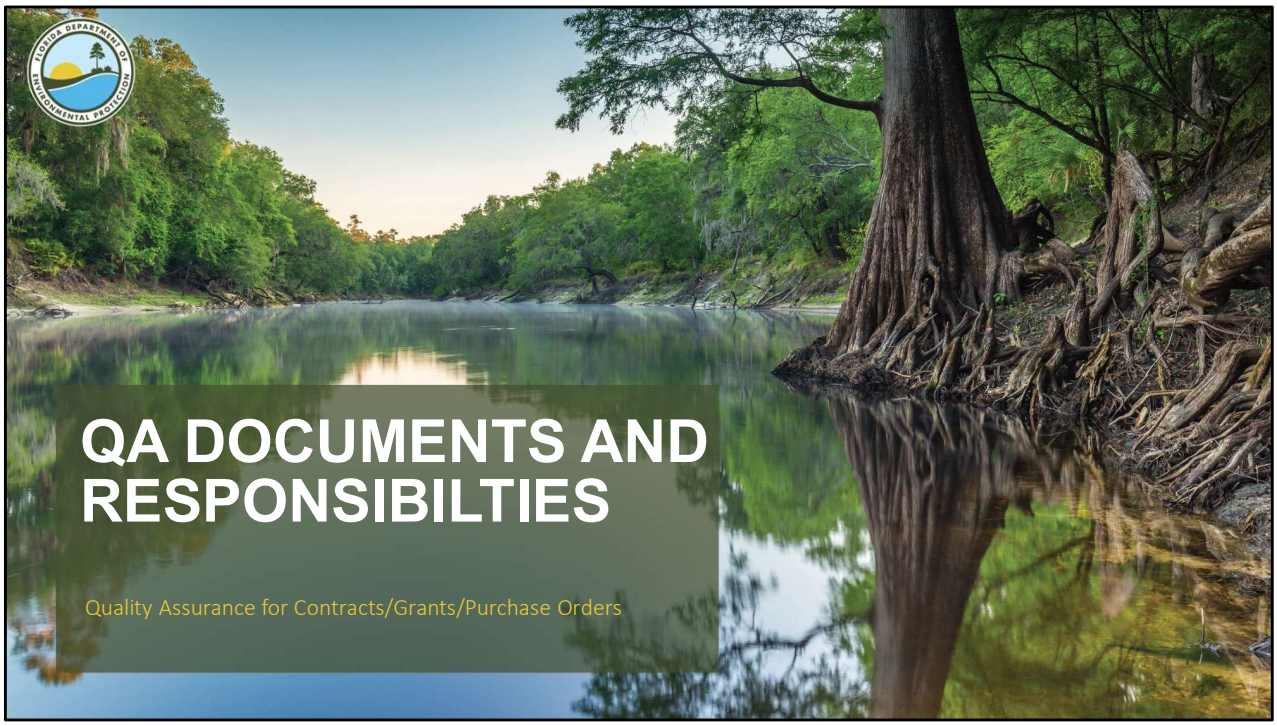
For the lab work, most analyses should be conducted by a certified lab. The lab must be certified for the required method and matrix (water, soil, etc). If certification is not required for some reason, the lab still must have a documented method that they are following. The lab needs to run the required quality control samples, like blanks and standards, to support their results. They need to have sufficient detection limits so the data will be usable for the project objectives. This is really important. If the grantee is evaluating nutrient concentrations in the Indian River Lagoon to see if our water quality criteria are being me, they have to generate results low enough to compare with the standards. And labs must report results with appropriate qualifier codes, which are in the QA Rule. Here are some example of qualifier codes. It's important to note that qualifier codes associated with results don't mean those results are not usable. They just provide information about the results or the analysis.

QA REQUIREMENTS

"Trust, but verify." –Ronald Reagan



Many times we're working with great people on great projects. We are collaborating to address important issues, and may be inclined to just trust that the contractors or grantees know what they need to do. However, trust is not enough when we're spending taxpayer dollars or when decisions we make based on the data are challenged in court.



Now I'll review the documents involved and talk more about what contract/grant/PO managers need to do.

DOCUMENTS AND RESPONSIBILITIES

- AEQAS has provided process documents, QA attachments, QA deliverables language and QA Project Plan (QAPP) templates.
  - Contracts.
  - Grants.
  - MFMP PRs (POs).
- https://floridadep.gov/dear/quality-assurance/content/qa-dep-contracts-grants-and-purchase-orders.
- Linked in grant writer manual.

On its website, AEQAS maintains QA process documents for contract, grants, and purchase orders that explain the process of incorporating QA requirements into your agreements. We have QA attachment language, QA deliverable language, and QA project plan (or QAPP) templates.

CONTRACT QA WEBPAGE

Here is what the website looks like.

CONTRACT/GRANT MANAGER RESPONSIBILITIES

- Discuss field and lab work with contractor/grantee during project initiation.
- Decide whether project requires Standard or Research QA Attachment and include in agreement.
  - Contact AEQAS if you don't know which one.
- Provide Research or Standard QA Plan template to contractor/grantee.
  - Make sure you pick the right one.
- Review and approve QA Plan deliverable and other deliverables for adherence to QA requirements.
  - Request help from AEQAS for review, as needed.

What are your responsibilities as contract/grant managers regarding QA? First, be sure to discuss the field and lab work they will do during project initiation. Make sure you understand what kind of work they are doing, so you can determine if it falls under Standard or Research. Talk with you QA officer or contact AEQAS if you aren't sure. Share the appropriate QA attachment with them ahead of time. Make sure contractors/grantees understand what will be required of them. Direct them to trainings available on our webpage that explain the DEP SOP requirements in short order. It's never good when you're trying to execute an agreement and the contractor/grantee was not aware that we have requirements for sampling and labwork. Once the agreement is in place, you will need to review and approve their QA plan and other deliverables.

QA ATTACHMENT (EXHIBIT D) CONTENTS

- Laboratory Analysis and Field Collection Requirements.
- Reporting, Documentation and Records Retention.
- Audits.
  - Technical Audits.
  - Initial and Ongoing Planning Review Audits.
  - Statement of Usability.
- QA Plan (deliverable for contracts and grants, info needed ahead for POs).

Required if work includes field or lab sample measurements.

So what's in the QA Attachment? There's a section about lab requirements and field requirements that I just reviewed. There's a section about documentation and records retention, which outlines what documents relevant to the data collection and analysis must be maintained and made available upon request. This includes items that may not be required in the contract or grant deliverables. There's a section about audits, and I think this is often overlooked. I'll go into more detail on those in a later slide. Lastly, the QA attachment includes the requirement for a QA plan, which is needed in most cases.

STANDARD VS. RESEARCH ATTACHMENT

- Standard QA Attachment.
  - Standard accepted methods used.
  - All DEP SOP requirements apply.
  - Labs must be certified by DOH-ELCP.
  - Use Standard QA Plan Template.
- Research QA Attachment.
  - Non-standard or "research" sampling procedures.
  - Lab methods that are non-standard and not typically certified by DOH-ELCP.
  - Data not for regulatory use.
  - Use Research QA Plan Template.

If the project has a combination of standard and non-standard activities, you would use the Research QA Attachment and QA Plan template.

QA REVIEW RESPONSIBILITIES

- QA Review prior to agreement execution *is required* to ensure appropriate QA requirements included.
- Triggers for AEQAS review.
  - Contracts includes the Business Needs Analysis (BNA formally CIF) QA approval.
  - Grants has no formal trigger.
- AEQAS conducts review for anyone who asks for help; not every QA Plan must go through AEQAS.
- DWRA – QA officer conducts review.
- OWPER – All staff managing agreements.

Before the agreement is executed, these QA requirements must be considered. The contract/grant manager should determine which QA attachment to include and discuss with the contractor/grantee. AEQAS is a signer for QA approval for contracts, but are not signers for grants. For contracts, we initial the BNA memo. Our QA team in AEQAS can help you evaluate which requirements are appropriate and review QA Plans. However, our QA team is small, so we rely on you guys and your QA Officers to provide the first line of review. These responsibilities may be delegated in different ways. It is our understanding that the QAO conducts reviews for DWRA and the individual managers conduct reviews in OWPER. Those are just two examples of offices with many contracts and grants.

AUDITS OF CONTRACTED WORK

- Initial Planning Review Audit (not required for POs).
  - Once work has begun, contractor/grantee shall submit an evaluation of how well the work aligns with the QA Plan.
- Ongoing Planning Review Audits (not required for POs).
- Technical Audits.
  - DEP may audit contractors/grantees at any time.
  - Contact AEQAS for help if you think an audit is needed.

The initial and ongoing planning review audits are meant for the contractor or grantee to evaluate how the project is going and whether they are able to carry out the sampling and analysis as planned. Then they are supposed to provide statements of whether of not the data are usable for the intended purpose. These reviews can be reported within another deliverable, a quarterly or annual report, or as a stand-alone item, even in an email. That's up to the manager. The department may conduct an audit of the project anytime for any reason, those are the technical audits.


CONTRACT/GRANT EXAMPLES
Quality Assurance for Contracts/Grants/Purchase Orders

"STANDARD" PROJECT EXAMPLES

- Stormwater monitoring for EPA 319 Grants.
- Ambient monitoring of surface waters and groundwater (grants managed by DEAR).
- Water quality monitoring of typical analytes for evaluation of nutrient source controls.

Here are some examples of projects that would get the Standard QA attachment and plan. Stormwater monitoring for 319 grants, ambient monitoring of lakes streams and groundwater to generate data for waterbody assessment. These projects generate data that are reported directly to EPA and used for regulatory decisions. A project to test different options for nutrient sources control, that includes monitoring of nutrients and maybe other traditional analytes, would also get the Standard attachment. The tests involved are all common tests for which there are plenty of certified labs, and the results will be used to inform a regulatory process.

"RESEARCH" PROJECT EXAMPLES

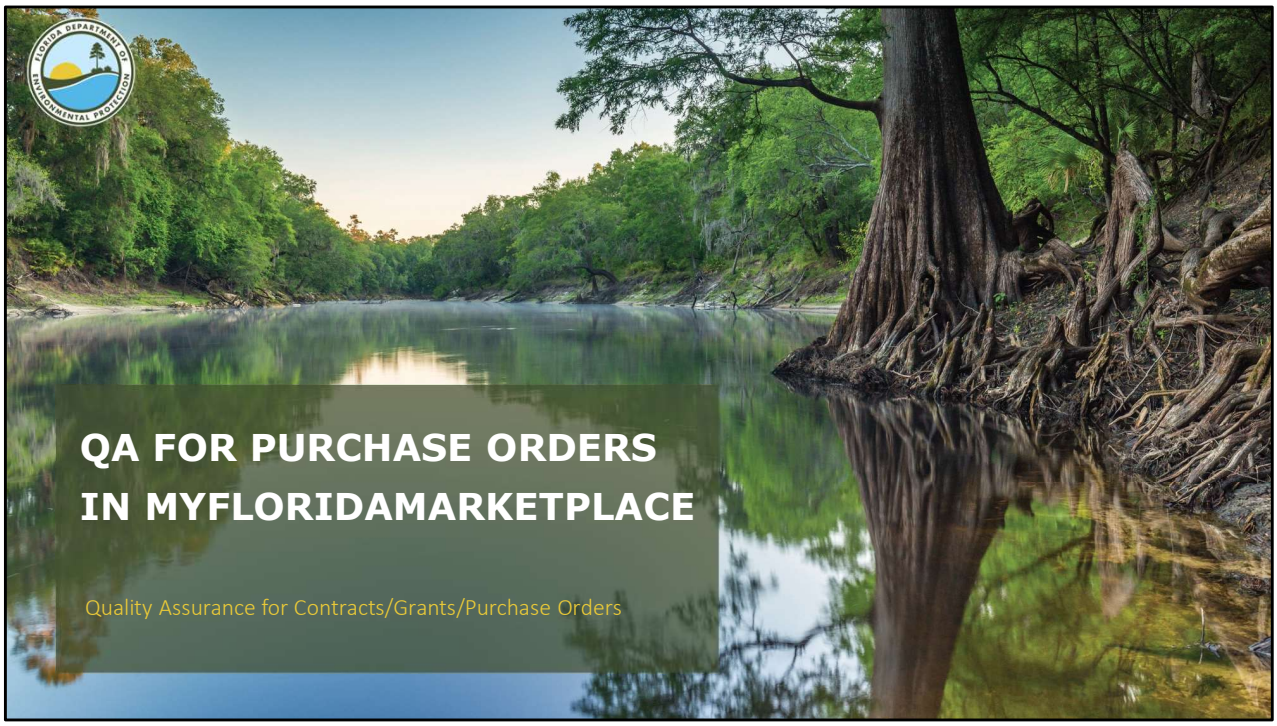
- Use of isotopic water quality tracers to determine movement of groundwater.
- Assessments of biological communities (*e.g.,* oysters, fish, vegetation) to determine success or water quality or habitat restoration efforts.
- Sampling with non-traditional equipment.

These are some examples of projects for which the Research attachment and QA plan are appropriate. Analysis of stable isotopes in groundwater is something that's not available for lab accreditation. Assessment of biological communities to determine success of restoration efforts. Evaluation of some communities like oysters and seagrasses are not covered in the DEP SOPs, so you would use the research attachment and then require that their methods be stated and outlined or linked in the QA plan. And lastly, projects that involve sampling with non-traditional equipment, like nutrient field probes, would fall under research.

"HYBRID" PROJECT EXAMPLES

- Testing of new technologies to remove algae from surface waters.
- Analysis of a mix of analytes with both certifiable methods and experimental methods.
- Implementation of innovative technologies and water quality analysis of common water quality parameters.

Here are some examples of what we call hybrid, where we would use the research attachment and QA Plan template, but the project really has some standard and some research components. A project testing a new technology to remove algae from waters will have some experimental methods that would be research and would need to be provided by the grantee or contractor, but would also include some standard measurements like chlorophyll or algal toxins, which would require collection and analysis using standard methods. It would be similar for these other examples.



Now I'll go into a little more detail about how the process works for purchase orders in MFMP.

MFMP PURCHASE REQUEST/ORDER QA

- AEQAS conducts QA review and approval in MFMP for POs with field sampling or lab analysis.
  - *Triggered by commodity type.*
- Standard or Research QA Attachment added to PO by AEQAS.
- During negotiations…
  - Discuss and review the QA requirements with the supplier, make sure all parts are understood. Contact AEQAS with questions.
  - For research projects, project info must include a description about proposed methodology.

Purchase orders have the same fundamental QA requirements but are managed differently. The project manager submits a purchase request into MFMP and includes the necessary details about the project and may attach a work plan. These requests come to the QA team in AEQAS for review, if the commodity type indicates that the project includes field sampling or lab analysis. AEQAS reviews the request, ensures the necessary information is there, attaches either Standard or Research QA Requirements, and passes it to the next approver. As with contracts and grants, it's best to think about QA considerations ahead of time.

MFMP CODES THAT REQUIRE QA APPROVAL

- Water testing services.
- Soil pollution measurement or monitoring.
- Employee skill testing and assessment service.
- Marine biology services.
- Ecological science services.
- Botanical science services.
- Agricultural science services.
- Aerobiological science services.
- Medical laboratories.

These are commodities that require QA approval in MFMP.

MFMP PURCHASE REQUEST/ORDER QA

1. Standard QA Requirements- when DEP SOPs are used and lab is FDOH certified, typically for activities conducted for compliance.
2. Research QA Requirements- when sampling activities will *not* be conducted according to DEP SOPs and lab analyses will *not* be performed by a certified lab. Research approach is acceptable if data will not be used for regulatory decisions.

If the proposed scope of work does not appear to conform to either of those choices, contact AEQAS for review and approval for edited QA requirements.

AEQAS will attach either Standard or Research requirements to a PO depending on the work. We'll use a standard attachment when DEP SOPs are used and labs are certified. This is the case for compliance activities like swim area or drinking water monitoring. We'll attach research requirements when SOPs other than the DEP SOPs will be used or lab analysis will not be performed by a certified lab. If some hybrid set of requirements are needed, we can discuss.

MFMP PURCHASE REQUEST/ORDER QA

- For *Standard* Sampling and/or Analytical Services *put in the line item or details.*
  - Entity that will collect the samples.
  - Lab that will do the analysis (DOH ID and location).
  - Indicate the specific sample collections or analyses supplied.
  - Analytes to be tested (e.g., "E. coli" rather than "bacteria").
  - Test methods to be used.
  - If more than one matrix (soil, drinking water, recreational water) the info should be listed for each sample matrix.

These are the elements we are looking for when we review these PRs. We will ask for more information or send it back if these elements are not there.

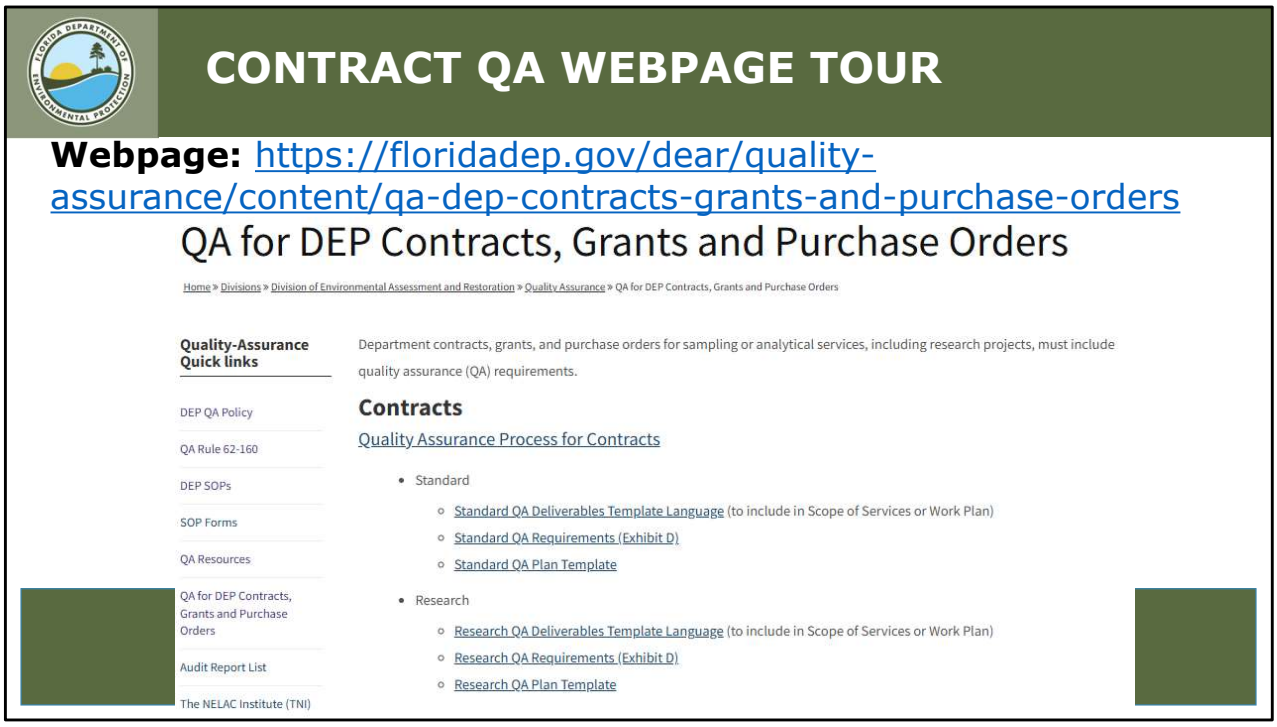
MFMP PURCHASE REQUEST/ORDER QA

- For *Research* Projects, provide the following in the line-item description or attached Plan of Study or Scope.
  - Purpose and intended use of data.
  - Description of work to be done.
  - Data reporting and storage procedures.
  - Documentation to be provided to the department.
  - Training required to conduct work.
  - Experimental design details, including sampling sites, populations, organisms, or analytes to be investigated, and sampling and/or analytical schedules.
  - *Sampling and analytical methods.
  - *QC activities.
  - Evaluation of the research project design to meet objectives.
  - Statistical and/or other procedures and criteria for evaluation of data.

The information required for research POs is very similar, but more in depth. These projects will typically have a scope of work or work plan attached to the purchase request.

CONTRACT QA WEBPAGE TOUR

Webpage: https://floridadep.gov/dear/quality-assurance/content/qa-dep-contracts-grants-and-purchase-orders



Explore this webpage and other useful QA pages in the highlights (trainings, SOPs, QA Policy).


THANK YOU
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