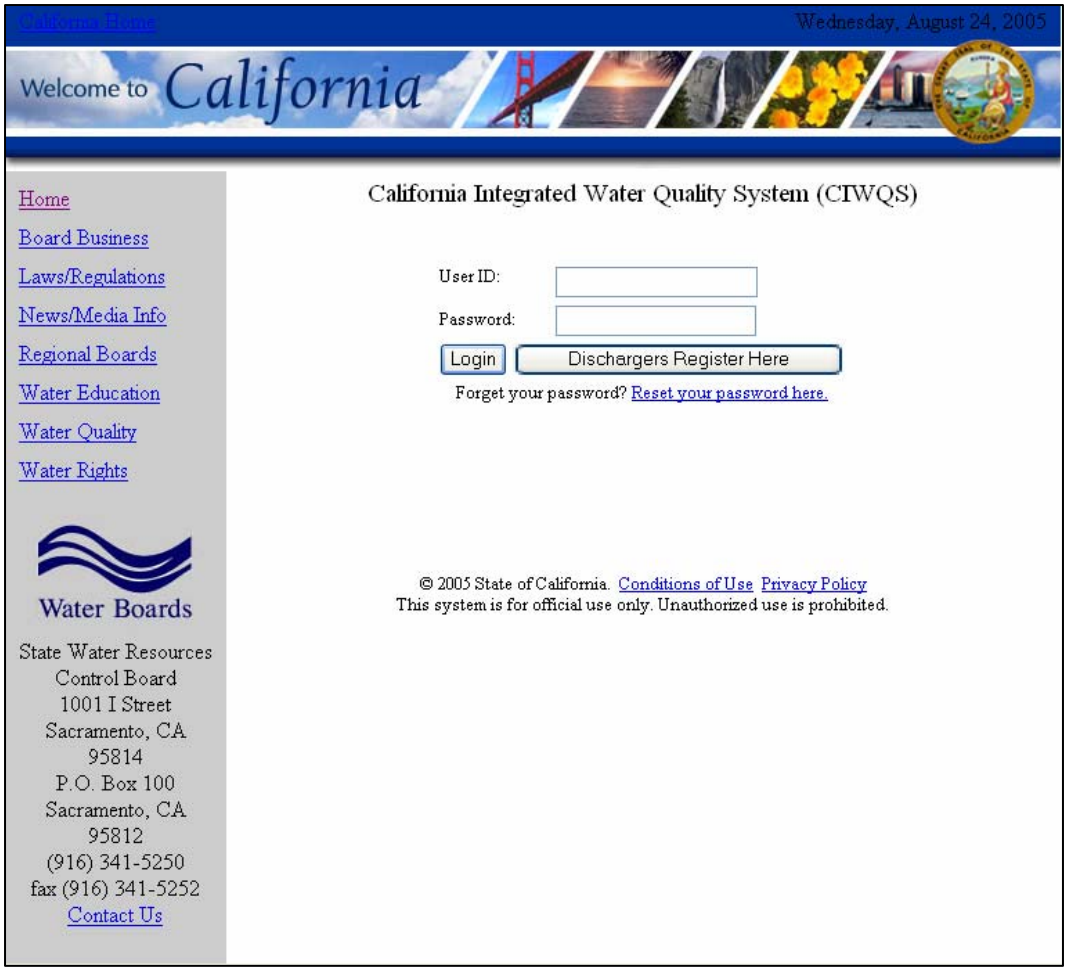
California Integrated Water Quality System (CIWQS)

Discharger User's Guide



March 2006

CIWQS Help Center

If you encounter any difficulties with the CIWQS program, or have any questions regarding its function, please contact the CIWQS Help Center:

E-mail: ciwqshelp@waterboards.ca.gov

phone: 1-866-76-CIWQS

The CIWQS Help Center is a function of the CA administration.

California Integrated Water Quality System (CIWQS)

Discharger User's Guide

Prepared for:

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and

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Preface

The California Integrated Water Quality System (CIWQS) is a new computer system designed for the State and Regional Water Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities. CIWQS also includes an electronic Self-Monitoring Report (eSMR) tool for submission of monitoring reports via the Internet Web site. CIWQS is part of an overall effort to integrate several disparate legacy systems, compile water quality data, standardize permits, automate processes, and make data more accessible to Water Board staff, Dischargers, the public, and the US Environmental Protection Agency.

Initially, CIWQS will focus on supporting the National Pollutant Discharge Elimination System (NPDES) program and its requirements to submit monitoring reports for individual NPDES permit holders. The Internet-based eSMR tool is being deployed in a phased approach, and became available to Dischargers operating within certain Water Boards in July 2005.

The purpose of this guide is to provide step-by-step instructions for performing tasks in CIWQS. This manual does not attempt to dictate or set policy for either the State or Regional Water Boards. New editions or amendments to this manual will be published as needed with future software updates.

The CIWQS User's Guide

This manual documents how to use CIWQS to report permit information and manage user accounts. It walks you through the entire process of submitting electronic Self-Monitoring Reports (eSMRs) step-by-step and provides information on where to find additional information if needed. This section is designed to introduce you to the *CIWQS User's Guide* so you can use it to find information quickly and effectively.

How This Manual Is Organized

This manual is divided into two parts. Each part represents a group of related tasks or actions that you will perform in CIWQS.

Part 1 - CIWQS Administration

This part describes how to register and log into the system. It provides an introduction to the CIWQS Modules and navigation within the CIWQS site. Part 1 also provides information on viewing and changing your personal information.

Part 2 - The eSMR

Most of the work you do in CIWQS will revolve around the *eSMR* Module. This part offers step-by-step instructions on how to create and submit data for eSMRs and gives detailed information on how to upload data to the system. An explanation of the *Run Reports* Module is also included here.

Appendixes

Appendix A provides information on the Error Checks used to produce the Error Check Reports for electronic Self-Monitoring Reports (eSMRs). Appendix B provides information about and directions for the CIWQS Data Format (CDF) that is not covered in Chapter 4.

Conventions Used In This Guide

Throughout this guide, the icons and boxes shown below are used to highlight warnings, tips and additional information.

Icons and Alerts

Various icons are used throughout the manual to highlight warnings or information of note.

Warning: Notifies you when there is the potential for error or data loss. Indicates that special care should be taken.

Cross Reference: Indicates where additional information about a particular topic can be found in another section of the manual.

Tip/Note: Provides additional tips or points of interest.

Stop before proceeding: Indicates where special care should be taken to avoid errors or data loss.

Sidebars

Sidebars

In addition to the icons used throughout this guide, you will also notice material placed in shaded boxes. This material offers background information, an expanded discussion or a deeper insight about the topic being discussed.

Contents

CIWQS Dischargers User's Guide

Part 1

CIWQS Administration

1
User Registration and Login

This chapter addresses the following topics:

- User types and access levels
- How to register
- How to approve/disapprove pending registrations
- How to log into CIWQS
- How to navigate in CIWQS
- CIWQS Main Menu and Modules

1.1 User Registration

Before you can enter or use CIWQS, you must first register as a User. Registration provides you with a unique User ID and password that can be used to access CIWQS. Your role within a Facility will dictate how you will register (see section 1.1.1 below).

Passwords should be protected to prevent unauthorized individuals from accessing sensitive information. Each User must register individually to obtain a User ID and password.

When you first register as a User, you are linked to a single Facility. Access to information is granted on a Facility-by-Facility basis. After you have completed the initial registration process, you may request access to additional Facilities.

You can be linked to more than one Facility with a single User ID and password combination.

See Chapter 2 for more information on requesting access to additional Facilities.

1.1.1 User Types and Access Levels

You belong to the group of Users generally referred to as Dischargers. In general, this term refers to anyone required to submit electronic Self-Monitoring Reports (eSMRs) to the Water Boards.

The Discharger User group is divided into Users who are designated as Legally Responsible Persons (LRPs) and those who are not LRPs but who are still authorized to provide information for a Facility (additional, or other, Users).

The Legally Responsible Person for a Facility has 3 responsibilities within CIWQS:

1. Register the Facility with CIWQS (if it is not already registered) so eSMRs can be submitted for the Facility.
2. Approve or disapprove the registration of additional Users for the Facility.
3. Give final approval for (certify and submit) Self-Monitoring Reports by providing an electronic signature to certify data validity.

Many LRPs will also enter eSMR data.

Additional Users are authorized to view and enter information for their associated Facilities but they may not electronically sign eSMRs for final submission.

See Chapters 3 and 4 for more information on creating and submitting Self-Monitoring Reports.

Section 1.1.2 describes how to register as an LRP. Section 1.1.3 describes how all other Dischargers should register for CIWQS.

Legally Responsible Person (LRP)

A Legally Responsible Person is someone who is authorized to make management decisions which govern the operation of a regulated Facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations. An LRP also has the authority to sign documents on behalf of the Facility.

1.1.2 Registering as a Legally Responsible Person

Registration begins at the *CIWQS Login* page (Figure 1.1). This site is accessed through the California State Water Resources Control Board Web site at http://ciwqs.waterboards.ca.gov/.

☞ **Once you have completed registration and have been granted a User ID and password, you will return to this page to access CIWQS.**

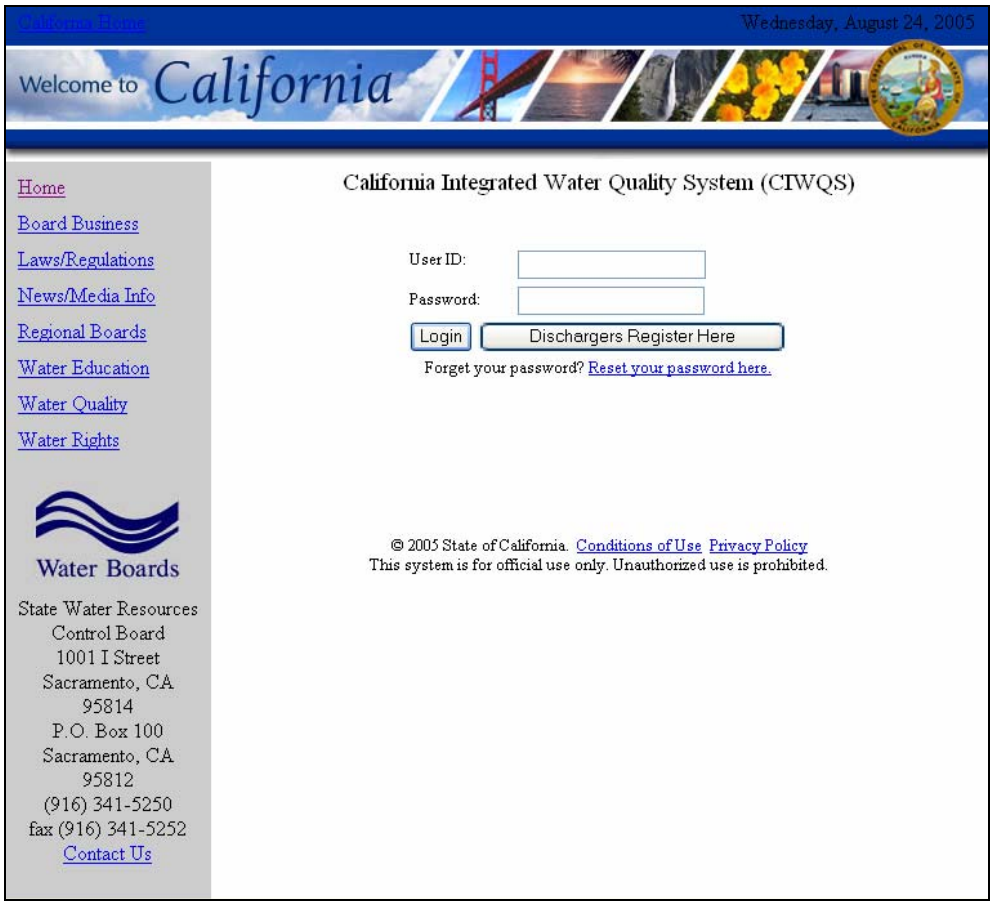


Figure 1.1 CIWQS Login Page

To begin registration, click the "Dischargers Register Here" button below the User ID and password fields. This takes you to the *New User* page (Figure 1.2) where you will indicate your role within the Facility. The top two choices are applicable to Dischargers; the bottom two options are reserved for other types of Users.

Choose the first option by clicking the appropriate radio button to indicate that you are the Legally Responsible Person for the Facility. Click the "Next" button to proceed to the next step.

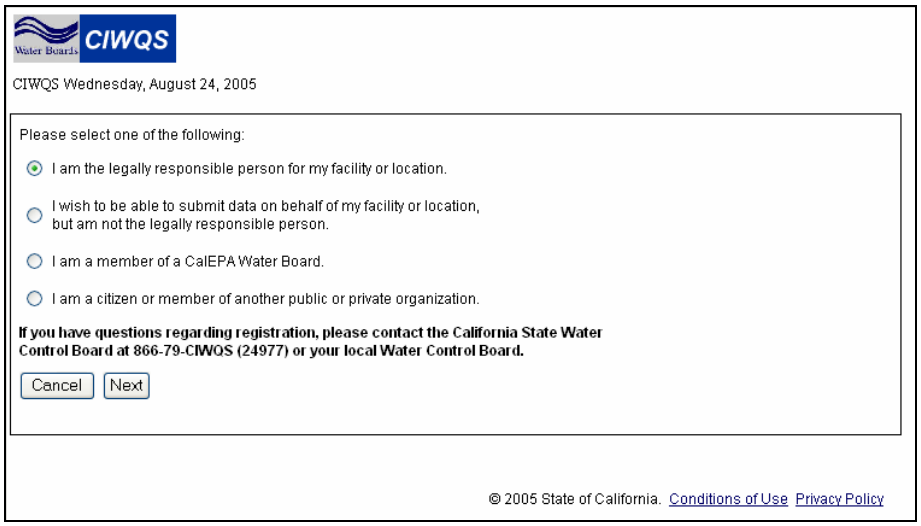


Figure 1.2 New User Page

The next page you see will be the *Discharger Registration* page (Figure 1.3) where you can enter information about yourself and the Facility you represent.

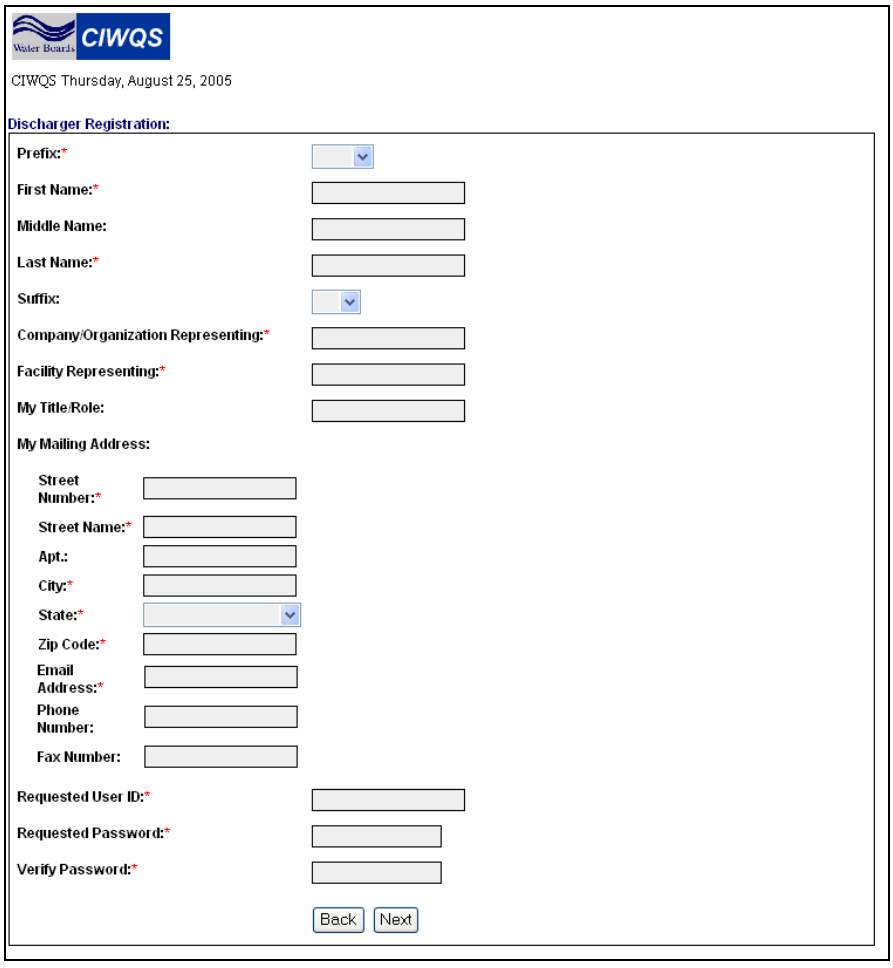


Figure 1.3 Discharger Registration Page

Table 1.1 describes each field and indicates which fields are required to complete registration.

Be sure to enter a valid e-mail address so that a System Administrator can send you information.

System Administrators

CIWQS System Administrators have access to the CIWQS *System Administration* Module and are responsible for carrying out many of the tasks related to User registration and account maintenance. System Administrators also have some ability to change the values available within the CIWQS Modules and the relationships between certain fields.

Your entries in the *Company/Organization* and *Facility Representing* fields should reflect the registered names of these entities. If you are unsure of the correct spelling or full registered name, contact your local Water Board for additional information.

Once you have verified that your information is correct, click the "Next" button at the bottom of the page.

If you have forgotten to fill out a required field or if you have chosen a password that does not meet the security requirements, a message will appear at the top of the page in red letters listing the errors found on the page.

Choosing a Password

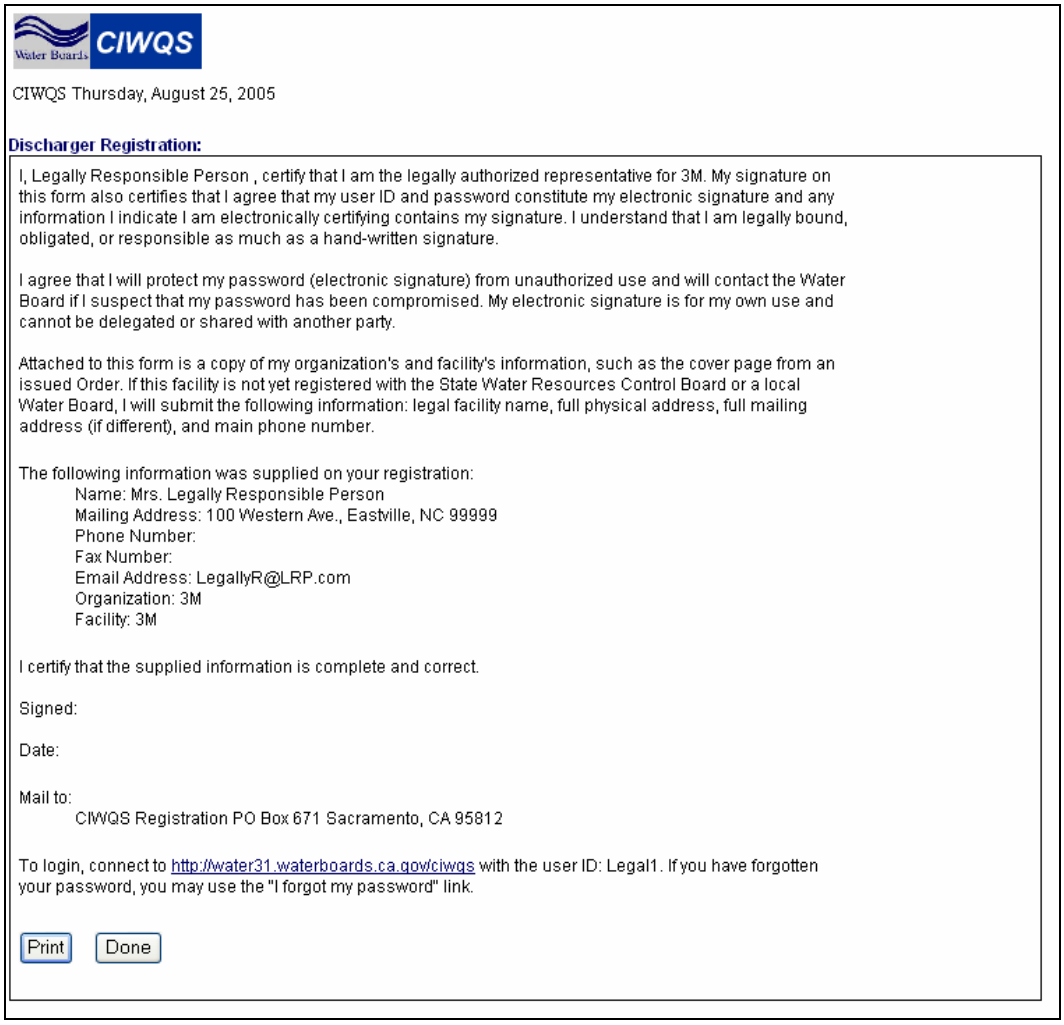
The password you choose must conform to the rules set by the system. The password must have at least 7 characters (and no more than 16), and must contain a combination of lowercase letters, uppercase letters, and numbers. All of these elements must be present in the password. For example, "a2Hlkj4" is acceptable, but "aBcDeFg" and "1234567" are not acceptable. Typing a password that does not meet these rules and clicking the "Next" button will result in a registration error.

The next page that appears is the *Electronic Signature Authorization* form (Figure 1.4). A copy of this form is also e-mailed to the address you provided on the *Discharger Registration* page. The *Electronic Signature Authorization* form must be printed out, signed, and mailed to your local Water Board before your registration may be activated.

Table 1.1 Fields on the Discharger Registration Page

Field Label	*Description*
Prefix (required)	Select the appropriate prefix from the drop-down list (Mr., Mrs., Miss, Dr.).
First Name (required)	Type in your legal first name.
Middle Name (optional)	Type in your legal middle name.
Last Name (required)	Type in your legal last name.
Suffix (optional)	Select the appropriate suffix from the drop-down menu (Jr., Sr., I, II, III, IV, V).
Company/Organization Representing (required)	Type in the full name of the Company or Organization you represent.
Facility Representing (required)	Type in the full name of the Facility you represent.
My Title/Role (optional)	Type in your title/role within the Company/Organization.
Street Number (required)	Type in the street number of your mailing address.
Street Name (required)	Type in the street name of your mailing address.
Apt. (optional)	Type in the apartment number of your mailing address.
City (required)	Type in the city of your mailing address.
State (required)	Select the state of your mailing address from the drop-down list.
ZIP Code (required)	Type in the 5- or 9-digit ZIP code of your mailing address.
E-mail Address (required)	Type in a valid e-mail. E-mail will only be used for CIWQS notifications (including completed registration).
Phone Number (optional)	Type in your office phone number using the format 999-999-9999.
Fax Number (optional)	Type in your office fax number using the format 999-999-9999.
Requested User ID (required)	Type in a User ID.
Requested Password (required)	Type in your requested password. The characters you enter are hidden.
Verify Password (required)	Re-type your requested password to verify it.

The *Electronic Signature Authorization* form indicates that you accept the terms and conditions for use of the Web site and activates your ID and password as a legally valid electronic signature.



CIWQS Thursday, August 25, 2005

Discharger Registration:

I, Legally Responsible Person , certify that I am the legally authorized representative for 3M. My signature on this form also certifies that I agree that my user ID and password constitute my electronic signature and any information I indicate I am electronically certifying contains my signature. I understand that I am legally bound, obligated, or responsible as much as a hand-written signature.

I agree that I will protect my password (electronic signature) from unauthorized use and will contact the Water Board if I suspect that my password has been compromised. My electronic signature is for my own use and cannot be delegated or shared with another party.

Attached to this form is a copy of my organization's and facility's information, such as the cover page from an issued Order. If this facility is not yet registered with the State Water Resources Control Board or a local Water Board, I will submit the following information: legal facility name, full physical address, full mailing address (if different), and main phone number.

The following information was supplied on your registration:

Name: Mrs. Legally Responsible Person
Mailing Address: 100 Western Ave., Eastville, NC 99999
Phone Number:
Fax Number:
Email Address: LegallyR@LRP.com
Organization: 3M
Facility: 3M

I certify that the supplied information is complete and correct.

Signed:

Date:

Mail to:
CIWQS Registration PO Box 671 Sacramento, CA 95812

To login, connect to http://water31.waterboards.ca.gov/ciwqs with the user ID: Legal1. If you have forgotten your password, you may use the "I forgot my password" link.

Print Done

Figure 1.4 Electronic Signature Authorization Form

Electronic Signatures

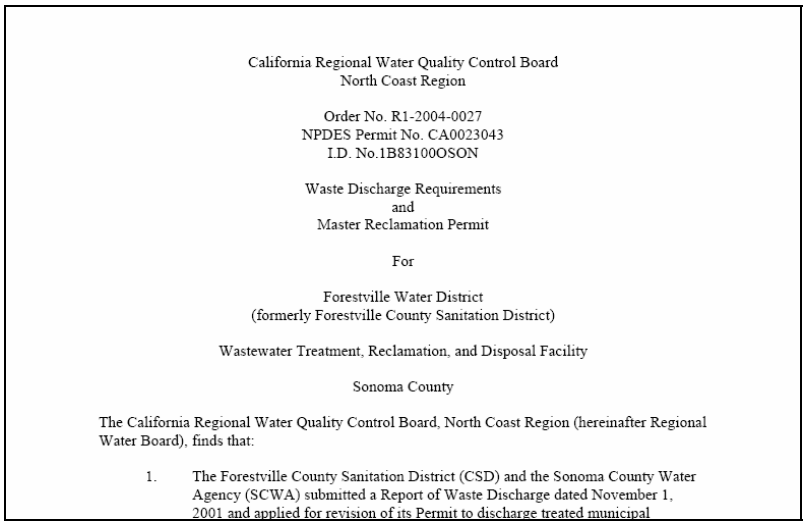
The procedure CIWQS uses is consistent with the Electronic Signatures in Global and National Commerce Act (E-SIGN), which states that a User must affirmatively consent to the use of electronic notices and records. As with E-SIGN, a User must receive notice of his or her rights prior to consenting. Although E-SIGN allows the User to affirmatively consent electronically, the requirement to submit a paper-based signature sheet provides an additional level of protection, as with a bank signature card, by requiring that a physical signature for each responsible executive officer be on file. Although E-SIGN is a Federal program, the State of California has adopted portions of E-SIGN for Users within certain state Agencies.

Click the "Print" button to open the Print Setup window and print a copy of the form. Click the "Done" button to complete the registration process. You will be returned to the *CIWQS Login* page (see Figure 1.1).

If your Facility has not yet been registered with the Water Boards, be sure to include the following information when you mail the *Electronic Signature Authorization Form*:

- Legal Facility name
- Full physical address
- Full mailing address (if different)
- Main phone number

This information can be found on an issued (paper-based) NPDES Permit Order (Figure 1.5)



California Regional Water Quality Control Board
North Coast Region

Order No. R1-2004-0027
NPDES Permit No. CA0023043
I.D. No.1B83100OSON

Waste Discharge Requirements
and
Master Reclamation Permit

For

Forestville Water District
(formerly Forestville County Sanitation District)

Wastewater Treatment, Reclamation, and Disposal Facility

Sonoma County

The California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. The Forestville County Sanitation District (CSD) and the Sonoma County Water Agency (SCWA) submitted a Report of Waste Discharge dated November 1, 2001 and applied for revision of its Permit to discharge treated municipal

Figure 1.5 Sample Issued Permit Order Showing Facility Information

Once the Water Board System Administrator receives the *Electronic Signature Authorization Form*, a record is created for your Facility and you are registered as a system User with the appropriate level of access.

This procedure helps to protect system integrity by preventing unauthorized Users from creating fictitious Facilities, creating duplicate Facilities, or entering incorrect data about a Facility.

Multiple Users may register as a Legally Responsible Person for a Facility. Each LRP must follow the same registration process, including completing the *Electronic Signature Authorization* form.

1.1.3 Registering as an Additional User

Additional Users can self-register once their Facility has been registered by the Legally Responsible Person. Before an additional User is granted access to the system for a requested Facility, a Legally Responsible Person for that Facility must approve the registration.

A User's account is disabled (no security privileges are linked) until approval is given by an LRP. In addition, approval is needed from a Legally Responsible Person for each additional Facility added to the User's account.

To register as an additional User for a Facility, start at the *CIWQS Login* page at http://ciwqs.waterboards.ca.gov/ (Figure 1.1). Click the "Dischargers Register Here" button to access the *New User* page (Figure 1.2). On this page, select the second option: "I wish to be able to submit data on behalf of my facility or location, but am not the legally responsible person." Click the "Next" button.

The next page you will see will be the *Discharger Registration* page (Figure 1.6) where you can enter information about yourself and the Facility you represent.

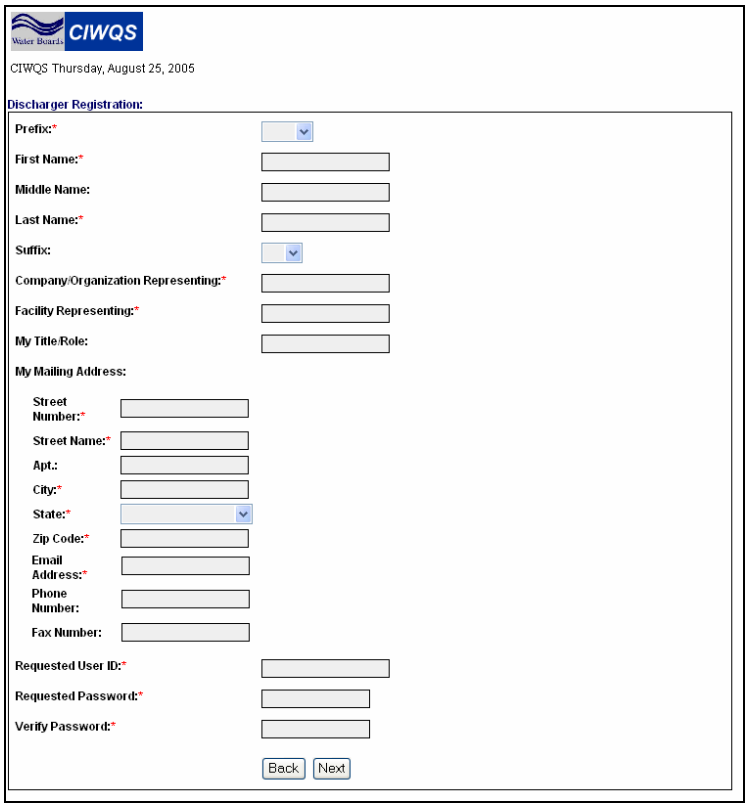


Figure 1.6 Discharger Registration Page

Table 1.2 describes each field on the Discharger Registration page and indicates which fields are required to complete registration.

Be sure to enter a valid e-mail address so that a System Administrator can send you information.

System Administrators

CIWQS System Administrators have access to the CIWQS *System Administration* Module and are responsible for carrying out many of the tasks related to User registration and account maintenance. System Administrators also have some ability to change the values available within the CIWQS Modules and the relationships between certain fields.

Check with your Legally Responsible Person to make sure you have registered for the *exact* same Facility.

Your entries for *Company/Organization* and *Facility Representing* fields must reflect the registered names for these entities. If you are unsure of the correct spelling or full registered name, contact your local Water Board for additional information.

You will be unable to register for a Facility if you do not enter the correct name on this page.

Once you have verified that your information is correct, click the "Next" button at the bottom of the page.

If you have forgotten to fill out a required field or if you have chosen a password that does not meet the security requirements, a message will appear at the top of the screen in red letters listing the errors found on the page.

Choosing a Password

The password you choose must conform to the rules set by the system. The password must have at least 7 characters (and no more than 16), and must contain a combination of lowercase letters, uppercase letters, and numbers. All of these elements must be present in the password. For example, "a2Hlkj4" is acceptable, but "aBcDeFg" and "1234567" are not acceptable. Typing a password that does not meet these rules and clicking the "Next" button will result in a registration error.

Table 1.2 Fields on the Discharger Registration Page

Field Label	*Description*
Prefix (required)	Select the appropriate prefix from the drop-down list (Mr., Mrs., Miss, Dr.).
First Name (required)	Type in your legal first name.
Middle Name (optional)	Type in your legal middle name.
Last Name (required)	Type in your legal last name.
Suffix (optional)	Select the appropriate suffix from the drop-down menu (Jr., Sr., I, II, III, IV, V).
Company/Organization Representing (required)	Type in the full name of the Company or Organization you represent.
Facility Representing (required)	Type in the full name of the Facility you represent.
My Title/Role (optional)	Type in your title/role within the Company/Organization.
Street Number (required)	Type in the street number of your mailing address.
Street Name (required)	Type in the street name of your mailing address.
Apt. (optional)	Type in the apartment number of your mailing address.
City (required)	Type in the city of your mailing address.
State (required)	Select the state of your mailing address from the drop-down list.
ZIP Code (required)	Type in the 5- or 9-digit ZIP code of your mailing address.
E-mail Address (required)	Type in a valid e-mail. E-mail will only be used for CIWQS notifications (including completed registration).
Phone Number (optional)	Type in your office phone number using the format 999-999-9999.
Fax Number (optional)	Type in your office fax number using the format 999-999-9999.
Requested User ID (required)	Type in a User ID.
Requested Password (required)	Type in your requested password. The characters you enter are hidden.
Verify Password (required)	Re-type your requested password to verify it.

If the Company/Organization and Facility information you entered on the previous page matches at least one record in the CIWQS database, you will be asked to select the correct Organization and Facility from a list (Figure 1.7).

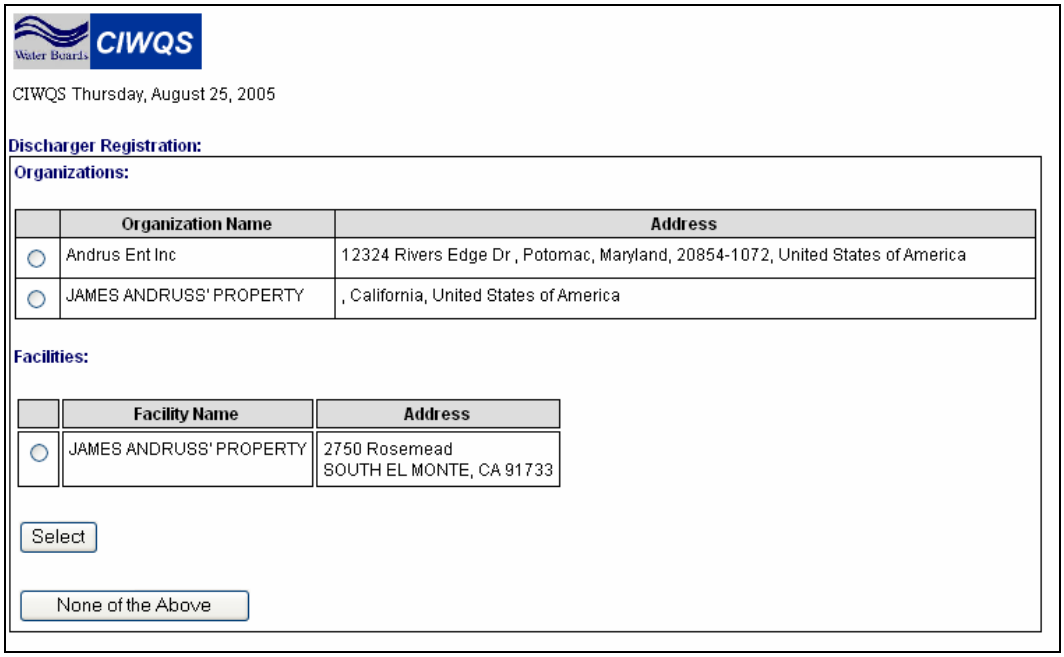


Figure 1.7 Selecting Your Facility

If the Organization and Facility you entered are listed, click the radio button in the corresponding row and click the "Next" button. This completes your part of the registration process (Figure 1.8). An e-mail will be sent to *all* Legally Responsible Persons for the selected Facility alerting them of your request for registration. Only one Legally Responsible Person needs to approve your registration for it to be validated.

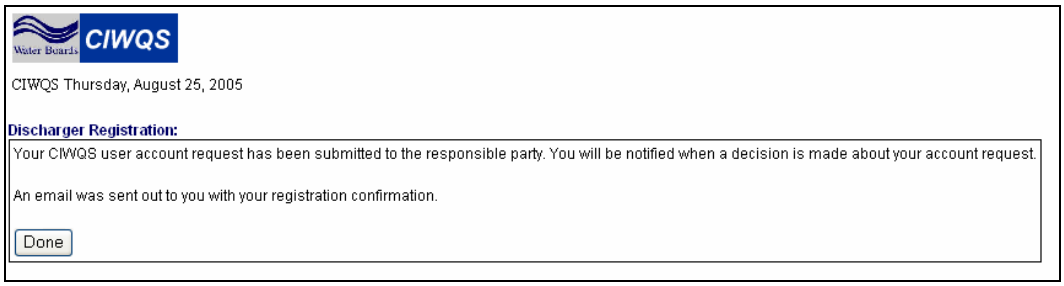


Figure 1.8 Successful Registration Page

Once your registration has been approved you will receive a verification e-mail. You will then be able to log in to CIWQS through the login screen using the User name and password you selected.

If you select "None of the Above" or the information you entered on the *Discharger Registration* page did not result in a valid match, you will see the following message (Figure 1.9):

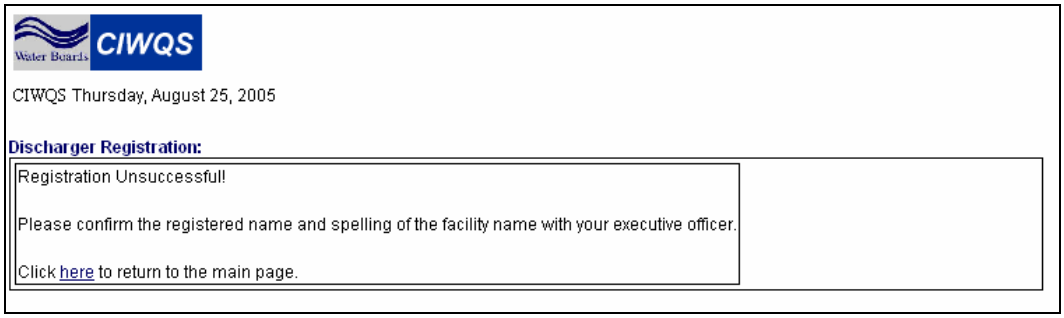


Figure 1.9 Unsuccessful Registration Page

Click the "here" hyperlink to return to the *CIWQS Login* page. You can attempt to register again or you can contact your Water Board to obtain the correct Organization and Facility information.

1.2 Login and the CIWQS Interface

The following sections provide information on how to enter and navigate through the CIWQS interface.

1.2.1 How to Login to CIWQS

CIWQS can be accessed through the State Water Resources Control Board Web site at http://ciwqs.waterboards.ca.gov (Figure 1.10).

Figure 1.10 CIWQS Login Page

This page allows you to authenticate your identity by entering your User ID and password. This step is required to access all system functions. If you do not yet have a password, you must first register to become a new User (see section 1.1.2 or 1.1.3).

If you have problems logging in, check your User ID and password information and make sure that the Caps Lock on your keyboard is off. User IDs and passwords are case-sensitive. If you continue to have problems, contact your System Administrator.

Forgotten Password

If you have forgotten your password, click the "Reset your password here" link on the *CIWQS Login* page. This will take you to the *Reset Password* page (Figure 1.11).

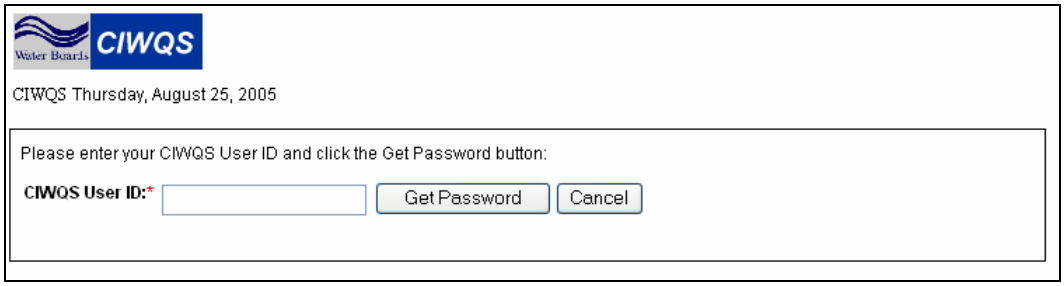


Figure 1.11 Reset Password Page

Type in your User ID and click "Get Password". You will receive an e-mail message with your password information. Click "Cancel" to exit this page and return to the *CIWQS Login* page.

CIWQS Main Menu

Once you have successfully logged in to CIWQS, you will arrive at the CIWQS Main Menu (Figure 1.12).

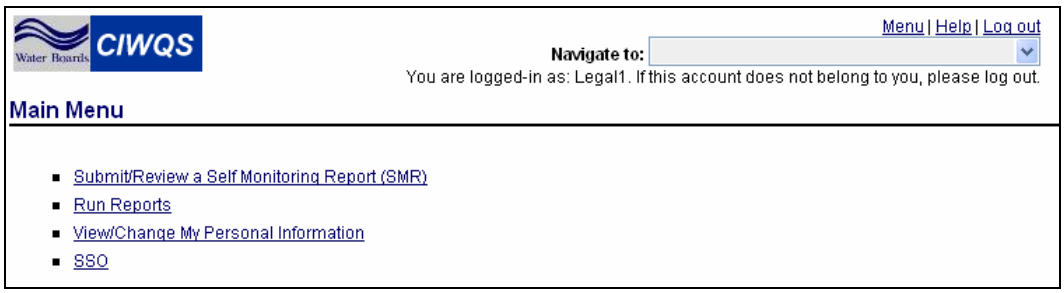


Figure 1.12 CIWQS Main Menu

1.2.2 CIWQS Main Menu: Introducing the Modules

The CIWQS Main Menu serves as the centerpiece of the system, providing access to key functions. It is the first page you see when you initially log into CIWQS and whenever you select the "Menu" hyperlink at the top of the page. The Main Menu is designed to be "action-oriented" and to provide easy access to the tasks you will need to perform.

The options visible on the Main Menu reflect the organization of the database that supports the CIWQS site. The database and, by extension, the Main Menu are organized into Modules, or groups of tasks. Each Module allows you to perform certain functions within the system.

You will have access to the following Modules:

Submit/Review a Self Monitoring Report (SMR) This Module allows an LRP or an authorized consultant to submit electronic Self-Monitoring Reports (eSMR).

Run Reports This Module contains links to the CIWQS reporting options.

View/Change My Personal Information This Module allows you to access your system profile, change your password, and request additional changes to your User profile.

SSO This Module opens a new instance of CIWQS in a new window.

1.2.3 CIWQS Navigation

The CIWQS interface contains several standard features to aid in navigation.

CIWQS Header

The CIWQS header is present on every page of the CIWQS site (Figure 1.13). Its features aid in site navigation and provide links to the CIWQS homepage and CIWQS Help.

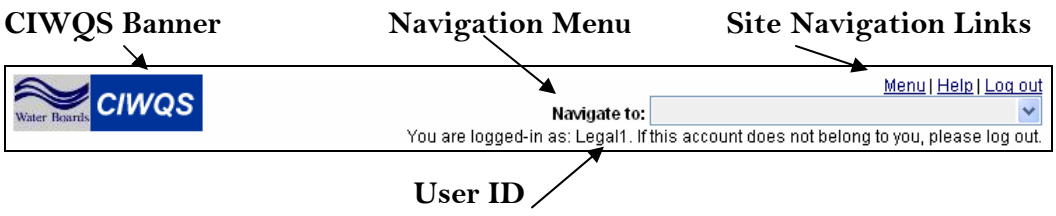


Figure 1.13 CIWQS Header

CIWQS Banner

- Shows the CIWQS logo along with the Water Board logo.
- Links Users back to the CIWQS Main Menu.

Navigation drop-down Menu

- Allows you to select one of the Modules.
- Selecting a Module will automatically take you to the first page of that Module.

Site Navigation Links

- **Menu**: Returns you to the Main Menu from any page in the system.
- **Help**: Opens a PDF version of this guide in a new window.
- **Log out**: Logs you out of CIWQS and returns you to the login page.

User ID

- Tells you what User ID was used to log into the system.

Pop-up Windows in CIWQS

CIWQS uses pop-up windows in several of the Modules. A pop-up link (triggered by selecting a function or a Web address hyperlink) opens a new window in your browser using a program called JavaScript. It is possible that your web browser has disabled JavaScript. If this is the case, you might have problems viewing the pop-up windows and their content.

Most browsers will alert you with an error message if JavaScript is disabled. If you have problems viewing pop-ups re-enable JavaScript on your computer or contact your help desk to find out how to view pop-up windows on your computer.

1.3 How to Authorize an Additional User

LRPs have the responsibility to review and approve or disapprove pending registrations for additional CIWQS Users. When an additional User has submitted a registration request, an e-mail is sent to all LRPs for the selected Facility. To review pending registrations, click on the link contained within this e-mail.

☞ **Only one LRP from the Facility needs to approve a registration for it to be validated.**

When you visit the Web site indicated (by clicking on the hyperlink in the e-mail text), you will be prompted to enter your User ID and password to verify your identity. Once you have successfully logged in, the *Pending Registrations for Other Dischargers* page will appear (Figure 1.14). This page lists all pending registrations for anyone who has registered as an additional User for the Facilities at which you are the Legally Responsible Person.

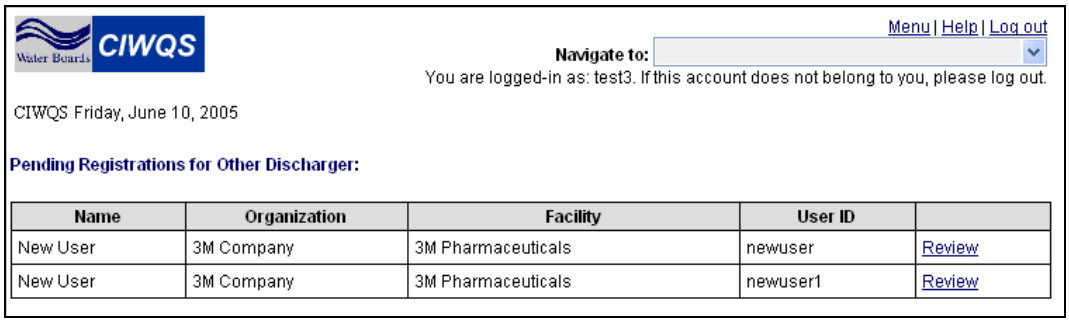


Figure 1.14 Pending Registrations for Other Dischargers Page

If you are the Legally Responsible Person for more than one Facility, pending registrations for all Facilities will be listed on the *Pending Registrations* page.

Select the "Review" hyperlink to open the *User information* page (Figure 1.15).

Be sure to carefully consider each registration. Approving a registration grants a User access to Facility information. Disapproving a registration prevents a User from accessing any information.

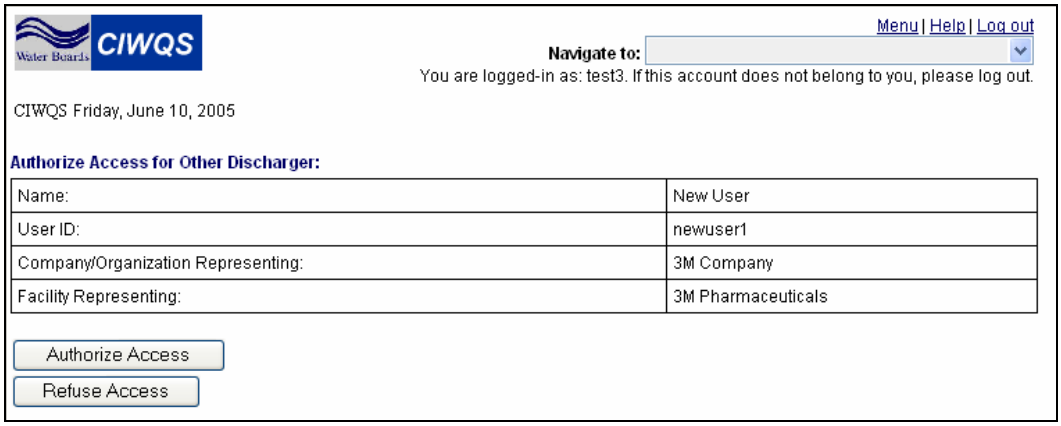


Figure 1.15 User Information Page

From the *User Information* page, you can approve or disapprove this registration. Clicking the "Authorize Access" button will approve the

registration and allow access (Figure 1.16). Clicking the "Refuse Access" button will disapprove the registration.

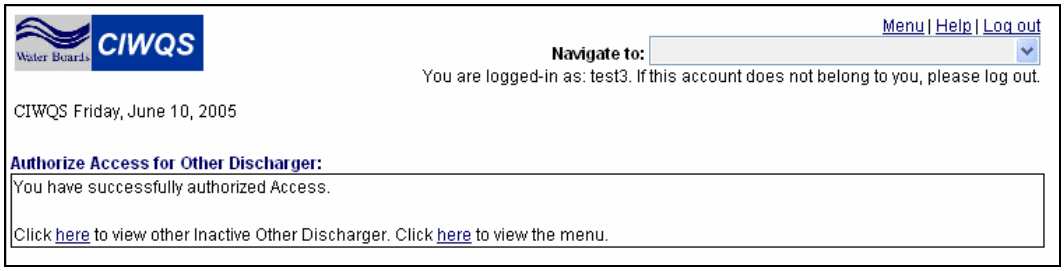


Figure 1.16 Approving Access for Other Dischargers

If access is authorized, the User's account is activated by a System Administrator and appropriate security is provided. The User may then enter data for the selected Facility.

Once the registration has been approved or disapproved, an e-mail message is sent to the User with notification that the account is active or that access has been denied.

2
Personal Information Module

This chapter addresses the following topics:

- How to change your personal information
- How to change your password
- How to add a related Facility
- How to make additional changes

2.1 The Personal Information Module

The *Personal Information* Module serves three functions. It allows you to:

1. Change your CIWQS password
2. Request the addition of a related Facility
3. Request additional changes (such as the addition of a related Party or changes to your User ID)

Changes made to your password result in immediate updates to the information stored in the system. All other changes, such as the addition of a related Party or Facility, are made by System Administrators after a request has been submitted and reviewed.

To access this Module, select the *View/Change My Personal Information* Module from the Main Menu after logging into CIWQS. You will be presented with the *View/Change My Personal Information* page (Figure 2.1). When you open the page, it will show the information currently stored in the system.

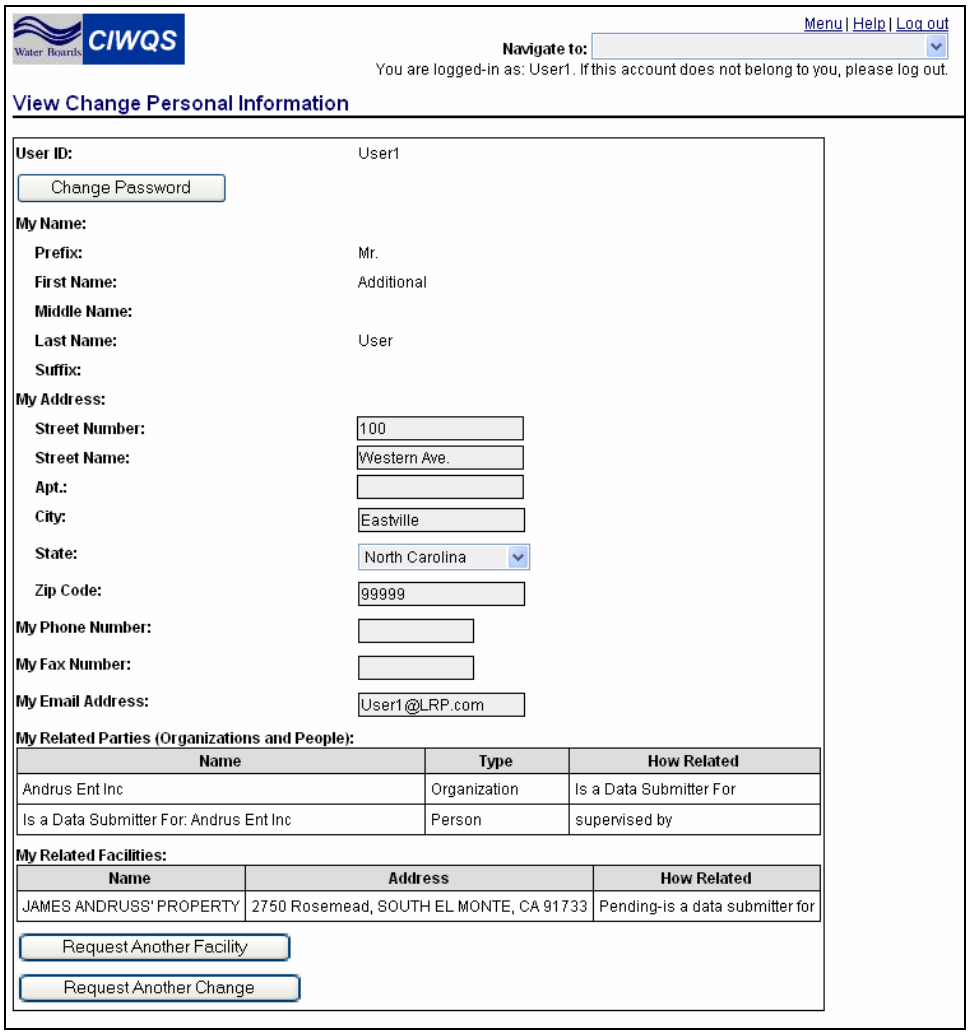


Figure 2.1 View/Change Personal Information Page

2.1.1 Changing Your Password

At the top of the page is your User ID. Directly below this is the "Change Password" button. Clicking this button takes you to the *Change User Password* page (Figure 2.2).

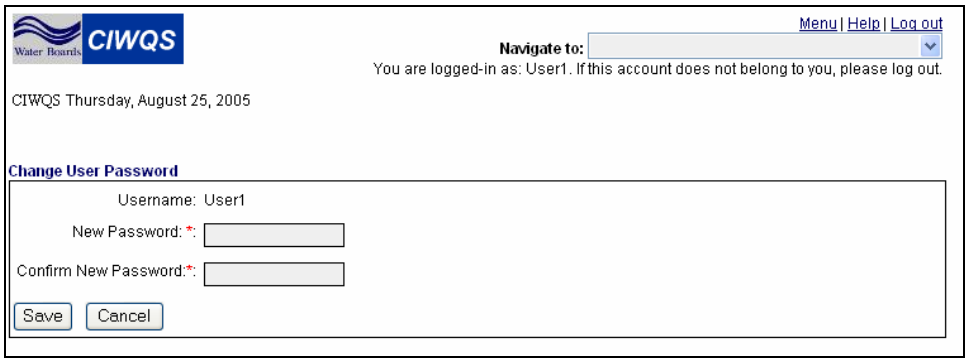


Figure 2.2 Change User Password Page

To change your password, type a new password into the *New Password* field and verify your new password by retyping it into the *Confirm New Password* field.

Click "Save" to save this information and return to the *View/Change My Personal Information* page. Click the "Cancel" button to return to the *View/Change My Personal Information* page without changing your password.

2.2 Related Facilities and Parties

The *View/Change My Personal Information* page also shows the Parties (Organizations and People) and Places (Facilities) to which you are related. This information is displayed in the tables at the bottom of the page.

The table entitled "My Related Parties (Organizations and People)" lists the name, type and your relationship with ("How Related") each Organization or Person to whom you are related.

The table entitled "My Related Facilities" lists the facilities for which you may submit data.

The *How Related* field indicates your relationship with the Party or Place.

2.2.1 How to Add a Related Facility

To request a related Facility, click the "Request Another Facility" button at the bottom of the page. You will be taken to the *Request Another Facility* search page (Figure 2.3).

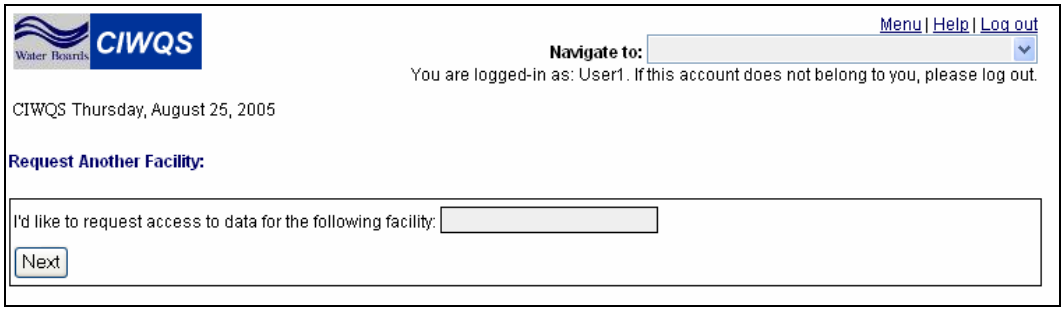


Figure 2.3 Request Another Facility Search Page

Type in the name (or part of the name) of the Facility you wish to add and click the "Next" button. The search field is not case-sensitive.

If the Facility name you entered matches one or more Facilities registered in CIWQS, you will be prompted to select the correct Facility on the *Request Related Facility* page (Figure 2.4).

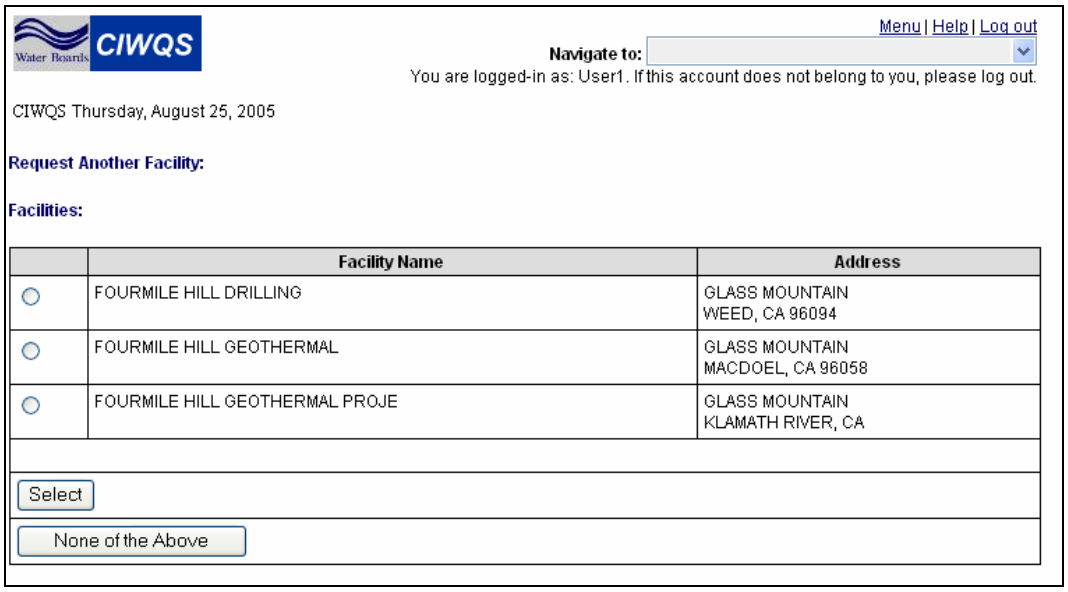


Figure 2.4 Request Related Facility Page

Be sure to check the spelling of the Facility you wish to add. If you have difficulty finding the appropriate Facility, use a less-specific keyword search or check with your Water Board to make sure that the Facility is registered.

If the Facility you wish to add appears in the list, select the radio button next to the correct Facility and click the "Select" button. Your request is sent to the System Administrator, and you are returned to the *View/Change Personal Information* page. The Facility you requested appears in the table with the word "Pending" in the *How Related* field, along with a suggested relationship (Figure 2.5). A System Administrator notifies you when the Facility has been associated with your record.

My Related Facilities:

Name	Address	How Related
3M AUTO WRECKERS	1726 SMITH, SAN JOSE, CA 95112	is onsite manager for
FOURMILE HILL DRILLING	GLASS MOUNTAIN, WEED, CA 96094	Pending-is onsite manager for

Figure 2.5 My Related Facilities Table Showing Pending Relationship

If the Facility you wish to add does not appear in the list, or if no Facilities matched your search, you can click the "Back" button of your Web browser to return to the *Request Another Facility* page and type in another Facility name.

If you select "None of the Above" you will be asked to check for the correct spelling of the Facility and directed back to the Main Menu (Figure 2.6).

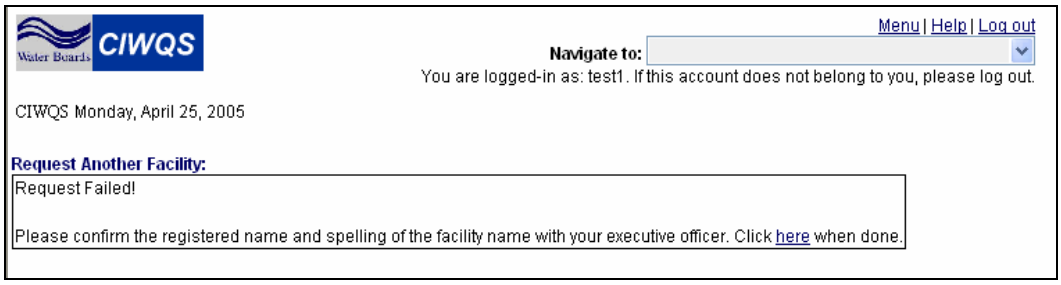


Figure 2.6 Request Another Facility: Request Failed

2.2.2 Requesting Additional Changes

All other changes to your personal profile, such as the following, must be made by a System Administrator.

- Requesting the addition of a Related Party
- Changing your User ID
- Changing your relationship to or with a related Facility or Party

You can request a change by sending an e-mail message to your System Administrator. Clicking the "Request Additional Change" button will launch your default e-mail program and create a new message addressed to the System Administrator. Be sure to add an appropriate subject line to your message.

A CIWQS System Administrator reads and reviews your e-mail message requesting a change. Your requested changes will be made or the Administrator will contact you with additional questions regarding your e-mail message.

The CIWQS Administrator notifies you once the changes have been made.

CIWQS Dischargers User's Guide

Part 2

Self Monitoring Reports

3 eSMR Module
4 Uploading Data to CIWQS
5 Reports Module

3
eSMR Module

This chapter addresses the following topics:

- Introduction to eSMRs
- How to find and select a Report
- The Report Builder tabs
- Submitting an eSMR

3.1 Introduction

The *Submit/Review a Self-Monitoring Report (eSMR)* Module provides a vehicle for submitting periodic eSMRs, as specified by Regulatory Measures (e.g., Orders). All Dischargers are allowed to create and edit eSMRs for Facilities for which they are registered. A higher level of access is required for certification and submission (i.e., Legally Responsible People).

This module can be accessed through the CIWQS Main Menu or by using the Navigation drop-down menu found at the top of each page.

3.2 Selecting a Self Monitoring Report

Before data can be entered for a given report, the relevant Facility (if you are authorized to submit data for more than one Facility), Order and Report must be selected. Selecting the *Submit/Review a Self-Monitoring Report (SMR)* Module from the Main Menu brings you to the *Select Facility* page (Figure 3.1), if you are affiliated with multiple Facilities, or the *Select Order* page (Figure 3.2), if you are affiliated with only one Facility.

3.2.1 Select Facility Page

For Users who are affiliated with multiple Facilities, selecting the Facility (a Place with "Facility" as its type) for which the Report will be submitted

is the first step in submitting an eSMR. Select the *Submit/Review a Self Monitoring Report (SMR)* Module from the CIWQS Main Menu to view the *Select Facility* page (Figure 3.1). The table on the *Select Facility* page displays the Facilities with which you are associated. Table 3.1 describes the table columns.

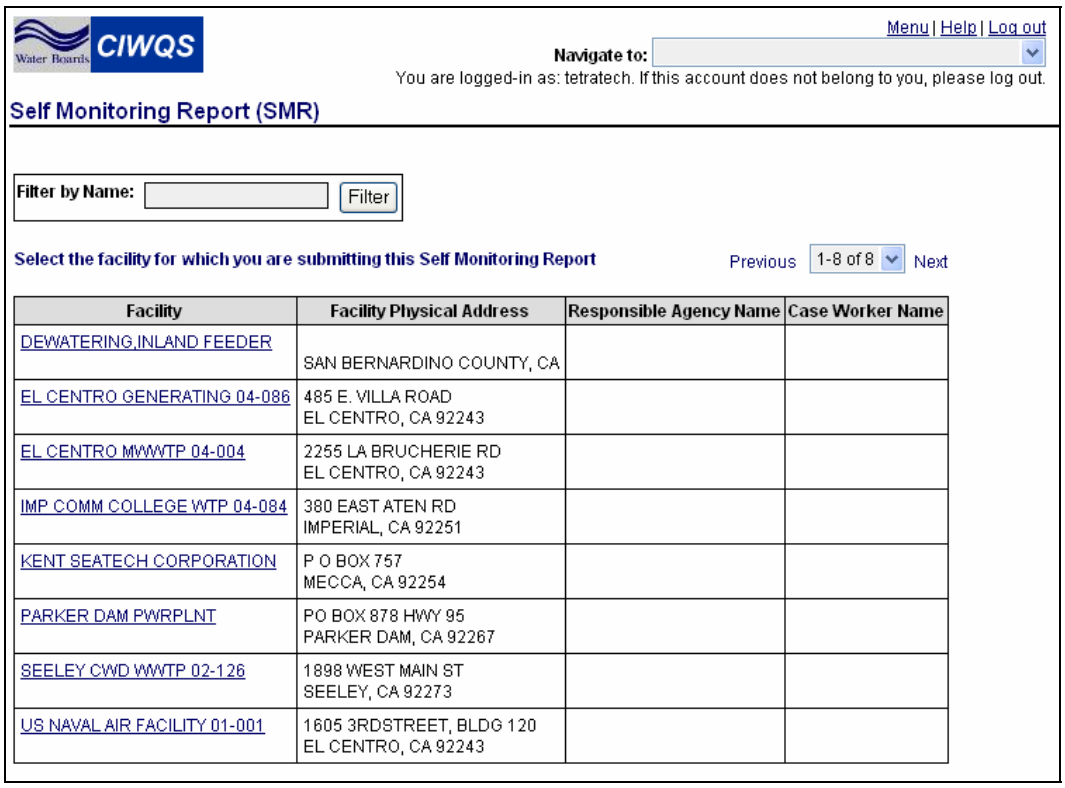


Figure 3.1 Select Facility Page

Table 3.1 Fields on the Select Facility Page

Field Name	*Description*
Facility	Identifies the name of the Facility. Clicking on the Facility hyperlink brings you to the *Select Order* page for the selected Facility.
Facility Physical Address	Indicates the physical address of the Facility, if one is available.
Responsible Agency Name	If a Facility has an associated Party with the role/relationship of "agency", the name of the Agency is displayed here. Nothing is shown if more than one Party has the role/relationship of "agency".
Case Worker Name	Shows the name of the Water Board Staff member assigned as the primary contact/case worker for this Facility if one has been designated. Nothing is shown if more than one staff member is assigned as a case worker.

If you would like to filter the list of Facilities displayed in the table, enter all or part of the appropriate Facility name in the *Filter by Name* field at the top of the page and click the "Filter" button.

Click the Facility name hyperlink to open the *Select Order* page for that Facility and view all Orders related to the Facility (Figure 3.2).

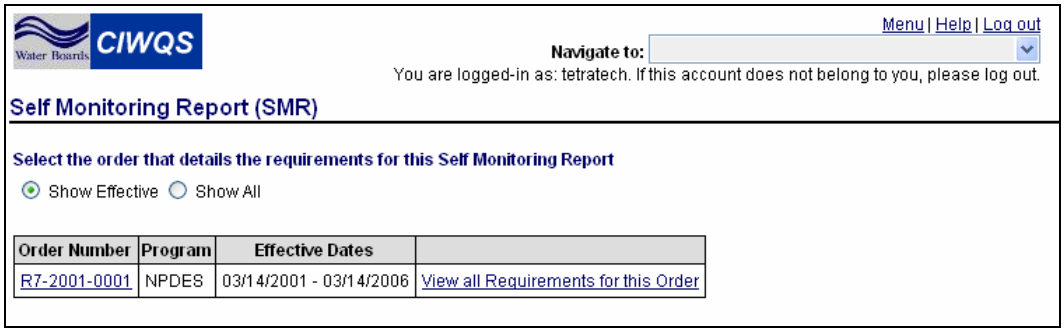


Figure 3.2 Select Order Page

3.2.2 Select Order Page

The table on the *Select Order* page shows all Orders related to the selected Facility. The radio buttons above the table allow you to view all Orders (by selecting the "Show All" radio button) or only those Orders that are effective (by selecting the "Show Effective" radio button). Table 3.2 lists the Order table fields and describes each.

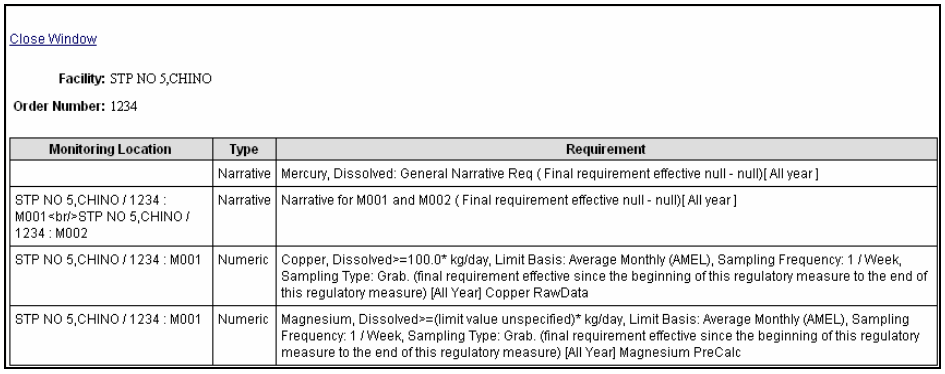
Table 3.2 Fields on the Select Order Page

Field Name	*Description*
Order Number	This field indicates the number of the Order. Clicking on the Order number brings you to the *Report Selection* page.
Program	This field indicates the regulatory program related to the Order. If there are multiple associated programs, they are all shown.
Effective Dates	This field indicates the dates for which the Order is in effect (start and end dates).
View All Requirements for this Order	This field provides a link to the *View All Requirements* page. See description below.

View All Requirements Window

The "View All Requirements for this Order" hyperlink opens the *View All Requirements* page in a new window. This page shows a listing, across all Reports (monthly, quarterly, semi-annual, annual), of all narrative, limit/monitoring, and reporting Requirements for the Order (Figure 3.3).

The Requirements table indicates the Monitoring Location, type and details of the Requirement and is sorted first by Monitoring Location and then by Requirement type. Any Requirement that is associated with multiple Monitoring Locations will be listed once for each Monitoring Location.



Close Window

Facility: STP NO 5,CHINO

Order Number: 1234

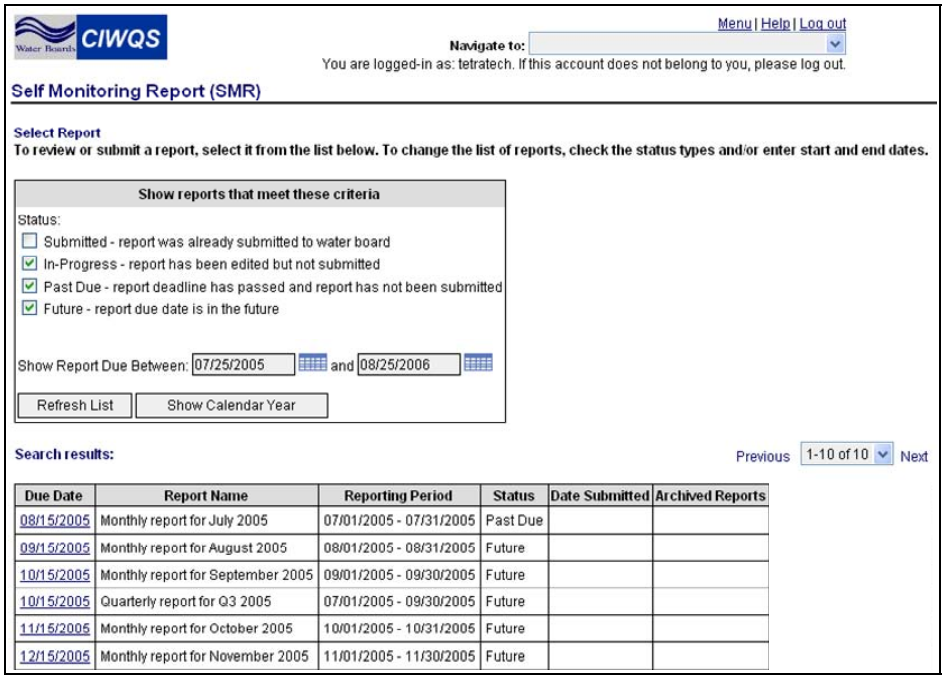
Monitoring Location	Type	Requirement
	Narrative	Mercury, Dissolved: General Narrative Req (Final requirement effective null - null)[All year]
STP NO 5,CHINO / 1234 : M001 STP NO 5,CHINO / 1234 : M002	Narrative	Narrative for M001 and M002 (Final requirement effective null - null)[All year]
STP NO 5,CHINO / 1234 : M001	Numeric	Copper, Dissolved>=100.0* kg/day, Limit Basis: Average Monthly (AMEL), Sampling Frequency: 1 / Week, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year] Copper RawData
STP NO 5,CHINO / 1234 : M001	Numeric	Magnesium, Dissolved>=(limit value unspecified)* kg/day, Limit Basis: Average Monthly (AMEL), Sampling Frequency: 1 / Week, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year] Magnesium PreCalc

Figure 3.3 View All Requirements Page

Click the "Close Window" hyperlink to close the window.

3.2.3 Select Reports Page

Selecting an Order Number from the table on the *Select Order* page (by clicking on the Order number hyperlink) will bring you to the *Select Reports* page (Figure 3.4). This page lists all Reports assigned to this Order and shows the status for each Report.



CIWQS

Menu | Help | Log out

Navigate to:

You are logged-in as: tetratech. If this account does not belong to you, please log out.

Self Monitoring Report (SMR)

Select Report

To review or submit a report, select it from the list below. To change the list of reports, check the status types and/or enter start and end dates.

Show reports that meet these criteria

Status:

- ☐ Submitted - report was already submitted to water board
- ☑ In-Progress - report has been edited but not submitted
- ☑ Past Due - report deadline has passed and report has not been submitted
- ☑ Future - report due date is in the future

Show Report Due Between: 07/25/2005 and 08/25/2006

Refresh List | Show Calendar Year

Search results: Previous 1-10 of 10 Next

Due Date	Report Name	Reporting Period	Status	Date Submitted	Archived Reports
08/15/2005	Monthly report for July 2005	07/01/2005 - 07/31/2005	Past Due		
09/15/2005	Monthly report for August 2005	08/01/2005 - 08/31/2005	Future		
10/15/2005	Monthly report for September 2005	09/01/2005 - 09/30/2005	Future		
10/15/2005	Quarterly report for Q3 2005	07/01/2005 - 09/30/2005	Future		
11/15/2005	Monthly report for October 2005	10/01/2005 - 10/31/2005	Future		
12/15/2005	Monthly report for November 2005	11/01/2005 - 11/30/2005	Future		

Figure 3.4 Select Reports Page

Filtering Reports

The Reports available for the selected Order can be filtered using the fields at the top of the page. Reports can be filtered based on their status (Submitted, In-Progress, Past Due, or Future) or by their due dates.

Click the "Refresh List" button to refresh the table and view only those Reports that match the search criteria. Click the "Show Calendar Year" button to show only those Reports with due dates within the current calendar year.

Reports are first sorted by status (In Progress, Past Due, Due, Submitted) and then chronologically by due date.

Table 3.3 lists the fields shown in the Reports table and provides a description of each.

Table 3.3 Reports Table Fields and Descriptions

Field Name	*Description*
Due Date	Shows the due date for the report in MM/DD/YYYY format. Clicking on this link opens the Report Builder for the selected Report. Submitted Reports are opened in read-only mode.
Report Name	Displays the name of the Report using the format: report type + reporting frequency (if repeating) + specific month or date (e.g., "monthly monitoring for January, 2004" or "Compliance Report for March 15, 2005").
Reporting Period	Shows the reporting period for the Report in MM/DD/YYYY-MM/DD/YYYY format.
Status	Displays the status of the Report.
Date Submitted	For Submitted Reports, the Submitted date is displayed.
Archived Reports	Provides a link to PDF files of Submitted Reports.

You will have access to Reports that are Past Due, In-Progress or due in the Future. If a Discharger started the In Progress report, the report can be opened and edited by any authorized User from that Discharger.

A Water Board User cannot open an In-Progress Report that has been initiated by a Discharger until it has been submitted.

Report status types are described in Table 3.4.

Table 3.4 Report Status and Accessibility

Report Status	*Description*
Past Due	The due date is prior to today
Future	The due date is today or later
In Progress	The report has been started, but not submitted (report status defaults to "In Progress" when it is first opened)
Submitted	The report has been submitted and has been locked against further updates

Submitted Reports

All information from Reports that have been submitted (see section 3.3.10 below) is saved in a PDF file. Click the "Download Report" hyperlink in the *Archived Reports* field to open a window containing a PDF version of the Report.

Withdrawing a Report

If you wish to withdraw a Report that has already been submitted, contact your Regional Water Board Case Manager. Once the Report is withdrawn, its status reverts to Past Due or Future (depending on the due date) and can be edited by authorized Users.

When a Report is withdrawn, the saved PDF file containing information from that Report is deleted. A new PDF file is created when the Report is resubmitted.

If you wish to save a copy of the report prior to withdrawal, the PDF version should be printed or saved to another location.

All data, such as violations (potential and confirmed), enforcement actions, penalties, etc. will remain in the system when a Report is withdrawn. These items must be manually rescinded.

Editing Reports

Reports with a status of "Future" and those that have been initiated by someone at your Facility (these Reports will have an "In-Progress" status) can be opened for editing in the Report Builder.

Once you start editing a Report, its status is changed to "In Progress" and can only be opened by another Discharger User from the Facility.

Click the hyperlink in the *Due Date* field to open the Report in the Report Builder for editing and submission. You are prompted to verify that you wish to begin editing the selected Report. Click "OK" to begin editing the report and enter the Report Builder. Click "Cancel" to return to the *Select Reports* page.

3.3 Report Builder

The *Report Builder* page allows you to enter data for and submit electronic Self-Monitoring Reports. This page can be accessed by selecting a Report from the *Select Reports* page. There are 10 tabs on the Report Builder page, and each tab captures related sets of information about a Report.

View Report Requirements Tab Displays a read-only Report showing all Requirements for the selected Report (both narrative and numeric). This is the default tab when the report is first opened.

No Discharge Tab Allows you to indicate that one or more Monitoring Locations had no discharge during the reporting period and therefore require no results.

Narrative Tab Allows entry of results for requirements defined as "Narrative" in your Order/Permit.

Pre-Calculated Tab Allows for the entry of results for requirements defined as "Pre-Calculated" in the Order/Permit. Pre-Calculated limits include those which are non-standard (i.e., rolling averages and geometric means).

EDF/CDF Tab Allows for the uploading of data in electronic format.

Raw Data Tab Allows for the manual entry of raw data.

Data Summary Tab Contains a summary of all the raw data that you have submitted both manually and/or through file uploads. This tab does not summarize information that was entered into the No Discharge, Narrative, or Pre-Calculated tabs.

File Attachments Tab Allows for the attachment of any file (e.g., digital photo, text document, PDF, diagram, QA/QC from your lab, etc.) to a submission.

Error Check Tab Runs several checks to determine potential compliance issues and other submission errors.

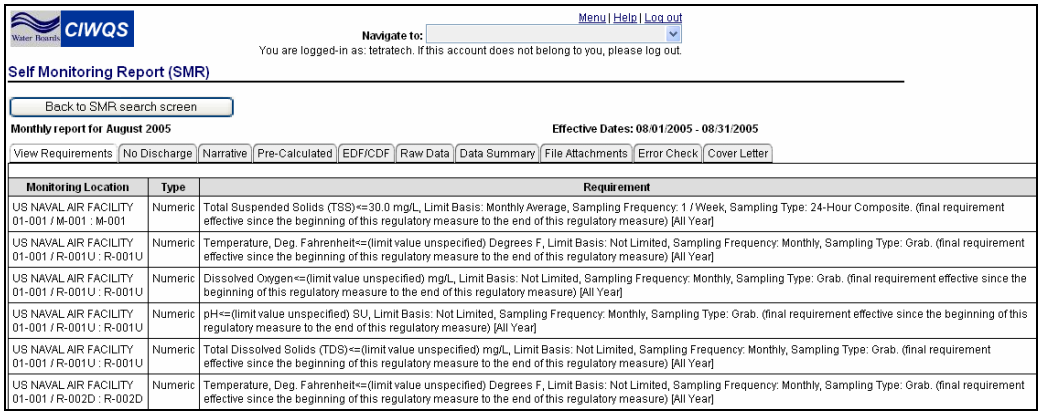
Cover Letter Tab Allows you to create a cover letter for this submission.

Click the "Back to SMR Search Screen" button at any time to return to the *Select Reports* page.

A description of the Report and its effective dates appears below the "Back to SMR Search Screen" button.

3.3.1 View Requirements Tab

The View Requirements tab is the first tab you see when you open the Report Builder. This tab shows a complete list of both Narrative and Numeric Requirements for a specific (i.e., monthly, quarterly, semi-annual, annual) Report (Figure 3.5).



Monitoring Location	Type	Requirement
US NAVAL AIR FACILITY 01-001 / M-001 : M-001	Numeric	Total Suspended Solids (TSS)<=30.0 mg/L, Limit Basis: Monthly Average, Sampling Frequency: 1 / Week, Sampling Type: 24-Hour Composite. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]
US NAVAL AIR FACILITY 01-001 / R-001U : R-001U	Numeric	Temperature, Deg. Fahrenheit<=(limit value unspecified) Degrees F, Limit Basis: Not Limited, Sampling Frequency: Monthly, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]
US NAVAL AIR FACILITY 01-001 / R-001U : R-001U	Numeric	Dissolved Oxygen<=(limit value unspecified) mg/L, Limit Basis: Not Limited, Sampling Frequency: Monthly, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]
US NAVAL AIR FACILITY 01-001 / R-001U : R-001U	Numeric	pH<=(limit value unspecified) SU, Limit Basis: Not Limited, Sampling Frequency: Monthly, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]
US NAVAL AIR FACILITY 01-001 / R-001U : R-001U	Numeric	Total Dissolved Solids (TDS)<=(limit value unspecified) mg/L, Limit Basis: Not Limited, Sampling Frequency: Monthly, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]
US NAVAL AIR FACILITY 01-001 / R-002D : R-002D	Numeric	Temperature, Deg. Fahrenheit<=(limit value unspecified) Degrees F, Limit Basis: Not Limited, Sampling Frequency: Monthly, Sampling Type: Grab. (final requirement effective since the beginning of this regulatory measure to the end of this regulatory measure) [All Year]

Figure 3.5 View Report Requirements Tab

All Requirements displayed here duplicate the Requirements listed as part of the Permit/Order from which they originate. This tab is read-only. No data entry happens on this tab.

An Closer Look at Requirement Types

There are three basic types of Requirements:

- Narrative;
- Numeric/limits (including monitoring); and
- Reporting.

Narrative Requirements are text-based and cannot be automatically evaluated for compliance by the system. Most Narrative Requirements are created for the entire Regulatory Measure or Facility. In some cases, however, a Narrative Requirement may be written for a specific Monitoring Location.

Limit and Monitoring Requirements are closely related and so can be entered on a single form. These Requirements require the creation of Numeric Requirements, which define various limits. Limit/Monitoring Requirements are typically associated with a specific Monitoring Location.

Reporting Requirements are used by the system to determine what reports are due.

3.3.2 No Discharge Tab

The No Discharge tab allows you to note that certain locations had no discharge during the reporting period and, therefore, compliance with items in the Order may not be required (Figure 3.6).

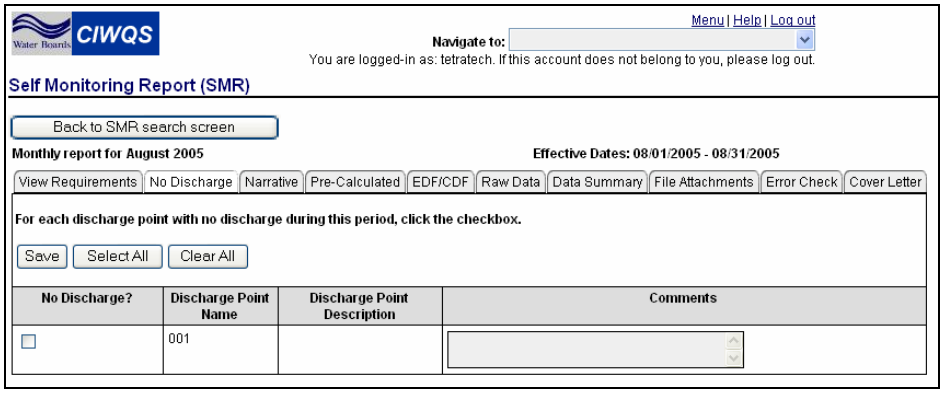


Figure 3.6 No Discharge Tab

The table shown lists the name and description of all Discharge Points associated with the Report.

Selecting the box in the *No Discharge?* field indicates that there was no discharge for the indicated Discharge Point for the **entire** period. Comments should be added in the *Comments* field to explain the No Discharge selection.

If all Discharge Points associated with a Monitoring Location are marked as "No Discharge" in a report, this means that the Requirements associated with that Monitoring Location are not applicable.

If a Monitoring Location has multiple associated Discharge Points and at least one of those Discharge Points had discharge during the reporting period, the requirements for that Monitoring Location are still applicable.

Partial-Period No Discharge

Discharge points that only had a discharge for part of a reporting period (called a "partial-period no discharge") are not indicated on this form. In cases where there was no discharge for part of a reporting period, results data must still be provided on the Narrative, Pre-Calculated, Raw Data and EDF/CDF tabs (as described in the sections below).

Additional information should be attached to the eSMR (via the File Attachments tab) to indicate a partial-period no discharge.

Click the "Select All" button to mark all associated Discharge Points as "No Discharge". Click the "Clear All" button to de-select all of the Discharge Points.

Click the "Save" button to save the Report with the indicated "No Discharge" Points.

When you have entered or updated new information in the No Discharge tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

3.3.3 Narrative Tab

The Narrative tab (Figure 3.7) allows you to respond to Narrative Requirements. These can apply to either a specific Monitoring Location or to the entire Facility (i.e., "General" Requirements).

Some Numeric Requirements in your paper-based Permit/Order are too complicated for CIWQS to calculate and will be listed here.

To begin entering information for Narrative Requirements, first select a Monitoring Location from the drop-down menu at the top of the tab (sorted alphabetically by identifier) and click the "Refresh" button. This will refresh the table to show only those Narrative Requirements associated with the selected Monitoring Location. Alternatively, select "General" from the list to view Requirements that are associated with the Facility (and not a specific location).

For maximum flexibility, even those Monitoring Locations indicated, as "No Discharge" will appear.

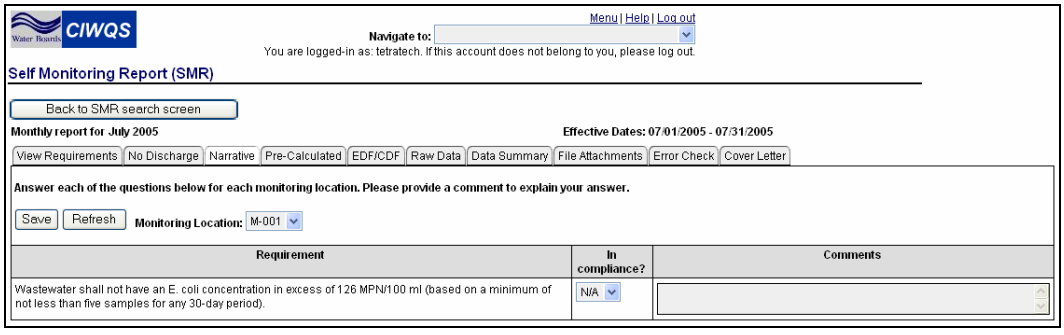


Figure 3.7 Narrative Requirements Tab

For each Requirement listed, select the appropriate value from the *In Compliance?* drop-down menu. There are three possible responses:

- Yes – Requirement was met
- No – Requirement was not met
- N/A – Compliance was not required during this monthly reporting period (e.g., the Requirement states "When total monthly rainfall exceeds 15 inches…" and there has not been at least 15 inches of rainfall during this month).

Each row must have a value selected in the *In Compliance?* field in order to pass the error checks.

The *Comments* field is a free entry text field. This field is required for any Requirement with a "No" or "N/A" value in the *In Compliance?* field and optional if "Yes" is selected. The error check will catch missing data in the *Comments* field.

When you have finished entering data for the Narrative Requirements associated with the selected Monitoring Location (or "General" Requirements), click the "Save" button. You may then make another selection from the *Monitoring Location* drop-down menu to enter values for the Requirements associated with the other Monitoring Locations.

When you have entered or updated new information in the Narrative tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

3.3.4 Pre-Calculated Tab

The Pre-Calculated tab allows you to report data for Numeric Requirements that were marked as "Pre-Calculated". This indicates that CIWQS cannot do the calculation from the raw data (either entered manually or uploaded via EDF or CDF). This tab allows you to enter summary-level data (Figure 3.8)

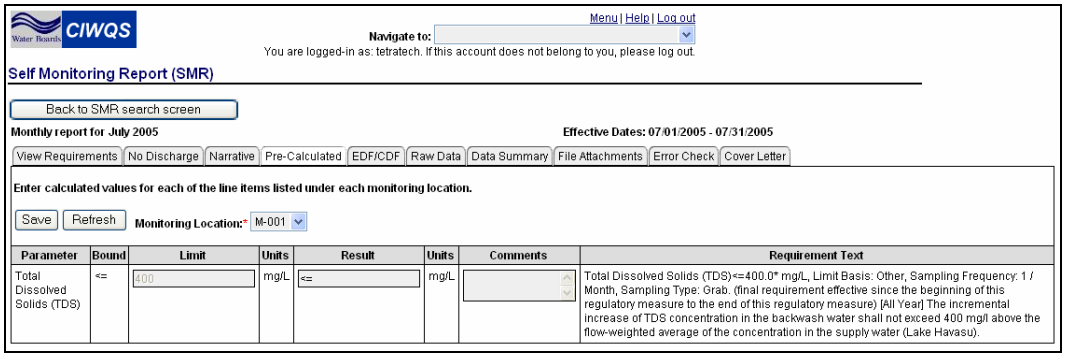


Figure 3.8 Pre-Calculated Tab

To begin entering information for Pre-Calculated Requirements, you must first select a Monitoring Location from the drop-down menu at the top of the tab. Selecting a Monitoring Location will refresh the table to show only those Pre-Calculated Requirements associated with the selected Monitoring Location.

Table 3.5 lists the fields shown in the Pre-Calculated Requirements table and gives a description of each.

Table 3.5 Fields in the Pre-Calculated Requirements Table

Field Name	*Description*
Parameter	Displays the Requirement's parameter, as defined in the Order (e.g., "Arsenic").
Bound	Indicates if this is an upper (<, <=) or lower (>, =>) bound Requirement.
Limit	Enter the calculated numeric limit. Where the system can extract a specific numeric limit from the Requirement, it is displayed here and the field will be Read-Only.
Units	Indicates the units for the limit.
Result	Enter the actual Pre-Calculated result. Data can be entered using "<", ">", and "=" signs (for example, 3, >=3 and >3 are all valid entries for this field. **The result must be in the same units as the limit.**
Units	Indicates the units for the result.
Comments	Enter text related to the Requirement. A comment is required for any Requirement where the limit/bound and result indicate possible non-compliance.
Requirement Text	Displays a description of the Requirement.

Because this is a Monitoring Location-specific data entry page, a list of all Pre-Calculated Requirements across all monitoring Locations is not shown here. These can be viewed on the View Requirements Tab.

When you have finished entering data for the Requirements for the selected Monitoring Location, click the "Save" button. You may then make another selection from the *Monitoring Location* drop-down menu to enter values for the Requirements associated with the other Monitoring Locations.

Clicking the "Refresh" button will update the table if you select a new Monitoring Location from the drop-down menu.

When you have entered or updated new information in the Pre-Calculated Tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

3.3.5 EDF/CDF Tab

The EDF/CDF tab allows you to upload raw data to CIWQS in Electronic Deliverable Format (EDF) or in CIWQS Data Format (CDF) (Figure 3.9). Hyperlinks on the page ("guidelines," "software," and "hints") direct you to Web sites with additional information about the format and the tools that will aid in the transfer of data to CIWQS. This release of CIWQS supports EDF version 1.2i (July 2002).

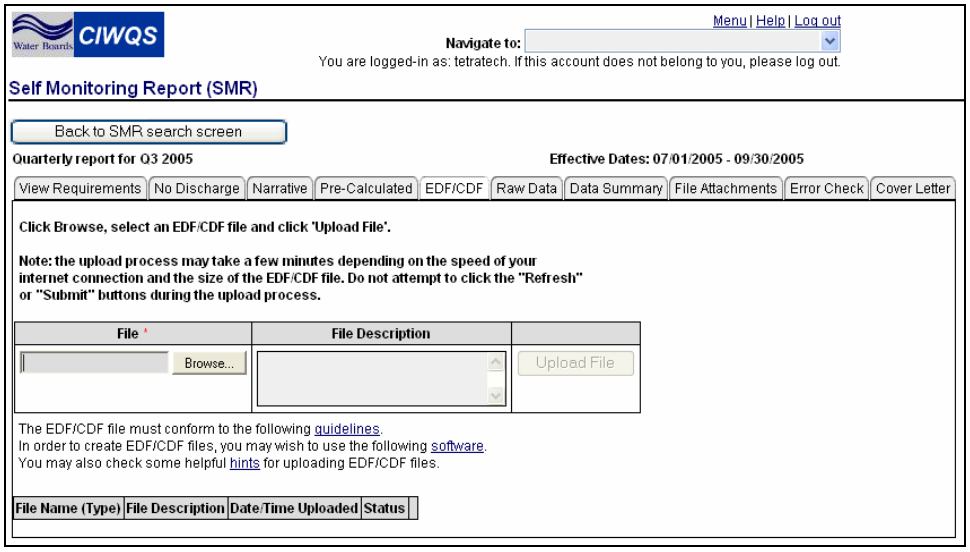


Figure 3.9 EDF/CDF Tab

See Chapter 4 for a closer look at EDF and CDF and how data can be uploaded to CIWQS.

To upload a file, type a file location into the *File* field or click the "Browse" button to view the *Choose File* window (Figure 3.10). Navigate to the file you wish to upload and click the "Open" button to bring it to the EDF/CDF tab. The file location of the selected file will be shown in the *File* field.

You can upload as many files as you wish but each file must be less than 50MB.

Enter a description of the file in the *File Description* field and click the "Upload File" button to upload the selected document.

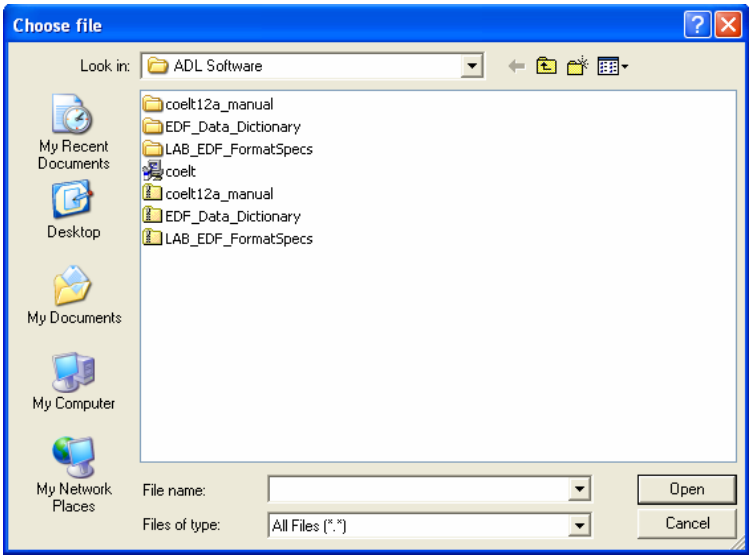


Figure 3.10 Choose File Window

Uploaded documents are displayed in the table. Here, the file name, date/time uploaded, and status of the uploaded files are displayed. The table is sorted by file name.

Uploaded files should be named in a manner that makes it clear what the file contains (e.g. Facility name and report date, lab name) and should end in ".zip". If multiple files are uploaded, each must contain a unique name. Files uploaded to CIWQS should *not* be password encrypted.

The Document Status field displays "OK" if the file passes the CIWQS virus scanner. It displays "Unavailable" if the virus scanner detects that it may contain a virus and the link to the file will be deactivated. Unavailable files cannot be opened from the EDF/CDF tab.

A file can be removed from the table by clicking the "delete" hyperlink at the end of the row (only before the Report is Submitted).

Clicking on the file name downloads the entire file using your browser's standard file download capabilities.

EDF/CDF files can be downloaded and viewed in Microsoft Excel before an eSMR is submitted (to check for data accuracy).

3.3.6 Raw Data Tab

As an alternative to uploading data in EDF/CDF format, you can manually enter raw data in the Raw Data tab (Figure 3.11).

Figure 3.11 Raw Data Tab

Create a Sampling Event

All raw data entries must be associated with a sampling event. A sampling event is a combination of date, time **and** Monitoring Location. Sampling events that have already been created are listed in the drop-down menu at the top of the tab. To create a new sampling event, first select a value from the *Select a sampling event date/time* field or enter date and time information into the available fields and click the "Create New Time with ->" button.

To enter the date and time for "05/17/2005 at 4:32:00" enter:

- "2005" in the YYYY field (for the year)
- "05" in the MM field (for the month)
- "17" in the DD field (for the day)
- "04" in the HH field (for the hour)
- "32" in the MM field (for the minutes)
- "00" in the SS field (for the seconds)

When creating new sampling events, the dates and times entered must fall within the effective dates of the Report.

Once you have selected or created a date and time, select a Monitoring Location from the *Monitoring Location* drop-down menu. Click the "Refresh" button to update the table with the parameters associated with the Monitoring Location for the selected sampling event. You can now enter raw data for that Location.

The table shown for the Monitoring Location will be auto-populated with the set of parameters applicable for the given reporting period. Not all parameters for an Order are reported for every sampling period.

Table 3.6 lists the fields in the parameter table and gives a description of each.

Table 3.6 Parameter Table Fields

Field Name	*Description*
Parameter	A parameter row is automatically displayed for each parameter that is specified in the Order for the selected Monitoring Location that could be sampled during the entered date/time sampling event.
Minimum Sampling Frequency	This field retrieves the sampling frequency required (by the Order) monitoring for the selected Monitoring Location and parameter.
Sample Type	Shows the sample type required for the selected Monitoring Location and parameter (by the Order).
Sample Medium	Displays the sample medium required, as specified in the Requirement in the Regulatory Measure for the selected Monitoring Location and parameter.
Result	Enter the measured result. If the sample measurement was below the detection limit, do not enter a value.
Units	Retrieves the units (as specified in the Order) for the selected Monitoring Location and parameter. **If the sampling was not performed in these units, you must manually convert before entering the data.**
Analytical Method	Select the Analytical Method used from the drop-down menu.
Method Detection Limit (Optional)	Enter the method detection limit in the units specified for the Parameter. **This field is required if "Not Detected" is selected from the *Non-Detect?* field.**
Non-Detect?	If the sample was below the method detection limit, no result is entered in the *Result* field and "Not Detected" is selected from the drop-down menu. The default value is "Quantified".
Minimum Level (not required if "Not Detected" is selected)	Enter the minimum level in the units specified for the Parameter.
Sample Analysis Date (Optional)	Enter the date the sample was analyzed in the format MM/DD/YYYY.
Sample Analysis Time (Optional)	Enter the time the sample was analyzed in the format HH:MM:SS.
Scenario (Optional)	Enter in the appropriate Scenario information. A scenario describes conditions for when a parameter measurement will be in compliance and is used when two requirements apply to the same parameter (or set of parameters) under different conditions. Contact your local Water Board if you have further questions. **The scenario text input via the Raw Data tab must exactly match the scenario text entered for the Order.**

It is your responsibility to ensure that the units used to report the sample are the same as the units specified in the Order. Failure to do so may result in errors (potential non-compliance events) being flagged in the system.

Click the "delete" hyperlink to delete the parameter row from the table. Deleting the row from the table does not remove it from the Order record but indicates that no sample was taken for that parameter during this reporting period.

Click the "duplicate" hyperlink to create a new row that contains the same parameter, sampling frequency, sample type, sample medium, and units. This allows you to enter multiple sampling events for the same parameter when your permit or analytical method requires duplicate or triplicate samples.

When you have finished entering data for the selected Monitoring Location, click the "Save" button. You may then make another selection from the *Sampling Time* and *Monitoring Location* drop-down menus (or create a new Sampling Time) to enter data for the Parameters associated with the other Monitoring Locations.

When you have entered or updated new information in the Raw Data Tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

3.3.7 Data Summary Tab

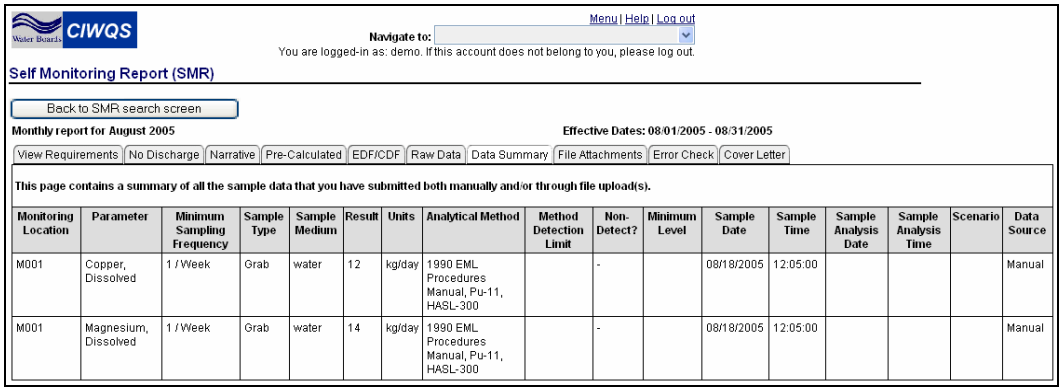
The Data Summary tab allows you to review all sample data that was uploaded (using the EDF/CDF tab) and manually entered (using the Raw Data tab) in one read-only screen (Figure 3.12). No data entry is possible on this page.

The information included on the Data Summary tab does not include information entered on the No Discharge, Narrative, or Pre-Calculated tabs.

The table shows all sampling data that has been reported for this eSMR. There are two key differences in the way raw data is displayed on this page (as opposed to how it is displayed on the Raw Data tab):

1. The *Non-Detect?* field shows "-" for "no" and "ND" for "yes".

2. The *Data Source* field shows "manual" if the Raw Data tab was used for entry. If the data came from an EDF/CDF, this field shows the name of the uploaded file.



Monitoring Location	Parameter	Minimum Sampling Frequency	Sample Type	Sample Medium	Result	Units	Analytical Method	Method Detection Limit	Non-Detect?	Minimum Level	Sample Date	Sample Time	Sample Analysis Date	Sample Analysis Time	Scenario	Data Source
M001	Copper, Dissolved	1 / Week	Grab	water	12	kg/day	1990 EML Procedures Manual, Pu-11, HASL-300		-		08/18/2005	12:05:00				Manual
M001	Magnesium, Dissolved	1 / Week	Grab	water	14	kg/day	1990 EML Procedures Manual, Pu-11, HASL-300		-		08/18/2005	12:05:00				Manual

Figure 3.12 Sample Data Summary Tab

3.3.8 File Attachments Tab

The File Attachments Tab allows you to attach a file (e.g. text document, graphics or photo, spreadsheet, etc.) to the eSMR (Figure 3.13). This tab can be used to add supporting information to the submission.

EDF and CDF files should be uploaded via the EDF/CDF tab, not through the File Attachments tab.

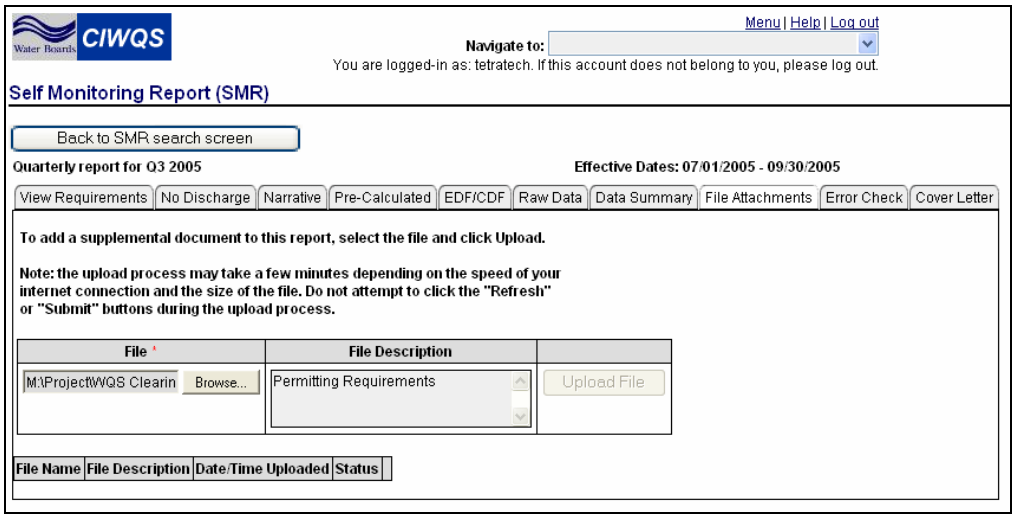


Figure 3.13 File Attachments Tab

You can upload as many files as you wish but each file must be less than 50MB.

To add a file to the record, type a file location into the *File* field or click the "Browse" button to view the *Choose File* window (as in Figure 3.10). Navigate to the field you wish to upload and click the "Open" button to add it to the File Attachments tab. The location of the selected file will be shown in the *File* field. Enter a description of the file in the *File Description* field and click the "Upload File" button to upload the selected file.

The file name, date and time uploaded and status are shown for each uploaded file in the table. The table is sorted by file name.

☞ **A particular file name can be used only once per report.**

The *Document Status* field will display "OK" if the file passes the CIWQS virus scanner. It will display "Unavailable" if the virus scanner detects that it may contain a virus and the link to the file will be inactivated. Unavailable files cannot be opened from the File Attachments tab.

An attachment can be removed by clicking the "delete" hyperlink at the end of each row. Clicking on the file name will download the associated file using your browser's standard download capabilities.

☞ **This table can be viewed for any eSMR until it has been marked as Submitted.**

Editing Data

To make changes to data that has been entered through the No Discharge, Pre-Calculated or Raw Data tabs, go back to the appropriate tab and edit the data. For edits to data that was input using the EDF/CDF tab, you must delete the file from the tab (click the "delete" hyperlink), edit the original file, and then re-upload the file to CIWQS.

3.3.9 Error Check Tab

The Error Check tab provides a way to check data before it is submitted for review. The Error Check tab serves four related functions:

1. Reviewing the data on the Narrative, Pre-Calculated, EDF/CDF, and Raw Data tabs to ensure that required data is not missing and that certain mistakes were not made

2. Running computations on raw data (entered manually or uploaded as EDF or CDF files) to check compliance
3. Flagging narrative and pre-calculated requirements that may not be in compliance
4. Producing a report for review

See Appendix A for additional details on Error Checks.

Data that does not pass the Error Check is flagged as a non-compliance event and is displayed in the table on the Error Check tab (Figure 3.14). Non-compliance events are classified as Narrative, Numeric or Reporting.

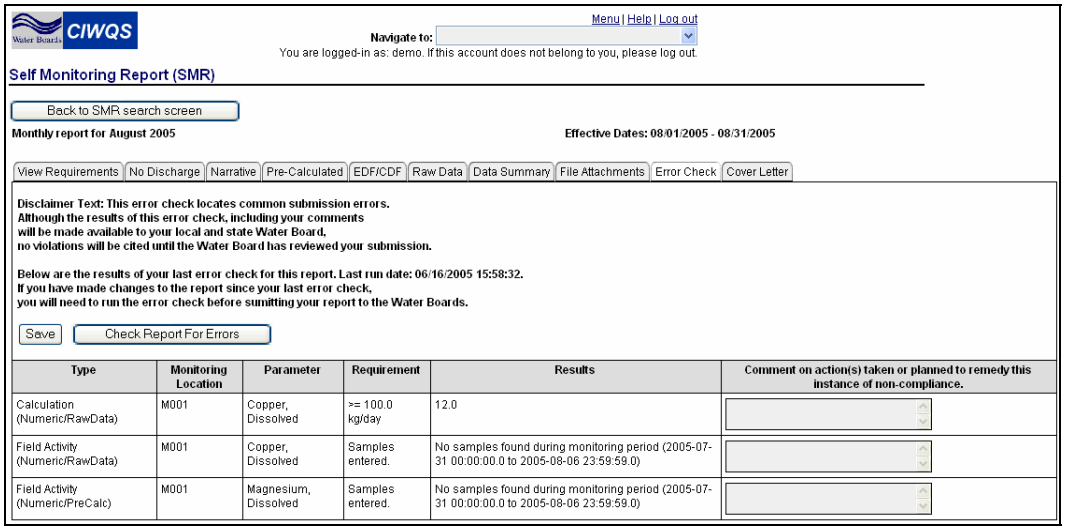


Figure 3.14 Error Check Tab

The Error Check must be run before an eSMR can be submitted.

When the Error Check tab is first viewed, no errors will be reported in the table. To run the Error Check, click the "Check Report for Errors" button. This will initiate the check and populate the Error Report table with any errors encountered.

Running the Error Check will delete any comments entered in the Error Check tab for previous checks.

The date and time of the last error check is displayed above the Error Report table.

Table 3.7 lists the fields in the Error Report table and describes each.

Table 3.7 Fields of the Error Report Table

Field Name	*Description*
Type	Displays the type of error encountered (narrative, numeric or reporting).
Monitoring Location	Shows the Monitoring Location ID where the error occurred.
Parameter	Indicates the Parameter (if any) of the Requirement.
Requirement	Shows the text of the Requirement or a description of the expected results.
Results	Displays the results that caused the error. For narrative requirements, this is the text (comments) entered by the User. For (pre-calculated) limit requirements, this is the value entered by the User. For (system calculated based on raw data) limit requirements, this is the calculated value. For other requirements, this is the applicable value or text.
Comments	Enter information about the error, including reasons, how the error is being remedied, etc.

When you have entered or updated new information in the Error Check tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

3.3.10 Cover Letter Tab

The Cover Letter tab performs two functions: it allows you to add a cover letter to the eSMR submission and provides a gateway to the *Certify and Submit* page where you can formally submit the eSMR, and all of its related data, for review (Figure 3.15).

The Cover Letter

The cover letter is another vehicle for providing additional or supplementary information for an SMR submission. Text can be input directly into the text box shown on the first page of the Cover Letter tab or it can be uploaded as a text file.

To upload a document, type the file name and location into the field next to the large text field or click the "Browse" button to locate the file on your computer.

Figure 3.15 Cover Letter Tab for Legally Responsible Persons. Other Dischargers will not be able to click on the "Certify & Submit" button.

When you have entered or updated new information on this first page of the Cover Letter tab, be sure to click the "Save" button at the top of the tab to avoid loss of data.

Certify and Submit

The Certify and Submit feature of the Cover Letter tab allows you to submit the eSMR to the appropriate Water Board for review. This page functions as an electronic signature for submission of eSMRs.

Before you attempt to submit an eSMR, the following conditions must be met:

1. The Error Check has been run at least once
2. No data has changed since the last time the Error Check was run
3. The date the Error Check was last run is the same as today's date

Only a Legally Responsible Person can submit an eSMR for a facility. Non-authorized users will not be granted access to this page.

To submit the eSMR, click the "Certify & Submit" button, located next to the "Save" button at the top of the Cover Letter tab.

If any of the above conditions are not met, you will receive the error message: "You must check/re-check for errors before certifying and submitting" and access to the Certify and Submit page will be refused.

If you have met all of the conditions, you will be granted access to the Certify and Submit page (Figure 3.16).

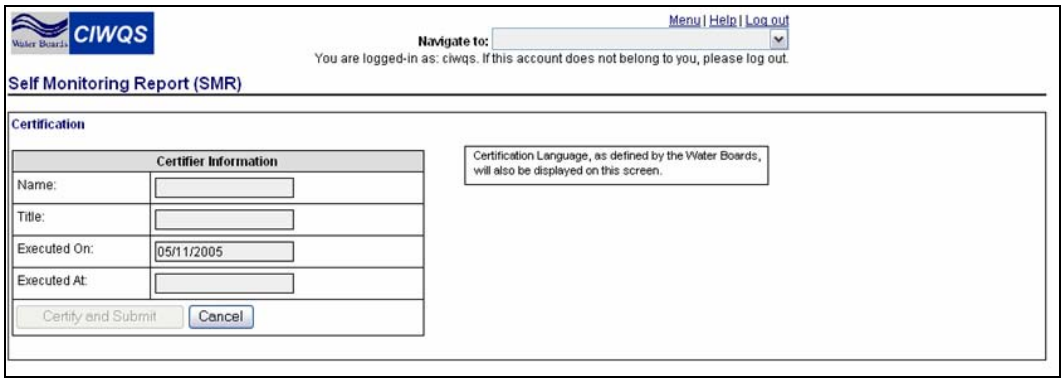


Figure3.16 Certify and Submit Page

You are asked to enter your full legal name (the same you used for registration purposes), title, and the location from which the form is being submitted (*Executed At* field). The *Executed On* field will be pre-populated by the date and time when the user entered the form. The "Certify and Submit" button will not be enabled until all four fields are filled out.

When you have entered data in all four fields, click the "Certify and Submit" button to submit the eSMR. If your submission is successful, you will receive a certification message with a receipt number for the submission (Figure 3.17).

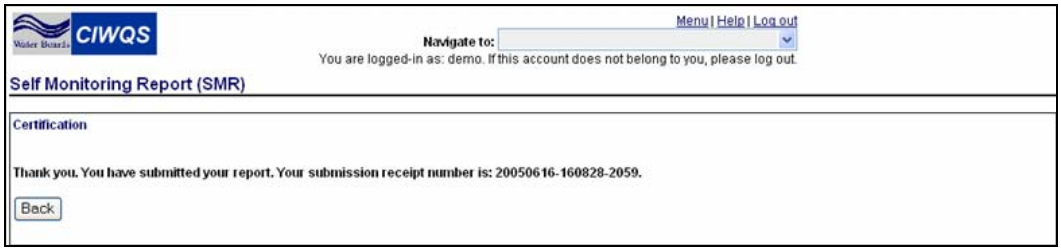


Figure 3.17 Certification Message

3.3.11 Important Information Regarding Data Submission

Once a report is certified and submitted, the system locks the data in the report, generates a PDF version, and makes the data available in read-only mode to both the Discharger and authorized Water Board staff. An e-mail

receipt is sent to the submitting Discharger and Water Board case manager with the following text:

> *This e-mail is to confirm receipt of your <report name, including due date>, in accordance with the requirements of Order <Order Number>. This report was submitted for <facility name> on <date/time> by <name of user certifying>.*
>
> *If you need to contact your local Water Board, your case manager is <case manager's name> (<phone number>).*

4
Uploading Data to CIWQS

This chapter addresses the following topics:

- Data formats
- Requirements for uploading data
- Data mapping

4.1 Introduction

Raw sample data for Self-Monitoring Reports can be uploaded to CIWQS using the Electronic Deliverable Format (EDF) or CIWQS Data Format (CDF). EDF is a data standard for transferring electronic data files between data producers (e.g., labs and Facilities) and data users (Water Boards). CDF was developed to complement EDF and provide a more targeted data standard for eSMR submissions.

4.1.1 EDF Support

This release of CIWQS will support EDF version 1.2i (July 2002). Additional information about the EDF can be found in "The Electronic Deliverable Format (EDF) version 1.2i Format Specifications" document prepared by ArsenaultLegg, Inc. (http://www.arsenaultlegg.com/), which is available in PDF format at http://www.swrcb.ca.gov/cwphome/ust/cleanup/electronic_reporting/docs/edf_gr_v1_2i.pdf.

CIWQS supports both EDF formats:

- The relational format (eight files: error report, flat file, sample, quality control, test, results, narrative, and control limits)
- The flat file format (two files: control limits and flat file)

4.1.2 CDF Support

This release of CIWQS will support the CIWQS Data Format (CDF) generated by the CDF Tool spreadsheet version 0.5 or above. The CDF format is a valid EDF flat file format archive which contains two files: extra information file and flat file.

4.2 Uploading Data to CIWQS using EDF

This release of CIWQS will focus on importing only those fields necessary to match the data required by the raw data page. Additional data will not be imported into database fields. Note, however, that the original EDF file will be stored as a binary large object in the database; therefore, all data in the submission can be viewed. Since the CIWQS database expands to include additional fields, these EDF files may be re-imported.

4.2.1 File Preparation

Prior to submission, the following tools may be used to prepare and validate an EDF submission:

- COELT (U.S. Army Corps of Engineers Loading Tools): A software tool designed for data entry, data export, data verification, and data reporting. Analytical laboratories use this tool to generate EDF deliverables.
- EDCC (Electronic Deliverable Consistency Checker): A software tool designed to verify lab EDF deliverables for compliance to the EDF format.

Links to these tools can be found on the SWRCB website at http://www.swrcb.ca.gov/cwphome/ust/cleanup/electronic_reporting/edf_reports.htm.

Although CIWQS performs a specific set of verifications, it does not perform all of the checks found in EDCC. The use of this program by submitters is highly recommended!

4.2.2 File Considerations

EDF files must be compressed in ZIP format. Tools such as PKZip, WinZip, and Windows XP's compressed folders all use the zip format.

Compressing the various files into a single ZIP file ensures that the different files that comprise a submission do not become separated.

The ZIP file should contain:

- EDCC.TXT: An EDCC error report in test format. This file is not used by CIWQS, but will be stored for possible review. *Relational or Flat File*
- EDFNAR.TXT: Any narrative text. *Relational only*
- EDFSAMP.TXT: Sample data. *Relational only*
- EDFTEST.TXT: Test data. *Relational only*
- EDFRES.TXT: Results data. *Relational only*
- EDFQC.TXT: Quality Control data. *Relational only*
- EDFCL.TXT: Control Limits data. *Relational or Flat File*
- EDFFLAT.TXT: Flat File. *Flat File only*

Uploaded EDF files should be named in a manner that makes it clear what the file contains (e.g., facility name and report date, and lab name) and should end in ".zip". If multiple EDF files are uploaded, each must contain a unique name. EDF files uploaded to CIWQS should *not* be password encrypted.

EDF files must not contain errors to upload successfully. Errors in the EDF files will result in the generation of an error message within CIWQS. In some cases, an error may prevent a downstream error from being discovered.

The following file requirements must be followed in order to have a valid EDF file format recognized by CIWQS:

- An EDF may be submitted as an ASCII fixed length **.TXT file, as a comma separated value (CSV) delimited ASCII**.TXT file (also known as "comma/quote delimited"), or as a tab separated value delimited ASCII *.TXT file.
- The column heading or field name is not required in an ASCII file. This information is not part of the file and should be omitted. Only authorized codes from the valid value list should be keyed into fields requiring valid values.
- Every record within a file must be unique. If, for each key field, a record's data appears exactly the same in another record, these two records are considered to be duplicate records.

4.2.3 Code Value Mapping

Several files are entered as codes in the EDF format, CIWQS, or both. Any value that is a code in CIWQS will have a cross-map to the possible EDF values/codes. If a value is reported in an EDF that does not have a mapped value in CIWQS, the submission is rejected. Contact the CIWQS Help Center to add a code.

Table 4.1 shows how data is mapped to the CIWQS data fields.

Table 4.1 EDF Data Mapping

CIWQS Field	*Relational File*	*Field (EDFFLAT for Flat File)*
Report ID	*The upload is related to the report by CIWQS when the EDF file is uploaded.*	
Monitoring Location	Sample	FIELD_PT_NAME
Sample Collection Date	Sample	LOGDATE
Sample Collection Time	Sample	LOGTIME
Parameter	Results	PARLABEL (only PVCCODE=primary)
Minimum Sampling Frequency	*Pulled from the Regulatory Measure related to this Report. This is the sampling frequency for the matching Monitoring Location and Parameter.*	
Sample Type	*Pulled from the Regulatory Measure related to this Report. This is the sample type for the matching Monitoring Location and Parameter.*	
Sample Medium	Sample	MATRIX
Units	Results	UNITS
Result	Results	PARVAL (only PARVQ=equals; see "non-detect")
Method Detection Limit	Results	LABDL
Minimum Level	Results	REPDL
Analytical Method	Results	ANMCODE
Sample Analysis Date	Results	ANADATE
Sample Analysis Time	*This information is not available from an EDF submission and will be left blank.*	
Scenario ID	Sample	USER_ADMIN_ID
Parameter Concentration	Test	BASIS
Analytical Results Qualifier	Results	PARVQ

4.3 Uploading Data to CIWQS using CDF

The CIWQS Data Format (CDF) is a Microsoft Excel-based file that allows you to configure your data into a format that CIWQS will understand and interpret correctly. The CDF file is based on the EDF format: it uses the EDF fields to transfer CDF data.

Although a CDF file includes the EDF fields, not all EDF-required fields will be populated.

The CDF spreadsheet requires a Microsoft Excel version capable of running VisualBasic for Application (VBA) code (Excel 2000 or later).

Additional information about CDF and the CDF installer are available at http://www.swrcb.ca.gov/ciwqs/sessions.html (Figure 4.1).

Figure 4.1 Links for CIWQS Data Format

4.3.1 File Preparation

The CIWQS Data Format tool should be used to prepare a CDF submission. This tool generates a valid CDF flat file format from an Excel-based spreadsheet.

For a CDF submission, please use the CDF Tool spreadsheet version 0.5 or higher!

4.3.2 File Considerations

CDF files must be compressed in ZIP format. Tools such as PKZip, WinZip, and Windows XP's compressed folders all use the zip format.

The CDF tool automatically generates this archive. Compressing the various files into a single ZIP file ensures that the different files that comprise a submission do not become separated.

The ZIP file should contain:

- CDFINFO.TXT (Information file)
- CDF.CSV (Flat file)

Uploaded CDF files should be named in a manner that makes it clear what the file contains (e.g., facility name and report date, and lab name) and should end in ".zip". If multiple EDF files are uploaded, each must contain a unique name. EDF files uploaded to CIWQS should *not* be password encrypted.

The following file requirements must be followed in order to have a valid CDF file format recognized by CIWQS:

- The CDF file may be submitted only as a CSV (comma/quote delimited) generated by the CDF tool spreadsheet.
- The column heading or field name is not required in a CSV file. This information is not part of the file and should be omitted. Only authorized codes from the valid value list should be keyed into fields requiring valid values.
- Every record within a file must be unique. If, for each key field, a record's data appears exactly the same in another record, these two records are considered to be duplicate records.

CDF files must not contain errors to upload successfully. Errors in the CDF files will result in the generation of an error message within CIWQS. In some cases, an error may prevent a downstream error from being discovered.

4.3.3 Code Value Mapping

Several files are entered as codes in the CDF format, CIWQS, or both. Any value that is a code in CIWQS will have a cross-map to the possible CDF values/codes. If a value is reported in a CDF that does not have a mapped value in CIWQS, the submission is rejected. Contact the CIWQS Help Center to add another code.

Table 4.2 shows how data is mapped to the CIWQS data fields.

Table 4.2 CDF Data Mapping

CDF Field	*CIWQS Raw Data Field*	*EDF Field*
Monitoring Location ID	Monitoring Location	LOCID (FIELD_PT_NAME)
Scenario ID	Scenario	USER_ADMIN_ID
Sample Collection Date	Sample Event Date	LOGDATE
Sample Collection Time	Sample Event Time	LOGTIME
Sample Medium	Sample Medium	MATRIX
Analytical Method	Analytical Method	ANMCODE
Sample Analysis Date	Sample Analysis Date	ANADATE
Parameter Concentration	Parameter	BASIS
Parameter	Parameter	PARLABEL
Analytical Result	Result	PARVAL
Analytical Result Qualifier	*	PARVQ
Method Detection Limit	Method Detection Limit	LABDL
Minimum Level	Minimum	REPDL (REPDLVQ="MRL")
Units	Units	UNITS

The CDF format always sets PVCCODE to "PR."

* To enter a Non-Detect (ND), enter the MDL into the "Method Detection Limit" and "Analytical Result" fields and select "<" for the "Analytical Result Qualifier." To enter a Detected, Not Quantified (NDQ) value, enter the MDL into the "Method Detection Limit," the ML into the "Minimum Level," and enter the estimated result in the "Analytical Result" field. The "Analytical Result Qualifier" should be set to "=" in this case.

4.4 Troubleshooting Errors During File Upload

After uploading an EDF or CDF file, a two-pass parsing process is started. This process displays a list of errors encountered in case the uploaded file could not be successfully parsed in the following format.

<File name>, line <line number>: <error description>

For example:

CDF.CSV, line 12: field PARLABEL value 'DRO' is not a valid value.

The line number is the line number in the generated file, which contains no header information. For example, inside the CDF tool, the above indicated line 12 will actually be found on line 13 because the spreadsheet is displaying an extra line of header on line 1.

The following are the most common parsing errors, categorized by the pass number:

4.4.1 Pass 1

Pass 1 errors are related to the EDF specifications that must be followed for building a valid EDF file.

- **Archive content error: Flat File or Relational format not detected:** no valid file format (EDF flat file, EDF relational or CDF format) was detected for the upload archive.
- **Archive content error: <file name> missing:** required file from the archive is missing.
- **unknown file format:** no valid file format (fixed length, comma/quote delimited or tab delimited format) was detected for the specified file inside the archive.
- **required <field name> field not present:** a required field is empty or cannot be found.
- **field <field name> contains invalid date '<value>':** the date field contains an invalid date format (only 'YYYYMMDD' date format is accepted).
- **field <field name> contains invalid logic value '<value>':** the Boolean field contains an invalid value (only 'T' and 'F' values are accepted).
- **field <field name> contains invalid numeric value '<value>':** the numeric field contains an invalid number.
- **field <field name> contains invalid time '<value>':** the time field contains an invalid value (only 'HHMM' time format is accepted).
- **field <field name> value '<value>' exceeds maximum length of <max length>:** the value length exceeds the maximum accepted length for the field.
- **field <field name> value '<value>' is not a valid value:** the value of the field cannot be found in the valid value list (VVL).

- **Primary key uniqueness violated. '<value>' already exists as a primary key:** the primary key composed from multiple field values was already found in the file (record uniqueness violation).
- **Foreign key '<value>' not found in related table '<file name>':** the foreign key composed from multiple field values was not found in the related file (EDF relational format only).

4.4.2 Pass 2

Pass 2 errors are related to the specific CIWQS requirements.

- **place match cannot be found for FIELD_PT_NAME = '<value>':** monitoring location identifier match cannot be found for the specified value.
- **multiple place matches found for FIELD_PT_NAME = '<value>'. Please contact waterboard regarding this issue:** multiple monitoring locations were found with the same identifier. This error should not appear. Please contact your local Water Board immediately if you encounter this error.
- **field BASIS/PARLABEL combination '<basis value>' / '<parlabel value>' is not a valid combination:** the specified combination is not a valid combination.

The EDF field FIELD_PD_NAME is required in order to do a valid match with a Monitoring Location even if it is not defined as a required field in the EDF specifications.

4.5 Additional Help

You can contact the CIWQS Help Desk at 1-866-79-CIWQS (24977) from 8:00 AM to 5:00 PM Monday through Friday. You can also access additional information regarding the CIWQS application, CDF files, and EDF files from the CIWQS Web site at http://ww.swrcb.ca.gov/ciwqs.

5
Reports Module

This chapter addresses the following topics:

- Reports available through the Reports Module

Clicking on the Run Reports Module will open the Report List page. All reports that you have access to will be listed here (Figure 5.1).

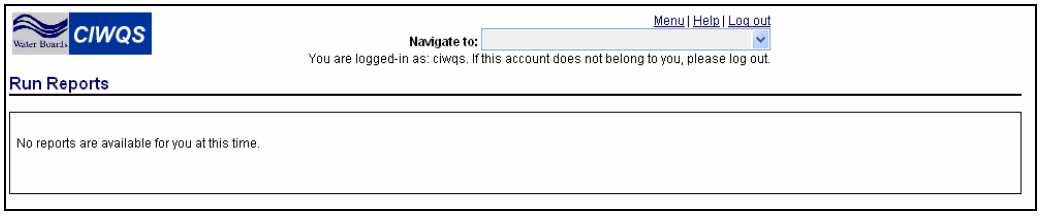


Figure 5.1 Report List Page

The system will list all reports available to you (could be none). Clicking on a report will launch the report. In some cases, access to a report may be limited (even if the report title is shown on the screen) or a separate login may be required before you have full access to a report. Many reports are developed using tools outside of CIWQS and, therefore, include their own security and interfaces.

CIWQS Dischargers User's Guide

Appendix

A Error Checks
B CIWQS Data Format (CDF) Directions

Appendix A

Error Checks used to produce the Error Check Report

1. Narrative Check

Review of the Narrative requirements involves checking the *In Compliance?* field on the Narrative tab and flagging any row that has "No" as an answer.

Tab	*Field*	*Check*	*Requirement*	*Results*
Narrative	In Compliance?	Any row that has "In Compliance?" as "No" or "N/A" is a non-compliance event.	<Narrative Requirement Text>	<Narrative Requirement Comments>

2. Numeric Checks

Tab	*Field*	*Check*	*Requirement*	*Results*
Pre-Calculated	Limit, Bound, Result	If bound is "<" and limit ≥ result, this is a non-compliance event.	<Full text of requirement>	<Results>
Pre-Calculated	Limit, Bound, Result	If bound is "≤" and the limit > result, this is a non-compliance event.	<Full text of requirement>	<Results>
Pre-Calculated	Limit, Bound, Result	If bound is ">" and the limit ≤ result, this is a non-compliance event.	<Full text of requirement>	<Results>
Pre-Calculated	Limit, Bound, Result	If bound is "≥" and the limit < result, this is a non-compliance event.	<Full text of requirement>	<Results>
Raw/EDF/CDF (Data Summary)	Limit, Bound, Calculated Result	If bound is "<" and limit ≥ result, this is a non-compliance event.	<Full text of requirement>	<Results>
Raw/EDF/CDF (Data Summary)	Limit, Bound, Calculated Result	If bound is "≤" and the limit > result, this is a non-compliance event.	<Full text of requirement>	<Results>
Raw/EDF/CDF (Data Summary)	Limit, Bound, Calculated Result	If bound is ">" and the limit ≤ result, this is a non-compliance event.	<Full text of requirement>	<Results>
Raw/EDF/CDF (Data Summary)	Limit, Bound, Calculated Result	If bound is "≥" and the limit < result, this is a non-compliance event.	<Full text of requirement>	<Results>

3. Reporting Checks

Tab	*Field*	*Check*	*Requirement*	*Results*
Narrative	In Compliance?	There must be a value for each row.	Every narrative requirement must be shown to be in compliance, out of compliance, or N/A for this report.	One or more narrative requirements do not have a compliance status.
Narrative	Comments	For each row with "In Compliance?" of "No," there must be a comment.	Each out of compliance narrative requirement must have a comment describing the action(s) taken/planned to return to compliance.	The following narrative requirement for monitoring location <monitoring location identifier> is out of compliance, but no comments were provided: <narrative requirement text>
Pre-Calculated	Limit	There must be a limit specified for each row.	Each pre-calculated requirement must specify a numeric limit.	The following pre-calculated requirement for monitoring location <monitoring location identifier> does not have a specified limit: <requirement text>
Pre-Calculated	Results	Results must be provided for each row.	Each pre-calculated requirement must have a result.	The following pre-calculated requirement for monitoring location <monitoring location identifier> does not have a specified result: <requirement text>
Pre-Calculated	Comments	For each row where the comparison of the limit and the result (based on the bound) yields a non-compliance event, there must	Each non-compliant pre-calculated requirement must have a comment describing the action(s) taken/planned to	The following pre-calculated requirement for monitoring location <monitoring location identifier> is out of compliance, but no comments

Tab	Field	Check	Requirement	Results
		be a comment.	return to compliance.	were provided: <requirement text>
Raw Data/EDF/ CDF (Data Summary)	Result	A result must be entered on each line, unless the "non-detect" checkbox is selected.	All samples must specify a numeric result or must be marked as "non-detect."	The sample on line <line number> for monitoring location <monitoring location> does not indicate non-detect and does not contain a numeric result.
Raw Data/EDF/ CDF (Data Summary)	Non-Detect	Non-Detect can only be used if there is no numeric result.	Samples below the detection level (non-detect checked) must not indicate a numeric result.	The sample on line <line number> for monitoring location <monitoring location> does indicate non-detect and also shows a numeric result.
Raw Data/EDF/ CDF (Data Summary)	Sample Date	Sample date is required.	A sample date is required for each sample.	The sample on line <line number> for monitoring location <monitoring location> indicates no sample date.
Raw Data/EDF/ CDF (Data Summary)	Method Detection Limit	For each row marked as Non-Detect, the Method Detection Limit is required.	The method detection limit must be specified for each non-detect sample.	The sample on line <line number> for monitoring location <monitoring location> is marked as non-detect, but does not specify the method detection limit.
EDF/CDF	Units	Each row must specify units that are in the units reference table.	Uploaded data must be reported in units accepted by the system.	A sample was reported with units "<invalid units>."
EDF/CDF	Units	The units must match the parameter.	Uploaded data must contain units that are compatible with the parameter.	A sample for "<parameter>" was reported in "<units>."
EDF/CDF	Parameter	Each row must use a parameter from the reference table. No synonyms were found.	Uploaded data must specify parameters accepted by the system.	A sample was reported with parameter "<parameter>."

Tab	*Field*	*Check*	*Requirement*	*Results*
EDF/CDF	Parameter	Each row must use a parameter from the reference table. The value is found as a synonym.	Uploaded data must specify parameters accepted by the system.	A sample was reported with parameter "<reported parameter>." This is a synonym for "<official parameter>." The same should be reported as "<official parameter>."
Narrative, Pre-Calculated, Raw, EDF/CDF	All Fields	If a monitoring location is marked as No Discharge, but there is data in any other section for the monitoring location, this is a non-compliance event.	Monitoring locations without discharge should not have any data reported.	Data was reported for monitoring location <monitoring location>, which has been indicated as having no flow during this reporting period.
Raw/EDF/ CDF (Data Summary)	Various	If there is insufficient raw data to compute a result, this is a non-compliance event.	Sufficient sample information must be provided for each non-pre-calculated limit.	There was insufficient information provided to evaluate the following limit: <requirement text>.
General	Report Due Date	If the due date is prior to today's date, this is a non-compliance event. Note: Until the report is submitted, the results of this check may not be correct and may indicate a false negative (i.e., no non-compliance event will be discovered).	This report was due on <due date>.	As of <today's date>, this report has not been submitted.

4. Limit Bases

The system also runs through each numeric (limit) Requirement and attempts to locate the raw data in support of the results. The "limit basis" is used to run the calculation on the raw data. If there is insufficient raw data to make the proper computation, this is shown as a "reporting" non-compliance event.

The limit basis, as indicated in the limitation requirement (Chapter 5), tells the system how to compute the "actual" value from raw data (submitted either via the raw data screen or via EDF). The following limit bases are used to calculate from raw data:

Limit Basis	*Calculation*
Maximum Daily	The daily discharge (see definition below) is computed.
Average Monthly	The average (mean) of the daily discharge values (see definition below) for a given calendar month (first of the month to the last of the month) is computed. All values used to compute the mean will have the same month and year, but may have different days.
Average Weekly	The average (mean) of the daily discharge values (see definition below) for a given week (Sunday to Saturday) is computed. In a given month, there will be multiple week-periods. If the last week of the month doesn't end onn Saturday, the check is done in the following month. For example, September, 2004 ends on a Thursday. The weekly average for the last week of September is actually not computed until the end of the first week in October (which would not be reported until later). Note that if a permit starts mid-week, no values need to be submitted for that first week. A full week is required to have any values due.
Annual Average	The average (mean) of the daily discharge values (see definition below) for a given calendar year (January 1 to December 31) is computed.
(Rolling) 6-Month Median	The system will perform a series of calculations, one for each day in the monitoring period, that looks at the mean of the prior 180 days of data. There will be one "rolling" check per day in the period (e.g., for a monthly report with 31 days, there will actually be 31 separate "rolling" checks).
Instantaneous Maximum	"Instantaneous" is defined as a single sample value. No computation is performed, except for the comparison.
Instantaneous Minimum	"Instantaneous" is defined as a single sample value. No computation is performed, except for the comparison.

5. Additional Checks

"Daily Discharge" is either:

- The total mass of a pollutant discharged during a calendar day (when the units are of type "mass") or
- The average (mean) measurement of the pollutant over the calendar day (when the units are of any type except "mass")

Calendar day is defined as 12:00am (00:00:00) to 11:59 (23:59:59). Values in a single calendar day will have the same month, day, and year.

Therefore, if the units are of type "mass," all sample measurements for a parameter are summed for a given day to calculate the daily discharge. For all other units, all sample measurements for a parameter are averaged (mean) for a given day to calculate the daily discharge.

All other limit bases will be required to be "pre-calculated" and will require the Discharger to perform the "roll-up" calculations before submission.

CIWQS Data Format (CDF):

Explanation
and
Instructions for Creating a
CIWQS-Compliant File

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Contents

1 CIWQS Data Format Overview

The CIWQS Data Format (CDF) Microsoft Excel-based file allows you to configure your data into a format that CIWQS will understand and interpret correctly. You can open the CDF file in Microsoft Excel, configure it on the basis of your permit requirements, and then use the configured file as a template for entering monitoring data on a monthly, quarterly, semi-annual, or annual basis. Once you've entered all your general information and monitoring data into the CDF file, an embedded macro can be used to create a ZIP file suitable for upload into CIWQS. The resulting ZIP file contains both a text file and a comma-separated values (CSV) file. The text file provides basic information on the submission, such as facility name and NPDES number. The CSV file contains the monitoring data. Although both files can be read with a text editor, word processor, or Microsoft Excel, the CIWQS upload requires both files be in the zipped file.

You can obtain additional information and download the CDF file and CIWQS Discharger User Manual from the CIWQS Web site at http://www.swrcb.ca.gov/ciwqs/sessions.html or on the **EDF / CDF** tab in the *Submit/Review Self Monitoring Report (SMR)* module of CIWQS.

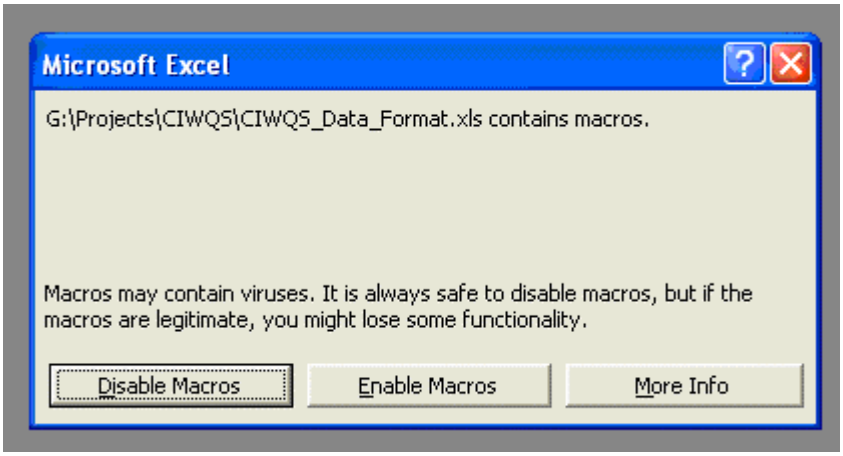
2 CDF Setup Installer

To successfully create a ZIP file for upload into CIWQS, you must first download the CDF Setup installer from the CIWQS Website or from the **EDF / CDF** tab in the *Submit/Review Self Monitoring Report (SMR)* module of CIWQS. The CDF Setup installer will install the CIWQS Data Format (CDF) Microsoft Excel-based file, an installer named zip32-23.dll, and create shortcuts to the CDF file. The zip32-23.dll installer allows the macro that creates a ZIP file for upload into CIWQS to run properly. Without this file, the macro will not work. After downloading the installer, save it to a location were it is easily accessible, open CDF Setup, and follow the directions when prompted. When you have completed the setup, the zip32-23.dll installer will be saved to your c:\windows\system32 directory and you will be prompted to open the CDF Excel file. The CDF Excel file should now be ready for use.

3 CIWQS_Data_Format.xls

3.1 Launching the CDF Microsoft Excel file

Once open, the CDF Microsoft Excel file should ask you whether macros are to be enabled. If prompted, select "Enable Macros".



If not prompted, make sure the Microsoft Excel security setting is set to medium and reopen the file. To set the security setting to medium, follow the instructions below:

1. Click the **Tools** key in the upper left corner of the Excel spreadsheet.
2. Click the **Macro** key.
3. Click the **Security** key.
4. Under the tab ***Security Level***, choose the medium setting and click **OK**.
5. Close Microsoft Excel and reopen the CIWQS_Data_Format.xls.
6. Select "Enable Macros".

Microsoft provides full instructions regarding macro usage at http://office.microsoft.com/en-us/assistance/HP030892871033.

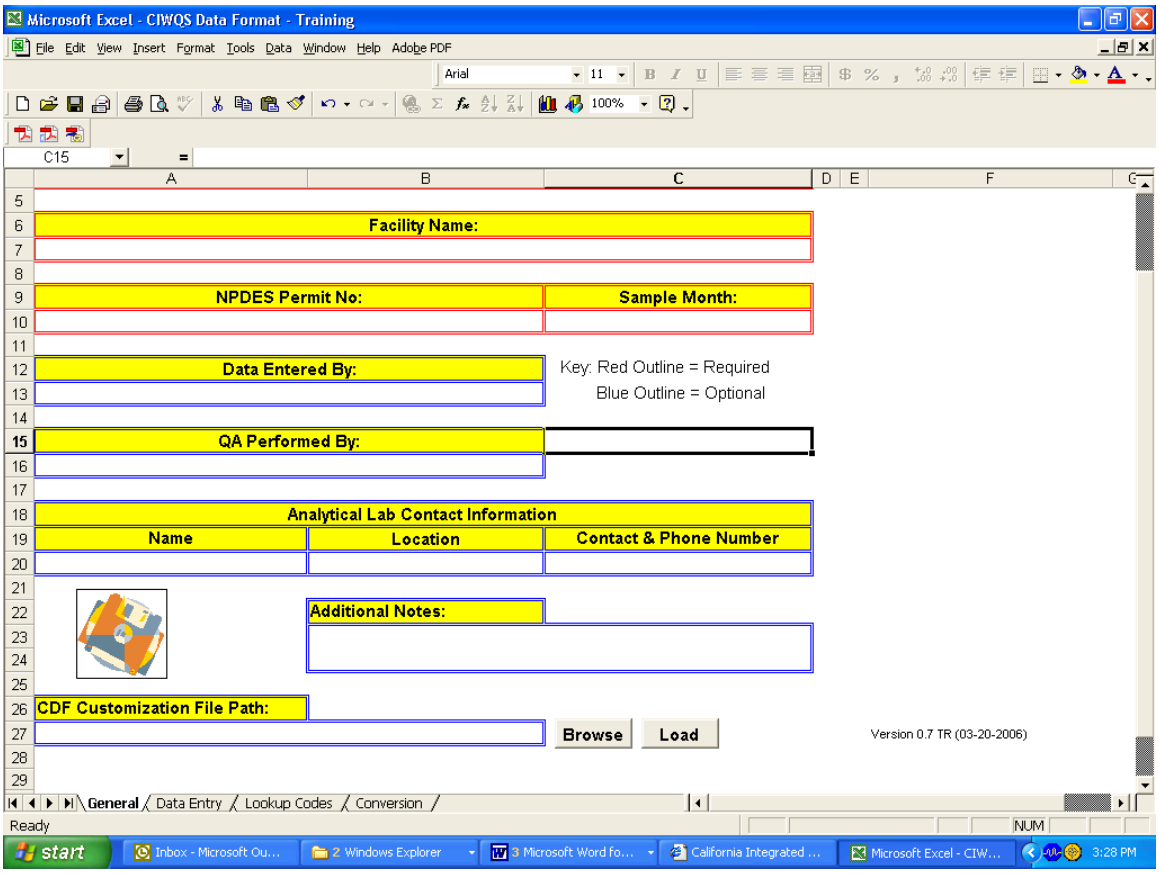
Once the file is open and the macros have been enabled, save the file. It is recommended that you save any changes made to the original file as versions of the original. For example, if you save the original file as CDF.xls, save a working copy as CDF_sept05.xls. This will preserve your original file.

3.2.a. Recording Discharger-Specific Identification Information

Sheet:
Click on the sheet entitled *General*.

Purpose:
Here, you can enter facility-specific information to

- Assist you in tracking the data submittals internally.
- Be included as a separate text file in the ZIP file upload into CIWQS.
- Assist State and Regional Board Staff in locating your original submittal.



Instructions:
Enter the following facility-specific information:

Required Information	Optional Information
Discharger Name	Data Entered By
Facility Name	QA Performed By
NPDES Permit No	Analytical Lab Contact Information
Sample Month	Additional Notes

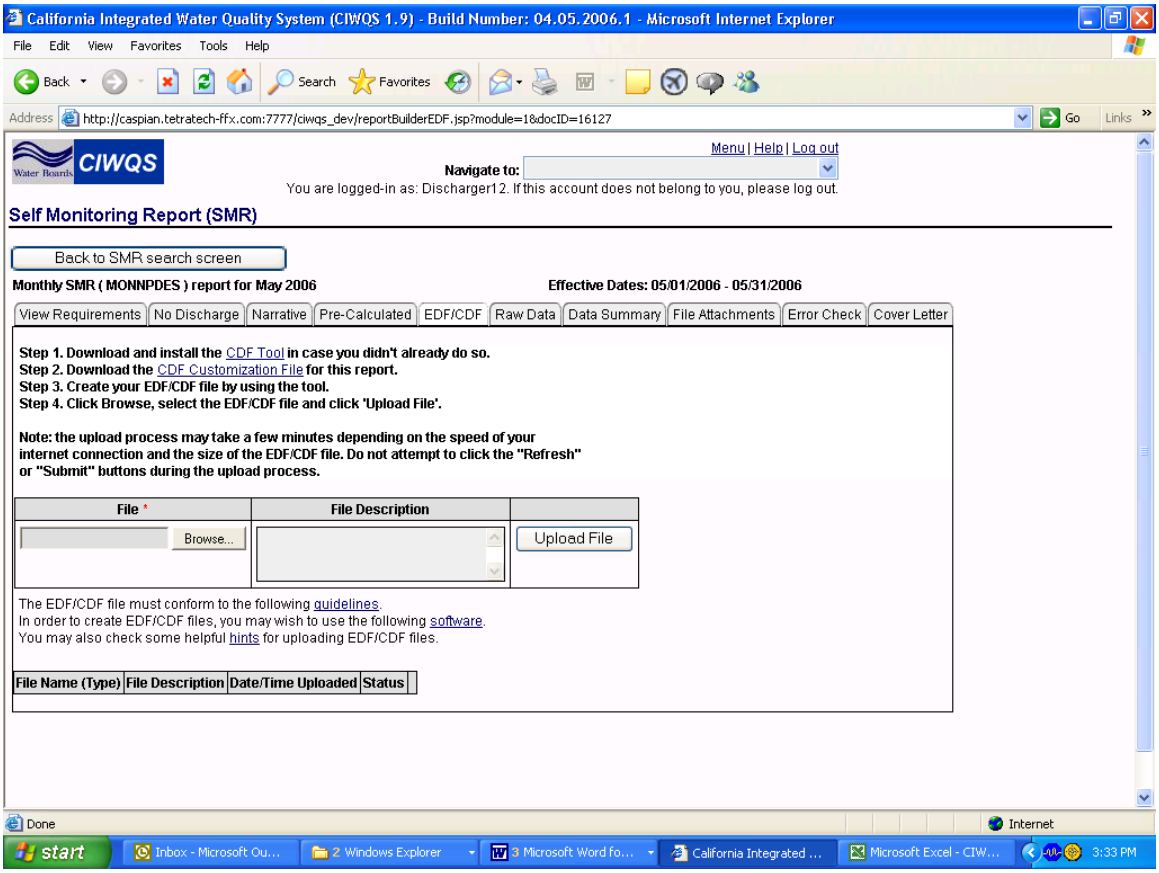
3.2.b. CDF Customization File Path

Sheet:
Click on the sheet entitled *General*.

Purpose:
This file will limit your parameter and unit choices on the *Data Entry* sheet to just those applicable to your individual NPDES permit and SMR you are configuring for submittal.

Note that this customization tool is only available in Version 0.7 and above in the CDF Microsoft Excel file.

Instructions:
While you are logged on to CIWQS click on the **EDF / CDF** tab, available in the *Submit/Review a Self Monitoring Report (SMR)* module in a specific SMR you are configuring for upload in CIWQS.



"Step 2" directs you to download the CDF Customization File for that specific SMR. Follow the instructions below to download this file.

1. Click on the CDF Customization File link.
2. A *File Download* screen will appear, prompting you to **Save**. Do so by clicking the **Save** button.
3. A *Save As* screen will appear. Save the file in a location you will recognize and remember. **Do Not** change the default file name.

You are now ready to upload the CDF Customization File into your CDF template. Note that you upload this file into a version of the original CDF and not into the original file. Follow the instructions below to upload the file into a specific CDF template.

1. Open your original downloaded CDF Microsoft Excel file.
2. Go to the **File** option and choose **Save As**.

3. Save the file in a location you will recognize and as something that will indicate whether this file is going to be a monthly, quarterly, semi-annual, or annual CDF template.
4. On the *General* sheet, click the **Browse** button to the right of the CDF Customization File Path.
5. Find the appropriate file and click the **Open** button.
6. You will return to the *General* sheet of the CDF Microsoft Excel file. Click the **Load** button. You will be notified if the customization file has uploaded successfully.

Once you have uploaded the customization file successfully the parameters and units available in the dropdown menu of the *Parameter* and *Unit* columns respectively will be limited to those parameters related to the specific SMR you downloaded the customization file from. For example, if you are required to monitor flow, pH, and total dissolved solids monthly and you downloaded the customization file from a monthly SMR, after loading the customization file into your CDF Microsoft Excel file only those parameters and corresponding units will appear in the dropdown menu. If you are required to monitor for priority pollutants annually and you downloaded the file from an annual SMR only priority pollutants will appear in the dropdown menu.

3.3 Recording Discharger Monitoring Data

Sheet:
Click on the sheet entitled *Data Entry*.

Purpose:
This sheet allows you to enter facility-specific monitoring data to be uploaded into CIWQS. It is recommended that each discharger create a facility-specific template; refer to the template instructions below.

General Guidelines:
It is important to note that CDF relies on a defined format and code values modeled after the Electronic Deliverable Format (EDF). To ensure that this tool will continue to function properly and produce a CIWQS-compliant file, abide by these general guidelines. (Subsequent sections contain more detailed instructions.)

1. Row 1 of the *Data Entry* sheet is a narrative description of the required field.
   a. ***Do not*** change the order of the columns or the first row on the *Data Entry* sheet.
   b. If the Required Field is a data descriptor, choose the descriptor ***only*** from the dropdown menus provided. ***Do not*** enter facility-specific abbreviations, descriptions, or codes.
   c. Parameter units chosen in CDF Microsoft Excel file ***must*** be identical to those defined in the facility's NPDES permit. CIWQS will not convert units, so make sure you're reporting your data as it is specified in your permit.

2. Data and descriptors entered into the columns on the *Data Entry* sheet must be in a specific format.
    a. Each Required Fields section below describes the information required in each column.
    b. Some Required Fields are based on Valid Value List (VVL) codes, which are listed on the *Lookup Codes* sheet.
        - VVL codes are what CIWQS understands as your data's descriptors.
        - The CDF macro will automatically insert the descriptor's corresponding VVL code into the CSV file, which is included in the ZIP file for upload into CIWQS.
        - To view how VVL codes relate to data descriptors on the *Data Entry* sheet, refer to the *Lookup Codes* sheet. If you can't find the appropriate code, you can look up the code by definition as follows:
            – Click the **Edit** key in the upper left corner of the *Lookup Codes* sheet.
            – Click the **Find** key.
            – Enter a basic description of the data descriptor. For example, if the analytical method EPA 239.2 is of interest, enter 239.2 and click **Find Next** until the appropriate VVL code is identified. In this example, the appropriate code would be E239.2 (Lead [AA, Furnace]). Be sure to match the appropriate code to the appropriate Conversion Field Name column on the *Lookup Codes* sheet.
    c. Other Required Fields are related to facility-specific data and laboratory information.

Creating a Template:

When first viewing the *Data Entry* sheet you will see that it includes parameters that may be useful to you in the dropdown menu under the *Parameter* column. Many parameters may not apply to your facility. If you mistakenly choose a parameter that does not apply to your facility, follow the instructions below to remove it.

1. Select the **cell** that contains a parameter that does not apply to your facility. You **cannot delete entire rows**; you must select the cells to delete entered information.
2. Click the **Delete** key on your keyboard.
3. Replace the subsequent blank row with the appropriate information.
4. The CDF tool will not operate correctly if blank rows are left within the data set.
5. Insert an appropriate parameter and its corresponding information in **ALL** blank rows prior to the end of your data set.

You should check with your laboratory to ensure that the correct analytical methods are recorded. Be aware that many CTR Priority Pollutants have synonyms; Chapter 8 of this document includes common synonym for conventional and priority pollutants. This list is intended to assist you in identifying parameters; it does not include code values.

You should use the CDF file to create a reusable template. You can do this by entering information that is not likely to change from month to month and then saving the

template file. The following Required Fields are not likely to change from month to month:

Required Field	Conversion Field Name
Monitoring Location ID	FIELD_PT_NAME
Sample Medium	MATRIX
Parameter	PARALABEL
Analytical Method	ANMCODE
Unit	UNITS

After you've completed a row for each parameter and monitoring location once, you can use it to create a template file.

The following Required Fields will likely change from month to month because they are specific to the monitoring data results. These Required Fields should be input each month:

Required Field	Conversion Field Name
Sample Collection Date	LOGDATE
Sample Collection Time	LOGTIME
Sample Analysis Date	ANADATE
Analytical Result	PARVAL
Analytical Result Qualifier	PARVQ
Method Detection Limit	LABDL
Minimum Level	REPDL & REPDLVQ

Required Field* Instructions*:

The following instructions explain how to create a facility-specific CIWQS_Data_Format.xls file.

Monitoring Location ID

Conversion Field Name: FIELD_PT_NAME

Definition: Monitoring Location ID

- Is identified specifically in the facility's NPDES Permit ***or***
- Was assigned when the facility's limits were entered into CIWQS ***or***
- Was provided upon the facility's registration

Instructions:

1. Enter the Monitoring Location ID for the sample in the Monitoring Location ID column on the *Data Entry* sheet.
2. Ensure that the Monitoring Location ID is identical to the NPDES permit or CIWQS format.

Sample Collection Date

Conversion Field Name: LOGDATE

Definition: The date the field sample is collected.

Format: MM/DD/YYYY

Example: A sample collected on May 2, 2004, would be entered as 05/02/2004

Instructions:

Enter the Sample Collection Date for the sample in the Sample Collection Date column on the *Data Entry* sheet.

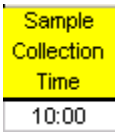
Sample Collection Time

Conversion Field Name: LOGTIME

Definition: The time the field sample is collected.

Format: HH:MM (24-hour time)

Example: A sample collected at 1:46 PM would be entered as 13:46



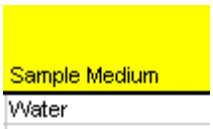
Instructions:

Enter the Sample Collection Time in the Sample Collection Time column on the *Data Entry* sheet.

Sample Medium

Conversion Field Name: MATRIX
Definition: The code identifying the sample matrix as determined by the laboratory.
Instructions:

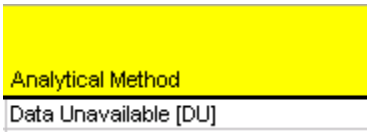
1. Choose the appropriate Sample Medium from the dropdown menu in the Sample Medium column on the *Data Entry* sheet. Currently, only Water is available. Future versions of the CDF Microsoft Excel file may include options such as Ocean Water, Stormwater, Surface Water, extra.
2. Enter ***only*** a descriptor that is specified in the dropdown menu in the Sample Medium column on the *Data Entry* sheet.
3. Refer to guideline 2 of the General Guidelines listed in this section for further discussion on descriptor lookup methods.



Analytical Method

Conversion Field Name: ANMCODE
Definition: The code identifying the method of analysis.
Instructions:

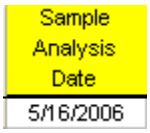
1. Choose the appropriate Analytical Method from the dropdown menu in the Analytical Method column on the *Data Entry* sheet.
2. Enter ***only*** a descriptor that is specified in the dropdown menu in the Analytical Method column on the *Data Entry* sheet.
3. Refer to guideline 2 of the General Guidelines listed in this section for further discussion on descriptor lookup methods.
4. In the event you are ***unable to locate*** your specific Analytical Method or there is not an Analytical Method to match to the parameter, choose the *Data Unavailable [DU]* option.



Sample Analysis Date

Conversion Field Name: ANADATE
Definition: The date the sample is analyzed.
Format: MM/DD/YYYY
Example: A sample analyzed on April 22, 2005, would be entered as 04/22/2005.
Instructions:

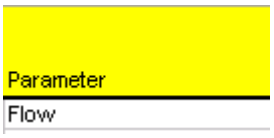
1. Enter the Sample Analysis Date in the Sample Analysis Date column of the *Data Entry* sheet.
2. In the event you are ***unable to attain*** this information, leave this field ***blank***.



Parameter

Conversion Field Name: PARALABEL
Definition: The code identifying the parameter.
Instructions:

1. Choose the appropriate Parameter from the dropdown menu in the Parameter column on the *Data Entry* sheet.
1. Enter ***only*** a descriptor that is specified in the dropdown menu in the Parameter column on the *Data Entry* sheet.
2. Refer to guideline 2 of the General Guidelines listed in this section for further discussion on descriptor lookup methods.
3. Be sure to include the parameter concentration (total, total recoverable, or dissolved) when selecting the appropriate parameter.



Analytical Result

Conversion Field Name: PARVAL

Definition: The numeric analytical value for the parameter.

Instructions:

1. A numeric value (the analytical result) ***must*** be entered here.
2. Enter a numeric value ***only***. Three types of numeric values exist:
   a. If the parameter result is detected, enter the detected value and choose "=" in the Analytical Result Qualifier column described below.
   b. If the parameter is detected but not quantified (DNQ), enter the numeric value and choose "=" in the Analytical Result Qualifier column described below. In this case, you ***must*** also enter the minimum level (ML) in the Minimum Level (ML) column described below.
   c. If the sample result is non-detect (ND), enter the method detection limit (MDL) in the Analytical Result column and choose "<" in the Analytical Result Qualifier column described below.
3. All numeric value types ***must*** be supplemented by entering the MDL in the Method Detection Limit (MDL) column described below.

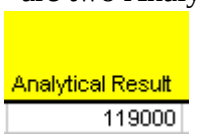
Analytical Result Qualifier

Conversion Field Name: PARVQ

Definition: The code identifying the qualifier of the analytical result.

Instructions:

1. Enter an Analytical Result Qualifier. There are two Analytical Result Qualifiers:

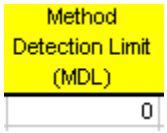


   - "=" – the sample was detected and quantified or detected but not quantified (DNQ)
   - "<" – the sample was not detected (ND)

Method Detection Limit (MDL)

Conversion Field Name: LABDL

Definition: The laboratory-established method detection limit.

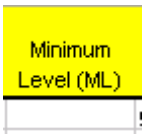


Instructions:

1. If this information is not readily available, the laboratory that analyzed the sample will be able to provide it.
2. Enter a numeric value ***only***.

Minimum Level (ML)

Conversion Field Names: REPDL and REPDLVQ



Definition: Method Limit (Reporting Limit (RL) or Practical Quantization Limit (PQL)); the lower bound to which a particular test method should be or is able to test down to with 95% confidence. Many times laboratories use the RL as equivalent to the ML. The ML, RL, or PQL can be the same as the MDL. If it is not, the MDL should be less than the ML, RL, or PQL. When they differ, a DNQ result is possible. The ML or RL should be listed on laboratory data as required by section 2.4.2 of the *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP). The PQL should also be listed on laboratory reports.

Instructions:

1. Enter a numeric value ***only***.
2. Enter the numeric value ***only if*** the analytical result is ***DNQ***.
3. If the analytical result is detected and quantified or ND, leave this column ***blank***.
4. If this information is not readily available, the laboratory that analyzed the sample will be able to provide it.

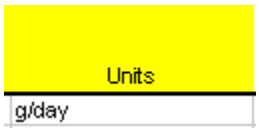
Required Field M: Units

Conversion Field Name: UNITS

Definition: The associated parameter units identified in your NPDES permit.

Instructions:

1. Choose the appropriate Unit from the dropdown menu in the Units column on the *Data Entry* sheet.
2. Units used in the CDF Microsoft Excel file ***must*** be identical to those used in the facility's NPDES permit.
3. Enter ***only*** a unit that is specified in the dropdown menu in the Units column on the *Data Entry* sheet.
4. Refer to guideline 2 of the General Guidelines listed in this section for further discussion on descriptor lookup methods.



3.4 Data Conversion Before Upload

Sheet:
Click on the sheet entitled *Conversion*.

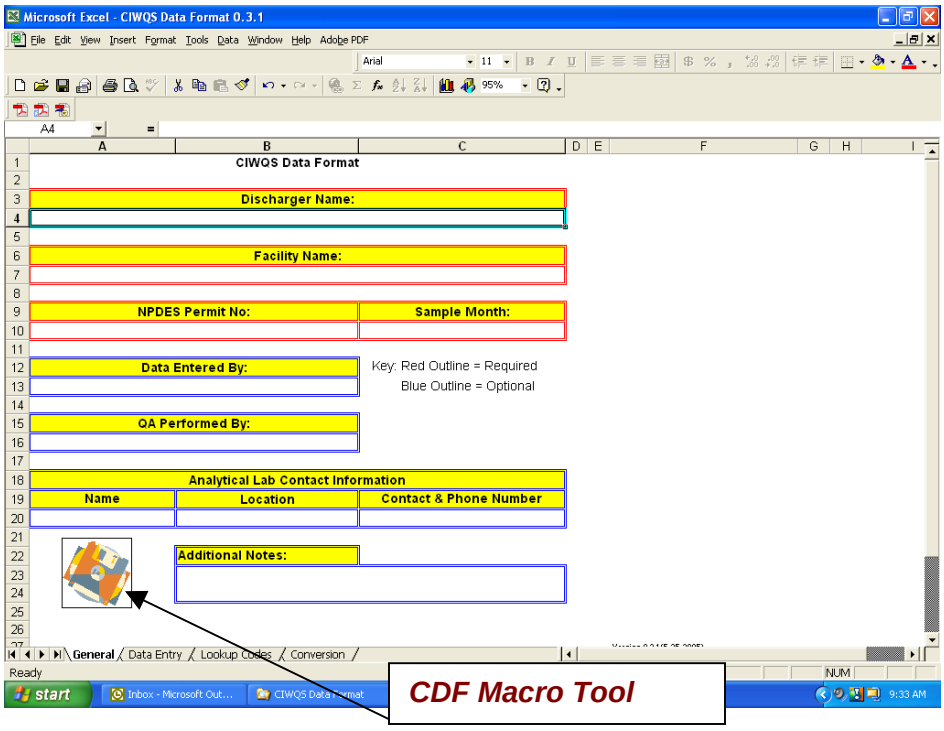
Purpose:
Here, data entered into the *Data Entry* sheet is converted to make it CIWQS-compliant. This sheet converts your data by use of the enabled macro and uses the correct Conversion Field Names and VVL codes. The sheet is displayed and used solely for the purpose of the macro.

General Guidelines:
It is important to note that CDF relies on a defined format and code values modeled after the Electronic Deliverable Format (EDF). To ensure that this tool will continue to function properly and produce a CIWQS-compliant file, ***do not alter*** this page.

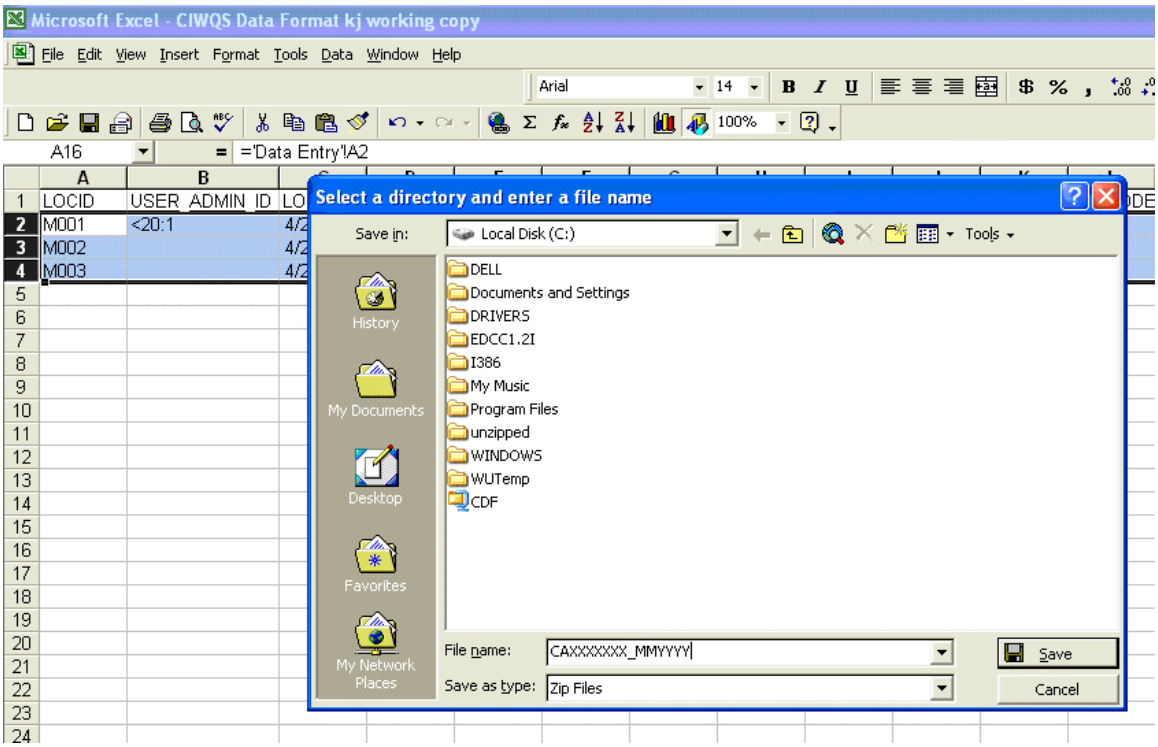
3.5 Using the Macro to Create the ZIP File

After all discharge monitoring data has been entered (and quality assured) into the now-customized CDF Microsoft Excel file, you are ready use the CDF macro to create the ZIP file to be uploaded into CIWQS. To do this, follow the instructions below:

1. Save the now-customized CDF Microsoft Excel file as a *.xls file for your internal records.
2. Make certain your Excel security setting is set to ***medium***. Refer to section 3.1.
3. Go to the *General* sheet.
4. Click the CDF macro tool.

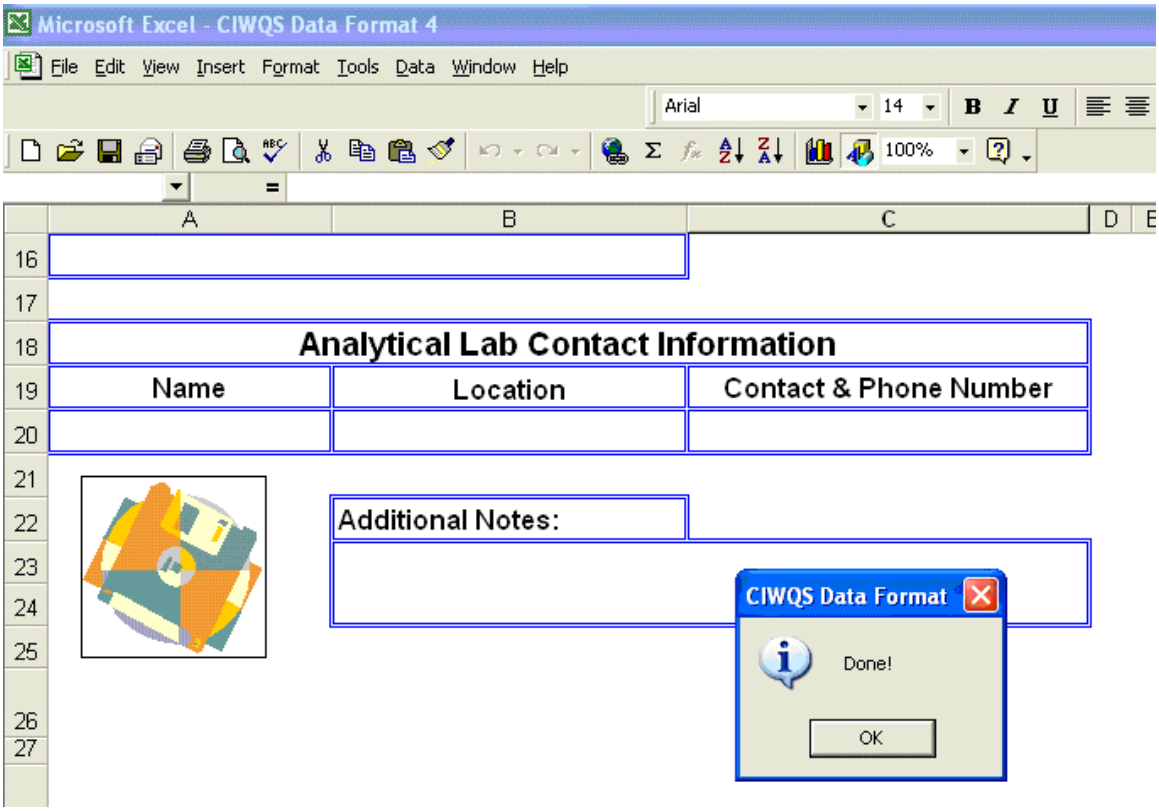


A box stating, *"Select a directory and enter a file name"* will appear.



5. For Save in, choose a directory/location that is easy to find.
6. Enter a file name. The suggested file name format is the following: NPDES permit number, month, and year the sample was collected, CAXXXXXXX_MMYYYY
6. For Save as type, enter Zip Files.
7. Click **Save**.

8. A CIWQS Data Format box stating, “Done!” will appear. Click **OK**.



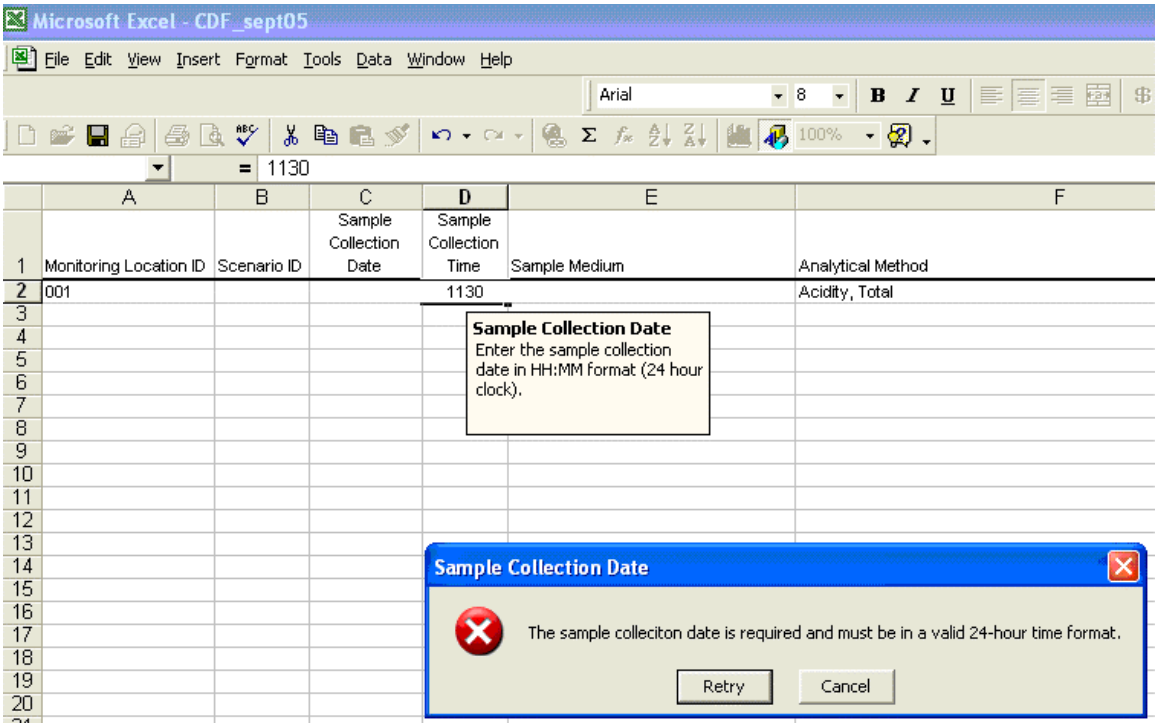
9. The ZIP file is now available for upload into CIWQS. Refer to section 3.6, *Upload the ZIP File into CIWQS*, for instructions.

3.6 Uploading the ZIP File into CIWQS

The *Submit/Review Self Monitoring Report (SMR)* module of CIWQS includes the **EDF / CDF** tab that allows you to browse your computer and select the appropriate file for upload. You can upload EDF or CDF files. Therefore, save your CDF file in a location you can find easily, and then retrieve the file when you use the CIWQS Report Builder.

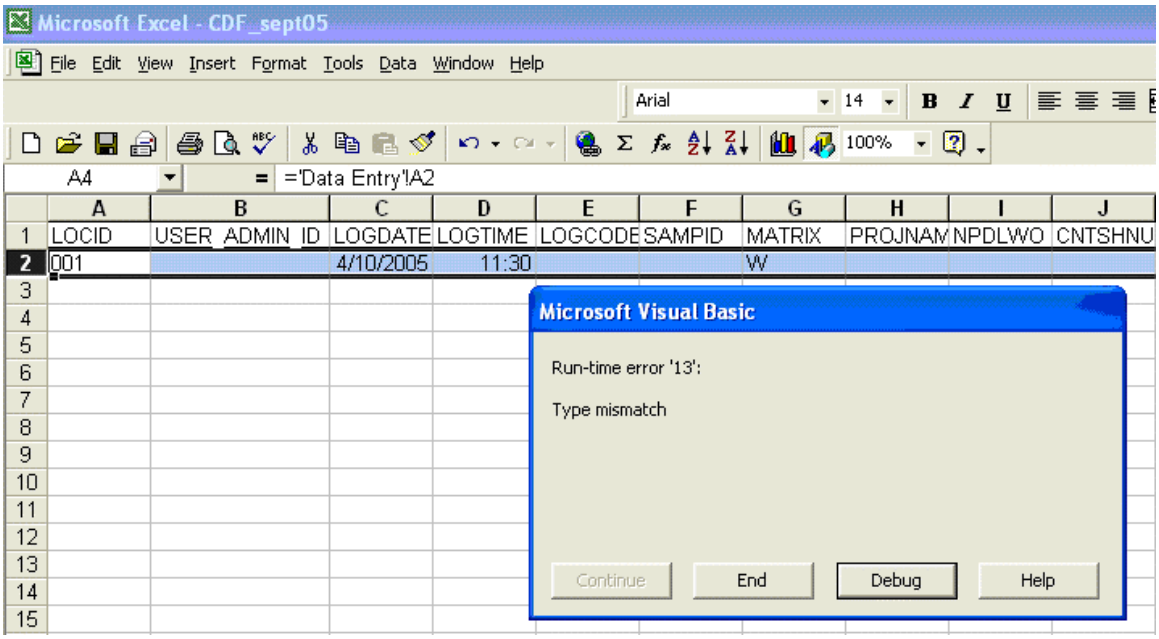
3.7 CDF Macro Errors

The CDF macro creates the ZIP file to be uploaded into CIWQS. To do this, all data and descriptors entered into the CDF file must be in a valid format. Each Required Fields section above discusses this format. For example, if the sample collection time is not entered correctly (HH:MM), the following error messages will appear:



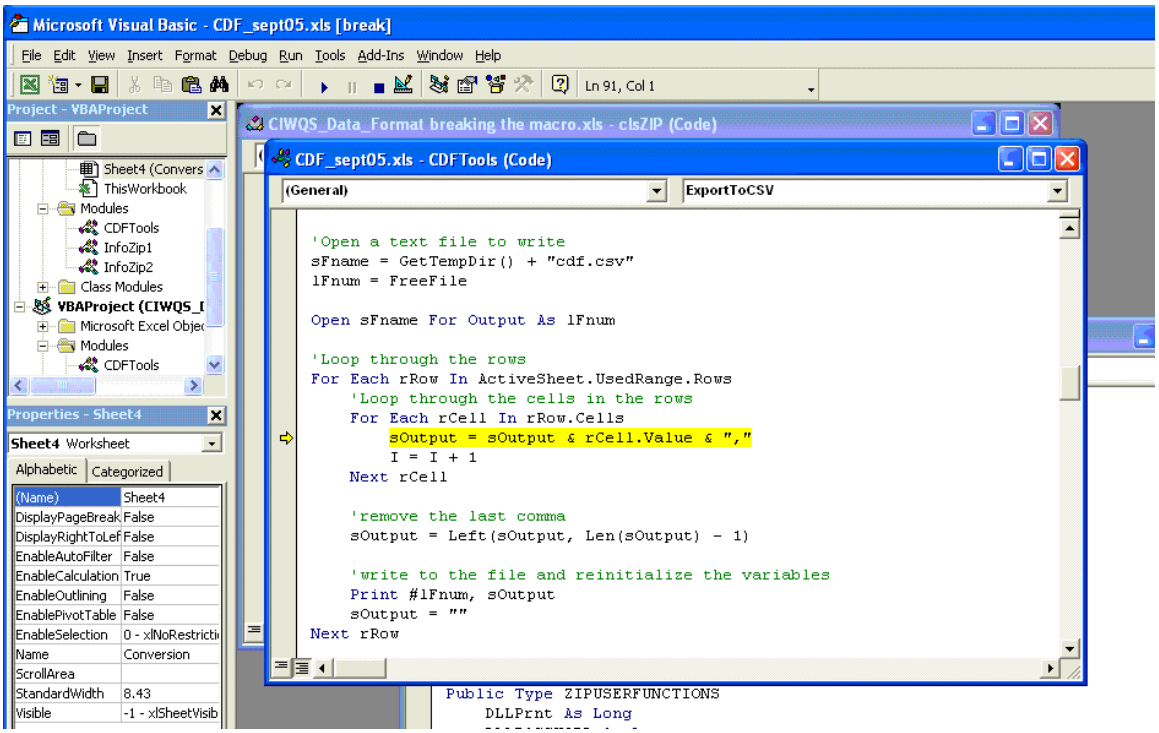
To correct this error, click **Cancel**. Microsoft Excel will then either automatically correct the entry to the valid 24-hour time format or delete the entry. In the latter case, enter the sample collection time in the correct format.

Another error message occurs when the user overlooks choosing a Required Field from the dropdown menus of each descriptor. For example, if the analytical method is not entered when the CDF macro is run, the following error message appears:

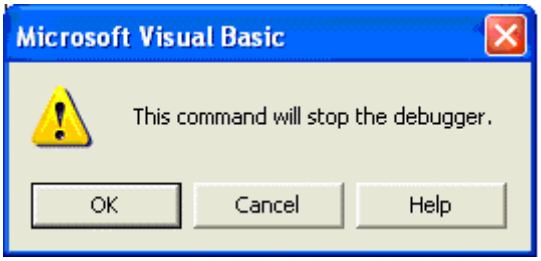


When this occurs, click **End**. This will end the Microsoft Visual Basic application of the CDF macro and allow for the format error to be fixed. After **End** is chosen, the user will be on the *Conversion* sheet of the CDF file. Go to the *Data Entry* sheet and check each Required Field for a missing entry. When each missing entry is corrected, the CDF macro is ready to be tried again. **Do not** make changes within the *Conversion Sheet*.

Do not choose the **Debug** option. If the **Debug** option is chosen, the user will open the Visual Basic application code:



Do not change anything in this application and close it using the upper right hand  immediately. Microsoft Visual Basic will notify the user that this action will stop the debugger. Click **OK**.



The user will now see the *Conversion* sheet of the CDF file. Go to the *Data Entry* sheet and check each Required Field for a missing entry. When each missing entry is corrected, the CDF macro is ready to be tried again.

4 Do’s and Don’ts of the CIWQS Data Format

4.1 Do

- Enable macros.
- Save the CDF Excel file to your computer.
- Save working versions of the CDF Excel file to preserve the original file.
- Enter all required information and any additional optional information on the *General* sheet.
- Only use valid formats as defined in the Required Fields section above on the *Data Entry* sheet.

4.2 Don’t

- Alter the format of the *General* sheet.
- Move the CDF macro tool.
- Alter the first row on the *Data Entry* sheet.
- Alter the order of the columns on the *Data Entry* sheet.
- Enter facility specific abbreviations, descriptions, or codes on the *Data Entry* sheet.
- Alter the *Lookup Codes* sheet.
- Alter or enter information in the *Conversion* sheet.
- Try to debug Microsoft Visual Basic.

5 EDF / CDF Uploading Hints

This section contains some basic hints for EDF/CDF uploading and a list of the common reasons why the file upload and parsing process fail.

5.1 Introduction

Self-Monitoring Report data can be uploaded to CIWQS using the Electronic Deliverable Format (EDF) or the CIWQS Deliverable Format (CDF). EDF / CDF is a data standard for transferring electronic data files between data producers (e.g. labs and facilities) and data users (Water Boards).

5.2 CDF

This release of CIWQS will support the CIWQS Deliverable Format (CDF) generated by the CDF Tool spreadsheet version 0.5 or above. It is recommended that you check for updated versions often and use the most updated version available. The CDF format is a valid EDF flat file format archive that contains two files: extra information file and flat file.

File Preparation

Prior to submission, the following tool may be used to prepare a CDF submission:

- CDF Tool (CIWQS Deliverable Format Tool): An excel spreadsheet that generates a valid CDF flat file format. Links to this tool can be found on the California SWRCB website

For a CDF submission, please use the CDF Tool spreadsheet version 0.5 or higher!

File Considerations

CDF files must be compressed in ZIP format. Tools such as PKZip, WinZip, and Windows XP's compressed folders all use the zip format. The CDF Tool generates automatically this archive. By compressing the various files into a single ZIP file, this ensures that the different files that comprise a submission do not become separated.

The ZIP file should contain:

- CDFINFO.TXT: Information file.
- CDF.CSV: Flat File.

Uploaded CDF files should be named in a manner that makes it clear what the file contains (e.g., facility name and report date, lab name) and should end in ".zip". If multiple CDF files are uploaded, each must contain a unique name. CDF files uploaded to CIWQS should *not* be password encrypted.

CDF files must contain no errors to upload successfully. Errors in the CDF files will result in the generation of an error message within CIWQS. In some cases, an error may prevent a downstream error from being discovered.

The following file requirements must be followed in order to have a valid CDF file format recognized by CIWQS:

- The CDF file may be submitted only as a CSV (also known as "comma/quote delimited") generated by the CDF Tool spreadsheet.
- The column heading or field name is not required in a CSV file. This information is not part of the file and should be omitted. Only authorized codes from the valid value list should be keyed into fields requiring valid values.
- Every record within a file must be unique. If, for each key field, a record's data appears exactly the same in another record, these two records are considered to be duplicate records.

Several files are entered as codes in the CDF format, CIWQS, or both. Any value that is a code in CIWQS will have a cross-map to the possible CDF values/codes. If a value is reported in a CDF that does not have a mapped value in CIWQS, the submission is rejected.

5.3 EDF

This release of CIWQS will support both formats of EDF version 1.2i (July 2002):

- The relational format (six files: sample, quality control, test, results, narrative, and control limits);
- The flat file format (two files: control limits and flat file);

File Preparation

Prior to submission, the following tools may be used to prepare and validate an EDF submission:

- COELT (U.S. Army Corps of Engineers Loading Tools): A software tool designed for data entry, data export, data verification, and data reporting. Analytical laboratories use this tool to generate EDF deliverables.

- EDCC (Electronic Deliverable Consistency Checker): A software tool designed to verify lab EDF deliverables for compliance to the EDF format.

Although CIWQS performs a specific set of verifications, it does not perform all of the checks found in EDCC. The use of this program by submitters is highly recommended!

Links to these tools can be found on the California SWRCB website.

File considerations

EDF files must be compressed in ZIP format. Tools such as PKZip, WinZip, and Windows XP's compressed folders all use the zip format. By compressing the various files into a single ZIP file, this ensures that the different files that comprise a submission do not become separated.

The ZIP file should contain, depending on the used format:

- EDCC.TXT: An EDCC error report in test format. This file is not used by CIWQS, but will be stored for possible review. *Relational or Flat File*;
- EDFNAR.TXT: Any narrative text. *Relational only*;
- EDFSAMP.TXT: Sample data. *Relational only*;
- EDFTEST.TXT: Test data. *Relational only*;
- EDFRES.TXT: Results data. *Relational only*;
- EDFQC.TXT: Quality Control data. *Relational only*;
- EDFCL.TXT: Control Limits data. *Relational or Flat File*;
- EDFFLAT.TXT: Flat File. *Flat File only.*

Uploaded EDF files should be named in a manner that makes it clear what the file contains (e.g., facility name and report date, lab name) and should end in ".zip". If multiple EDF files are uploaded, each must contain a unique name. EDF files uploaded to CIWQS should *not* be password encrypted.

EDF files must contain no errors to upload successfully. Errors in the EDF files will result in the generation of an error message within CIWQS. In some cases, an error may prevent a downstream error from being discovered.

The following file requirements must be followed in order to have a valid EDF file format recognized by CIWQS:

- An EDF may be submitted as an ASCII fixed length *.TXT file, as a comma separated value (CSV) delimited ASCII *.TXT file (also known as

"comma/quote delimited"), or as a tab separated value delimited ASCII *.TXT file.

- The column heading or field name is not required in an ASCII file. This information is not part of the file and should be omitted. Only authorized codes from the valid value list should be keyed into fields requiring valid values.
- Every record within a file must be unique. If, for each key field, a record's data appears exactly the same in another record, these two records are considered to be duplicate records.

Several files are entered as codes in the EDF format, CIWQS, or both. Any value that is a code in CIWQS will have a cross-map to the possible EDF values/codes. If a value is reported in an EDF that does not have a mapped value in CIWQS, the submission is rejected.

5.4 Troubleshooting Common Errors During File Upload Process

After uploading an EDF or CDF file, a two pass parsing process is started. This process displays a list of errors encountered in case that the uploaded file could not be successfully parsed in the following format.

<File name>, line <line number>: <error description>

For example:

CDF.CSV, line 12: field PARLABEL value 'DRO' is not a valid value.

Please note that the line number is the line number in the generated file that contains no header information. For example, inside the CDF tool, the above-indicated line 12 will be actually found on line 13 because the spreadsheet is displaying an extra line of header on line 1!

The following are the most commonly parsing errors, categorized by the pass number:

Pass 1:

Pass 1 errors are related to the EDF specifications that must be followed for building a valid EDF file.

- **Archive content error: Flat File or Relational format not detected:** no valid file format (EDF flat file, EDF relational or CDF format) was detected for the uploaded archive;
- **Archive content error: <file name> missing:** required file from the archive is missing;

- **unknown file format:** no valid file format (fixed length, comma/quote delimited or tab delimited format) was detected for the specified file inside the archive;
- **required <field name> field not present:** a required field is empty or cannot be found;
- **field <field name> contains invalid date '<value>':** the date field contains an invalid date format (only 'YYYYMMDD' date format is accepted);
- **field <field name> contains invalid logic value '<value>':** the boolean field contains an invalid value (only 'T' and 'F' values are accepted);
- **field <field name> contains invalid numeric value '<value>':** the numeric field contains an invalid number;
- **field <field name> contains invalid time '<value>':** the time field contains an invalid value (only 'HHMM' time format is accepted);
- **field <field name> value '<value>' exceeds maximum length of <max length>:** the value length exceeds the maximum accepted length for the field;
- **field <field name> value '<value>' is not a valid value:** the value of the field can not be found in the valid value list (VVL);
- **Primary key uniqueness violated. '<value>' already exists as a primary key:** the primary key composed from multiple field values was already found in the file (record uniqueness violation);
- **Foreign key '<value>' not found in related table '<file name>':** the foreign key composed from multiple field values was not found in the related file (EDF relational format only).

Pass 2:

Pass 2 errors are related to the specific CIWQS requirements.

- **place match cannot be found for FIELD_PT_NAME = '<value>':** monitoring location identifier match can not be found for the specified value;
- **multiple place matches found for FIELD_PT_NAME = '<value>'. Please contact waterboard regarding this issue:** multiple monitoring locations were found with the same identifier. This error should not appear. Please contact waterboard immediately if you encounter this error;
- **field BASIS / PARLABEL combination '<basis value>' / '<parlabel value>' is not a valid combination:** the specified combination of fields is not a valid combination.

For CIWQS the EDF field FIELD_PT_NAME is required in order to do a valid match with a monitoring location even if it is not defined as a required field in the EDF specifications.

6 Questions and User Support

You can contact the CIWQS Help Desk at 1-866-79-CIWQS (24977) from 8:00 AM to 5:00 PM Monday through Friday. You can also access additional

information regarding the CIWQS application, CDF files, and EDF files from the CIWQS Web site at *http://www.swrcb.ca.gov/ciwqs* .

7 CIWQS Data Format Specifications

7.1 Introduction

The CIWQS Data Format (CDF) is a data format for submitting raw sample data to CIWQS. It is intended to complement the Electronic Deliverable Format (EDF), as described in the CIWQS Software Design Specifications.

CDF is a streamlined format, containing only those fields necessary to populate the CIWQS SMR raw data requirements. EDF contains additional fields, which are required for the format, but are not required for CIWQS.

Generation of a CDF file requires the use of an Excel spreadsheet. This spreadsheet allows users to enter sample data and then export a CIWQS compliant CDF file. The CDF file is based on the EDF format: it uses the EDF fields (as described in the CIWQS Software Design Specifications) to carry to the CDF data. *Although a CDF file includes the EDF fields, not all EDF-required fields will be populated.*

7.2 CDF Fields

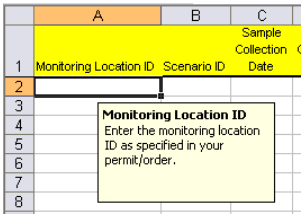
The following are the CDF fields and a description of how each is mapped to the CIWQS SMR raw data screen. This table also shows how

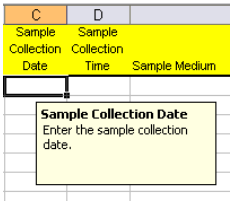
CDF Field	Format/Validation	CIWQS Raw Data Field	EDF Field
Monitoring Location ID	Accepts any text string between 1-10 characters	Monitoring Location	LOCID (FIELD_PT_NAME)
Sample Collection Date	Date; cannot be a future date	Sample Event Date	LOGDATE
Sample Collection Time	24-hour time value	Sample Event Time	LOGTIME
Sample Medium	Selection from a list of valid values	Sample Medium	MATRIX
Analytical Method	Selection from a list of valid values	Analytical Method	ANMCODE
Sample Analysis Date	Date; cannot be a future date	Sample Analysis Date	ANADATE
Parameter	Selection from a list of valid values		PARLABEL
Analytical Result	Any numeric value accepted*	Result	PARVAL
Analytical Result Qualifier	Typically set to "=" but "<" can be used to indicate that the analytical result is below the MDL*	*	PARVQ
Method Detection Limit	Any numeric value accepted*	Method Detection Limit	LABDL
Minimum Level	Any numeric value accepted*	Minimum Level	REPDL (REPDLVQ="MRL")

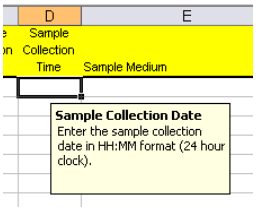
CDF Field	Format/Validation	CIWQS Raw Data Field	EDF Field
Units	Selection from a list of valid values	Units	UNITS

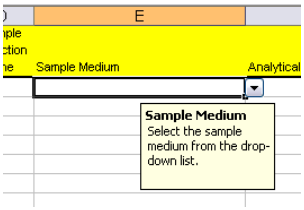
The CDF format always sets PVCCODE to "PR."

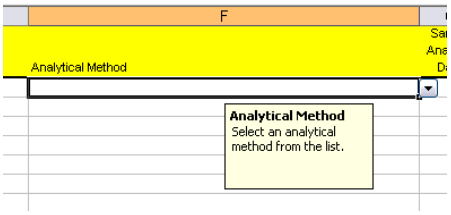
* To enter a Non-Detect (ND), the user would enter the MDL into the "Method Detection Limit" and "Analytical Result" fields and select "<" for the "Analytical Result Qualifier." To enter a Detected, Not Quantified (DNQ) value, the user would enter the MDL into the "Method Detection Limit," the ML into the "Minimum Level," and enter the *estimated* result in the "Analytical Result" field. The "Analytical Result Qualifier" should be set to "=" in this case.

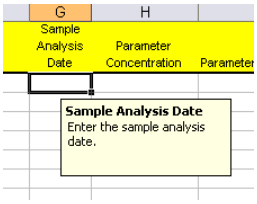


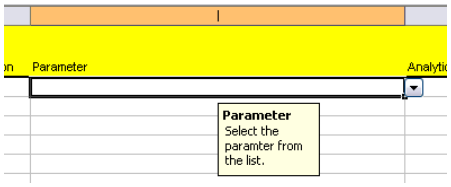


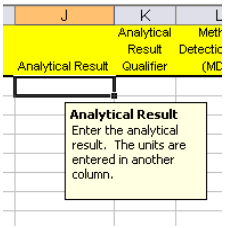


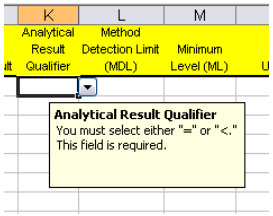


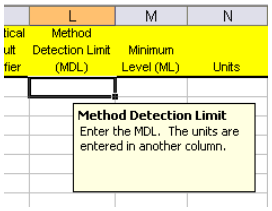


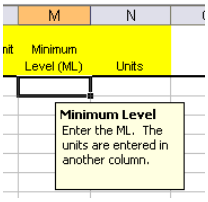


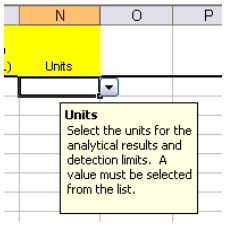






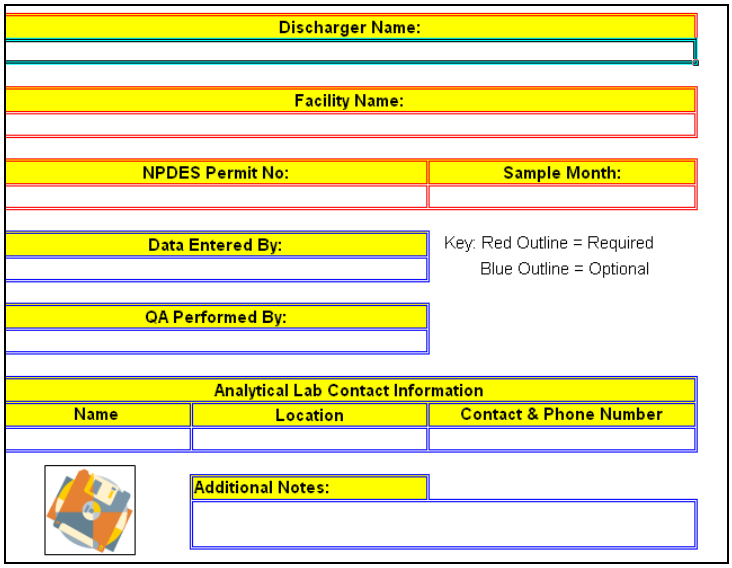






7.3 General Page

A General page will also be included, which includes the following fields:



These fields will be exported to the text file that will "travel" along with the data submission.

```
Generated By: Version 0.1
Date Exported: 4/28/2005
Discharger Name: <Discharger Name>
Facility Name: <Facility Name>
NPDES Number: <NPDES Number>
Sample Month: <Sample Month>
Data Entered By: <Data Entered By>
QA Performed By: <QA Performed By>
Analytical Lab Name: <Name>
Analytical Lab Location: <Location>
Analytical Lab Contact/Phone: <Contact & Phone Number>
Notes: <Additional Notes>
```

7.4 Valid Values Lists

Some of the fields must come from a valid values list. These are based on the EDF VVLs and are included in the spreadsheet.

7.5 Technology

The CDF spreadsheet requires a Microsoft Excel version capable of running VisualBasic for Application (VBA) code: Excel 2000 or later.

The spreadsheet comes with a dynamic link library, zip32-23.dll, which is used to compress and package the submission. This library is produced by Info-Zip and is freely

distributable. See http://www.info-zip.org/license.html for information regarding the licensing of this product.

The zip file will contain a text file with information from the General page (CDFINFO.TXT) and a CSV (comma separated values) containing the data (CDF.CSV).

7.6 CDF.CSV

The columns in CDF.CSV will be consistent with the documented EDF format:

LOCID*	BASIS*
USER_ADMIN_ID*	PRESCODE
LOGDATE*	SUB
LOGTIME*	REP_DATE
LOGCODE*	LAB_REPNO
SAMPID	APPRVD
MATRIX*	TLNOTE
PROJNAME	PVCCODE*
NPDLWO	PARLABEL*
CNTSHNUM	PARVAL*
LABSAMPID	PARVQ*
LABCODE	LABDL*
QCCODE	REPDL*
ANMCODE*	REPDLVQ*
MODPARTLIS	PARUN
EXMCODE	UNITS*
LABLOTCTL	RT
EXLABLOT	DILFAC
ANADATE*	CLREVDATE
EXTDATE	SRM
RUN_NUMBER	LABREFID
RECDATE	EXPECTED
COCNUM	RLNOTE

* Used by CDF.

8 Standard Naming Conventions for Conventional and Priority Pollutants

Table 1: Standard Naming Convention for Conventional Pollutants

NPDES Permit Standard Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	00310		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			BOD5 @ 20 Deg. C; BOD, 5-day (20 Deg. C)
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C), Percent Removal	81010		Calculate	Calculate	%	%	Group 1 Pollutant			BOD % Removal; BOD, 5-day Percent Removal
Fecal Coliform	74055		Grab	Grab	MPN/100 mL	CFU/100 mL; MPN/100 mL				Coliform, Fecal General
Oil and Grease	03582		Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
pH	00400		Grab	Grab; Measure	SU	SU				Hydrogen Ion
Total Suspended Solids (TSS)	00530		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Total Non-Filterable Residue
Total Suspended Solids (TSS), Percent Removal	81011		Calculate	Calculate	%	%	Group 1 Pollutant			TSS % Removal

Table 2: Standard Naming Convention for Priority Pollutants

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Inorganic Priority Pollutants										
Antimony, Total Recoverable	01268	7440360	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	1	Sb
Arsenic, Total Recoverable	00978	7440382	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	2	As
Beryllium, Total Recoverable	00998	7440417	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	3	Be
Cadmium, Total Recoverable	01113	7440439	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	4	Cd
Chromium (III)	01033	7440473	Grab	Grab	ug/L	kg/day; lb/day; ug/L	CTR; Group 2 Pollutant	CTR: Metals	5(a)	Chromium, Trivalent; Cr
Chromium (VI)	01032	18540299	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	5(b)	Chromium, Hexavalent; Cr
Copper, Total Recoverable	01119	7440508	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	6	Cu
Lead, Total Recoverable	01114	7439921	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	7	Pb
Mercury, Total Recoverable	71901	7439976	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	8	Hg
Nickel, Total Recoverable	01074	7440020	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	9	Ni
Selenium, Total Recoverable	00981	7782492	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	10	Se
Silver, Total Recoverable	01079	7440224	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	11	Ag

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Thallium, Total Recoverable	00982	7440280	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	12	Tl
Zinc, Total Recoverable	01094	7440666	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Metals	13	Zn
Cyanide, Total (as CN)	00720	57125	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Other	14	
Asbestos	00948	1332214	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	Counts /L	Counts/L; Fibers/L	CTR; Group 2 Pollutant	CTR: Other	15	
Organic Priority Pollutants										
2,3,7,8-TCDD (Dioxin)	34675	1746016	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; mg/L; ng/L; pg/L; ug/L	CTR; Group 2 Pollutant; TCDD Congener	CTR: Other	16	2,3,7,8-tetraCDD; 2,3,7,8-tetrachloro-dibenzo-p-dioxin
Acrolein	34210	107028	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	17	2-Propenal; Acraldehyde; Acrylaldehyde; Acrylic aldehyde
Acrylonitrile	34215	107131	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	18	2-Propenenitrile; Cyanoethylene; Fumigrain; Ventox; Vinyl cyanide
Benzene	34030	71432	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	19	Benzol; Cyclohexatriene
Bromoform	32104	75252	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	20	Tribromomethane
Carbon Tetrachloride	32102	56235	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	21	Perchloromethane; Tetrachloromethane
Chlorobenzene	34301	108907	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	22	benzene chloride; monochlorobenzene; Phenyl Chloride
Chlorodibromomethane	32105	124481	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	23	Dibromochloromethane
Chloroethane	85811	75003	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	24	ethyl chloride
2-chloroethylvinyl ether (mixed)	34576	110758	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	25	2-Chloroethoxyethene; 2-chloroethyl vinyl ether; 2-CLEVE
Chloroform	32106	67663	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	26	methane trichloride; methyl trichloride; Trichloromethane
Dichlorobromomethane	32101	75274	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	27	Bromodichloromethane
1,1-dichloroethane	34496	75343	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	28	1,1-DCA; Ethylidene Chloride; ethylidene dichloride

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
1,2-dichloroethane	32103	107062	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	29	1,2-DCA
1,1-dichloroethylene	34501	75354	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	30	1,1-DCE; 1,1-dichloroethene; Vinylidene Chloride
1,2-dichloropropane	34541	78875	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	31	Propylene Dichloride
1,3-dichloropropylene	77163	542756	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR	CTR: Volatile Organics	32	1,3-dichloropropene
Ethylbenzene	34371	100414	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	33	ethylbenzol; phenylethane
Methyl Bromide	34413	74839	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	34	Bromomethane
Methyl Chloride	34418	74873	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	35	Chloromethane; Monochloromethane
Methylene Chloride	34423	75092	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	36	dichloromethane
1,1,2,2-tetrachloroethane	34516	79345	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	37	1,1,2,2-PCA; acetylene tetrachloride; sym-tetrachloroethane
Tetrachloroethylene	34475	127184	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	38	PCE; Perchloroethene; Perchloroethylene; Tetrachloroethene
Toluene	34010	108883	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	39	Methacide; Methylbenzene; Phenylmethane
1,2-trans-dichloroethylene	34546	156605	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	40	trans-1,2-DCE; trans-1,2-Dichloroethene; trans-1,2-dichloroethylene
1,1,1-trichloroethane	34506	71556	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	41	1,1,1-tce; methyl chloroform
1,1,2-trichloroethane	34511	79005	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	42	1,1,2-TCE; beta-trichloroethane; beta-trichlorothane; Vinyl trichloride
Trichloroethylene	39180	79016	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	43	Ethylene trichloride; TCE; Trichloroethene
Vinyl Chloride	39175	75014	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Volatile Organics	44	chloroethene; Chloroethylene
2-chlorophenol	34586	95578	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	45	
2,4-dichlorophenol	34601	120832	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	46	

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
2,4-dimethylphenol	34606	105679	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; pg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	47	2,4-DMP; 2,4-Xylenol
2-methyl-4,6-dinitrophenol	03615	534521	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	48	4,6-dinitro-2-methylphenol; 4,6-dinitro-o-cresol; DNOC
2,4-dinitrophenol	34616	51285	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	49	
2-nitrophenol	34591	88755	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	50	o-nitrophenol
4-nitrophenol	34646	100027	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	51	p-nitrophenol
3-methyl-4-chlorophenol	70012	59507	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	52	4-chloro-3-methylphenol; Parachlorometa Cresol; p-chloro-m-cresol
Pentachlorophenol	39032	87865	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	53	PCP
Phenol, Single Compound	34694	108952	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	54	carbolic acid; Phenyl alcohol
2,4,6-trichlorophenol	34621	88062	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Acid Extractables	55	Dowcide 2S; Dowicide 2S; phenachlor; TCP
Acenaphthene	34205	83329	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	56	1,2-dihydroacenapthylene
Acenaphthylene	34200	208968	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	57	acenaphthalene
Anthracene	34220	120127	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	58	anthracen; paranaphthalene
Benzidine	39120	92875	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	59	

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Benzo(a)anthracene	34526	56553	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	60	1, 2-Benzoanthracene; 1,2-benzanthracene
Benzo(a)pyrene	34247	50328	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	61	3, 4-Benzopyrene
Benzo(b)fluoranthene	34230	205992	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	62	3,4 Benzofluoranthene; Benzo(b)fluoranthene (3,4-benzo)
Benzo(ghi)perylene	34521	191242	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	63	1,12-benzoperylene
Benzo(k)fluoranthene	34242	207089	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	64	11,12-Benzofluoranthene
Bis (2-Chloroethoxy) Methane	34278	111911	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	65	
Bis (2-Chloroethyl) Ether	34273	111444	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	66	
Bis (2-Chloroisopropyl) Ether	34283	108601	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	67	
Bis (2-Ethylhexyl) Phthalate	39100	117817	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	68	Di (2-ethylhexyl) Phthalate; Diethylhexylphthalate (DEHP)
4-bromophenyl phenyl ether	34636	101553	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	69	1-Bromo-4-phenoxybenzene; 1-bromo-4-phenoxy-benzene; 4-bromophenyl ether; p-bromodipohenyl ether
Butylbenzyl Phthalate	34292	85687	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	70	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester; N-Butyl Benzyl Phathalate
2-chloronaphthalene	34581	91587	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	71	o-chloronaphthalene
4-chlorophenyl phenyl ether	34641	7005723	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	72	1-Chloro-4-phenoxybenzene; 4-chlorophenyl; Benzene, 1-chloro-4-phenoxy

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Chrysene	34320	218019	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	73	1,2-Benzphenanthrene
Dibenzo(a,h)anthracene	34556	53703	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	74	1,2,5,6-Dibenzanthracene; dibenz(a,h)anthracene
1,2-dichlorobenzene	34536	95501	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	75	o-dichlorobenzene
1,3-dichlorobenzene	34566	541731	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	76	m-dichlorobenzene
1,4-dichlorobenzene	34571	106467	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	77	p-dichlorobenzene
3,3-dichlorobenzidine	34631	91941	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	78	3,3'-dichloro-1,1'-Biphenyl-4,4'-diamine
Diethyl Phthalate	34336	84662	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	79	
Dimethyl Phthalate	34341	131113	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	80	
Di-n-butyl Phthalate	39110	84742	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	81	Dibutyl Phthalate
2,4-dinitrotoluene	34611	121142	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	82	1-Methyl-2,4-Dinitrobenzene; 2,4-DNT
2,6-dinitrotoluene	34626	606202	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	83	2,6-DNT; 2-methyl-1,3-dinitroenzene
Di-n-octyl Phthalate	34596	117840	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	84	
1,2-diphenylhydrazine	34346	122667	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	85	

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Fluoranthene	34376	206440	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	86	
Fluorene	34381	86737	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	87	
Hexachlorobenzene	39700	118741	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	88	HCB
Hexachlorobutadiene	34391	87683	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	89	1,1,2,3,4,4-hexachloro-1,3-Butadiene
Hexachlorocyclopentadiene	34386	77474	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	90	1,2,3,4,5,5-hexachloro-1,3-Cyclopentadiene; HCP; Perchlorocyclopentadiene
Hexachloroethane	34396	67721	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	91	perchloroethane
Indeno (1,2,3-cd) Pyrene	34403	193395	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	92	1,10-(1,2-Phenylene)pyrene
Isophorone	34408	78591	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	93	3,5,5-Trimethyl-2-cyclohexenone; isoacetophorone
Naphthalene	34696	91203	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	94	white tar
Nitrobenzene	34447	98953	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	95	oil of mirbane
N-Nitrosodimethylamine	34438	62759	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	96	N-Dinitrosodimethylamine; NDMA
N-Nitrosodi-n-propylamine	34428	621647	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	97	N-nitrosodi-m- Propylamine
N-Nitrosodiphenylamine	34433	86306	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	98	N-nitrosodiphenylamine

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Phenanthrene	34461	85018	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	99	
Pyrene	34469	129000	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	100	
1,2,4-trichlorobenzene	34551	120821	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Base/Neutral Extractables	101	
Aldrin	39330	309002	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	102	HHDN; Octalene
alpha-BHC	39336	319846	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	103	alpha-HCH; hexachlorocyclohexane-alpha
beta-BHC	39338	319857	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	104	beta-HCH; hexachlorocyclohexane-beta
gamma-BHC	39344	58899	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	105	gamma-HCH; hexachlorocyclohexane-gamma; lindane
delta-BHC	34198	319868	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	106	hexachlorocyclohexane-delta
Chlordane	39350	57749	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	107	Compound K (FDA); Toxichlor
4,4-DDT	39300	50293	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	108	1,1'-(2,2,2-trichloroethylidene)bis[4-chlorobenzene] ; 4,4'-DDT; Dichlorodiphenyltrichloroethane; p,p'-DDT; p,p-DDT
4,4-DDE	39320	72559	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	109	1,1'-(dichloroethenylidene)bis[4-chlorobenzene]; 4,4'-DDE; p,p'-DDE; p,p-DDE
4,4-DDD	39310	72548	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	110	1,1'-(2,2-dichloroethylidene)bis[4-chlorobenzene]; 4,4'-DDD; Dichlorodiphenyldichloroethane; p,p'-DDD; p,p-DDD; TDE; Tetrachlorodiphenylethane

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Dieldrin	39380	60571	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; pg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	111	Alvit
alpha-Endosulfan	34361	959988	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	112	a-Endosulfan; Endosulfan I
beta-Endosulfan	34356	33213659	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	113	b-Endosulfan; Endosulfan II; Thiodan II
Endosulfan Sulfate	34351	1031078	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	114	6,9-Methano-2,3,4-benzodioxathiepin, 6,7
Endrin	39390	72208	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	115	Compound 269; Mendrin
Endrin Aldehyde	34366	7421934	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	116	
Heptachlor	39410	76448	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	117	1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-Methano-1H-indene; Drinox; Heptagran; Velsicol-104
Heptachlor Epoxide	39420	1024573	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	118	
PCB-1016	34671	12674112	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	119	Arochlor 1016
PCB-1221	39488	11104282	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	120	Arochlor 1221
PCB-1232	39492	11141165	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	121	Arochlor 1232
PCB-1242	39496	53469219	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	122	Arochlor 1242
PCB-1248	39500	12672296	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	123	Arochlor 1248

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
PCB-1254	39504	11097691	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	124	Arochlor 1254
PCB-1260	39508	11096825	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	125	Arochlor 1260
Toxaphene	39400	8001352	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	CTR; Group 2 Pollutant	CTR: Pesticides & PCBs	126	Chlorinated Camphene

Table 3: Standard Naming Convention for Non-Conventional Pollutants

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Acetone	81552	67641	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Acute Toxicity	TA000		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	TUa	% survival; TUa; % effluent; Pass/Fail (Pass = 0, Fail = 1)				Acute Whole Effluent Toxicity; Acute WET
Adsorbable Organic Halides	79855		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				AOX
Alachlor	77825	15972608	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Alkalinity, Bicarbonate (as CaCO3)	00425		Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Alkalinity, Carbonate (as CaCO3)	00430		Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Alkalinity, Total (as CaCO3)	00410		Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Alpha, Gross Particle Activity	80045		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	PCi/L	PCi/L				Radioactivity
Aluminum, Acid Soluble	85824	7429905	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 1 Pollutant			Al
Aluminum, Dissolved	01106	7429905	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Al
Aluminum, Total	01105	7429905	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 1 Pollutant			Al
Aluminum, Total Recoverable	01104	7429905	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Al
Aminocarb	38404	2032599	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				Metacil

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Ammonia Nitrogen, Total (as N)	00610	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			NH4 + NH3
Ammonia Nitrogen, Unionized (as N)	00612	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			NH3; Un-ionized ammonia
Antimony, Dissolved	01095	7440360	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Sb
Antimony, Total	01097	7440360	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Sb
Arsenic, Dissolved	01000	7440382	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			As
Arsenic, Total	01002	7440382	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			As
Aspon	51384	3244904	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				thiodiphosphoric acid, tetrapropyl ester
Atrazine	39033	1912249	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			2-Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine
Azinphos-ethyl	81292	2642719	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				ethyl guthion; triazothion
Azinphos-methyl	39580	86500	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Guthion; Bay17147; Bay9027; carfene; cotion-methyl; gusathion; imidan; metiltriazotion
Barban	38418	101279	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				barbanate; chlorinate
Barium, Dissolved	01005	7440393	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Ba
Barium, Total	01007	7440393	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ba
Barium, Total Recoverable	01009	7440393	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ba

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Bentazon, Total	38710	25057890	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			bendioxide
Benzoic Acid	77247	65850	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Carboxybenzene
Beryllium, Dissolved	01010	7440417	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Be
Beryllium, Total	01012	7440417	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Be
Bicarbonate Ion (as HCO3)	00440	71523	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			
Bolstar	38715	35400432	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				sulprofos
Boron, Dissolved	01020	7440428	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			B
Boron, Total	01022	7440428	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			B
Boron, Total Recoverable	00999	7440428	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			B
Bromoxynil	51136	1689845	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				3,5-Dibromo-4-hydroxybenzonitrile
Cadmium, Dissolved	01025	7440439	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cd
Cadmium, Percent Removal	51403	7440439	Calculate	Calculate	%	%				Cd
Cadmium, Total	01027	7440439	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cd
Calcium, Dissolved	00915	7440702	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Ca

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Calcium, Total	00916	7440702	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Ca
Calcium, Total Recoverable	00918	7440702	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Ca
Carbaryl	77700	63252	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Sevin
Carbofuran	81405	1563662	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Carbon, Total Organic	00680	7440440	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			TOC
Carbonaceous Biochemical Oxygen Demand (CBOD) (5-day @ 20 Deg. C)	80082		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			BOD, nitrogen inhibited; Carbonaceous BOD; CBOD, 5-day (20 Deg. C)
Carbonaceous Biochemical Oxygen Demand (CBOD) (5-day @ 20 Deg. C), Percent Removal	80091		Calculate	Calculate	%	%	Group 1 Pollutant			CBOD % Removal; CBOD, 5-day Percent Removal
Carbonate Ion (as CO3)	00445	3812326	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Carbophenothion	51042	786196	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				acarithion; garrathion; heXathion; nethocarp; trithion
Chemical Oxygen Demand (COD)	81017		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Chlorfenvinphos	04083	470906	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Chloride	00940	16887006	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Chlorine Dose	50058		Measure	Measure	mg/L	kg/day; lb/day; mg/L	Group 2 Pollutant			Cl

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Chlorine Usage	81400		Calculate	Calculate	lb/day	kg/day; lb/day	Group 2 Pollutant			Cl
Chlorine, Free Available	50064		Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 2 Pollutant			Cl
Chlorine, Total Residual	50060	7782505	Grab	Grab; Measure	mg/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cl
Bis (chloromethyl) Ether	34268	542881	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			BCME; Bis 2 chloromethyl ether; chloromethyl ether; dichloromethyl ether; oxybis (chloromethane); sim-dichloromethyl ether
Chlorophyll a	32230	479618	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				Algal biomass
Chlorpropham	81322	101213	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				allicide
Chlorpyrifos	81403	2921882	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Chlorpyrifos Methyl	38740	5598130	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Chromium (III) Dissolved	80357	7440473	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L				Cr; Chromium III; Chromium, Trivalent Dissolved
Chromium (III) Total Recoverable	04262	7440473	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L				Chromium, Trivalent Total Recoverable; Cr
Chromium (Total)	01034	7440473	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cr
Chromium (VI) Dissolved	01220	18540299	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cr; Chromium, Hexavalent Dissolved
Chromium (VI) Total Recoverable	78247	18540299	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Chromium, Hexavalent Total Recoverable; Cr
Chromium, Dissolved	01030	7440473	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cr
Chromium, Total Recoverable	01118	7440473	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cr
Chronic Toxicity	TC000		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	TUc	% survival; TUc; % effluent; Pass/Fail (Pass = 0, Fail = 1)				Chronic Whole Effluent Toxicity; Chronic WET

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Cobalt, Total	01037	7440484	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Co
Cobalt, Total Recoverable	00979	7440484	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Co
Cobolt, Dissolved	01035	7440484	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Co
Copper, Dissolved	01040	7440508	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cu
Copper, Percent Removal	51402	7440508	Calculate	Calculate	%	%				Cu
Copper, Total	01042	7440508	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cu
Coumaphos	81293	56724	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Co-Ral
Crotoxyphos	82565	7700176	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Cyanide, Free Available	51173	57125	Composite	24-hour Composite; 8-hour Composite; Composite; Grab	mg/L	mg/L; ug/L; lb/day; kg/day				CN
Cyanide, Total Recoverable	78248	57125	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			CN
2,4-D	39730	94757	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			2,4-D; 2,4-dichlorophenoxyacetic acid
Dalapon	38432	75990	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				2,2-Dichloropropionic Acid
2,4-DB	38745	94826	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			2,4-dichlorophenoxybutyric acid
DDT/DDD/DDE, Sum of P,P & O,P Isomers	39379		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ng/L; ug/L	Group 2 Pollutant			

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Demeton	39560	8065483	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			demeton-o; demeton-s
Diazinon	39570	333415	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
1,2-dibromo-3-chloropropane	49146	96128	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				DBCP
Dibromodichloromethane	77779	594183	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			dichlorodibromomethane
1,2 Dibromoethane	77651	106934	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ethylene Dibromide; EDB
Dicamba	82052	1918009	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Banvel
Dichlorobenzene	81524	25321226	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Dichlorobenzenes
Dichlorodifluoromethane	34668	75718	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Difluorodichloromethane; freon 12; Halon 122
1,2-Dichloroethylene	38676	540590	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L				1,2-Dichloroethylene (cis & trans); 1,2-Dichloroethylene (mixed isomers); 1,2-Dichloroethene
cis-1,2-dichloroethylene	77093	156592	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L				cis-1,2-DCE; cis-1,2-dichloroethene; 1,2-cis-dichloroethene
Dichlorofenthion	38770	97176	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
2,6-dichlorophenol	77541	87650	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Dichloroprop	30190	120365	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				2,4-dichlorophenoxypropionic acid; 2,4-dp
1,3 dichloropropane	77173	142289	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
cis-1,3-dichloropropylene	34704	10061015	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Cis-1,3-dichloropropene
trans-1,3-dichloropropylene	34699	10061026	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			trans-1,3-dichloropropene

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Dichlorvos	30218	62737	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				DDVP
Dicrotophos	04310	141662	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Dimethoate	46314	60515	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Dinoseb	30191	88857	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Dioxane	81582	123911	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			1,4-Dioxacyclohexane; 1,4-dioxane; diethlylene dioxide; diethlylene ether; glycol ethylene ether; p-dioxane
Dioxathion Organic Pesticide	51143	78342	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Delnav; dioxane phosphate; Navadel
Diquat	04443	2764729	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				deiquat; reglone
Dissolved Oxygen	00300	7782447	Grab	Grab; Measure	mg/L	kg/day; lb/day; mg/L; ug/L				DO
Dissolved Oxygen, saturation	00301	7782447	Grab	Grab	%	%				DO; Oxygen, Dissolved Percent Saturation
Disulfoton	81888	298044	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Diuron	39650	330541	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			dichlorfenidim
Dyfonate	39013	944229	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			dyphonate; fonophos
E.coli	51040		Grab	Grab	MPN/ 100 mL	CFU/100 mL; MPN/100 mL				Escherichia coli
Electrical Conductivity @ 25 Deg. C	00095		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite; Measure	umhos/ cm	umhos/cm				Specific Conductance; Specific Conductivity

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Endosulfan, Total	39388	115297	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			thiodan
Endothal	38926	145733	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Endothall Salts and Esters; endothal-diammonium salt 17439940; endothal-dipotassium 2164070; endothal-disodium 129679
Enterococci	61211		Grab	Grab	MPN/ 100 mL	CFU/100 mL; MPN/100 mL				
EPN	81290	2104645	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Ethyl O-(p-nitrophenyl) phenylphosphonothionate
Ethion	39398	563122	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Bladan; Nialate; Phosphorodithioic acid, S,S'-methylene O,O,O',O'-tetraethyl ester
Ethoprop	81758	13194484	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Fenitrothion	51383	122145	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Fensulfothion	30004	115902	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Fenthion	30006	55389	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Fenuron	38467	101428	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				1,1-dimethyl-3-phenylurea; fenidin; fenuron TCA; fenuron trichloroacetate (4482-55-7) salt; N,N-dimethyl-N'-phenylurea
Flow	50050		Measure	Estimate; Measure	MGD	GPD; MGD				discharge
Fluometuron	38810	2164172	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				1,1-dimethyl-3-(a,a,a-trifluoro-m-tolyl)urea; N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]urea
Fluoride, Total	00951	16984488	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			F
Glyphosate, Total	79743	1071836	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Halomethanes, Sum	78456		Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Hardness, Total (as CaCO3)	00900	471341	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
1,2,3,4,6,7,8-hepta chlorodibenzofuran	30356	67562394	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,4,6,7,8-heptaCDF
1,2,3,4,7,8,9-hepta chlorodibenzofuran	30357	55673897	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,4,7,8,9-heptaCDF
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	30358	35822469	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,4,6,7,8-heptaCDD
Hexachlorocyclohexane, Total	77835		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	Group 2 Pollutant			Benzene Hexachloride [BHC] [HCH]; BHC, Total; HCH, Total
1,2,3,4,7,8-hexachlorodibenzofuran	30352	70648269	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,4,7,8-hexaCDF
1,2,3,6,7,8-hexachlorodibenzofuran	30353	57117449	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,6,7,8-hexaCDF
1,2,3,7,8,9-hexachlorodibenzofuran	30354	72918219	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,7,8,9-hexaCDF
2,3,4,6,7,8-hexachlorodibenzofuran	30355	60851345	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			2,3,4,6,7,8-hexaCDF
1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	30345	39227286	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,4,7,8-hexaCDD
1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	30346	57653857	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,6,7,8-hexaCDD
1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	30347	19408743	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,7,8,9-hexaCDD
Hydrocarbons, Petroleum	82180		Grab	Grab	mg/L	kg/day; lb/day; mg/L; ug/L				TPH

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Inorganic Nitrogen, Total	00640	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			N
Iron, Dissolved	01046	7439896	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Fe
Iron, Total	01045	7439896	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Fe
Iron, Total Recoverable	00980	7439896	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				Fe
Lead, Dissolved	01049	7439921	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Pb
Lead, Total	01051	7439921	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Pb
Leptophos	51382	21609905	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				abar; fosvel; leptofos; lepton; leptophos octon; phosvel
Linuron, Total Recoverable	82666	330552	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Lithium, Total	01132	7439932	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Li
Magnesium, Dissolved	00925	7439954	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mg
Magnesium, Total	00927	7439954	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mg
Magnesium, Total Recoverable	00921	7439954	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mg
Malathion	39530	121755	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			carbophos; mercaptothion
Manganese, Dissolved	01056	7439965	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mn

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Manganese, Total	01055	7439965	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mn
Manganese, Total Recoverable	11123	7439965	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Mn
MCPA	30192	94746	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
MCPP	30193	93652	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Mercury, Dissolved	71890	7439976	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Hg
Mercury, Total	71900	7439976	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Hg
Merphos	30009	150505	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				tributylphosphorotrithioite
Methiocarb	38500	23032657	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Methomyl	39051	16752775	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Methoxychlor	39480	72435	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Methyl Parathion	39600	298000	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			metaphos
Methyl Tert-butyl Ether (MTBE)	22417	1634044	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L				
Methylene Blue Active Substances (MBAS)	47021		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Surfactants
Mevinphos	39610	7786347	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Phosdrin

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Mexacarbate	38506	315184	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Mirex	39755	2385855	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Molinate	49562	2212671	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Molybdenum, Dissolved	01060	7439987	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Mo
Molybdenum, Total	01062	7439987	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Mo
Molybdenum, Total Recoverable	01129	7439987	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				Mo
Mono-chloro-benzenes	34031	108407	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Chlorobenzene
Monuron	38511	150685	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				chlorfenidim
Naled	38855	300765	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				bromchlophos; BRP; dibrom
Neburon	38521	555373	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				neburea
Nickel, Dissolved	01065	7440020	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ni
Nickel, Total	01067	7440020	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ni
Nitrate Nitrogen, Total (as N)	00620	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			NO3
Nitrate Nitrogen, Total (as NO3)	71850	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Nitrite Nitrogen, Total (as N)	00615	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			NO2
Nitrite Nitrogen, Total (as NO2)	71855	14797650	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Nitrite Plus Nitrate (as N)	00630	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			NO2 + NO3
Nitrogen, Total (as N)	00600	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L				N
1,2,3,4,6,7,8,9-octachlorodibenzofuran	51025	39001020	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			OCDF; Octa CDF
1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin	03818	3268879	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			OCDD; Octa CDD
Organic Nitrogen, Total (as N)	00605	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			TON
Orthophosphate (as P)	04175	7723140	Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Oxamyl	38865	23135220	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Parathion	39540	56382	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ethyl Parathion; thiophos
p-cresol	78396	106445	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			4-methylphenol
1,2,3,7,8-pentachlorodibenzofuran	30350	57117416	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,7,8-pentaCDF
2,3,4,7,8-pentachlorodibenzofuran	30351	57117314	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			2,3,4,7,8-pentaCDF
1,2,3,7,8-pentachlorodibenzo-p-dioxin	30344	40321764	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			1,2,3,7,8-pentaCDD

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Pentachloroethane	81501	76017	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			ethane pentachloride; pentalin
Perchlorate	61209		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Ammonium perchlorate; Cl04
Phenolic Compounds, Total	70029		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L				
Phenolic Compounds, Unchlorinated	78218		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Phenolic Compounds, non-chlorinated; Phenols, nonchlorinated
Phenolics, Total Recoverable	32730		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Phenolic Compound; Total Phenolic Compounds
Phenols	46000		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			total Phenols
Phenols, Chlorinated	74015		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Chlorinated Phenolics; Phenolic compounds, chlorinated
Phorate	46313	298022	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Phosmet, Organic Pesticide	51154	732116	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				appa; decemthion; fesdan; imidan; kemolate; phthalophos; PMP; prolate; safidon
Phosphamidon	78881	13171216	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Phosphate, dissolved/orthophosphate (as P)	00671	7723140	Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Phosphate, Total (as P)	70505	7723140	Grab	Grab	mg/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			
Phosphate, Total (as PO4)	00650	7723140	Grab	Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Phosphorous, In Total Orthophosphate	70507	7723140	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Phosphorus, Total (as P)	00665	7723140	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L; ug/L				Phosphorous

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Phosphorus, Total Organic (as P)	00670	7723140	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Phosphorous
Picloram	39720	1918021	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Polychlorinated Biphenyls (PCBs)	39516		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ng/L; ug/L	Group 2 Pollutant			PCBs sum; PCBs Total
Polynuclear Aromatic Hydrocarbons (PAHs)	22456		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				PNAs
Potassium, Total Recoverable	00939	7440097	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			K
Propoxur	38537	114261	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				arprocarb; PHC
Radiation, Gross Beta	03520		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	PCi/L	PCi/L	Group 2 Pollutant			Gross Beta Particle Activity
Radioactivity	00189		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	PCi/L	PCi/L	Group 2 Pollutant			Radionuclides
Residue, Volatile Nonfilterable	81013		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Ronnel	39357	299843	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
Salinity	00480		Composite	24-hour Composite; 8-hour Composite; Composite; Grab; Measure	mg/L	kg/day; lb/day; mg/L				
Selenium, Dissolved	01145	7782492	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Se
Selenium, Total	01147	7782492	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Se

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Settleable Solids	00545		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ml/L	ml/L	Group 1 Pollutant			Settleable Matter
Siduron	38547	1982496	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Silver, Dissolved	01075	7440224	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ag
Silver, Total	01077	7440224	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ag
Simazine	39055	122349	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				
Sodium, Total	00929	7440235	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Na
Sodium, Total Recoverable	00923	7440235	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			Na
Stirophos	38686	22248799	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Tetrachlorviphos
Styrene	81708	100425	Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
Sulfate	81020		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Sulfate (as S)	00154		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Sulfates
Sulfate, Total (as SO4)	00945	14808798	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Sulfates
Sulfide, Dissolved, (as S)	00746		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Dissolved Sulfides
Sulfide, Total	81621		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Sulfide, Total (as S)	00745		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Sulfides
Sulfotepp	82201	3689245	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Bladafume
Swep	38554	1918189	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				MCC; methyl (3,4-dichlorophenyl)carbamate; methyl 3,4-dichlorocarbanilate
TCDD Equivalents	82698		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; pg/L; ug/L	Group 2 Pollutant			2,3,7,8 Equivalents
Temperature, Deg. Centigrade	00010		Grab	Grab	Degrees C	Degrees C				Degrees C
Temperature, Deg. Fahrenheit	00011		Grab	Grab	Degrees F	Degrees F				Degrees F
TEPP	39620	107493	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				ethyl pyrophosphate; tetraethylphosphorotrithioate
Terbufos (counter) Total	82088	13071799	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			
2,3,7,8 tetrachlorodibenzofuran	38691	51207319	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	pg/L	kg/day; lb/day; pg/L; ug/L	TCDD Congener			2,3,7,8 tcdf; 2,3,7,8 tetrachloro-dibenzo p-furan; 2,3,7,8-tetraCDF
2,3,4,6-tetrachlorophenol	77770	58902	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			
Thiobencarb	34722	28249776	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L				benthiocarb; Bolero
Thionazin	51381	297972	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Cynem
Tin, Dissolved	01100	7440315	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Sn
Tin, Total	01102	7440315	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Sn

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
Tin, Total Recoverable	00983	7440315	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			Sn
Titanium, Dissolved	01150	7440326	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ti
Titanium, Total	01152	7440326	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Ti
Titanium, Total Recoverable	00984	7440326	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Ti
Tokuthion	38564	34643464	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				Prothiofos
Total Coliform	74056		Grab	Grab	MPN/ 100 mL	CFU/100 mL; MPN/100 mL				Total Coliform Organisms
Total Dissolved Phosphorus	00666	7723140	Composite	24-hour Composite; 8-hour Composite; Composite; Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Phosphorous
Total Dissolved Solids (TDS)	70295		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			
Total Kjeldahl Nitrogen (as N)	00625	7727379	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			TKN
2,4,5-TP (Silvex)	79732	93721	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			2,4,5-trichlorophenoxypropionic acid; Silvex
Tributyltin (TBT)	03824	688733	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ng/L; pg/L; ug/L	Group 2 Pollutant			Stannane; tributyl stannane
Trichlorfon	51385	52686	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				chlorophos; metriphonate; trichlorphon
Trichlorofluoromethane	34488	75694	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			freon 11 ; trichloromonofluoromethane
Trichloronate	38897	327980	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L				
1,2,3-trichloropropane	77443	96184	Grab	Grab	ug/L	kg/day; lb/day; ug/L				

Official Parameter Name	PCS Code	CAS Number	Default Sample Type	Allowable Sample Types	Default Unit	Allowable Units	Parameter Groups[1]	Parameter Sub-groups	CTR Number[2]	Synonyms
1,1,2-trichloro-1,2,2-trifluoroethane	77652	76131	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			1,1,2-Trichlorotrifluoroethane; FC113; Freon 113
Trihalomethane, Total	82080		Grab	Grab	ug/L	kg/day; lb/day; ug/L	Group 2 Pollutant			TTHM
Tritium, Total	82126	10028178	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	PCi/L	PCi/L	Group 2 Pollutant			
Turbidity	00070		Composite	Composite; Grab; 24-hour Composite; 8-hour Composite; Measure	NTU	JTU; NTU				
Urea	71800	57136	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	mg/L	kg/day; lb/day; mg/L	Group 2 Pollutant			
Vanadium, Dissolved	01085	7440622	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			V
Vanadium, Total	01087	7440622	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; ug/L	Group 1 Pollutant			V
Vanadium, Total Recoverable	01128	7440622	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 1 Pollutant			V
Volatile Suspended Solids (VSS)	00535		Composite	24-hour Composite; 8-hour Composite; Composite; Grab	mg/L	kg/day; lb/day; mg/L	Group 1 Pollutant			Volatile suspended matter
Xylene	81551	1330207	Grab	Grab	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			o-xylene 95476, m-xylene 108383, p-xylene 106423
Zinc, Dissolved	01090	7440666	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Zn
Zinc, Percent Removal	51401	7440666	Calculate	Calculate	%	%				Zn
Zinc, Total	01092	7440666	Composite	Composite; Grab; 24-hour Composite; 8-hour Composite	ug/L	kg/day; lb/day; mg/L; ug/L	Group 2 Pollutant			Zn