



Quality Plan for the Watershed Information Network (WIN) Section

Watershed Services Program
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection

February 13, 2023

Signature Page

The undersigned have read and understood this Quality Plan, are charged with managing and improving the quality system and are responsible for ensuring that all staff properly execute the procedures discussed in the plan.

X

Denise D. Miller

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Program Administrator

X

Julie Zimmerman

Julie Zimmerman
Environmental Administrator

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Justin Nelson

Justin Nelson
Quality Assurance Officer

1. Introduction

The Florida Department of Environmental Protection (DEP) Quality Assurance (QA) program involves the implementation of a management system (planning, review, training, and assessment) to ensure that data collection, generation, interpretation, reporting, evaluation and archiving are of sufficient quality to support Department decisions. The effectiveness of DEP's QA program is dependent upon the actions of all DEP staff, from "front line" employees to management, meaning QA is a function distributed throughout our organization. One aspect of our program is to ensure that Department QA activities are carried out according to commitments made to the Environmental Protection Agency as enumerated in the DEP Quality Management Plan (QAMP) Revision 6/24/09.

In 2017, the Watershed Services Program (WSP) launched a new data repository and submission interface to replace the outdated Florida STORET (STOrage and RETrieval) system. The new system, Watershed Information Network (WIN), is now the sole water quality data submission interface for DEP for data providers for non-regulatory data. Though data loading to the Florida STORET system has been retired, water quality data continue to be housed in the Florida STORET warehouse and can be retrieved through the public access website, STORET Public Access (SPA). For this reason, the Florida STORET system remains relevant in the WIN section Quality Plan.

In order to execute the components of the DEP QA Directive, the WIN section has developed a quality plan, the purpose of which is to ensure the implementation of a quality system. This document describes the steps the WIN section takes to ensure the scientific and legal defensibility of environmental data we manage. It describes the process of training, assessment and corrective action we undertake to ensure that environmental data meet our established quality criteria.

The DEP Secretary is committed to implementation of the quality assurance requirements in the QAMP and as authorized at Section 403.0623 Florida Statutes (F.S.) and Chapter 62-160 Florida Administrative Code (F.A.C.) (the DEP Quality Assurance rule). It is the Secretary's intent to carry out these obligations and requirements as described in the Department's QA Directive (Directive 972, September 2009, at <https://floridadep.gov/dear/quality-assurance/documents/dep-qa-directive-and-qa-rule>).

2. Basic Elements of the WIN Quality Plan

We expect all staff to read, understand and follow the procedures and criteria as discussed in this plan, and to carry out their assigned responsibilities for effective utilization of our quality system. This Quality Plan explains both the process and criteria by which the quality systems for the WIN and Florida STORET data

repositories are managed. The plan is utilized as an instrument of internal communication to inform our staff of current and future quality assurance activities. It describes how specific QA duties are assigned to responsible staff. We will revise our Quality Plan as needed and will ensure the consistent application of procedures and criteria for the management of environmental data. The Quality Plan will also be used as a training document for new staff and as a reference for experienced personnel. The Quality Plan and its revisions also serve as an archival record of our formal quality system.

The elements of our plan are consistent with the Department's QAMP, QA Directive and QA Rule (Chapter 62-160, F.A.C.). Our plan addresses all activities associated with management of environmental data, including data receipt, review and storage.

2.1 Policy Statement

It is the policy of the WIN section to:

- Develop and implement the Quality System described in this document.
- Adaptively manage our Quality System to be consistent with provisions of the DEP Quality Assurance Management Plan.
- Ensure that each staff is properly trained to execute their assigned functions.
- Implement procedures to evaluate the quality of the data we manage and to implement corrective actions when data do not meet our Data Quality Objectives.
- Perform a yearly systematic assessment of our quality assurance activities, including any corrective actions, with the findings submitted to the DEP QA Coordinator for use in compiling the DEP QA Report to the Secretary.

3. Ethics

All employees of the DEP WIN section are held to high professional ethical standards in the performance of their duties. All employees are required to read, understand and sign an 'Ethics Statement' attesting to their commitment to honesty and integrity in performance of their duties. In addition, all employees are required to attend an annual ethics training class. Improper, unethical or illegal actions will be dealt with according to the published Administrative Directives of the DEP.

4. Organization and Responsibilities

The WIN section resides within the Watershed Services Program (WSP) of the Division of Environmental Assessment and Restoration (DEAR).

The organization of the WIN section is as follows:

- Julie Zimmerman: Environmental Administrator, WSP, Watershed Information Network (WIN) section
- Lisa Schwenning: WIN Administrator; WQX Coordinator
- Justin Nelson: WIN Quality Assurance Officer (QAO); WIN Coordinator (Northwest, Northeast, and Southeast Districts)
- Brian Weinstein: WIN Coordinator (Southwest and South Districts)
- Jason Storrs: WIN Coordinator (Central District and Statewide organizations)

Through WIN and Florida STORET, the WIN section implements Florida statutory requirements, DEP rule requirements and U.S. EPA requirements for management of environmental (non-regulatory) data for the state. We manage data from both internal data providers (e.g., DEP data providers) and external data providers (e.g., Water Management Districts (WMDs), Counties, local governments). Those data are provided to users of the data from the Florida STORET Warehouse through the publicly available STORET Public Access (SPA) website, and from the WIN Data Warehouse through the publicly available WIN Reports & Extract Menu. The SPA application and the WIN Reports & Extracts feature within the WIN application are maintained by the DEP Office of Technology & Information Services (OTIS) in collaboration with the WIN section. WIN section management of the data includes working with data providers to assist them with loading data to WIN, training WIN data providers (e.g., on data maintenance, quality assurance and data migration), and addressing quality assurance issues within WIN. WIN section also uploads the data to the U.S. EPA Water Quality Exchange (WQX) per federal requirements. Additionally, our WIN coordinators assist with database-related inquiries.

WIN section staff perform the following duties:

- Act as Data Provider Coordinators for DEP (WIN Coordinators), working with water quality monitoring agencies in assigned DEP District areas to facilitate loading of data to WIN;
- Work with water quality agencies statewide to coordinate Florida WIN training and implementation needs;
- Coordinate with the DEP program staff, Water Management District staff, and other Data Providers to support the management of data in WIN;
- Evaluate quality of data and ensure quality control of data migration to WIN;
- Coordinate with the DEP Office of Technology & Information Services (OTIS) on database issues to ensure that Florida STORET and WIN data management needs are met;

- Coordinate with the DEP OTIS to design, implement, improve, and maintain database interfaces to provide for STORET and WIN data retrievals;
- Respond to requests regarding Florida STORET and WIN data retrievals;
- Provide data to U.S. EPA WQX, ensuring quality control of data uploads, and coordinate with U.S. EPA WQX staff;
- Assist with research and resolution of database related inquiries, including data quality and verification inquiries;
- Develop, implement and provide training on standards and procedures for management and quality assurance of data in WIN;
- Provide feedback to the WIN section Quality Assurance Officer (QAO) for improving the program quality system.

Staff evaluate program data using Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) to implement corrective actions as directed by the QAO. A list of our DQOs and DQIs for WIN is provided in Table 1, and for Florida STORET is provided in Table 2.

Responsibilities of the WIN section Quality Assurance Officer (QAO), Justin Nelson, include:

- Coordinates and participates in the quality evaluation of data managed by the section;
- Ensures corrective actions are implemented for data non-conformance as determined by evaluation of the data against WIN Data Quality Objectives;
- Assists program managers in the development of the Quality System and other logistical aspects of its implementation, such as coordinating training needs;
- Coordinates data reviews and documents all program QA activities, including training, data management processes, developing data quality rules, data assessments and corrective actions, and uses this information to provide reports to DEP management, including providing information to the DEP QA Section for use in compiling the DEP QA Report to the Secretary.

The Environmental Administrator of the WIN section, Julie Zimmerman, ensures that this quality system is fully operational within our program and provides general oversight. Justin Nelson is the designated WIN section Quality Assurance Officer. These two individuals also designate the WIN section DQOs and DQIs (see Tables 1 and 2) to ensure they meet our program's needs, and periodically evaluate the effectiveness of staff's data quality activities, including reviewing data review results. They evaluate corrective action policies and procedures to be implemented when data do not meet program DQOs. Our Environmental Administrator reviews and, as necessary, discusses routine data evaluation reports with the QAO. WSP's Program Administrator and WIN's Environmental Administrator review the annual Quality Assurance Report to be

submitted to the DEP QA Coordinator for inclusion in the DEP QA Report to the Secretary.

5. Training

All personnel are properly trained to perform their duties. The Environmental Administrator of the WIN section annually assesses whether our staff performance conforms with the policies and procedures of our section.

Our training procedures consist of:

- Training WIN staff on DEP's Mission and Value Statements and DEAR's high-level objectives.
- WC_Taining.xlsx
- Training WIN staff on the differences between WIN, Florida STORET (FLASTORET, FDEP STORET, the Florida STORET Warehouse and STORET Public Access (SPA)), U.S. EPA STORET, U.S. EPA Legacy STORET, U.S. EPA WQX, and Doppler SBIO (DEP Statewide Biological Database);
- Training WIN staff about the DEAR LIMS (Laboratory Information Management System) and the Data Merge Tool (DMT) relative to WIN;
- Training WIN staff and WIN data providers on creating, formatting, and converting data files for the WIN import and migration process;
- Training WIN staff on conducting data QA activities;
- Training WIN staff on the application of WIN DQIs and DQOs;
- Training WIN staff on use of and recommended corrective actions relative to the WIN import process and system errors;
- Training WIN staff about applicable DEP rules, program area data requirements and federal reporting data requirements;
- Training WIN staff how to use the SPA website and the process for deletion of duplicated data from the Florida STORET Warehouse;
- Training WIN staff and WIN users on how to use the WIN website to access and retrieve water quality data;
- Review of ethics policy with the QAO;
- Periodic refresher trainings or delivery of updated information, when needed;
- Cross-training staff on specifically assigned tasks and responsibilities, and
- External professional development courses related to data management and quality assurance, and technological advancements.

Staff are evaluated by reviewing their performance to determine effectiveness of training. For example, after training by experienced staff, new staff are observed by experienced staff during coordination activities with data providing agencies before they continue with coordination independently. Refresher training and evaluations also are conducted for experienced staff. Cross-training and

evaluations also are conducted when staff exchange ideas and assist one another in troubleshooting and brainstorming sessions.

We develop and maintain a library of training SOPs for WIN section staff, a list of which is provided in Section 11, References.

6. Data Management

The WIN section staff understand the need to manage and evaluate the quality and usefulness of environmental data to be used in environmental assessments. We conduct the following data management procedures relative to the collection, evaluation, storage and reporting of data in WIN. Data evaluation procedures are based on our established DQOs and DQIs. Table 1 provides a list of the routine data quality checks for WIN. Staff evaluate data using those DQOs and DQIs and implement corrective actions as directed by the QAO.

The WIN system is an intelligent web-based system that identifies and tracks data quality along the data loading process. If the data do not meet WIN's minimum data quality standards (MDQS), the violated rule(s) will be flagged by the system and an opportunity is available to correct the violation within the staging tables before the data can be migrated to production.

WIN section staff assist data providers in formatting and loading quality data to WIN. During the data formatting process, all WIN MDQS are implemented into the data provider's formatting and WIN import configuration. Data are then loaded into a set of staging tables and evaluated for quality before migration to production. The system activates a different set of data quality checks based upon the file type that is being loaded; Projects, Monitoring Locations, or Activities & Results. For example, each new monitoring location loaded to the WIN system must undergo a visual verification process by the data provider to ensure the correct latitude and longitude are represented in the WIN system for associated data. WIN has a front-end system of data quality rules (see Table 1) and checks that prevent data from being migrated to production until they meet WIN MDQS. Any data quality issues that may not be caught by the front-end quality engine of WIN can be revealed through back end queries and reports. Anomalies can also be flagged by internal DEP analysts. These anomalies are reviewed by the data provider for resolution in the WIN system. This data loading process is described in depth in the document titled WIN_User_Manual_2.01.pdf.

The WIN system is dynamic in that it can accommodate updates and new requests regarding WIN's MDQS, allowable standard values, and changes to rules governing data quality.

The Data Merge Tool (DMT) is a feature integrated in the DEP LIMS application for use by DEP data providers to WIN. DMT is used to perform an automatic merge of Sampling Field with Lab data and create a text file that can be loaded

into the WIN system. The DMT process is described in detail in the document WQAP_DMT-WIN_Help_Guide_v2.0_FINAL_11-1-2022.pdf which is available to DMT users supported by the DEP Central Laboratory.

WIN section staff ensure quality control of data uploaded to the U.S. EPA WQX database. A set of data checks has been developed to ensure WIN data meet the data quality rules set forth by EPA. The WIN Coordinator works with the data provider to correct issues that would prohibit the data from being uploaded to WQX. Once all issues are resolved, the data are uploaded to U.S. EPA WQX. If errors are found in WIN data, they prohibit successful loading to WQX, and a resolution is developed either in WIN or in the WQX Loading Package to prevent the same error from happening again.

WIN Coordinators assist in research and resolution of dataset related inquiries prioritized by the QAO. Data generators and consumers sometimes have questions about the data in WIN and in Florida STORET. All questions are researched by the assigned WIN Coordinator. Resolution typically is dependent upon the data provider to answer questions about their data. The WIN Coordinator thoroughly investigates the inquiry until a resolution is determined or all known resources for inquiry are exhausted.

WIN is the successor to Florida STORET. As such, Florida STORET is now closed to new data imports and updates.

The WIN section maintains a library of training documents accessible to data providers through a web link (<http://publicfiles.dep.state.fl.us/DEAR/WIN>). These documents are available for new Data Provider initiation, and upon request. WIN staff also have additional videos used for internal training purposes stored at: <\\fldep1\dear\WSP\WIN\WIN Training\WIN Training Videos>. A list of pertinent documents is provided in Section 11. References.

7. Documentation

WIN Documentation:

Accurate documentation is an important factor for determining the success of QA activities. The WIN system provides the following internal record-keeping procedures to ensure appropriate documentation of QA activities.

- Standard Values Requests: Requests for new standard values, or requests for changes to existing standard values, are recorded in the WIN system. Once a request is submitted, users can search through all SVL requests and track the progress and resolution of each request.
- Dataset History: WIN automatically moves the Migrated data to the Warehouse on a pre-set schedule. The status of imported data remains on the Dataset List screen as 'Migrated' for 8 days after which it is purged. Data that are purged by WIN, deleted, or migrated by a data loader are

eliminated from the Dataset List screen. There is a history of previously uploaded files and their statuses available by accessing the “H” icon in the upper right corner of the Dataset List screen within WIN.

- Data Audits: This sub-menu option is available to all WIN users with a role. Selection of this option navigates you to the screen used to search and list Audits recorded within WIN. From the qualifying list of audits, you can individually select each audit to see the detailed characteristics of the audit and the list of results which may be censored by DEAR for one or more uses based on the findings of the Audit.
- Data Anomalies: This sub-menu option is available to all WIN users with a role. Selection of this option navigates you to the screen used to search and list Anomalies by data type for a given organization. Internal DEP analysts may initiate an anomaly on a record when they need clarification or if the data point contains information that suggests it may be in error. From the qualifying list of anomalies, one can individually select each anomaly to see the detailed characteristics of the anomaly including the reason for initiating the anomaly (Findings), the response, and the resolution. In an effort to share findings and reduce the number of redundant questions, all anomalies are visible to internal DEP analysts.
- QC Reports: There are several reports that the WIN system generates on a staggered static schedule highlighting data that may have QC issues. These reports are reviewed by WIN Coordinators and resolutions are applied if needed. The reports are stored on a DEP network drive and are backed up nightly.
 - Referential Integrity Report
 - Field QC Reports
 - Duplicate Data Report
 - DEP Rounding Issue Report
 - MDL PQL Reports
- Ignore Indicator Table: Back-end checks and reports are utilized to simulate front-end MDQS quality checks. The WIN section has a need to document when certain records need to be excluded from these back-end checks. Records may be excluded either because they are confirmed as ‘valid’ or the record ‘cannot be fixed’ by the data owner (e.g., data were loaded prior to a new rule’s implementation and information was not stored by the data provider). Activity and Result records with an Ignore Tag are excluded from future relevant checks and reports. This will prevent having to repeatedly vet the same records that will never pass certain rules.

WQX Documentation

- All STORET to WQX export logs and processing reports have been archived on a DEP network drive that is backed up nightly.
- All data XML files for WIN and SBIO submitted to U.S. EPA WQX are archived on a DEP network drive that is backed up nightly.

STORET Documentation

As WIN is the successor to Florida STORET, and Florida STORET is closed to new data uploads and updates, WIN section will preserve historical STORET

documentation, but will now focus on newly requested updates and corrections in WIN.

Removal of data duplicated between STORET and WIN:

- All requests for duplicate removal are stored on a DEP network drive that is backed up nightly.
- All DBA requests and completion logs are stored on a DEP network drive that is backed up nightly

Historical data imports, exports, and QA activities:

- All STORET data .dmp files, export logs, and QA activities have been archived on an external hard drive due to the static nature of STORET, and the massive volume of space required. This external hard drive is stored within the WSP WIN section by the QAO;
- The Florida STORET, FDEP STORET, and STORET Warehouse databases are refreshed and backed up nightly on DEP network servers.

Document control:

- All data repository documents produced by the WIN section are maintained in SharePoint and archived on a DEP network drive that is backed up nightly.

8. Contract Management

The WIN section will ensure that any DEP contracts we administer are properly developed and managed to assure appropriate data quality. We will ensure that contract development includes appropriate provisions of the DEP OTIS and, if applicable to the contract, provisions of the DEP QA Rule (Chapter 62-160) and DEP-QA-002/02. WIN section information technology (IT)/data management-related contracts will be contracted through and/or reviewed by OTIS, and, if applicable, will be reviewed by the DEP QA Section prior to execution of the contract. Contract managers will assure that the work is properly planned and executed, is consistent with department IT standards and requirements, and, as relevant, is consistent with the DEP QA Rule.

9. Audits and Corrective Actions

WIN section staff conduct data assessments throughout our data management process, resulting in data verifications and/or data corrections and reporting as described under Section 6, Data Management and Section 7, Documentation. Data assessments are an integral part of the WIN section data management process for WIN. The results of this integral data assessment are captured in quarterly and annual data quality reporting.

10. Report Compilation

To provide the Secretary with information regarding DEP's ongoing QA efforts, the WIN section will prepare a WIN-specific QA report that describes and compiles the results of all appropriate QA activities, and will provide the report to the DEP QA Coordinator for inclusion in the Department-wide annual QA Report to the Secretary.

11. References

General References:

- Chapter 62-160, Florida Administrative Code. Quality Assurance. Florida Department of Environmental Protection Quality Assurance Rule for Water, Waste and Resource Management. April 16, 2018.
- Chapter 62-303, Florida Administrative Code. Identification of Impaired Surface Waters. Florida Department of Environmental Protection. Oct 17, 2016.
- 373.026(2), Florida Statutes (F.S.), General powers and duties of the department
- Chapter 62-40.540(3), Florida Administrative Code (F.A.C.), Water Resource Implementation Rule. May 7, 2005
- DEP-SOP-001/01. General Sampling Procedures. Florida Department of Environmental Protection. April 16, 2018.
- Water Quality Exchange.
 - Flow Configuration Document Version 2.2 Environmental Information Exchange Network. U.S. EPA. December 15, 2021.
 - Flow Configuration Document Version 3.0. Environmental Information Exchange Network. U.S. EPA. December 15, 2021

Training Documents for WSP WIN staff:

WIN Deliverables:

- WIN Import Warehouse Tables.xlsx (2/14/2019)
- WIN_MIGRATED.pdf (9/21/2020)
- WIN_WAREHOUSE.pdf (9/25/17)

WIN Example Files:

- WIN Example Files.xlsx (4/13/2022)

WIN FAQs:

- WIN FAQs.docx (1/13/2023)
- WIN FAQs.pdf (1/13/2023)

WIN MDQS:

- 1_Project_WIN_Standards.xlsx (3/17/2022)
- 2_Surface_Water_Location_WIN_Standards.xlsx (2/2/2023)
- 3_Ground_Water_Location_WIN_Standards.xlsx (5/3/2022)
- 4_Activity_Result_WIN_Standards.xlsx (9/26/2022)

WIN Presentations/Training Videos:

- WIN_General_Information.pptx (02/28/2022)
- WIN Import and Migration Video 2018-03-05.mp4 (3/5/2018)
- DMT_Demo_11032022.mp4 (11/03/2022)

WIN User Manuals:

- WIN_Quick_Start_Guide_v3.0.docx (8/06/2021)
- WIN_User_Manual_2.01.docx (5/29/2019)
- LIMS Browser SOP.pdf (12/26/2017)
- WQAP_DMT-WIN_Help_Guide_v2.0_FINAL_11-1-2022.pdf (11/18/2022)

STORET Public Access (SPA)

- How to use STORET [STORET_walkthrough.pdf](#)

Table 1. Data Quality Objectives and Data Quality Indicators used by the Watershed Services Program WIN section for WIN. DQOs and DQIs are modified as necessary to meet the requirements and objectives of WIN for the DEP programs and projects for which we manage data and to meet federal reporting requirements. Table updated 2/13/2023

Code Table Group	Rule or Report Number	Rule or Report Name	Rule or Report Description
Project	1	Illogical Project Dates	The Project Start Date must be less than or equal to the Project End Date. -Rule 1
Project	2	Project ID must be unique	Project ID must be unique within an Organization. -Rule 2
Monitoring Locations (SW)	3	Land Surface Elevation Datum is conditionally required	Land Surface Elevation Datum is required if Land Surface Elevation (ft) is provided. -Rule 3
Monitoring Locations (SW)	4	Land Surface Elevation Method is conditionally required	Land Surface Elevation Method is required if Land Surface Elevation (ft) is provided. -Rule 4
Monitoring Locations (SW)	5	Primary Secondary Type Combination must be valid	Primary and Secondary Type combination must be valid. - Rule 5
Monitoring Locations (SW)	6	Monitoring Location Description is conditionally required	Monitoring Location Description is required when Secondary Type in ("Other-Surface Water", "Other-Spring"). -Rule 6
Monitoring Locations (SW)	8	Waterbody Name is conditionally required	Waterbody Name is required when Secondary Type in ('Spring Run', 'Spring Boil', 'Spring Vent' or 'Other-Spring'). -Rule 8
Monitoring Locations (SW)	9	Duplicate Monitoring Location ID	The Monitoring Location ID must be unique within the import dataset. -Rule 9
Monitoring Locations (SW)	10	Org Decimal Latitude is out of range	The Org Decimal Latitude must be in the range +24 through +31.2. -Rule 10
Monitoring Locations (SW)	11	Org Decimal Longitude is out of range	The Org Decimal Longitude must be in the range -88 through -80. -Rule 11
Monitoring Locations (SW)	12	Org Latitude Degrees is out of range	The Org Latitude Degrees must be in the range +24 through +31. -Rule 12
Monitoring Locations (SW)	13	Org Latitude Minutes is out of range	The Org Latitude Minutes must be in the range +00 through +59. -Rule 13

Monitoring Locations (SW)	14	Org Latitude Seconds is out of range	The Org Latitude Seconds must be in the range +00.0000 through +59.9999. -Rule 14
Monitoring Locations (SW)	15	Org Longitude Degrees is out of range	The Org Longitude Degrees must be in the range -88 through -80. -Rule 15
Monitoring Locations (SW)	16	Org Longitude Minutes is out of range	The Org Longitude Minutes must be in the range +00 through +59. -Rule 16
Monitoring Locations (SW)	17	Org Longitude Seconds is out of range	The Org Longitude Seconds must be in the range +00.0000 through +59.9999. -Rule 17
Monitoring Locations (GW)	18	Primary Elevation Value (ft) is conditionally required	Primary Elevation Value (ft) is required when Primary Elevation Reference is provided. -Rule 18
Monitoring Locations (GW)	19	Secondary Elevation Value (ft) is conditionally required	Secondary Elevation Value (ft) is required when Secondary Elevation Reference is provided. -Rule 19
Monitoring Locations (GW)	20	Primary Elevation Reference is conditionally required	Primary Elevation Reference is required if Primary Elevation Value (ft) is provided. -Rule 20
Monitoring Locations (GW)	21	Primary Elevation Datum is conditionally required	Primary Elevation Datum is required if Primary Elevation Value (ft) is provided. -Rule 21
Monitoring Locations (GW)	22	Primary Elevation Method is conditionally required	Primary Elevation Method is required if Primary Elevation Value (ft) is provided. -Rule 22
Monitoring Locations (GW)	23	Secondary Elevation Reference is conditionally required	Secondary Elevation Reference is required when Secondary Elevation Value (ft) is provided. -Rule 23
Monitoring Locations (GW)	24	Secondary Elevation Datum is conditionally required	Secondary Elevation Datum is required if Secondary Elevation Value (ft) is provided. -Rule 24
Monitoring Locations (GW)	25	Secondary Elevation Method is conditionally required	Secondary Elevation Method is required when Secondary Elevation Value (ft) is provided. -Rule 25
Monitoring Locations (GW)	26	Primary Secondary Type Combination must be valid	Primary and Secondary Type combination must be valid. - Rule 26
Monitoring Locations (GW)	27	Monitoring Location Description is conditionally required	Monitoring Location Description is required if Secondary Type is 'Other-Ground Water'. -Rule 27
Monitoring Locations (GW)	28	Waterbody Name is conditionally required	Waterbody Name is required if Primary Type = 'Ground Water'. -Rule 28

Monitoring Locations (GW)	29	Well Type is conditionally required	Well Type is required when Secondary Type = 'Well'. -Rule 29
Monitoring Locations (GW)	30	Well Construction Method Explanation is conditionally required	Well Construction Method Explanation is required if Well Construction Method = 'Multiple'. -Rule 30
Monitoring Locations (GW)	31	Well Screen Open Hole Begin Depth (ft) is conditionally required	Well Screen Open Hole Begin Depth (ft) is required when Well Finish is either 'Gravel-Pack, With Screen' or 'Screen'. -Rule 31
Monitoring Locations (GW)	32	Well Screen Open Hole End Depth (ft) is conditionally required	Well Screen Open Hole End Depth (ft) is required when Well Finish is either 'Gravel-Pack, With Screen' or 'Screen'. -Rule 32
Monitoring Locations (GW)	33	Well Casing Depth (ft) must be <= Well Total Depth (ft)	Well Casing Depth (ft) must be <= Well Total Depth (ft). -Rule 33
Monitoring Locations (GW)	34	Well Screen Diameter (in) must be a positive number	Well Screen Diameter (in) must be a positive number. -Rule 34
Monitoring Locations (GW)	35	Well Casing Diameter (in) must be a positive number	Well Casing Diameter (in) must be a positive number. -Rule 35
Monitoring Locations (GW)	36	Well Screen Open Hole Begin Depth (ft) must be a positive number	Well Screen Open Hole Begin Depth (ft) must be a positive number. -Rule 36
Monitoring Locations (GW)	37	Well Screen Open Hole End Depth (ft) must be a positive number	Well Screen Open Hole End Depth (ft) must be a positive number. -Rule 37
Monitoring Locations (GW)	38	Well Screen Open Hole Begin Depth (ft) must be <= Well Screen Open Hole End Depth (ft)	Well Screen Open Hole Begin Depth (ft) must be <= Well Screen Open Hole End Depth (ft). -Rule 38
Monitoring Locations (GW)	39	Well Screen Open Hole Begin Depth (ft) Dependency Violated	If Well Screen Open Hole Begin Depth (ft) is provided, then Well Casing Depth (ft) <= Well Screen Open Hole Begin Depth (ft) <= Well Total Depth (ft). -Rule 39
Monitoring Locations (GW)	40	Well Screen Open Hole End Depth (ft) Dependency Violated	If Well Screen Open Hole End Depth (ft) is provided, then Well Casing Depth (ft) <= Well Screen Open Hole End Depth (ft) <= Well Total Depth (ft). -Rule 40
Monitoring Locations (GW)	41	Well Screen Diameter (in) must be <= Well Casing Diameter (in)	If Well Screen Diameter (in) and Well Casing Diameter (in) are both provided, then Well Screen Diameter (in) <= Well Casing Diameter (in). -Rule 41

Monitoring Locations (GW)	42	Top of Aquifer must be greater than or equal to Bottom of Aquifer	Top of Aquifer must be greater than or equal to Bottom of Aquifer. -Rule 42
Monitoring Locations (GW)	43	Well Total Depth (ft) must be a positive number	Well Total Depth (ft) must be a positive number. -Rule 43
Monitoring Locations (GW)	44	Well Casing Depth (ft) must be a positive number	Well Casing Depth (ft) must be a positive number. -Rule 44
Monitoring Locations (GW)	45	Duplicate Monitoring Location ID	The Monitoring Location ID must be unique within the import dataset. -Rule 45
Monitoring Locations (GW)	46	Org Decimal Latitude is out of range	The Org Decimal Latitude must be in the range +24 through +31.2. -Rule 46
Monitoring Locations (GW)	47	Org Decimal Longitude is out of range	The Org Decimal Longitude must be in the range -88 through -80. -Rule 47
Monitoring Locations (GW)	48	Org Latitude Degrees is out of range	The Org Latitude Degrees must be in the range +24 through +31. -Rule 48
Monitoring Locations (GW)	49	Org Latitude Minutes is out of range	The Org Latitude Minutes must be in the range +00 through +59. -Rule 49
Monitoring Locations (GW)	50	Org Latitude Seconds is out of range	The Org Latitude Seconds must be in the range +00.0000 through +59.9999. -Rule 50
Monitoring Locations (GW)	51	Org Longitude Degrees is out of range	The Org Longitude Degrees must be in the range -88 through -80. -Rule 51
Monitoring Locations (GW)	52	Org Longitude Minutes is out of range	The Org Longitude Minutes must be in the range +00 through +59. -Rule 52
Monitoring Locations (GW)	53	Org Longitude Seconds is out of range	The Org Longitude Seconds must be in the range +00.0000 through +59.9999. -Rule 53
Monitoring Locations (GW)	54	Florida Unique Well ID is not formatted correctly	The first three characters of the Florida Unique Well ID must be upper case letters and the last four characters must be numbers. -Rule 54
Activity and Results	55	Activity Start Date is conditionally required	Activity Start Date is required when Activity End Date is provided. -Rule 55
Activity and Results	56	Activity Time Zone is conditionally required	Activity Time Zone is required when Activity Start Date Time or Activity End Date Time are provided. -Rule 56

Activity and Results	57	Activity Depth Unit is conditionally required	Activity Depth Unit is required if the Activity Depth is provided. -Rule 57
Activity and Results	58	Activity Top Bottom Unit is conditionally required	Activity Top Bottom Unit is required when Activity Top Depth or Activity Bottom Depth are provided. -Rule 58
Activity and Results	59	Total Depth Unit is conditionally required	Total Depth Unit is required when Total Depth is provided. -Rule 59
Activity and Results	61	Org Result Unit is conditionally required	Org Result Unit is required when Analyte Data Type is in ("Integer", "Numeric") or when Org Result Value is not equal to "Not Reported". -Rule 61
Activity and Results	62	Preparation Time Zone is conditionally required	Preparation Time Zone is required when Preparation Date Time is provided. -Rule 62
Activity and Results	63	Analysis Time Zone is conditionally required	Analysis Time Zone is required when Analysis Date is provided. -Rule 63
Activity and Results	64	Org Detection Unit is conditionally required	Org Detection Unit is required when either Org MDL or Org PQL are provided. -Rule 64
Activity and Results	65	Preparation Date Time must be blank	Preparation Date Time must be blank if Activity Type is 'Field'. -Rule 65
Activity and Results	66	Value Qualifier "V" is conditionally required	Value Qualifier "V" is conditionally required when the Method Blank result value is greater than 10% of associated Sample Result value for certain DEP Analyte Names. To view DEP Analytes that may conditionally require a "V", navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Value Qualifier Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 66. -Rule 66
Activity and Results	68	Org Analyte Name and ADaPT Analyte ID combination must be valid	Org Analyte Name and ADaPT Analyte ID combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. -Rule 68

Activity and Results	69	DEP Analyte Name, Media and Org Result Unit combination must be valid	DEP Analyte Name, Media and Org Result Unit combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 69. -Rule 69
Activity and Results	71	Sample Fraction and Analysis Method combination must be valid	Sample Fraction and Analysis Method combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 71. -Rule 71
Activity and Results	72	Activity Depth is conditionally required for select DEP Analyte Names	Activity Depth must be provided and Activity Top Bottom Depth must be blank if Matrix = ("AQUEOUS-Surface Water", "SOILS") and Primary Type is ="Surface Water" and Secondary Type not equaled to "Spring Vent" and Activity Type is in ("Field", "Field Replicate", "Sample", "Sample Composite") and Sample Collection Type not equaled to "Sample-Composite Vertical Profile" for select DEP Analyte Names and Org Result Value is not equal to "Not Reported". To view DEP Analyte Names requiring Activity Depth, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 72. -Rule 72
Activity and Results	73	Analysis Method and DEP Analyte Name combination must be valid	Analysis Method and DEP Analyte Name combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 73. -Rule 73

Activity and Results	74	Sample Fraction is conditionally required	Sample Fraction is required for some DEP Analyte Names and when Media = 'Water'. To view which DEP Analyte Names require a Sample Fraction, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 74. -Rule 74
Activity and Results	75	Sample Fraction must be blank	Sample Fraction must be blank for some DEP Analytes. -Rule 75
Activity and Results	76	Prep Date Time is conditionally required	Preparation Date Time is required for select Analysis Method, Sample Fraction, and Media combinations and Org Result Value is not equal to "Not Reported". To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 76. -Rule 76
Activity and Results	77	Org MDL is conditionally required	Org MDL is required for select Analysis Methods and when Activity Type is anything other than "Field" or "Surrogate" and when Org Result Value is not equal to "Not Reported". To view the Analysis Methods that require an Org MDL, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated for the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 77. -Rule 77
Activity and Results	78	Org PQL is conditionally required	Org PQL is required for select Analysis Methods and when Activity Type is anything other than "Field" or "Surrogate" and when Org Result Value is not equal to "Not Reported". To view the Analysis Methods that require an Org MDL, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated for the Analysis Method

			Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 78. -Rule 78
Activity and Results	79	Prep Method is conditionally required	Preparation Method is required for select Analysis Method, Sample Fraction, and Media combinations and Org Result Value is not equal to "Not Reported". To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 79. -Rule 79
Activity and Results	82	Value Qualifier "Q" is conditionally required	One or more of the holding time durations has expired. Holding time durations are: Sampling (Activity Start Date Time) to Preparation (Preparation Date Time) duration; Preparation (Preparation Date Time) to Analysis (Analysis Date Time); Sampling (Activity Start Date Time) to Analysis (Analysis Date Time) and Org Result Value is not equal to "Not Reported". -Rule 82
Activity and Results	83	Value Qualifier "Q" not valid	Value Qualifier "Q" is not valid. Holding time durations were either all within required limits or there is no holding time requirement for this method, media, fraction combination and Org Result Value is not equal to "Not Reported". To view holding times, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 83. -Rule 83
Activity and Results	84	Result Value Out of Range	Specific Analytes that require numeric result values must adhere to DEP Result Value Range. To view allowed DEP Result Value Ranges, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select

			the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 84. -Rule 84
Activity and Results	85	Result Value must be numeric	Specific Analytes that require numeric result values that do not have a specific range identified must be between - 99999999.99999 and +99999999.99999. -Rule 85
Activity and Results	86	Project must be assigned to a Project Intended Use	Project Intended Use must be assigned to this project before results may be loaded with the associated Project ID. Please contact your WIN Coordinator to request approval of this project and assignment of the Project Intended Use field. - Rule 86
Activity and Results	87	Value Qualifier "A" not valid	Value Qualifier "A" is not allowed when Activity Type is "Method Blank", "Surrogate", "Lab Control Sample", "Lab Control Sample Replicate", "Matrix Spike" or "Matrix Spike Replicate". -Rule 87
Activity and Results	88	Value Qualifier "Y" not valid	Value Qualifier "Y" is not valid when Activity type is in "Method Blank", "Lab Control Sample", "Lab Control Sample Replicate". -Rule 88
Activity and Results	89	Dates are out of sequence	Activity Start Date Time must be <= Activity End Date Time which must be <= Preparation Date Time which must be <= Analysis Date Time which must be <= Current Date when calculated to a common time zone for comparison. -Rule 89
Activity and Results	90	Org Result Value is not valid for this Analyte	Org Result Value is not valid for this analyte. Result Data Type for each analyte is defined as: positive integer, numeric, or choice list. The result must be the correct data type for the associated analyte or equal "Not Reported". -Rule 90
Activity and Results	91	Result Value less than MDL must be qualified	This rule was flagged because the Org Result Value is less than the Org MDL and the record was not properly qualified. If the Org Result Value is less than the Org MDL, the Value Qualifier should contain a "U" and Org Result Value should be updated to the Org MDL value. [NOTE: Use of the "T" qualifier is only acceptable under rare circumstances and only if requested by

			the client; it should not be used for routine reporting of results. If this record must be qualified with a "T" instead of a "U", the reported Org Result Value may remain less than the Org MDL value. In this case, the Org Result Value will be stored in WIN for informational purposes only and shall not be used in statistical analysis.] -Rule 91
Activity and Results	92	Value Qualifier "T" not valid	If the Value Qualifier "T" is submitted, then DEP Result Value must be less than the DEP MDL. -Rule 92
Activity and Results	93	Value Qualifier "I" or "U" is conditionally required	If DEP Result Value = DEP MDL and DEP MDL < DEP PQL, then Value Qualifier must contain either an "I" or an "U". -Rule 93
Activity and Results	94	Value Qualifier "U" not valid	If the Value Qualifier "U" is submitted, then DEP Result Value = DEP MDL. -Rule 94
Activity and Results	95	Value Qualifier "I" is conditionally required	If DEP MDL < DEP Result Value < DEP PQL, then the Value Qualifier "I" is required. -Rule 95
Activity and Results	96	Value Qualifier cannot contain both "I" and "U"	Value Qualifier cannot contain both "I" and "U". -Rule 96
Activity and Results	97	Value Qualifier "B" or "Z" not valid for this analyte	Value Qualifier "B" or "Z" cannot be used unless DEP Analyte Name is in the Microbiological Analyte Group. -Rule 97
Activity and Results	98	Value Qualifier "F" not valid	Value Qualifier "F" cannot be used unless Media is "Tissue". -Rule 98
Activity and Results	99	Value Qualifier "H" not valid	Value Qualifier "H" cannot be used unless Activity Type is "Field". -Rule 99
Activity and Results	100	Value Qualifier "K" not valid	Value Qualifier "K" cannot be used unless DEP Result Value is greater than the DEP MDL. -Rule 100
Activity and Results	101	Value Qualifier "M" not valid	Value Qualifier "M" cannot be used unless DEP Result Value is equal to the DEP PQL. -Rule 101
Activity and Results	102	Value Qualifier "O" or "*" not valid	Value Qualifier "O" or "*" cannot be used unless Org Result Value is "Not Reported". -Rule 102
Activity and Results	103	Value Qualifier "K" not valid for this DEP Analyte Name	Value Qualifier "K" cannot be used when DEP Analyte Name is in the "Microbiological" or "Oxygen Demand" Analyte Groups. -Rule 103

Activity and Results	104	Value Qualifier "D" not valid	Value Qualifier "D" cannot be used unless Activity Type is "Field". -Rule 104
Activity and Results	105	Value Qualifier "S" not valid	Value Qualifier "S" cannot be used unless DEP Analyte Name is "Depth, Secchi Disk Depth" and the Org Result Value = Total Depth. Comparison accounts for converting to a standardized unit. -Rule 105
Activity and Results	106	Value Qualifier not valid for "Field" data	If Activity Type is "Field", then the Value Qualifier cannot contain the following characters: "F", "G", "I", "K", "L", "M", "N", "T", "U", "V", "Y", or "*". -Rule 106
Activity and Results	107	Value Qualifier "!" not valid	Value Qualifier "!" is not allowed when Activity Type is "Method Blank", "Surrogate", "Lab Replicate", "Lab Control Sample", "Lab Control Sample Replicate", "Matrix Spike", "Matrix Spike Replicate", "Equipment Blank", "Trip Blank", or "Field Blank". -Rule 107
Activity and Results	108	Value Qualifier "V" not valid	Value Qualifier "V" is only allowed when Activity Type is "Sample", "Field Replicate", "Sample-Composite", "Field Blank", "Equipment Blank", "Trip Blank". -Rule 108
Activity and Results	109	Value Qualifier "G" not valid	Value Qualifier "G" is only allowed when Activity Type is "Sample", "Field Replicate" or "Sample-Composite". -Rule 109
Activity and Results	110	Multiple Standardized Units Not Allowed	DEP Analyte Name, Media and Org Result Unit combination can only have one "Standardized" Unit. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 110. -Rule 110
Activity and Results	111	Monitoring Location ID is conditionally required	Monitoring Location ID is required when Activity Type is "Field", "Field Replicate", "Sample" or "Sample Composite". - Rule 111

Activity and Results	112	Activity Start Date Time is conditionally required	Activity Start Date Time is required when Activity Type is "Field", "Field Blank", "Equipment Blank", "Trip Blank", "Field Replicate", "Sample" or "Sample Composite". -Rule 112
Activity and Results	113	Activity End Date Time is conditionally required	Activity End Date Time is required if Sample Collection Type is "Direct Grab-Time Series", "Intermediate Grab-Time Series", "Sample-Composite Flow Proportional", "Sample-Composite Time", "Sample-Composite Areal", or "Field Testing-Time Series". -Rule 113
Activity and Results	114	Sampling Agency Name is conditionally required	Sampling Agency Name is required when Activity Type is "Field", "Field Replicate", "Sample", "Sample Composite", "Field Blank", or "Equipment Blank". -Rule 114
Activity and Results	118	Analysis Date Time is conditionally required	Analysis Date Time is required when Activity Type is not equal to "Field" and Org Result Value is not equal to "Not Reported". -Rule 118
Activity and Results	119	Analysis Date Time must be blank	Analysis Date Time must be blank when the Activity Type is "Field". -Rule 119
Activity and Results	121	Field Blank Batch ID is conditionally required	Field Blank Batch ID is required when Activity Type is "Field Blank". -Rule 121
Activity and Results	122	Equipment Blank Batch ID is conditionally required	Equipment Blank Batch ID is required when Activity Type is "Equipment Blank". -Rule 122
Activity and Results	123	Trip Blank Batch ID is conditionally required	Trip Blank Batch ID is required when Activity Type is "Trip Blank". -Rule 123
Activity and Results	124	Master Activity ID is conditionally required	Master Activity ID is required when Activity Type is "Field Replicate". -Rule 124
Activity and Results	125	Master Activity ID must match a corresponding Activity ID	Master Activity ID must match a corresponding Activity ID for Activity Type "Sample" or "Sample-Composite". -Rule 125
Activity and Results	126	Land Surface Elevation Value in the associated Monitoring Location Well is conditionally required	If the DEP Analyte Name is "Depth to Water (from land surface elevation)", then the Land Surface Elevation Value in the associated Monitoring Location cannot be blank. -Rule 126

Activity and Results	127	Top Of Casing Elevation Value in the associated Monitoring Location ID is conditionally required	If DEP Analyte Name is "Depth to Water (from top of casing)", then either the Primary Elevation Reference or the Secondary Elevation Reference must be "Top Of Casing" in the associated Monitoring Location ID. -Rule 127
Activity and Results	128	Bottom Of Meter Box Elevation Value in associated Monitoring Location ID is conditionally required	If DEP Analyte Name is "Depth to Water (from bottom of meter box)", then either the Primary Elevation Reference or the Secondary Elevation Reference must be "Bottom Of Meter Box" in the associated Monitoring Location ID. -Rule 128
Activity and Results	129	Shutoff Valve Elevation Value in the associated Monitoring Location ID is conditionally required	If DEP Analyte Name is "Depth to Water (from shutoff valve)", then either the Primary Elevation Reference or the Secondary Elevation Reference must be "Shutoff Valve" in the associated Monitoring Location ID. -Rule 129
Activity and Results	130	Lab Accreditation Authority is conditionally required	Lab Accreditation Authority is required when Activity Type is anything other than "Field" and Org Result Value is not equal to "Not Reported". -Rule 130
Activity and Results	131	Dilution is conditionally required	Dilution is required when the Activity Type is not equal to "Field" and Org Result Value is not equal to "Not Reported". -Rule 131
Activity and Results	132	Result Comments are conditionally required	Result Comments are required when Value Qualifier "J" is present. A "J" value shall be accompanied by a detailed explanation to justify the reason(s) for designating the value as estimated. Where possible, the organization shall report whether the actual value is estimated to be less than or greater than the reported value. -Rule 132
Activity and Results	133	Error is conditionally required	Error is required when DEP Analyte Name is in the "Radiochemistry" Analyte Group and Activity Type is not in ("Field", "Surrogate") and Org Result Value is not equal to "Not Reported". -Rule 133
Activity and Results	134	Percent Moisture is conditionally required	Percent Moisture is required when Activity Type is "Field Replicate", "Sample" or "Sample Composite" and Matrix is

			"SEDIMENT" or "SOILS" and Org Result Value is not equal to "Not Reported". -Rule 134
Activity and Results	135	Lab ID is conditionally required	Lab ID is required when the Activity Type is anything other than "Field". To view allowed Lab IDs, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Laboratory Codes table. -Rule 135
Activity and Results	136	Prep Method must be blank	Prep Method must be blank when the Activity Type is "Field". -Rule 136
Activity and Results	137	Lab Sample ID is conditionally required	Lab Sample ID is required when the Activity Type is anything other than "Field" and Org Result Value is not equal to "Not Reported". -Rule 137
Activity and Results	138	Target Species is conditionally required	Target Species is required if the Matrix is "TISSUE-Finfish" and Org Result Value is not equal to "Not Reported". -Rule 138
Activity and Results	139	Finfish Size Unit is conditionally required	Finfish Size Unit is required if Finfish Size is provided. -Rule 139
Activity and Results	142	Activity ID already exists in migrated with different critical activity fields (Composite)	If Activity Type is "Sample-Composite", then the following fields must be the same for the existing Activity ID in Migrated: Organization ID, Monitoring Location ID, Activity Start Date Time, Activity End Date Time, Matrix, Activity Type, Sampling Agency Name, Activity Depth, Activity Depth Unit, Activity Top Depth, Activity Bottom Depth, Activity Depth Top Bottom Depth Unit, Sample Collection Type. These fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 142
Activity and Results	145	Field Blank Batch ID assigned to multiple Field Blanks in import file	Multiple Field Blank Activities with different Activity IDs cannot have the same Field Blank Batch ID within an import file. -Rule 145

Activity and Results	146	Field Blank Batch ID already assigned to a migrated Field Blank	A Field Blank Activity with a different Activity ID has already been migrated with this Field Blank Batch ID. Field Blank Batch IDs must be unique for each Field Blank Activity within an Organization. -Rule 146
Activity and Results	147	Equipment Blank Batch ID assigned to multiple Equipment Blanks in import file	Multiple Equipment Blank Activities with different Activity IDs cannot have the same Equipment Blank Batch ID within an import file. -Rule 147
Activity and Results	148	Equipment Blank Batch ID already assigned to a migrated Equipment Blank	An Equipment Blank Activity with a different Activity ID has already been migrated with this Equipment Blank Batch ID. Equipment Blank Batch IDs must be unique for each Equipment Blank Activity within an Organization. -Rule 148
Activity and Results	149	Trip Blank Batch ID assigned to multiple Trip Blanks in import file	Multiple Trip Blank Activities with different Activity IDs cannot have the same Trip Blank Batch ID within an import file. -Rule 149
Activity and Results	150	Trip Blank Batch ID already assigned to a migrated Trip Blank	A Trip Blank Activity with a different Activity ID has already been migrated with this Trip Blank Batch ID. Trip Blank Batch IDs must be unique for each Trip Blank Activity within an Organization. -Rule 150
Activity and Results	151	Analyte, Sample Fraction combination must be unique within an Activity in the import file	An Analyte, Sample Fraction combination can only exist one time for each Activity in the import file. -Rule 151
Activity and Results	152	DEP Analyte, Sample Fraction combination already exists for this Activity ID in Migrated	DEP Analyte, Sample Fraction combination already exists for this Activity ID in Migrated. -Rule 152
Activity and Results	155	Duplicate Value Qualifier	Individual Value Qualifier codes must exist only one time per Result record. Each individual character must be a valid Value Qualifier without spaces or commas in between. -Rule 155
Activity and Results	156	Critical fields must be consistent between Master Activity ID and associated Activity IDs	Master Activity ID and associated Activity ID must have the same Activity Start Date, Monitoring Location ID, and Sampling Agency Name. For Activity ID where Activity Type =

			Field Replicate, the Master Activity ID must also be consistent. -Rule 156
Activity and Results	157	Activity Depth must be greater than 0	Activity Depth must be greater than 0. -Rule 157
Activity and Results	158	Activity Top Depth must be greater than or equal to 0	Activity Top Depth must be greater than or equal to 0. -Rule 158
Activity and Results	159	Activity Bottom Depth must be greater than 0	Activity Bottom Depth must be greater than 0. -Rule 159
Activity and Results	160	Total Depth must be greater than 0	Total Depth must be greater than 0. -Rule 160
Activity and Results	161	Activity Depth Unit and Total Depth Unit must match	Activity Depth Unit and Total Depth Unit must match. -Rule 161
Activity and Results	162	Activity Top Bottom Depth Unit and Total Depth Unit must match	Activity Top Bottom Depth Unit and Total Depth Unit must match. -Rule 162
Activity and Results	163	Total Depth must be greater than Activity Depth	Total Depth must be greater than Activity Depth. Activity Depth is a measurement of the vertical location (measured from a reference point) at which the activity occurred. Total Depth is the total depth of the water column at the monitoring location at the time of sampling. NOTE: If Secchi Disk or Gage Height readings are taken with other Field Measurements, the Activity Depth value should reflect the depth at which the other field measurement where taken. If Secchi Disk or Gage Height are the only analytes within the activity, the Activity Depth may be the same as the Total Depth. -Rule 163
Activity and Results	164	Activity Bottom Depth must be greater than Activity Top Depth	Activity Bottom Depth must be greater than Activity Top Depth. -Rule 164
Activity and Results	166	Org Detection Unit must match the Org Result Unit	Org Detection Unit must match the Org Result Unit. -Rule 166
Activity and Results	167	Value Qualifier must be a standard value	Value Qualifier must contain values present in the allowable list of Value Qualifiers. To view the list of allowable Value

			Qualifiers, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Value Qualifier Codes table. Each individual character must be a valid Value Qualifier without spaces or commas in between. -Rule 167
Activity and Results	168	Org MDL must be greater than 0	Org MDL must be greater than 0. -Rule 168
Activity and Results	169	Org MDL must be less than or equal to the Org PQL	Org MDL must be less than or equal to the Org PQL. -Rule 169
Activity and Results	170	Percent Recovery not valid	Percent Recovery must be "DIL", "INT", "NS" or a number. -Rule 170
Activity and Results	171	Finfish Size Unit not valid	Finfish Size Unit must be "in", "cm" or "mm". -Rule 171
Activity and Results	172	Activity Depth Unit not valid	Activity Depth Unit must be "in", "ft" or "m". -Rule 172
Activity and Results	173	Activity Top Bottom Depth Unit not valid	Activity Top Bottom Depth Unit must be "in", "ft" or "m". -Rule 173
Activity and Results	174	Total Depth Unit not valid	Total Depth Unit must be "in", "ft" or "m". -Rule 174
Activity and Results	175	Total Depth must be greater than Activity Bottom Depth	Total Depth must be greater than Activity Bottom Depth. Activity Bottom Depth is the bottom measurement of a vertical location range (measured from a reference point) at which an activity occurred. Total Depth is the total depth of the water column at the monitoring location at the time of sampling. -Rule 175
Activity and Results	176	Org PQL must be greater than 0	Org PQL must be greater than 0. -Rule 176
All	177	Field Length Error	Value provided exceeds the maximum allowed length for this data element. -Rule 177
All	178	Global Format Error	Values provided for this data element are not valid when the selected format is applied. -Rule 178

All	179	Code Translation Error	Values provided for this data element must adhere to the WIN standard value list. -Rule 179
All	180	Required Value Missing Error	Values were required for this data element and were not provided as part of the input file. -Rule 180
Project	181	Duplicate Project ID	The Project ID must be unique within the import dataset. -Rule 181
Activity and Results	182	Required Value Missing Error for Added Result	The Required fields for Results must be Populated when Adding a Result to an Activity. -Rule 182
Monitoring Locations (SW)	183	Source Map Scale must be non-negative	The Source Map Scale must be a non-negative number. -Rule 183
Monitoring Locations (GW)	184	Source Map Scale must be non-negative	The Source Map Scale must be a non-negative number. -Rule 184
Monitoring Locations (SW)	187	Primary Type not valid for Import Dataset Type	Primary Type and Import Dataset Type must be compatible. If Primary Type in upload file is "Surface Water", then "Monitoring Locations (SW)" must be selected from the "Type" dropdown on the File Upload screen. If Primary Type in upload file is "Ground Water", then "Monitoring Locations (GW)" must be selected from the "Type" dropdown on the File Upload screen. -Rule 187
Monitoring Locations (GW)	188	Primary Type not valid for Import Dataset Type	Primary Type and Import Dataset Type must be compatible. If Primary Type in upload file is "Surface Water", then "Monitoring Locations (SW)" must be selected from the "Type" dropdown on the File Upload screen. If Primary Type in upload file is "Ground Water", then "Monitoring Locations (GW)" must be selected from the "Type" dropdown on the File Upload screen. -Rule 188
Activity and Results	189	Activity ID already exists in migrated with different critical activity fields (Field/Sample)	If Activity Type is "Field" or "Sample", then the following fields must be the same for the existing Activity ID in Migrated: Organization ID, Monitoring Location ID, Activity Start Date Time, Matrix, Activity Type, Sampling Agency Name, Activity Depth, Activity Depth Unit, Sample Collection Type. These

			fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 189
Activity and Results	190	Activity Top Bottom Depth is conditionally required for select DEP Analyte Names	Activity Top Bottom Depth must be provided and Activity Depth must be blank if Matrix = ("AQUEOUS-Surface Water", "SOILS", "SEDIMENT") and Primary Type is ="Surface Water" and Secondary Type not equaled to "Spring Vent" and Activity Type = "Sample Composite" and Sample Collection Type = "Sample-Composite Vertical Profile" for select DEP Analyte Names and Org Result Value is not equal to "Not Reported". To view DEP Analyte Names requiring Activity Depth, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Analyte Primary Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 190. -Rule 190
Monitoring Locations (GW)	191	Land Surface Elevation Datum is conditionally required	Land Surface Elevation Datum is required if Land Surface Elevation (ft) is provided. -Rule 191
Monitoring Locations (GW)	192	Land Surface Elevation Method is conditionally required	Land Surface Elevation Method is required if Land Surface Elevation (ft) is provided. -Rule 192
Activity and Results	193	Monitoring Location ID must exist in migrated	Monitoring Location ID must exist in migrated. -Rule 193
Activity and Results	194	Result Value Type Name is conditionally required	Result Value Type Name is required when Org Result Value is not equaled to "Not Reported". -Rule 194
Activity and Results	195	Activity ID already exists in migrated with different critical activity fields (Field Replicate)	If Activity Type is "Field Replicate", then the following fields must be the same for the existing Activity ID in Migrated: Activity Start Date Time, Matrix, Activity Type, Sampling Agency Name, Activity Depth, Activity Depth Unit, Activity Top Depth, Activity Bottom Depth, Activity Top/Bottom Unit, Sample Collection Type, Monitoring Location ID, Organization

			ID, and Master Activity ID. These fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 195
Activity and Results	196	Activity ID already exists in migrated with different critical activity fields (Field Blank)	If Activity Type is "Field Blank", then the following fields must be the same for the existing Activity ID in Migrated: Activity Start Date Time, Matrix, Activity Type, Sampling Agency Name, Organization ID, and Field Blank Batch ID. These fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 196
Activity and Results	197	Activity ID already exists in migrated with different critical activity fields (Equipment Blank)	If Activity Type is "Equipment Blank", then the following fields must be the same for the existing Activity ID in Migrated: Activity Start Date Time, Matrix, Activity Type, Sampling Agency Name, Sample Collection Type, Organization ID, and Equipment Blank Batch ID. These fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 197
Activity and Results	198	Activity ID already exists in migrated with different critical activity fields (Trip Blank)	If Activity Type is "Trip Blank", then the following fields must be the same for the existing Activity ID in Migrated: Activity Start Date Time, Matrix, Activity Type, Organization ID, and Trip Blank Batch ID. These fields cannot be updated by the import process. Updates may be accomplished by selecting the record from the migrated environment to edit. If this is

			not intended to be an update, please update the Activity ID in the import file to one that has not already been used by this organization. -Rule 198
Monitoring Locations (SW)	203	Monitoring Location ID already exists in migrated	Monitoring Location ID already exists in migrated. Monitoring Location ID must be unique within an Organization ID. -Rule 203
Monitoring Locations (GW)	204	Monitoring Location ID already exists in migrated	Monitoring Location ID already exists in migrated. Monitoring Location ID must be unique within an Organization ID. -Rule 204
Activity and Results	205	Measuring Point Elevation Value in the associated Monitoring Location ID is conditionally required	If DEP Analyte Name is "Depth to Water (from measuring point)", then either the Primary Elevation Reference or the Secondary Elevation Reference must be "Measuring Point" in the associated Monitoring Location ID. -Rule 205
Monitoring Locations (SW)	207	Org Latitude and Org Longitude must be provided in a consistent format	Both Org Latitude and Org Longitude must be provided in the same format. Either Degrees, Minutes, and Seconds must be provided for both the Latitude and Longitude, or Decimal Degrees must be provided for both the Latitude and Longitude. -Rule 207
Monitoring Locations (GW)	208	Org Latitude and Org Longitude must be provided in a consistent format	Both Org Latitude and Org Longitude must be provided in the same format. Either Degrees, Minutes, and Seconds must be provided for both the Latitude and Longitude, or Decimal Degrees must be provided for both the Latitude and Longitude. -Rule 208
Activity and Results	209	Master Activity ID must be null	Master Activity ID must be null when Activity Type is not equal to "Field Replicate". If this activity is a Field Replicate, please update the Activity Type to "Field Replicate". If this activity is not a Field Replicate, remove the value in the Master Activity ID field. Additional guidance on "How do I associate one or more Field Replicates to an environmental sample?" can be found in our FAQ document located at:

			http://publicfiles.dep.state.fl.us/DEAR/WIN/FAQs/WIN_FAQs.pdf . -Rule 209
Activity and Results	210	Method Batch ID is conditionally required	Method Batch ID is required when Activity Type is "Method Blank", "Surrogate", "Laboratory Control Sample", "Laboratory Control Sample Replicate", "Matrix Spike", "Matrix Spike Replicate", or "Lab Replicate". -Rule 210
Activity and Results	211	Analytical Batch ID is conditionally required	Analytical Batch ID is required when Activity Type is "Method Blank", "Surrogate", "Laboratory Control Sample", "Laboratory Control Sample Replicate", "Matrix Spike", "Matrix Spike Replicate", or "Lab Replicate". -Rule 211
Activity and Results	212	Lab QC result must be associated to at least one sampled result for same DEP Analyte Name	When Method Batch ID is provided for a given Lab QC result, there must be at least one activity with Activity Type in ("Sample", "Sample-Composite", "Field Replicate", "Trip Blank", "Equipment Blank", or "Field Blank") that contains the same Method Batch ID and has a Result for the same DEP Analyte Name in either the import file or in migrated. -Rule 212
Activity and Results	213	Field Blank must contain only one value in Field Blank Batch ID	Field Blank must contain only one value in Field Blank Batch ID. The presence of a forward slash (/) is not allowed in this field. -Rule 213
Activity and Results	214	Equipment Blank activities must contain only one value in Equipment Blank Batch ID	Equipment Blank activities must contain only one value in Equipment Blank Batch ID. The presence of a forward slash (/) is not allowed in this field. -Rule 214
Activity and Results	215	Multiple Trip Blank Batch IDs are not allowed	Only one Trip Blank Batch ID may be submitted for a given record. The presence of a forward slash (/) is not allowed in this field. -Rule 215
Activity and Results	217	Value Qualifier "V" is conditionally required (Microbiological)	Value Qualifier "V" is conditionally required when Method Blank Result is greater than Method Blank MDL, and DEP Analyte Name is in the "Microbiological" Analyte Group. -Rule 217

Activity and Results	220	Field Blank activity must be associated to at least one environmental sample	When Activity Type is Field Blank, there must be at least one corresponding activity with Activity Type in ("Sample", "Sample-Composite", "Field Replicate") that contains the same Field Blank Batch ID in either the import file or in migrated. -Rule 220
Activity and Results	221	Equipment Blank activity must be associated to at least one environmental sample	When Activity Type is Equipment Blank, there must be at least one corresponding activity with Activity Type in ("Sample", "Sample-Composite", "Field Replicate") that contains the same Equipment Blank Batch ID in either the import file or in migrated. -Rule 221
Activity and Results	222	Trip Blank activity must be associated to at least one environmental sample	When Activity Type is Trip Blank, there must be at least one corresponding activity with Activity Type in ("Sample", "Sample-Composite", "Field Replicate") that contains the same Trip Blank Batch ID in either the import file or in migrated. -Rule 222
Activity and Results	223	Activity Type and Analysis Method combination must be valid	Activity Type and Analysis Method combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Activity Type Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 223. -Rule 223
Activity and Results	224	Equipment Blank Batch ID must be blank	Equipment Blank Batch ID can only be assigned to Sample, Sample-Composite, Field Replicate, or Equipment Blank. Equipment Blanks should not be associated to Field, Lab QC, Field Blank, or Trip Blank activities. -Rule 224
Activity and Results	225	Field Blank Batch ID must be blank	Field Blank Batch ID can only be assigned to Sample, Sample-Composite, Field Replicate, Field Blank, or Equipment Blank. Field Blanks should not be associated to Field, Lab QC, or Trip Blank activities. -Rule 225
Activity and Results	226	Trip Blank Batch ID must be blank	Trip Blank Batch ID can only be assigned to Sample, Sample-Composite, Field Replicate, or Trip Blank. Trip Blanks should

			not be associated to Field, Lab QC, Field Blank, or Equipment Blank activities. -Rule 226
Activity and Results	227	Activity Type, Media, and Matrix combination must be valid	Activity Type, Media, and Matrix combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Activity Type Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 227. -Rule 227
Activity and Results	228	Value Qualifier "I" is not valid	If DEP Result Value < DEP MDL or DEP Result Value > DEP PQL, the "I" qualifier is not valid and should be removed. If DEP Result Value = DEP MDL = DEP PQL, navigate to the Analysis Method code table through the following menus: Manage Data > Administration > Code Tables and select the radio button associated to the Analysis Method Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 73. If the "MDL Equal PQL Indicator" for the associated Analysis Method and Analyte Name is "N", then please verify the values provided in the Org MDL and Org PQL column as those should be different. If the "MDL Equal PQL Indicator" = "Y", then the "I" qualifier should be removed from the record. -Rule 228
Activity and Results	229	Project ID must exist in migrated	Project ID must exist in migrated and be approved by a WIN Coordinator prior to loading Result data. Multiple projects may be associated to a result by separating the values with a slash (/). -Rule 229
Activity and Results	230	Critical Activity fields within an Activity ID in the import file must be consistent	The following critical fields must be consistent for each Activity within the import file: Project ID, Monitoring Location ID, Activity ID, Activity Type, Activity Start Date Time, Activity End Date Time, Activity Time Zone, Matrix, Sample Collection Type, Sampling Agency Name, Sample Collection Equipment Name, Activity Depth, Activity Depth Unit, Relative Depth,

			Activity Top Depth, Activity Bottom Depth, Activity Depth Top Bottom Unit, Total Depth, Total Depth Unit, Activity Representative Indicator, Activity Comment, Sampler Name, Field Blank Batch ID, Equipment Blank Batch ID, Trip Blank Batch ID, Master Activity ID. -Rule 230
Monitoring Locations (GW)	231	Waterbody and GW Subname Combination must be valid	Waterbody and GW Subname Combination must be valid - Rule 231
Activity and Results	232	Activity Type, Sample Collection Type, Equipment Name, Media combination must be valid	Activity Type, Sample Collection Type, Equipment Name, Media combination must be valid. To view allowed combinations, navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Activity Type Codes table. Select the Adv Rules gavel icon directly above the table and then select the hyperlink for ID 232. -Rule 232
Activity and Results	233	Value Qualifier "G" is conditionally required (Field Blank Association)	Value Qualifier "G" is conditionally required when the Field Blank result value is greater than 10% of associated Sample Result value for certain DEP Analyte Names. If either the Field Blank or the associated sample are "U" or "T" qualified, the "G" qualifier should not be added to the sample. To view DEP Analytes that may conditionally require a "G", navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Value Qualifier Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 233. -Rule 233
Activity and Results	234	Value Qualifier "G" is conditionally required (Equipment Blank Association)	Value Qualifier "G" is conditionally required when the Equipment Blank result value is greater than 10% of associated Sample Result value for certain DEP Analyte Names. If either the Equipment Blank or the associated sample are "U" or "T" qualified, the "G" qualifier should not be added to the sample. To view DEP Analytes that may conditionally require a "G", navigate to Manage Data >

			Administration > Code Tables menu and select the radio button associated to the Value Qualifier Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 233, which uses the same analyte list as this rule. -Rule 234
Activity and Results	235	Value Qualifier "G" is conditionally required (Trip Blank Association)	Value Qualifier "G" is conditionally required when the Trip Blank result value is greater than 10% of associated Sample Result value for certain DEP Analyte Names. If either the Trip Blank or the associated sample are "U" or "T" qualified, the "G" qualifier should not be added to the sample. To view DEP Analytes that may conditionally require a "G", navigate to Manage Data > Administration > Code Tables menu and select the radio button associated to the Value Qualifier Codes table. Select the "Adv Rules" gavel icon directly above the table and then select the hyperlink for ID 233, which uses the same analyte list as this rule. -Rule 235
Activity and Results	236	Activity Comments are conditionally required	Activity Comments are required when Activity Representative Indicator = 'Not Representative'. -Rule 236
Activity and Results	901	MDL_SHOULD_EQUAL_PQL_I_NOT_VALID	This is a report added as a rule to pick all the Results where DEP Result Value = DEP MDL = DEP PQL and Value Qualifier contains an "I".
Activity and Results	902	MDL_SHOULD_NOT_EQUAL_PQL	This is a report added as a rule to pick all the Results where DEP MDL should not equal DEP PQL for specific analytes.
Activity and Results	903	WIN Sample does not have an associated Field Blank	This is a report added as a rule to pick all the Sample Activities without Associated Field Blank.
Activity and Results	904	WIN Sample does not have an associated Equipment Blank	This is a report added as a rule to pick all the Sample Activities without Associated Equipment Blank.
Activity and Results	905	WIN Sample does not have an associated Trip Blank	This is a report added as a rule to pick all the Sample Activities without Associated Trip Blank.

Activity and Results	906	Org Result Value inconsistent with DEP Result Value	This is a report added as a rule to pick all the Results where Org Result Value is inconsistent with DEP Result Value. -Rule 906
Activity and Results	907	Result Comment may need more detail	This is a report added as a rule to pick all the Results where Value Qualifier contains a "J" and Result Comment length is <= 10. -Rule 907
Activity and Results	908	WIN-STORET Duplicates Report	This is a warehouse report added as a rule (WIN-STORET Duplicates Report). -Rule 908
Activity and Results	909	DEP Rounding Issue	This is a warehouse report added as a rule (DEP Rounding Issue). -Rule 909
Activity and Results	910	WIN Referential Integrity: Activities without Results	This is a warehouse report added as a rule (WIN Referential Integrity: Activities without Results). -Rule 910
Activity and Results	911	WIN Referential Integrity: Activities without Projects	This is a warehouse report added as a rule (WIN Referential Integrity: Activities without Projects). -Rule 911
Activity and Results	912	WIN Referential Integrity: Activities without Monitoring Locations	This is a warehouse report added as a rule (WIN Referential Integrity: Activities without Monitoring Locations). -Rule 912

Table 2. Data Quality Objectives and Data Quality Indicators used by the Watershed Services Program WIN Section for Florida STORET.

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
20 Elements	1	Unit of Measurement Required for these Results - Element #4	Chapter 62-160.240/62-160.340
20 Elements	2	Activity Start Time Required - Element #7	Chapter 62-160.240
20 Elements	3	Analysis Date Required for these Characteristics - Element #9	Chapter 62-160.340
20 Elements	4	Analysis Time Required for these Characteristics - Element #9	Chapter 62-160.340
20 Elements	5	Analytical Method Required for these Characteristics - Element #10	Chapter 62-160.340
20 Elements	9	Lab ID is required - Element #13	Chapter 62-160.340
20 Elements	11	No MDL Value - Element #15	Chapter 62-160.340
20 Elements	12	No PQL Value - Element #16	Chapter 62-160.340
20 Elements	23	"I", "U", or "T" Value Qualifier is present with a sample result, with a NULL MDL value	Chapter 62-160.340
Date Checks	1	Activity Start or Stop Date Reported After Data Entry Date	Data Entry Error
Date Checks	2	Analysis Dates Reported After Data Entry Date	Data Entry Error
Date Checks	3	Analysis Dates that are between Years 0001 and 1969	Data Entry Error
Date Checks	4	Activity Dates that are between Years 0001 and 1969	Data Entry Error
Date Checks	5	Activity Date Reported After Analysis Date	Data Entry Error
Date Checks	6	Activities with a Start Date that is greater than the Stop Date	Data Entry Error
Date Checks	8	Activity Occurred after 10:00 P.M.	Data Entry Error
Date Checks	9	Prep_Date Reported Before Activity Start Date	Data Entry Error
Date Checks	10	Prep_Date Reported After Analysis Date	Data Entry Error

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Date Checks	11	Prep_Date Reported After Data Entry Date	Data Entry Error
Date Checks	13	Invalid Prep_Date	Data Entry Error
Date Checks	14	Activity Start Time Recorded After Activity Stop Time	Data Entry Error
Other Data Checks	1	'0' values are not allowed for these Characteristics	Based on sample Methodology (Method/Analytical)
Other Data Checks	2	Negative values reported	Based on sample Methodology (Method/Analytical)
Other Data Checks	3	Results with value "**Non-detect" without a MDL	Chapter 62-160.340
Other Data Checks	4	Results with value "**Present <QL" without a PQL	EAS 01-01
Other Data Checks	5	Results with value "**Present >QL" without a UQL	EAS 01-01
Other Data Checks	6	A station must have a Name and Valid Latitudes and/or Longitudes	Chapter 62-160.240
Other Data Checks	7	Results with a value less than or equal to Zero without a MDL	EAS 01-01
Other Data Checks	8	MDL and PQL cannot equal Zero for these Characteristics	EAS 01-01
Other Data Checks	13	Records where the result value equals '999','9999','99999',or '999999'	Data Entry Error
Other Data Checks	18	Field characteristics incorrectly reported as Lab Samples	Data Entry Error
Other Data Checks	19	Lab characteristics incorrectly reported as Field	Data Entry Error
Other Data Checks	20	These temperature characteristics should not have a medium = Water	Data Entry Error
Other Data Checks	23	Misuse of '**Non-detect', '**Present <QL', '**Present >QL', '**Present', '**Not Reported', '**Text'	EAS 01-01

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Other Data Checks	24	These temperature characteristics should not have a medium = Air	Data Entry Error
Other Data Checks	27	Invalid UQL, PQL, or MDL values	EAS 01-01
Other Data Checks	28	MDL greater than the PQL Value	Data Entry Error
Other Data Checks	29	Relative Depth populated and the Activity Depth is NULL, Negative or Zero	Data Entry Error
Unit of Measure Checks	1	Check field characteristics for correct units	Chapter 62-160.240
Unit of Measure Checks	2	Check nutrients for correct units	Chapter 62-160.340
Unit of Measure Checks	3	Check bacteria data for correct units	Chapter 62-160.340
Unit of Measure Checks	4	Check metals for correct units	Chapter 62-160.340
Unit of Measure Checks	5	Units of measure for result and mdl do not match	Data Entry Error
Unit of Measure Checks	6	Check characteristics for correct units	Chapter 62-160.240/62-160.340
Unit of Measure Checks	7	Check pesticide characteristics for correct units	Chapter 62-160.340
Unit of Measure Checks	8	Ratios should not have units of measure	Data Entry Error
Unit of Measure Checks	9	Activity Depth with no Depth Units	EAS 01-01

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Duplicates	1	Results loaded into the same Activity ID with the same Characteristic Name	Data Entry Error
Duplicates	2	Exact duplicate rWDS in the result table	Data Entry Error
Value Qualifier	1	Result is less than the MDL and the Value Qualifier not equal to "T" or "U"	Chapter 62-160.340
Value Qualifier	2	Value Qualifier "U" required for "Non-detect" results	Chapter 62-160.340
Value Qualifier	3	Result is equal to the MDL and the Value Qualifier not equal to "U" OR "I"	Chapter 62-160.340
Value Qualifier	5	Result equal to *Present>QL and Value Qualifier not equal to Z or UQL is NULL	DEP Bureau of Laboratories & QA Section Guidance
Value Qualifier	6	Results with a Z qualifier or a comment of TNTC should have an Upper Quantification Limit	DEP Bureau of Laboratories & QA Section Guidance
Value Qualifier	7	Bacteria Analytes over 8 hour holding time not qualified with 'Q' (using prep date minus start/activity)	DEP-SOP-001/01 (March 1, 2014)
Value Qualifier	8	Value Qualifier OR Result Comment is Z OR contains TNTC OR 'TOO NUM' and Result Value IN (100,50,10,1,0.1,0.01,0.001,0.0001)	DEP Bureau of Laboratories & QA Section Guidance
Value Qualifier	9	Result greater than UQL, without Z in Value Qualifier field	DEP Bureau of Laboratories & QA Section Guidance
Value Qualifier	10	Bacteria Analytes over 8 hour holding time not qualified with 'Q' (using analysis date minus start/activity date when prep date/time is NULL)	DEP-SOP-001/01 (March 1, 2014)
Value Qualifier	11	"B" Qualifier should only be used with Microbiology Characteristics	Data Entry Error

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Value Qualifier	13	Result Value is less than or equal to the MDL with a NULL Value Qualifier Value	Chapter 62-160.340
Value Qualifier	14	"I" in Value Qualifier field and the Result Value is not between the MDL and PQL values	Chapter 62-160.340
Value Qualifier	15	'J' qualified data that does not have a Result Comment in the Result Comment field	Chapter 62-160.700
Basic WQ Outliers	1	Out of Range Check for pH with the following units: NULL, None	Chapter 62-303.320(7)
Basic WQ Outliers	2	Out of Range Check for Dissolved oxygen (DO) with the following units: mg/l, ppm	Chapter 62-303.320(7)
Basic WQ Outliers	3	Out of Range Check for Dissolved oxygen saturation with the following units: %	Chapter 62-303.320(7)
Basic WQ Outliers	4	Out of Range Check for Temperature, water with the following units: deg F, deg C	Chapter 62-303.320(7)
Basic WQ Outliers	5	Out of Range Check for Wind direction (direction from, expressed 0-360 deg) with the following units: Deg	Chapter 62-303.320(7)
Basic WQ Outliers	6	Out of Range Check for Depth, Secchi Disk Depth with the following units: ft, m, in	Chapter 62-303.320(7)
Basic WQ Outliers	7	Out of Range Check for Secchi disk depth (choice list)	Chapter 62-303.320(7)
Basic WQ Outliers	8	Law or Rule that Applies Out of Range Check for Turbidity with the following units: NTU, FTU, JTU	Chapter 62-303.320(7)
Basic WQ Outliers	9	Out of Range Check for Salinity with the following units: PSS , ppth	Chapter 62-303.320(7)

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Basic WQ Outliers	10	Out of Range Check for Specific conductance with the following units: uS/cm, umho/cm, mho/cm, mS/cm	Chapter 62-303.320(7)
Basic WQ Outliers	11	Out of Range Check for BOD with the following units: mg/l, ppm	Chapter 62-303.320(7)
Basic WQ Outliers	12	Out of Range Check for Chemical Oxygen Demand (COD) or Chemical oxygen demand (COD) with the following units: mg/l, ppm	Chapter 62-303.320(7)
Basic WQ Outliers	13	Out of Range Check for Alkalinity, Total (total hydroxide+carbonate+bicarbonate) with the following units: mg/l, mg/l as CaCO ₃ , ppm	Chapter 62-303.320(7)
Basic WQ Outliers	14	Out of Range Check for Alkalinity, Bicarbonate as CaCO ₃ and Alkalinity, Carbonate as CaCO ₃ with the following units: mg/l, mg/l as CaCO ₃ , ppm	Chapter 62-303.320(7)
Basic WQ Outliers	15	Out of Range Check for Apparent and True Color with the following units: PCU	Chapter 62-303.320(7)
Basic WQ Outliers	16	Out of Range Check for Total Suspended Solids (TSS) with the following units: mg/l, ppm	Chapter 62-303.320(7)
Basic WQ Outliers	17	Out of Range Check for Dissolved Solids with the following units: mg/l, ppm	Chapter 62-303.320(7)
Basic WQ Outliers	18	Out of Range Check for Light attenuation coefficient and Light, underwater extinction coefficient (k) with the following units: per m	Chapter 62-303.320(7)
Basic WQ Outliers	19	Out of Range Check for Light, transmissivity and Light attenuation at measurement depth with the following units: %	Chapter 62-303.320(7)

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Basic WQ Outliers	20	Out of Range Check for Light, underwater incident with the following units: uE/m2/sec	Chapter 62-303.320(7)
Basic WQ Outliers	21	Activity Depth is less than or equal to Zero	Chapter 62-303.320(7)
Biological Outliers	1	Out of Range Check for Fecal Coliform, Enterococcus Group Bacteria, Total Coliform, Fecal Streptococcus Group Bacteria, Escherichia coli with the following units: #/100ml, CFU, MPN, MPN/100ml, cfu/100ml	Chapter 62-303.320(7)
Biological Outliers	2	Out of Range Check for Chlorophyll a with the following units: None, ug/L, ppb, mg/m3	Chapter 62-303.320(7)
Biological Outliers	3	Out of Range Check for Chlorophyll b and Chlorophyll c with the following units: mg/m3, ug/L, ppb	Chapter 62-303.320(7)
Biological Outliers	4	Out of Range Check for Pheophytin-a with the following units: mg/m3, ug/L, ppb	Chapter 62-303.320(7)
Nutrient Outliers	1	Out of Range Check for Nitrogen, mixed forms (NH3)+(NH4)+organic+(NO2)+(NO3) with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
Nutrient Outliers	2	Out of Range Check for Nitrogen, Nitrite (NO2) as N with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
Nutrient Outliers	3	Out of Range Check for Nitrogen, ammonia (NH3) as NH3 with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
Nutrient Outliers	4	Out of Range Check for Nitrogen, organic with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)
Nutrient Outliers	5	Out of Range Check for Nitrogen, Nitrite (NO2) as NO2 with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Nutrient Outliers	6	Out of Range Check for Nitrogen, ammonia (NH ₃) + ammonium (NH ₄) with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	7	Out of Range Check for Nitrogen, Nitrate (NO ₃) as NO ₃ with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	8	Out of Range Check for Nitrogen, Nitrite (NO ₂) + Nitrate (NO ₃) as N with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	9	Out of Range Check for Nitrogen, ammonia as N with the following units: mg/l, ppm, ug/L, ppb, mg/m ³ , umol.	Chapter 62-303.320(7)
Nutrient Outliers	10	Out of Range Check for Nitrogen, Nitrate (NO ₃) as N with the following units: mg/l, ppm, ug/L, ppb, mg/m ³ , umol.	Chapter 62-303.320(7)
Nutrient Outliers	11	Out of Range Check for Nitrogen, inorganic with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	12	Out of Range Check for Nitrogen, ammonium (NH ₄) as NH ₄ with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	13	Out of Range Check for Ammonia, unionized with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	14	Out of Range Check for Nitrogen, Kjeldahl with the following units: mg/l, ppm, ug/L, ppb, mg/m ³ , umol.	Chapter 62-303.320(7)
Nutrient Outliers	15	Out of Range Check for Phosphorus, phosphate (PO ₄) as P with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)
Nutrient Outliers	16	Out of Range Check for Phosphorus, organic as P with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m ³ .	Chapter 62-303.320(7)

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
Nutrient Outliers	17	Out of Range Check for Phosphorus, phosphate (PO4) as PO4 with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)
Nutrient Outliers	18	Out of Range Check for Phosphorus, orthophosphate as P with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
Nutrient Outliers	19	Out of Range Check for Phosphorus as P with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
Nutrient Outliers	20	Out of Range Check for Phosphorus as PO4 with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)
Nutrient Outliers	21	Out of Range Check for Phosphorus, orthophosphate as PO4 with the following units: mg/l, ppm, umol, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)
Nutrient Outliers	22	Out of Range Check for Sulfur, sulfate (SO4) as SO4 with the following units: mg/l, ppm, ug/L, ppb, mg/m3.	Chapter 62-303.320(7)
Nutrient Outliers	23	Out of Range Check for Total Organic Carbon (TOC) with the following units: mg/l, ppm, ug/L, ppb, mg/m3, umol.	Chapter 62-303.320(7)
WQX Checks	1	Value Type is required for numeric result values	Water Quality Exchange
WQX Checks	2	Characteristic Name must be reported when there is a Result Value	Water Quality Exchange
WQX Checks	3	Horizontal Collection Method is 'Interpolation-Map' and the Source Map Scale value is NULL	Water Quality Exchange
WQX Checks	4	Characteristic Name and Status Identifier can not be NULL when there is a Result Value	Water Quality Exchange
WQX Checks	5	Vertical Measure reported, but unit, method and datum IS NULL	Water Quality Exchange
WQX Checks	6	ActivityTypeCode contains the word 'Sample', and the SampleCollectionMethod is NULL	Water Quality Exchange

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
WQX Checks	7	Detection Limit is reported, and the Unit is NULL	Water Quality Exchange
WQX Checks	8	Activity Media is 'Tissue' and the Biological Intent must also be 'Tissue' (and visa-versa)	Water Quality Exchange
WQX Checks	9	ActivityTypeCode contains the word 'Logger', and the Data Logger Line Name is NULL	Water Quality Exchange
WQX Checks	10	Monitoring Location IS NULL for these Activity Types	Water Quality Exchange
WQX Checks	11	The Value Type & Unit can not be NULL for Numeric Results	Water Quality Exchange
WQX Checks	12	Duplicate Station ID's	Water Quality Exchange
WQX Checks	13	Duplicate Project ID's	Water Quality Exchange
WQX Checks	14	Sample Collection Equipment Name doesn't match the type of equipment used	Water Quality Exchange
WQX Checks	15	Analytical Method Context does not match a valid domain list value	Water Quality Exchange
WQX Checks	16	Method Identifier does not match a value from the Analytical Method domain list (query 1 of 11)	Water Quality Exchange
WQX Checks	17	Method Identifier does not match a value from the Analytical Method domain list (query 2 of 11)	Water Quality Exchange
WQX Checks	18	Method Identifier does not match a value from the Analytical Method domain list (query 3 of 11)	Water Quality Exchange
WQX Checks	19	Method Identifier does not match a value from the Analytical Method domain list (query 4 of 11)	Water Quality Exchange
WQX Checks	20	Method Identifier does not match a value from the Analytical Method domain list (query 5 of 11)	Water Quality Exchange

Data Quality Assessment Category	CheckID	Data Quality Assessment Explanation	Source of Data Quality Check
WQX Checks	21	Method Identifier does not match a value from the Analytical Method domain list (query 6 of 11)	Water Quality Exchange
WQX Checks	22	Method Identifier does not match a value from the Analytical Method domain list (query 7 of 11)	Water Quality Exchange
WQX Checks	23	Method Identifier does not match a value from the Analytical Method domain list (query 8 of 11)	Water Quality Exchange
WQX Checks	24	Method Identifier does not match a value from the Analytical Method domain list (query 9 of 11)	Water Quality Exchange
WQX Checks	25	Method Identifier does not match a value from the Analytical Method domain list (query 10 of 11)	Water Quality Exchange
WQX Checks	26	Method Identifier does not match a value from the Analytical Method domain list (query 11 of 11)	Water Quality Exchange
WQX Checks	27	Method Identifier does not match a value from the Analytical Method domain list (query 12 of 11)	Water Quality Exchange
RI Checks	NA	Multiple Checks are in the database but will not be listed here since they are all the same. These checks ensure referential integrity.	Referential Integrity