South Florida Water Management District
Regulation Division - Everglades Regulation Bureau

Everglades Web Data Submittal System EWOD

User's Manual

Water Quality and Hydrologic Data Management
Chapter 40E-63, F.A.C.
Everglades Works of the District (EWOD)

Version 2.1 – March 2012

Everglades Web Data Submittal System
EWOD

User's Manual

Version 2.0
march 2012

South Florida Water Management District
Everglades Regulation Bureau
Regulation Division
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DPescatore
3/2012

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INTRODUCTION

The Everglades Works of The District (EWOD) on-line water quality data submittal system has been created to offer data providers an option for a more efficient and accommodating data submittal method. Utilizing the latest in IT technology, the goal is to provide permittees the ability to streamline the data submittal process using the internet and to improve the quality of data submittals by reducing errors as well as reduce the amount of time it takes to upload data to the Everglades Agricultural Area (EAA) regulatory database. The system gives the data provider two ways of submitting their data:

- Manually enter the data via the web.
- Upload an existing file (Electronic Data Deliverable using a comma-separated values or "CSV" file format) via the web.

The system involves the use of the internet to web enable data submittals and offers data providers a view, edit, and delete widows for effective management of the submitted data. At the same time, data providers will continue to have the option of submitting data in the original database file (.dbf) format.

The EWOD Web Based Data Submittal system will be used by the public and some South Florida Water Management District (District) employees to enter data and then to commit that data to the District databases (District employee).

I. MINIMUM COMPUTER REQUIREMENT

The minimum hardware and software requirements needed to operate this WEB based application are:

- User must have a PC
- Access to the Internet with a WEB browser e.g. Internet Explorer installed on it
- Software to generate a CSV formatted output file such as MS EXCEL

II. REQUIRED KNOWLEDGE AND TOOLS

User should be familiar with Web-based application. It is assumed that the users have Internet accessibility and can perform the following task: **Log in using username and password**, **Edit, Enter Data, Click, Cancel and Exit the System**. The new web data submittal system is available to the end user via one of the Districts web portals.

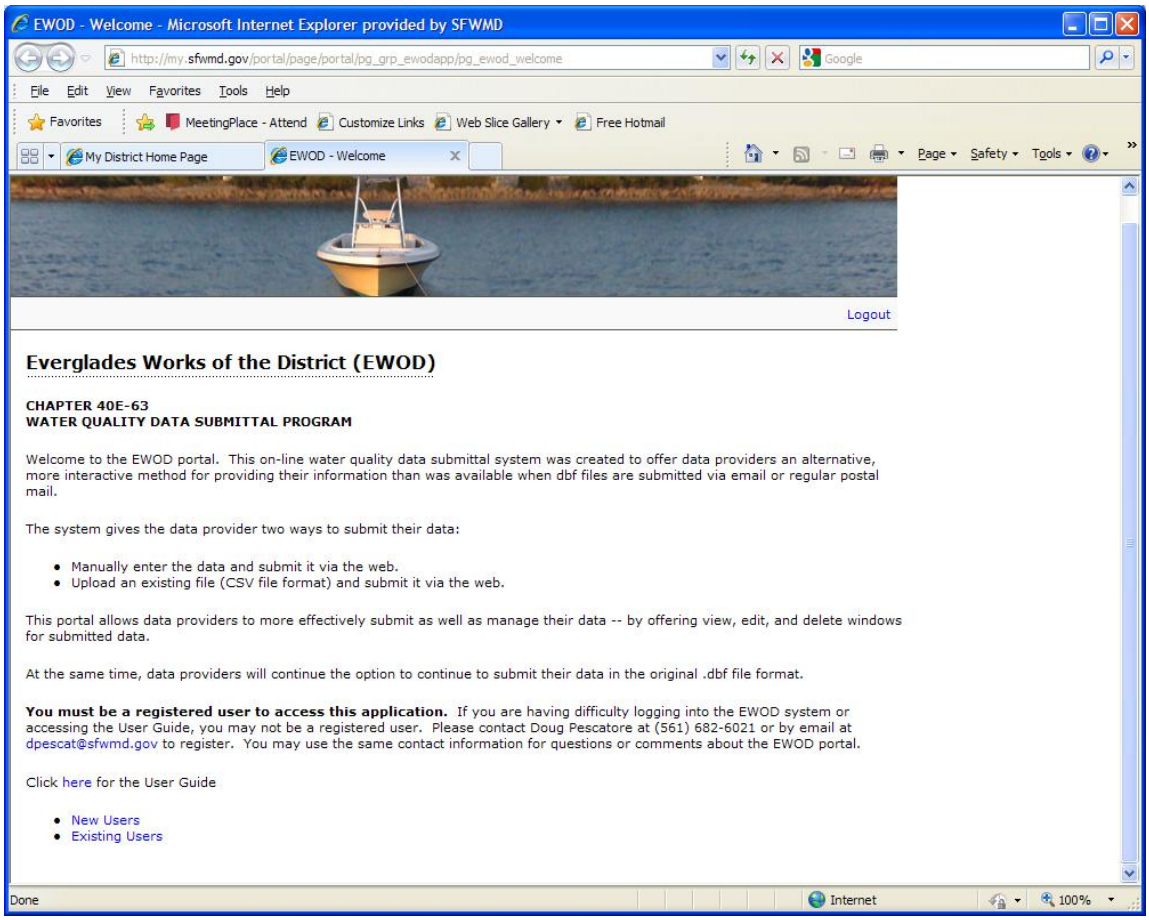
III. USING EWOD ONLINE SUBMITTAL SYSTEM

1) Login

Internet Explorer→web portal→Login

- Open Internet browser (such as Internet Explorer)
- On the address bar type http://my.sfwmd.gov/ewodweb/
- If you are an existing user click on "Existing User"
    - If not clinking on "New User" will allow you to send a user Id and password request to the administrator. Please include the structures you are responsible for in the email request.
- Enter your username and password in this screen.(figure 1.1)

SCREEN # 0.0-Login Screen

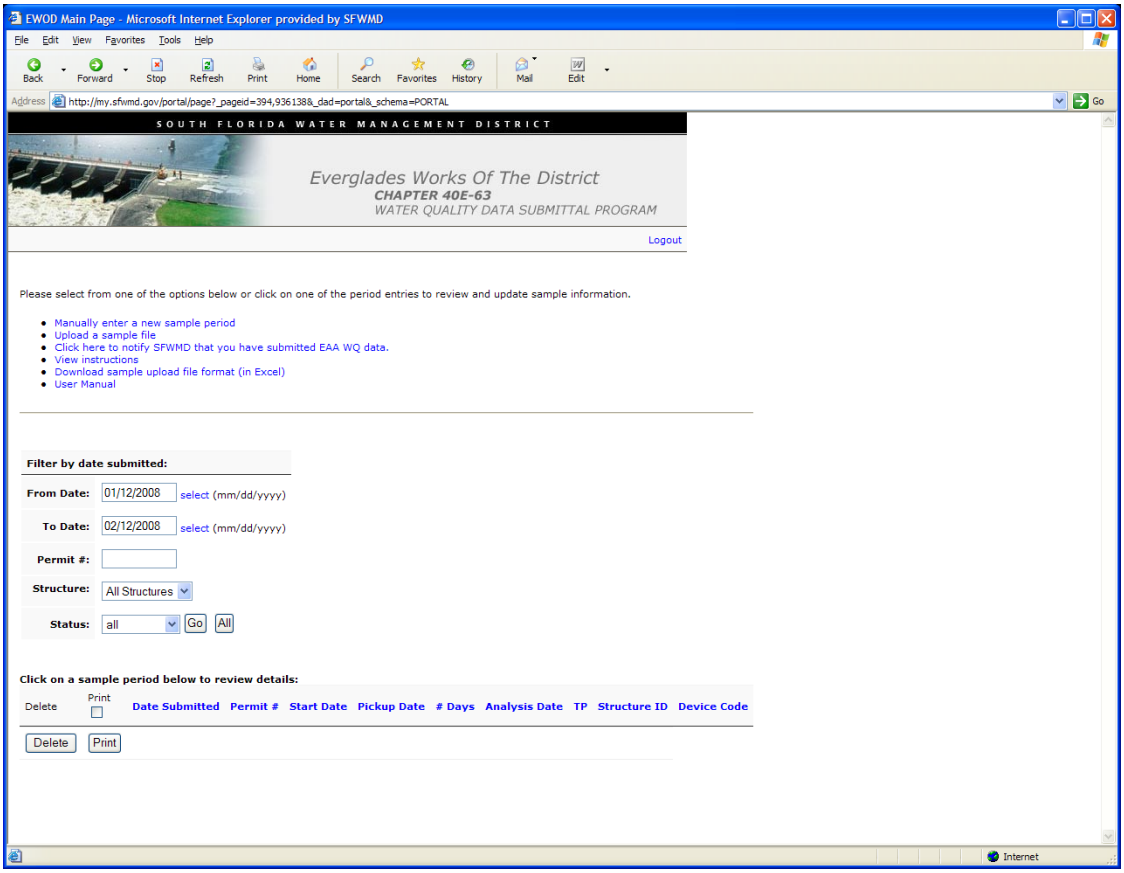


(Figure 1.1)

After successful login, you will see the main screen; screen # 1 (Figure 1.2). In this screen, there are six options to choose from:

1. Manually enter a new sample period
2. Upload a sample file
3. Click here to notify SFWMD that you have submitted EAA WQ data
4. View instructions
5. Download sample file
6. User Manual

SCREEN # 1.0 - Main Screen



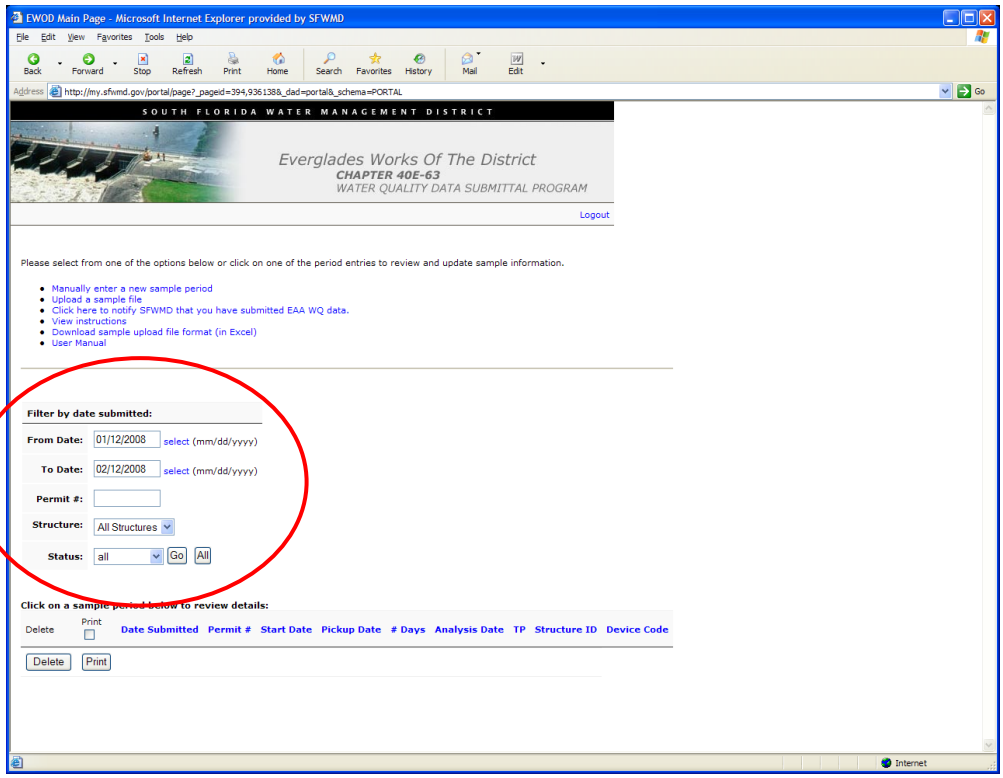
(Figure 1.2)

2) **<u>Manually enter a new sample period:</u>**

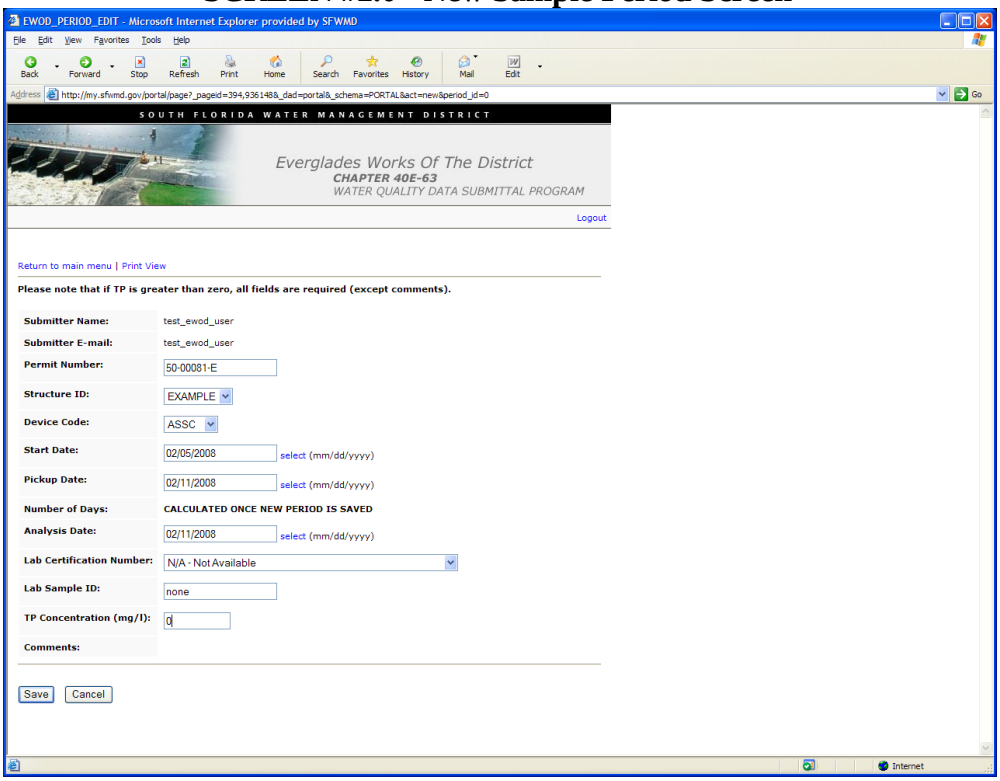
- In the main screen (Figure 1.2) click on 'Manually enter new sample period'. This will take you to the screen #2.0, (Figure 1.3). This screen allows entering all the required information to create a new sample period.
- Enter a permit Number.
- Choose a Structure ID from the dropdown field.
- Enter a Pickup Date. NOTE: The start date should be defaulted to the day after the pickup date of the last transaction recorded. The Pickup Date and the Start Date must less than 25 days apart (Sampler period 1 to 24 days long)

- Enter an analysis date. NOTE: analysis date has to be greater than the pickup date which must be greater than the start date.
- Choose the lab Certification No. from the dropdown field.
- Enter the Lab Sample ID. NOTE: if a Lab Sample ID is not entered it will ask you to confirm if you want to proceed without the Sample ID information.
- Enter the Total Phosphorus concentration (TP). NOTE: TP Concentration has to be a value between 0 to 100.
- After you click save, you will see the screen #2.1, (figure 1.4) At this point you can add, change or verify the data. You can click add another period by clicking "save and add new period" button.
- After entering another period click save to return to the main menu.

Screen #1 also allows retrieving data filtered by submitted date, permit #, structure ID, and status.



SCREEN #2.0 - New Sample Period Screen



(Figure: 1.3)

a. <u>SCREEN #2.0 – New Sample Period</u>

<u>Date of Analysis</u>

1) Date total phosphorus analysis was <u>completed</u> by the lab.
2) The date of Analysis is greater than the *Last date of the Sampling Period*.
3) If the date of Analysis is greater than 28 days then the TP concentration should be reported as missing with comments explaining the reasons.

b. <u>SCREEN #2.0 – Sample/Laboratory Information</u>

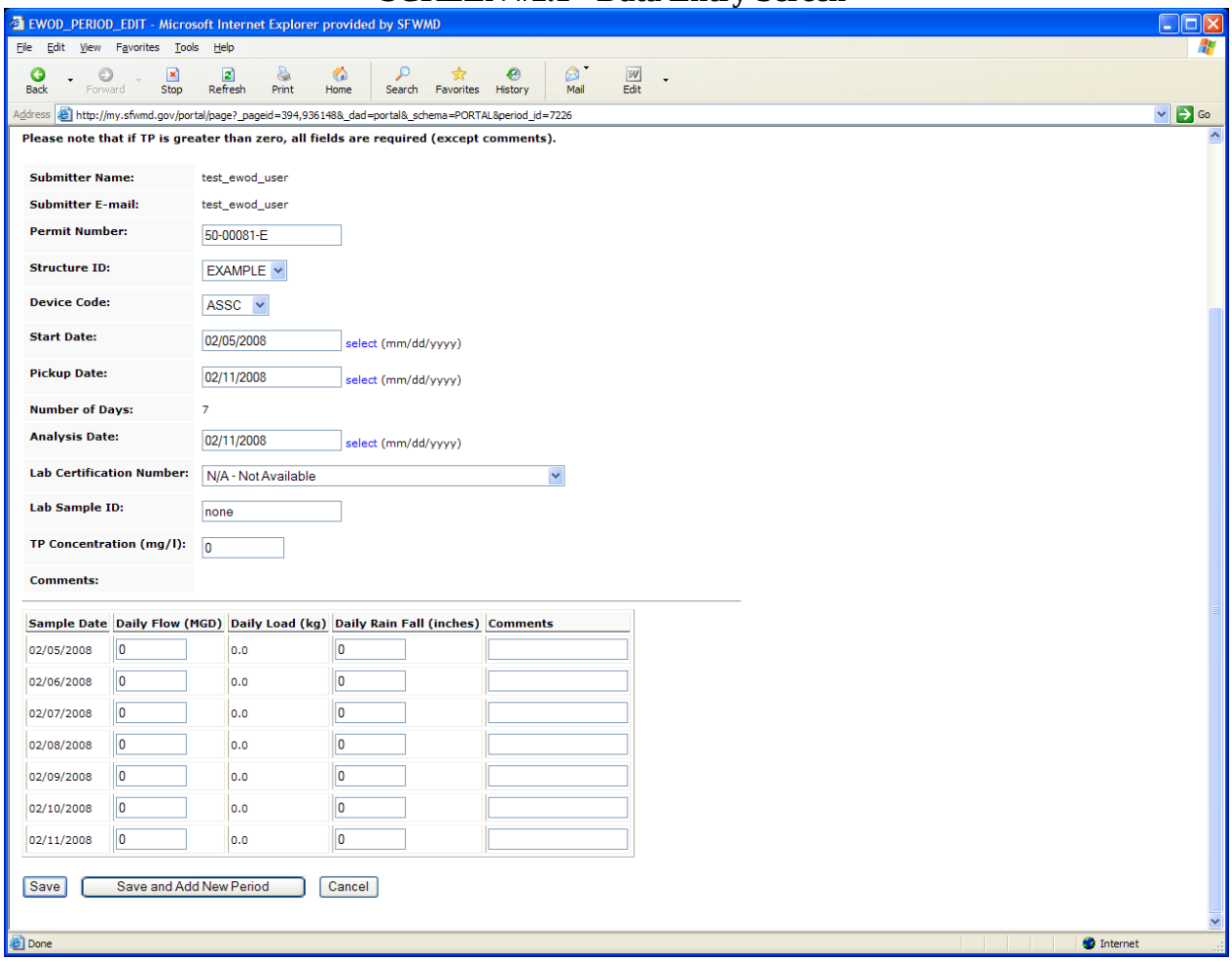
- **Lab Sample ID**: if lab sample Id is not entered then a message will pop up asking if you want to proceed.
- **Lab HRS Certification No:** Enter Laboratory name from the dropdown list box.
- **Total Phosphorus Concentration** (mg/l): Value range 0.000 to 99.999 where 99.999 is missing value for total phosphorus concentration.
  - **Total Phosphorus: Zero vs. Missing Values**
    A. **0.000--------→** *No discharge occurs during entire sampling period so no sample is drawn.*
    B. **99.999------→** *<u>Discharge occurs so samples are drawn, but no composite was analyzed because</u>*
      - *sampler malfunction, not enough sample*
      - *sampler malfunction, did not turn on*

- *Operator error. Operator did not turn sampler on, etc. (Enter explanation in the comment field of the first sample date).*

- **Device Code (Sample method):** Device Code is four letter codes representing approved sampling method.

  GRAB – Manual Grab Sample
  FPFW – Flow-Proportional/Flow weighted Auto Sampler
  TPFW – Time- Proportional/Flow Weighted Auto Sampler
  TPTW – Time-Proportional/Time Weighted Auto Sampler

SCREEN #2.1 - Data Entry Screen



(Figure 1.4)

c. **<u>SCREEN #2.1 – Comment field</u>**:

Comments are recommended. Enter any comments in the comments field for each day that you feel is necessary, for any general comment or TP associated comments it is recommended that you report it on the first day of the sample period. Examples of the comments which should be entered are:

- *Sample below lab detection limit of 0.004 mg/l, so 0.002 mg/l reported.*
- *Discharge Code.*
- *Sample bottle overflowed.*
- *Sampler malfunctioned, no sample taken.*

- *Data logger malfunctioned, no sample taken.*
- *Flow data logger malfunctioned*
- *Flow RPM sensor malfunctioned*
- *No stage readings were recorded.*
- *Rain data logger malfunctioned.*
- *No Rain data was recorded.*
- *Sample was hit by lighting, temporary grab sample was taken.*
- *Sampler battery was dead, temporary grab sample was taken.*
- *Etc.*

d. SCREEN #2.1 - Definition

Sample Date --- Calculated Field. The Sample Dates are calculate based on the start sample date and number of days in the sampling period previously entered.
Daily Flow --- million gallons per day. Values range 0.0 to 999.9 where 999.9 is missing value for flow.
Daily Load --- Calculated field. Daily load is calculated from daily flow and Total Phosphorus Concentration. Value range 0.0 to 9999.9 Where 9999.9 is the missing value code for daily load.
Daily Rain --- Reported in 0.01 inches. Value range 0.00 to 99.99 where 99.99 is the missing value for rainfall.

EXAMPLES:

Daily Flow: Zero vs. Missing Values

1. **0.0→** No discharge occurs during entire day
2. **999.9→** Discharge occurs, but no flow measurement were made because:
    A. flow recording equipment malfunctioning.
    B. Operator error, no recording were taken.
    C. Etc.

Daily Rain: Zero vs. Missing Values

3. **0.0→** No Rain occurs during entire day
4. **99.99→** Rain occurs, but no flow measurement were made because:
    A. Rain recording equipment malfunctioning.
    B. Operator error, no recording were taken.
    C. Etc.

e. SCREEN #2.1 - Making Changes /Edits

Edits and changes can be made within screen # 2.1.

- Daily flow and rain can be changed in this screen.
- Any time a flow data changes, load is auto calculated
- Edits or changes can be made by simply typing over the incorrect information.

3) **Upload a sample file**

- In the SCREEN #1.0, Main Screen (Figure 1.2) click on 'Upload a sample file'. This will bring up a pop up window as in figure 1.5.
- From this window, click on browse button and upload your sample file. **The file must be in .csv format** (see Figure A-1, Appendix A)**.**

- A successful upload will return the data to the Main Screen, Screen # 1.0. Click on the Permit No. to view the data.
- An unsuccessful upload will return the error for the specific column (see below):

  Error uploading file!!!!

  Row #0 did not have the correct number of column.

  Row #3, pickup date: 6/30/2003 is invalid. Must be in mm/dd/yy format

If an error occurs please review the error message and correct the file before attempting the upload again.

SCREEN #1.0 - (Main Screen) -Upload a Sample File

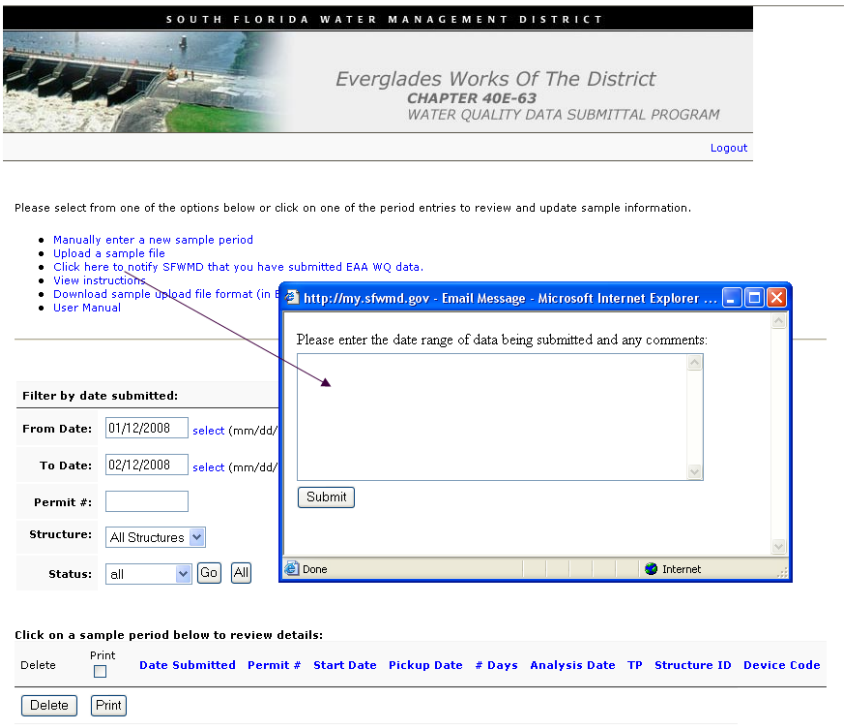
(Figure:1.5)

4) **Notify SFWMD that you have submitted EAA Water Quality data**

- After you have successfully uploaded a sample file and submitted data to South Florida Water Management District, please notify the District from the SCREEN #1.0 (main Screen) by clicking on 'Notify to SFWMD'.

- A pop up window will come up as in figure 1.6 and enter the date range of the data being submitted and any comment associated with it in the list box. And then click on submit. This will send an email to Everglades Regulation's Staff notifying them of your submittal.

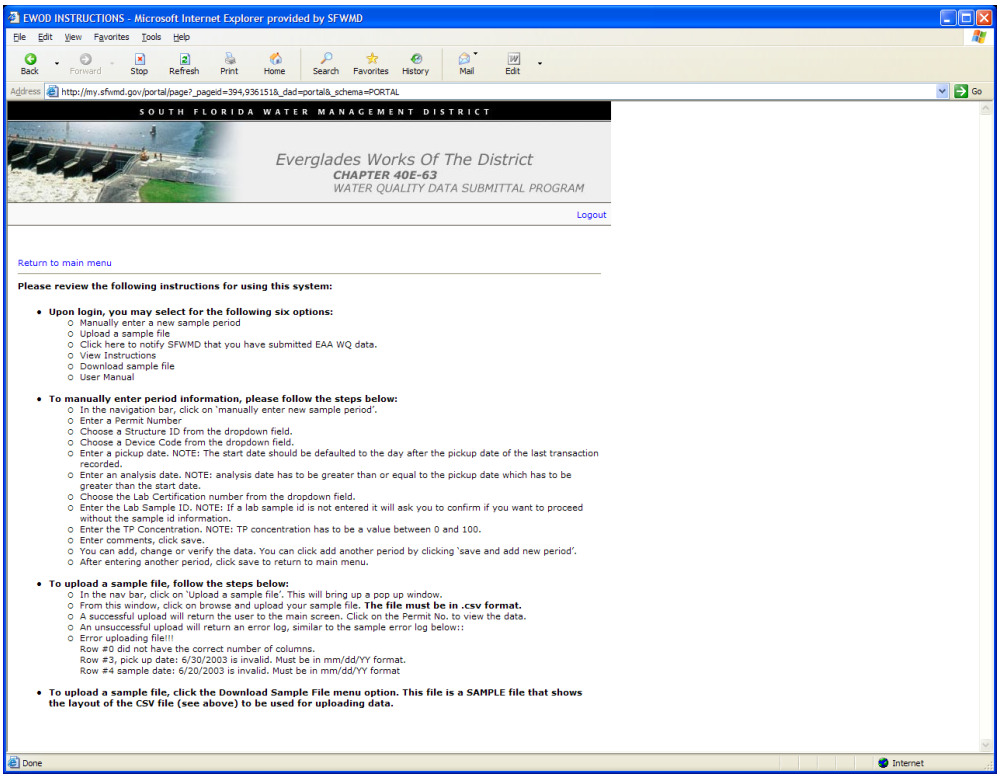
SCREEN #1.0 - (Main Screen) - Notification Screen



(Figure 1.6)

5) **View Instructions**

SCREEN # 3.0 - View Instructions



(Figure 1.7)

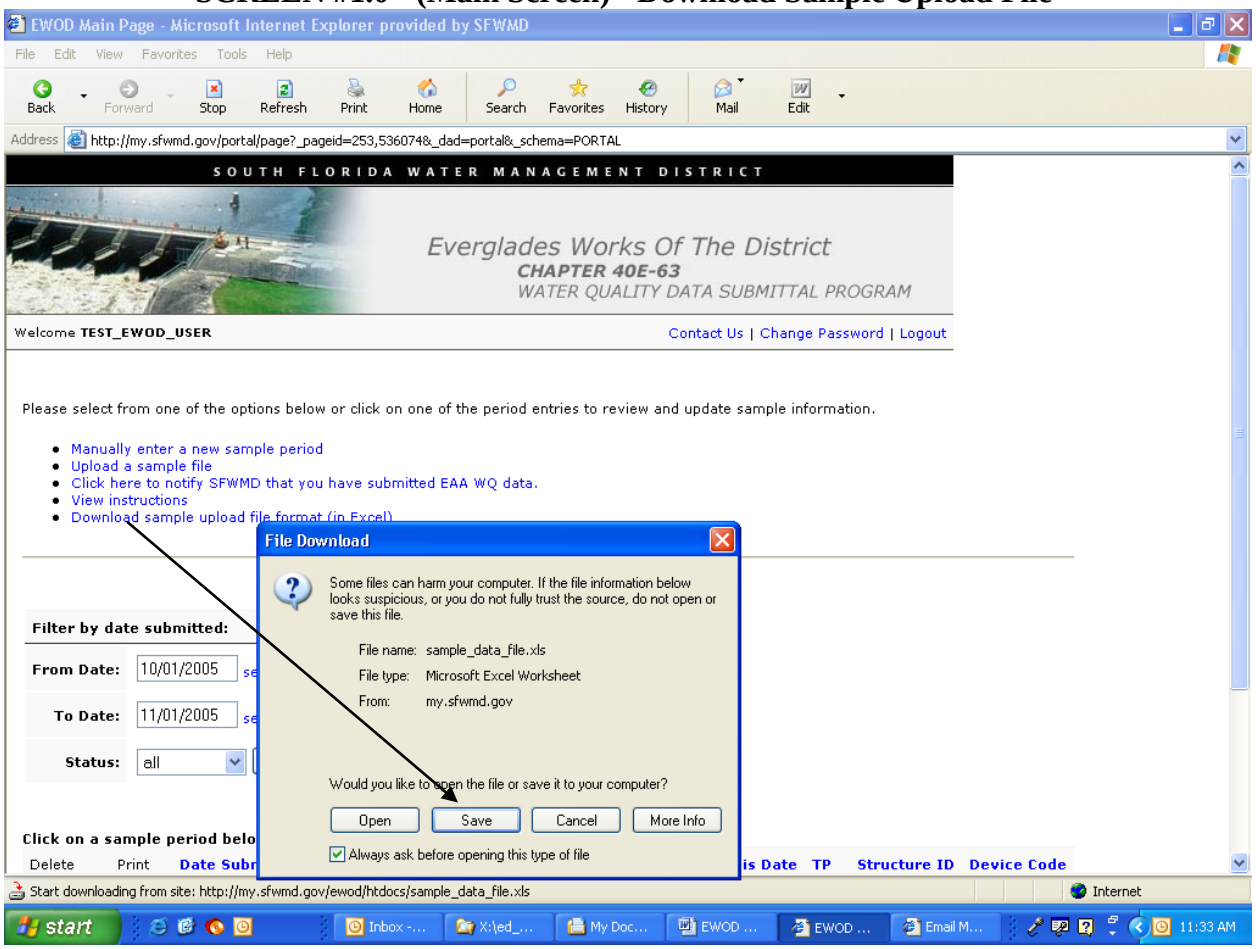
6) **Download Sample Upload File**

A sample excel file can be downloaded for the user to fill out at their convenience.

- In the SCREEN # 1(main Screen) click on the 'Download a sample file' to save to your hard-drive.

A pop up box will be displayed. Click on the 'save' button to download the .xls file. The file will be saved as **'sample_data_file_.xls'**. ***Please note that when this file is populated with data if must be converted to CSV format (see Figure A-1, Appendix A).***

SCREEN #1.0 - (Main Screen) - Download Sample Upload File



(Figure 1.8)

Appendix A

EWOD ELECTRONIC DATA DELIVERABLE FILE

The EWOD Web Submittal System has been designed to accept both manual user input and the upload of Electronic Data Deliverable (EDD's) files written in a CSV (comma-separated values) format. The next several pages provide an overview of the EDD file and format required for the EWOD system.

1. Overview of Comma Separated Values or "CSV" Format

In computers, a CSV (comma-separated values) format contains the values in a table as a series of ASCII (American Standard Code for Information Interchange) text lines organized so that each column value is separated by a comma from the next column's value and each row starts a new line. Here's an example:

Doe,John,944-7077,
Johnson, Mary,370-3920,
Smith, Abigail,299-3958,
(etc.)

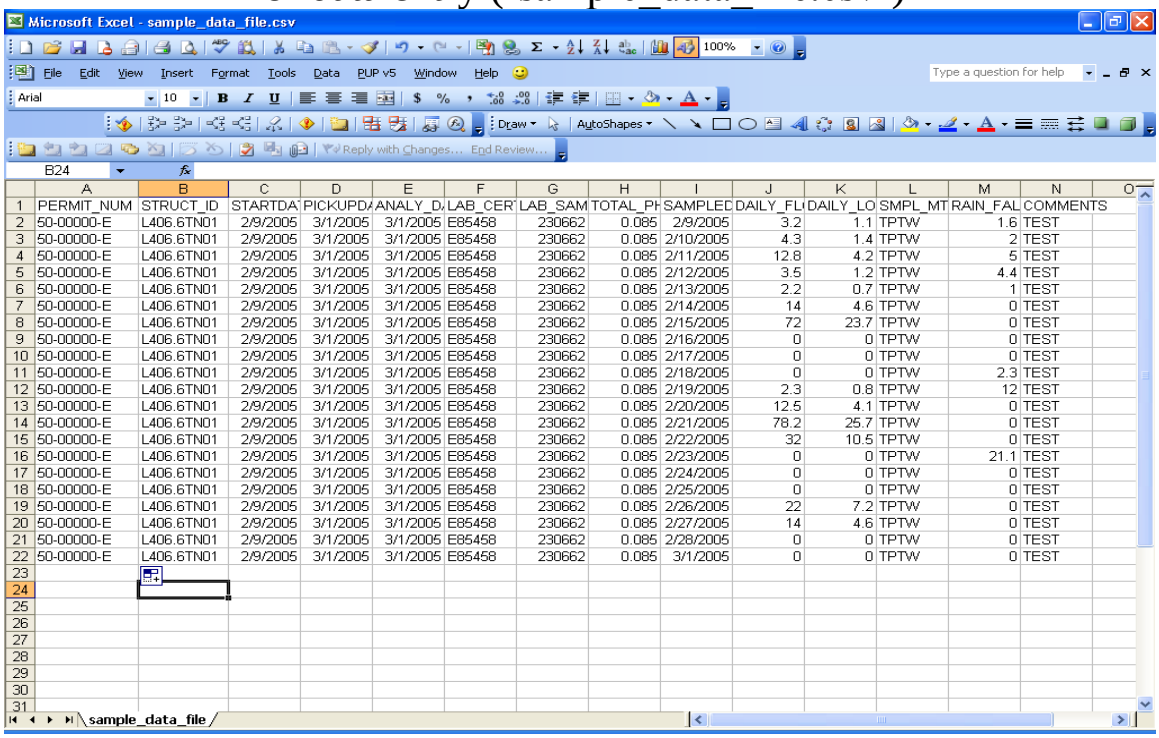
A CSV formatted file is a way to collect the data from any table so that it can be conveyed as input to another table-oriented application such as a relational database application. Its simplistic structure, using commas to separate fields of data, makes it especially well suited for data exchanges between computer systems that are not directly connected. The CSV format is also widely accepted and used as a data exchange format for Electronic Data Deliverables (EDD's) files. Many "off-the-shelf" software packages nowadays can read input from or generate output to a CSV formatted file. For instance, many leading spreadsheets, relational database applications, and GIS software packages, can read and write CSV files. A CSV file is also sometimes referred to as a comma delimited flat file.

2. Example of EDD format for EWOD system

There are fourteen fields in the EDD upload file, separated by commas, required by the EWOD system for upload of data. The first line (or row) of the file contains the names of the column headings. Subsequent rows contain the data to upload.

An example EDD file 'sample_data_file.csv' is shown in Figure A-1. In this example, a spreadsheet program has been used to enter data into the 14 required columns for the EDD and the file format has been set to CSV. Note that the commas are not visible in the spreadsheet at this point. Verification of the file format to see the commas (Figure A-2) can be accomplished by using any "off-the-shelf" software that can display flat files (e.g. Textpad, Notepad). Data for a monitored structure is visible in the example. The entries in columns 1 through 8 will be the same for a unique structure corresponding to a given "start date" and "pick update" of the sampling period. Additional columns (9 through 14) contain unique information regarding the daily flow, load, TP sampling method, and any comments regarding the daily information.

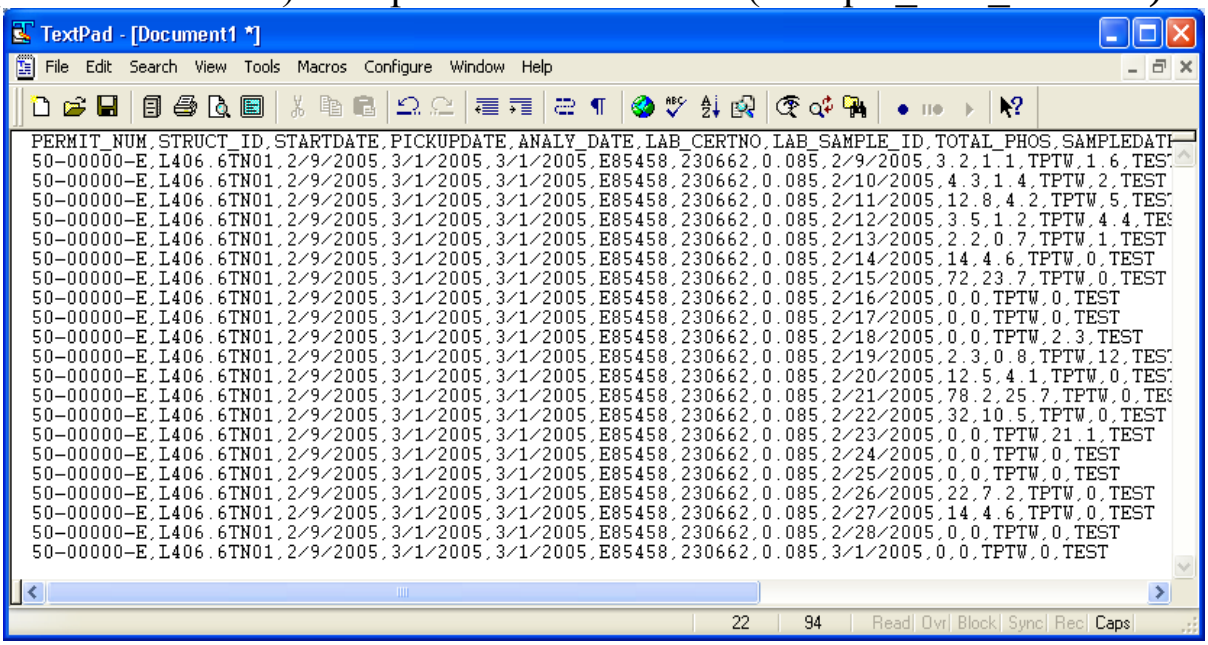
Figure A-1. Example image of EDD column format using spreadsheet for data entry ('sample_data_file.csv')



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	PERMIT_NUM	STRUCT_ID	STARTDA	PICKUPDA	ANALY_DA	LAB_CER	LAB_SAM	TOTAL_PH	SAMPLED	DAILY_FL	DAILY_LO	SMPL_MT	RAIN_FAL	COMMENTS	
2	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/9/2005	3.2	1.1	TPTW	1.6	TEST	
3	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/10/2005	4.3	1.4	TPTW	2	TEST	
4	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/11/2005	12.8	4.2	TPTW	5	TEST	
5	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/12/2005	3.5	1.2	TPTW	4.4	TEST	
6	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/13/2005	2.2	0.7	TPTW	1	TEST	
7	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/14/2005	14	4.6	TPTW	0	TEST	
8	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/15/2005	72	23.7	TPTW	0	TEST	
9	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/16/2005	0	0	TPTW	0	TEST	
10	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/17/2005	0	0	TPTW	0	TEST	
11	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/18/2005	0	0	TPTW	2.3	TEST	
12	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/19/2005	2.3	0.8	TPTW	12	TEST	
13	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/20/2005	12.5	4.1	TPTW	0	TEST	
14	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/21/2005	78.2	25.7	TPTW	0	TEST	
15	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/22/2005	32	10.5	TPTW	0	TEST	
16	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/23/2005	0	0	TPTW	21.1	TEST	
17	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/24/2005	0	0	TPTW	0	TEST	
18	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/25/2005	0	0	TPTW	0	TEST	
19	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/26/2005	22	7.2	TPTW	0	TEST	
20	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/27/2005	14	4.6	TPTW	0	TEST	
21	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	2/28/2005	0	0	TPTW	0	TEST	
22	50-00000-E	L406.6TN01	2/9/2005	3/1/2005	3/1/2005	E85458	230662	0.085	3/1/2005	0	0	TPTW	0	TEST	
23															
24															
25															
26															
27															
28															
29															
30															
31															

(Figure A-1)

Figure A-2. Example image of EDD file using a textfile viewer (comma's visible) to depict the CSV format ('sample_data_file.csv')



(Figure A-2)

3. Definition of the Fields in the EDD upload file.

There are fourteen fields in the EDD format, separated by commas, required by the EWOD system for upload of data. The columns, in sequential order starting from column 1 and ending with column 14, are discussed below.

PERMIT_NUM: Required entry field**.** A unique number used to identify an Everglades Work of the District (EWOD) permit. The valid format is "2 digit county code" "- " "5 digit sequence number" "-" "E" (e.g. 50-00000-E).

STRUCT_ID: Required entry field**.** Represents the unique identifiers for the structure associated with the project (e.g. L406.6TN01)

STARTDATE: Required entry field. The Start date should be defaulted to the pickup date of the last transaction recorded. Date format is "mm/dd/yyyy".

PICKUPDATE: Required entry field. The Pickup date has to be greater than the start date. The Date format is "mm/dd/yyyy". The Pickup Date and the Start Date must less than 25 days apart (Sampler period 1 to 24 days long)

ANALY_DATE: Required entry field. Analysis date has to be greater than the pickup date which must be greater than the start date. It is the date total phosphorus analysis was completed by the lab. The date of Analysis is greater than the *Last date of the Sampling Period*. If the date of Analysis is greater than 28 days then the TP concentration should be reported as missing with comments explaining the reasons.

LAB_CERTNO: Required entry field with any submittal in which flow has occurred and a sample taken. Represents laboratory name

LAB_SAMPLE_ID: Required entry field with any submittal in which a sample is taken.

TOTAL_PHOS: This field represents the data for Total Phosphorous Concentration (TP) as mg/l. There should be a TP result with any submittal in which flow has occurred. If TP is reported as "0" (zero) and there is flow occurring then the data provider needs to be contacted for an explanation. The data is submitted as missing when the data provider input the TP result as "99.999".

SAMPLEDATE: Calculated Field**.** The Sample Dates are calculate based on the start sample date and number of days in the sampling period previously entered. The date format is "mm/dd/yyyy".

DAILY_FLOW (MGD) : This field represent Flow data. If flow has occurred then it is reported as Million Gallons per Day. Values range 0.0 to 999.9 where 999.9 is missing value for flow. If there is TP value and zero flows through out the sample period, then the data provider should be called for an explanation.

DAILY_LOAD: Calculated field. If flow has occurred then "Load" should be there. Daily load is calculated from daily flow and Total Phosphorus Concentration and reported as kg per day. Value range 0.0 to 9999.9 Where 9999.9 is the missing value code for daily load.

SMPL_MTHD: Required entry field**.** This field represents the Device Code. Device Code is four letter codes representing approved sampling method.

GRAB – Manual Grab Sample
FPFW – Flow-Proportional/Flow weighted Auto Sampler
TPFW – Time- Proportional/Flow Weighted Auto Sampler
TPTW – Time-Proportional/Time Weighted Auto Sampler

RAIN_FALL: Required entry field. Reported in 0.01 inches. Value range 0.00 to 99.99 where 99.99 is the missing value for rainfall. If there is a large amount of flow data is reported and there is no Rainfall data submitted then the data provider should be called for an explanation.

COMMENTS: This field allows the data provider to enter any comments regarding the data submittals. Comments are recommended. Enter any comments in the comments field for each day that you feel is necessary, for any general comment or TP associated comments it is recommended that you report it on the first day of the sample period. Examples of the comments which should be entered are:

- *Sample below lab detection limit of 0.004 mg/l, so 0.002 mg/l reported.*
- *Discharge Code.*
- *Sample bottle overflowed.*
- *Sampler malfunctioned, no sample taken.*
- *Data logger malfunctioned, no sample taken.*
- *Flow data logger malfunctioned*
- *Flow RPM sensor malfunctioned*
- *No stage readings were recorded.*
- *Rain data logger malfunctioned.*
- *No Rain data was recorded.*
- *Sample was hit by lighting, temporary grab sample was taken.*
- *Sampler battery was dead, temporary grab sample was taken.*
- *Etc.*