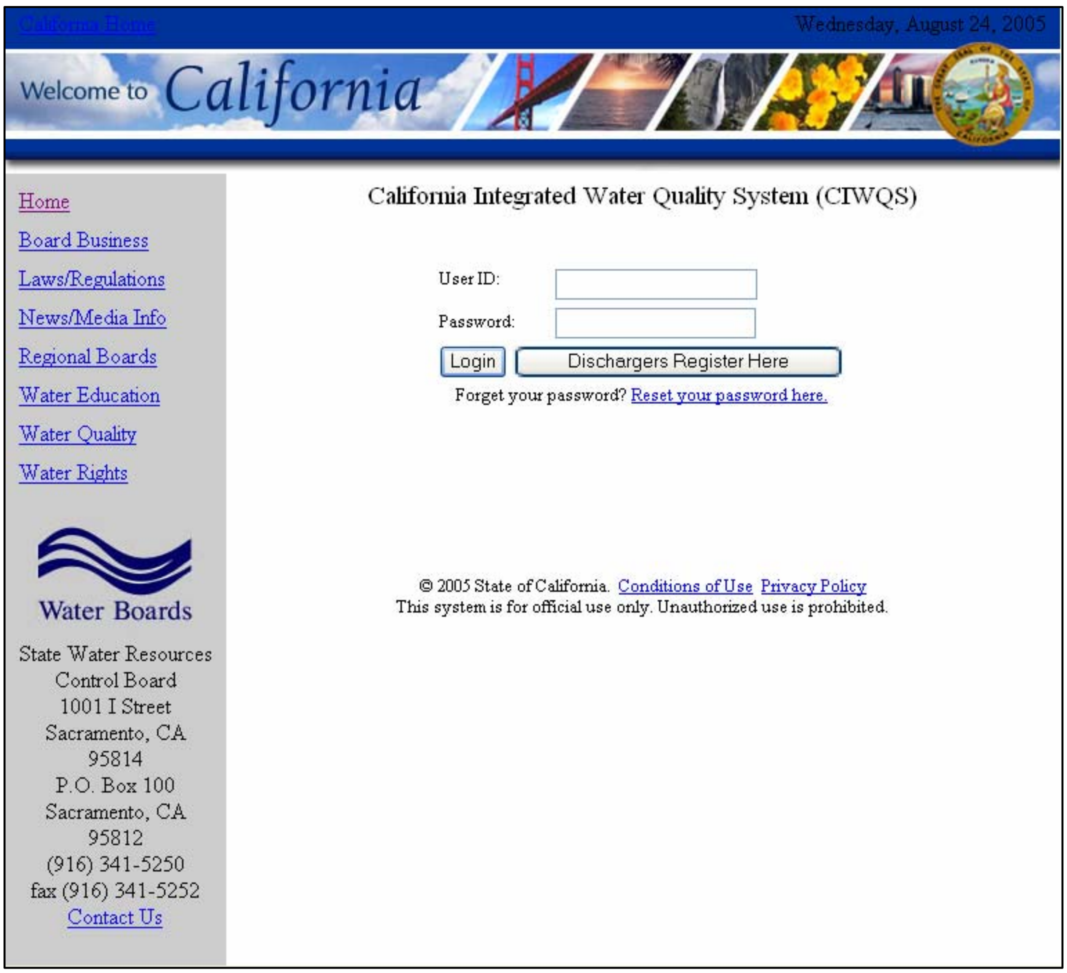
California Integrated Water Quality System (CIWQS)

Water Board 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)

Water Board User's Guide

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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 Users 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 six parts. Each part represents a group of related tasks or actions that can be performed in CIWQS.

Part I – 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 II – Data Entry: Places, Parties, and Regulatory Measures

This part provides step-by-step instructions for working with the *Places*, *Parties*, and *Regulatory Measures* Modules.

Part III – Data Entry: The eSMR

Part III offers step-by-step instructions on how to create and submit data for eSMRs and gives detailed information on how to upload data to CIWQS using both the Electronic Data Format (EDF) and the CIWQS Data Format (CDF).

Part IV – Enforcement

This part covers the three Modules related to enforcement: the *Create/Maintain Violations* Module, the *Create/Maintain Inspections* Module, and the *Create/Maintain Invoices* Module. It also revisits the *Regulatory Measures* Module and includes an overview and explanation of the Enforcement tab.

Part V – GeoWBS

This part covers the Geographic Information System (GIS)-based applications that work in concert with the CIWQS system. These features exist both within and outside the CIWQS Web-based interface.

Information covered includes an introduction to the Geo Waterbody System (GeoWBS), the GeoWBS Navigator (accessed through the *Map It!* Module), the GeoWBS Online Editor, and the GeoWBS Desktop Editor (an ESRI ArcGIS-based application).

Part VI – System Administration

This part covers the CIWQS *System Administration* Module and takes a closer look at some of the other CIWQS features. Instructions are provided for how to create and maintain Users, and the *IDEF* Module is introduced and explained.

Appendixes

Appendix A provides information on the Error Checks used to produced the Error Check Reports for electronic Self-Monitoring Reports (eSMRs). Appendix B contains data tables listing the various CIWQS security functions. Appendix C 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

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 Water Board User’s Guide

Part I

CIWQS Administration

1
User Registration and Login

This chapter addresses the following topics:

- How to register
- 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. As a member of a State or Regional Water Board, you must be registered by a CIWQS System Administrator. You will not be able to self-register. To register as a CIWQS User, contact your local CIWQS System Administrator.

Registration provides you with a User ID, password, and access to information for the Facilities within your Region (if you belong to a Regional Water Board) or for all registered Facilities (if you are a member of the State Water Board).

☞ **CIWQS is a secure system accessed through a login screen where a User enters his or her unique User ID and password. Passwords should be protected to prevent unauthorized individuals from accessing sensitive information. Each User must register individually to obtain a User ID and password.**

If you attempt to register for CIWQS through the login page (by clicking the "Register Here" button), you will be presented with the *New User* page (Figure 1.1).

Selecting the radio button next to the "I am a member of a California EPA Water Board" option and clicking the "Next" button will result in the following message:

"Please contact your CIWQS system administrator to register."

Click the "Cancel" button to return to the CIWQS login page.

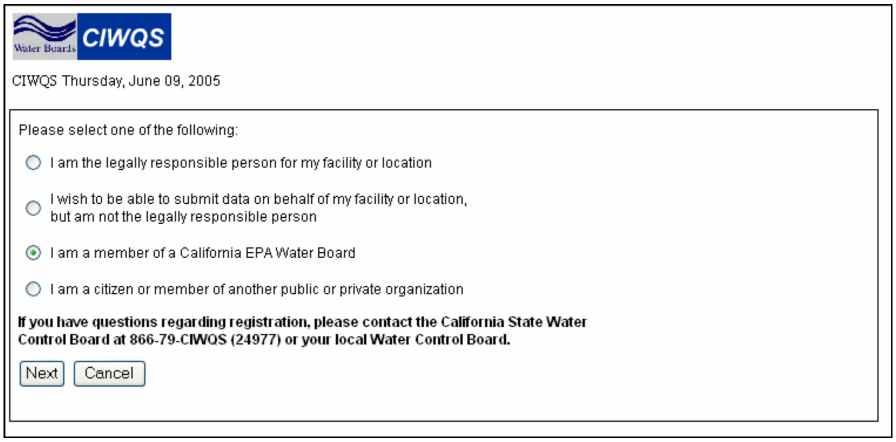


Figure 1.1 New User Page

When your registration is complete, you will receive a verification e-mail with a User ID and password. You will then be able to log into CIWQS at http://ciwqs.waterboards.ca.gov.

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 Log into CIWQS

CIWQS can be accessed through the State Water Resources Control Board's Web site at http://ciwqs.waterboards.ca.gov (Figure 1.2).

Figure 1.2 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. Each User is provided a unique User ID and password by the System Administrator. If you do not yet have a password, you must first register to become a new User.

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 local 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 1.3).

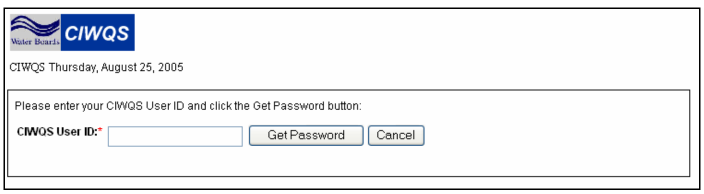


Figure 1.3 Reset Password Page

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 into CIWQS, you will arrive at the CIWQS Main Menu (Figure 1.4).

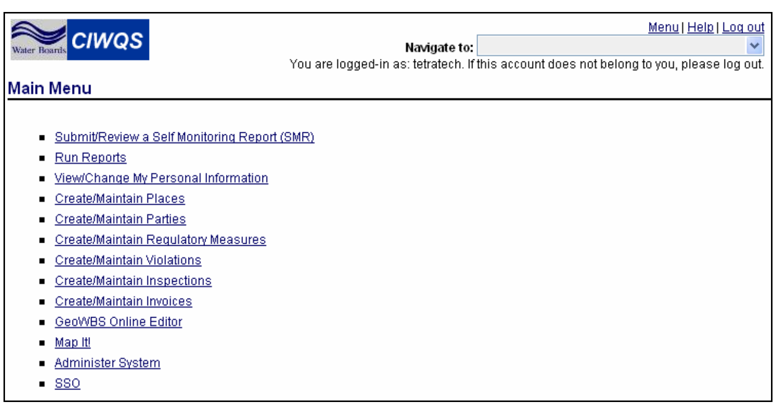


Figure 1.4 CIWQS Main Menu (for a System Administrator)

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 a Legally Responsible Person (LRP) or an authorized consultant to submit an electronic Self-Monitoring report (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.

Create/Maintain Places. This module allows you to manage information about Facilities and other Places.

Create/Maintain Parties. This Module allows you to manage information about Agencies and other Parties (organizations and people).

Create/Maintain Regulatory Measures. This Module allows you to create and maintain information on Regulatory Measures such as Permit Orders, Enforcement Orders, and Enforcement Actions.

Create/Maintain Violations. This Module allows you to create and maintain information about Permit and Order Violations.

Create/Maintain Inspections. This Module allows you to manage information about Inspections.

Create/Maintain Invoices. This Module allows you to track Invoices and payments against Invoices.

GeoWBS Editor Module. This Module provides access to the GeoWBS Online Editor, where information regarding water body attainment status can be recorded.

Map It! This link provides access to the GeoWBS Navigator. The Navigator allows you to view geographic data for California and print related reports.

Administer System Only System Administrators will have access to this Module.

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 1.5). It is designed to aid in site navigation and provide links to the CIWQS Main Menu and CIWQS Help.

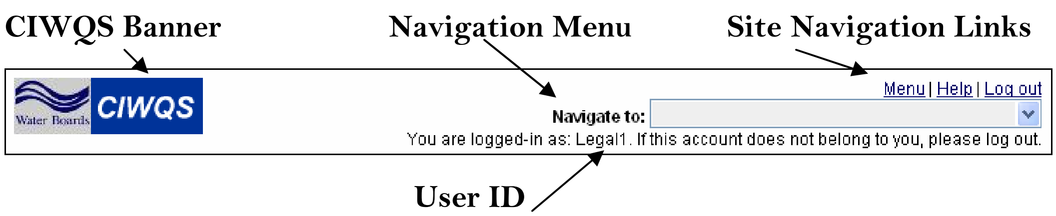


Figure 1.5 CIWQS Header

CIWQS Banner

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

Navigation drop-down Menu

- Allows you to select one of the Modules.
- Selecting a Module automatically takes 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.

2
Personal Information Module

This chapter addresses the following topics:

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

2.1 The Personal Information Module

The *View/Change My Personal Information* Module serves four 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.

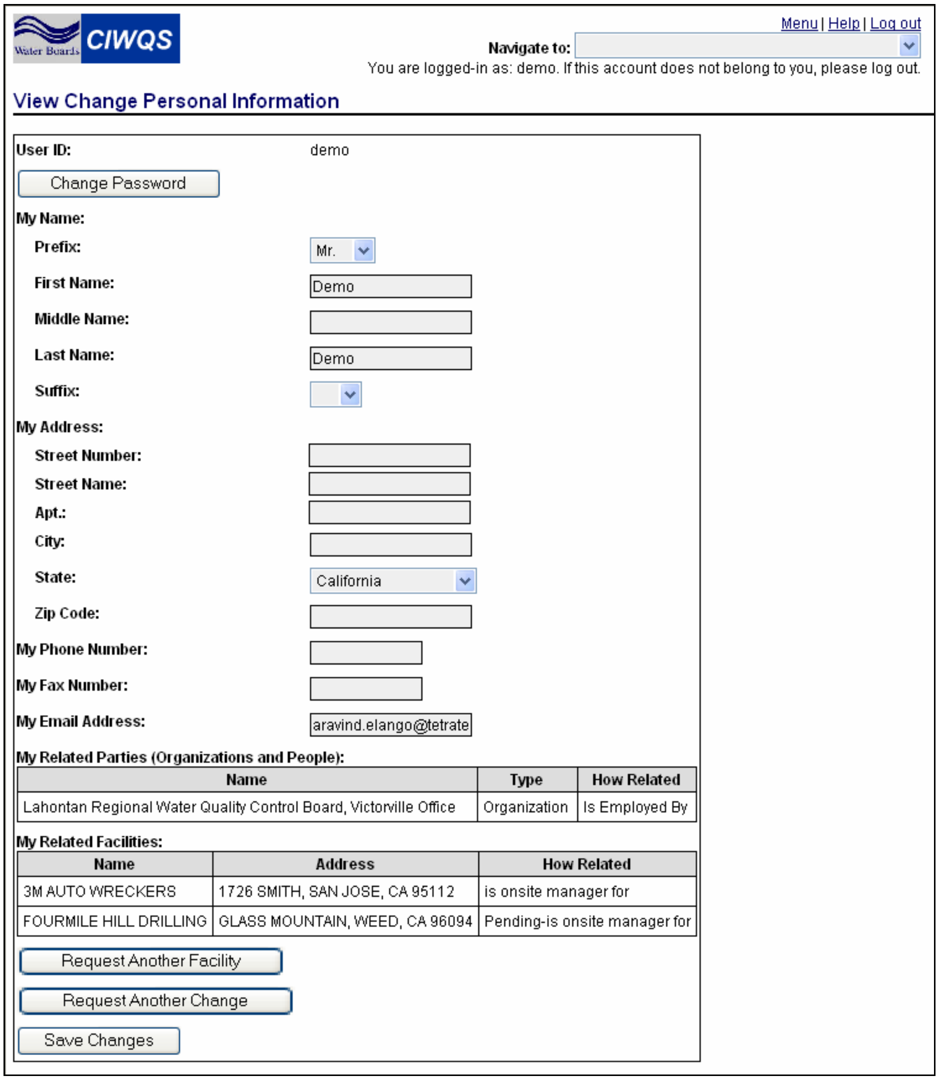


Figure 2.1 View/Change My Personal Information Page

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).

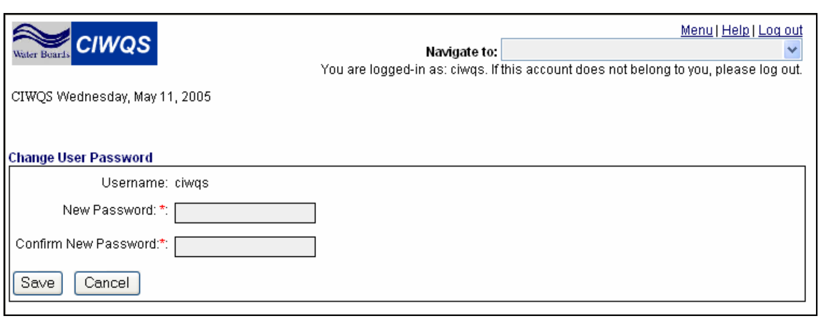


Figure 2.2 Change User Password Page

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.

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.

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

2.1.2 Changing Your Personal Information

The editable fields on the *View/Change My Personal Information* page contain your personal information. This information includes

- Name information (only certain Users have the ability to change name information)
- Address information (street number, street name, apartment, city, state, ZIP code)
- Phone number
- Fax number
- E-mail address

To change any of the information, simply type in your corrections and click the “Save Changes” button at the bottom of the page.

The “Save Changes” button saves only changes related to your personal information. New password information is saved through the *Change User Password* page.

2.2 Related Facilities and Parties

The *View/Change My Personal Information* page also shows your related Parties (Organizations and People) and related Places (Facilities). 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 which you are related.

The table entitled "My Related Facilities" lists the facilities for which you are a case manager.

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

2.2.1 How to Add a Related Facility

To request the addition of 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).

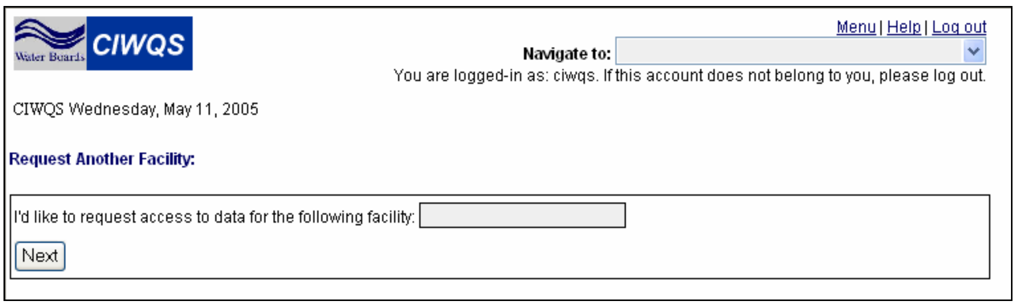


Figure 2.3 Request Another Facility Search Page

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).

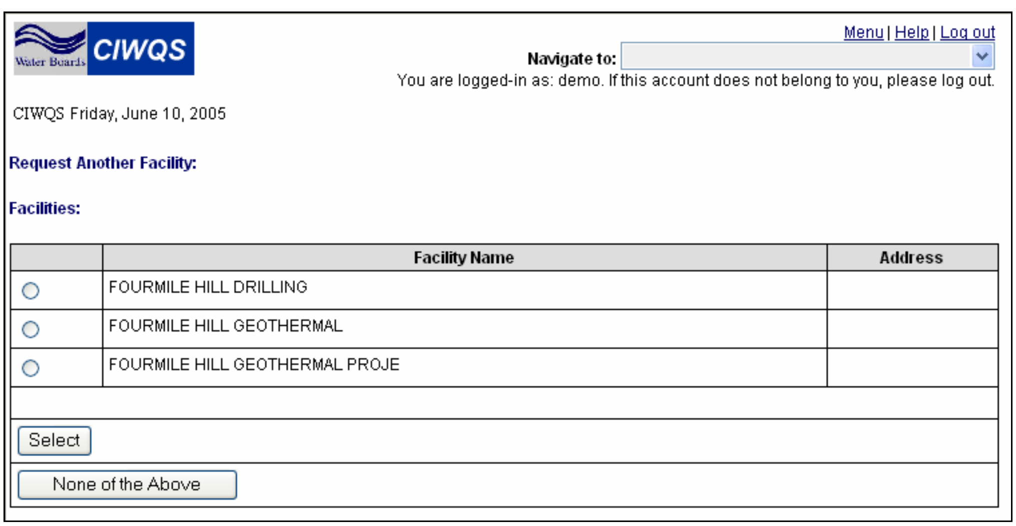


Figure 2.4 Request Related Facility Page

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 My 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 on 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).

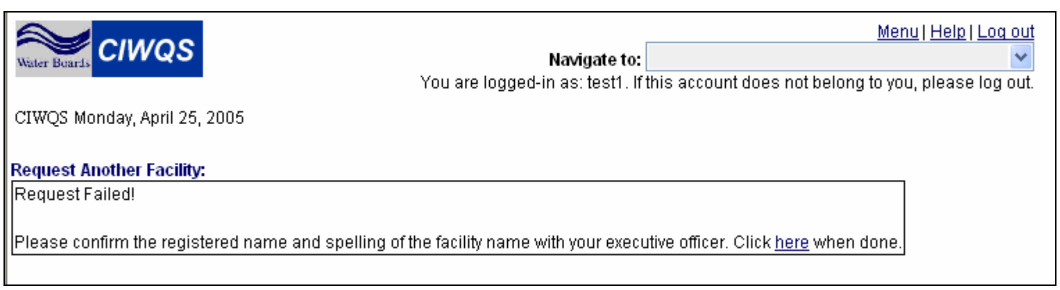


Figure 2.6 Request Another Facility: Request Failed

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 Water Board User's Guide

Part II

Data Entry:
Places, Parties and Regulatory Measures

3
Places Module

This chapter addresses the following topics:

- An introduction to the Places Module
- A survey of Place types
- Searching for an existing Place
- Creating a new Place

3.1 Introduction to the Places Module

The *Create/Maintain Places* Module allows new Places to be created, allows existing Place data to be modified, and offers Place-centric access to other system Modules. This Module is where Discharge Points and Facilities are created and managed.

The *Create/Maintain Places* Module can be accessed through the CIWQS Main Menu or by using the Navigation drop-down menu at the top of each page.

3.1.1 Types of Places

The *Create/Maintain Places* Module can be used to create records for many types of physical locations and geographic areas. The attributes and related information collected for a Place may be different for each type. Where appropriate, variations in data entry requirements are discussed.

Place types fall into four general categories:

1. Discharge Points
2. EPA Water Types
3. Management Geographic Areas
4. Physical Sites

The EPA Water Types, Management Geographic Areas, and Physical Sites categories are further broken down to provide a more precise description of a Place. Table 3.1 gives some examples of the Place type hierarchy.

Additional Place types can be added by a CIWQS System Administrator.

Table 3.1 Place Type Hierarchy

Place Type	*Subcategories*	
	Level 1	*Level 2*
EPA Water Type	Bay/Estuary	
	Coastal	
	Wetland	
Management Geographic Area	Management Area	District
		Region
	Groundwater	
	Lake	
	Reservoir	
Physical Site	Discharge Source	**Facility**
	Monitoring Area	Effluent Monitoring Point
	Non-point Source	
	Point Source	Industrial
		Military Facility
	Tank	
	Waste Management Unit	Landfill

As shown in Table 3.1, a Facility is one type of Place under the Physical Site category "Discharge Source."

3.1.2 Searching for a Place

Selecting the *Create/Maintain Places* Module from the Main Menu takes you to the *Place Search* page (Figure 3.1), where you can create a new Place or search for an existing Place. This page is used by several CIWQS Modules to search for Places and is representative of the types of search pages found throughout the CIWQS Modules.

To search for an existing Place, input criteria into the search fields. Table 3.2 lists these fields and describes how they can be used to search for related Places.

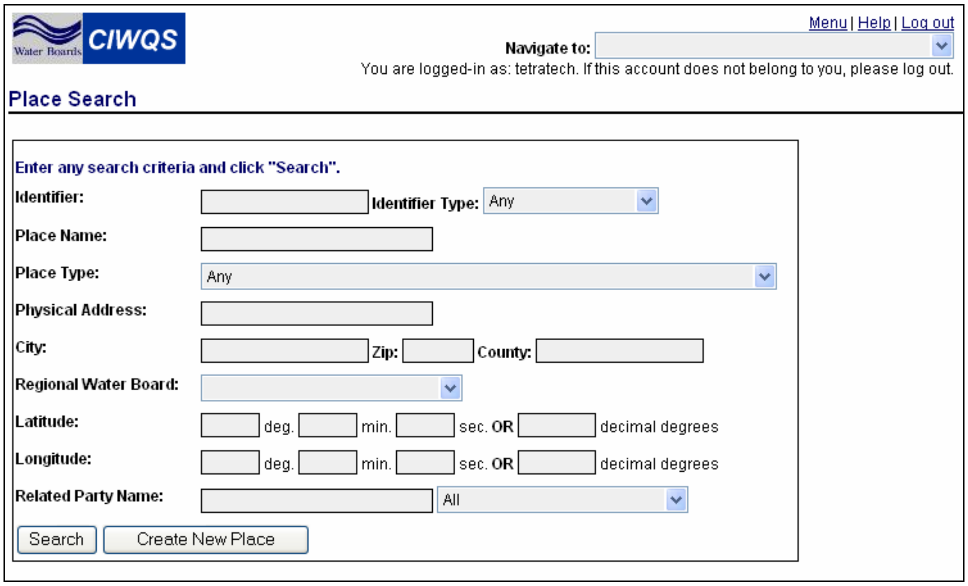
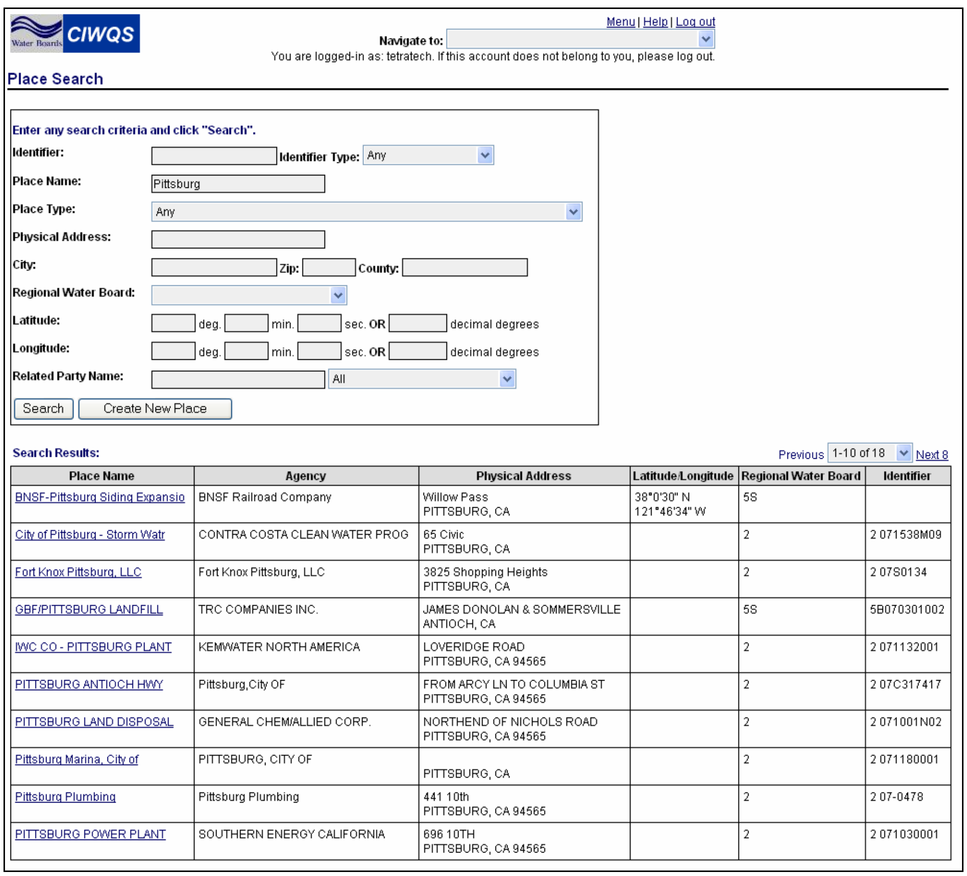


Figure 3.1 Place Search Page

After you click the "Search" button, a table appears below the search box showing the first 100 Place records that matched **all** the search terms you entered (Figure 3.2).



Place Name	Agency	Physical Address	Latitude/Longitude	Regional Water Board	Identifier
BNSF-Pittsburg Siding Expansio	BNSF Railroad Company	Willow Pass PITTSBURG, CA	38°0'30" N 121°46'34" W	5S	
City of Pittsburg - Storm Watr	CONTRA COSTA CLEAN WATER PROG	65 Civic PITTSBURG, CA		2	2 071538M09
Fort Knox Pittsburg, LLC	Fort Knox Pittsburg, LLC	3825 Shopping Heights PITTSBURG, CA		2	2 07S0134
GBF/PITTSBURG LANDFILL	TRC COMPANIES INC.	JAMES DONOLAN & SOMMERSVILLE ANTIOCH, CA		5S	5B070301002
IWC CO - PITTSBURG PLANT	KEMWATER NORTH AMERICA	LOVERIDGE ROAD PITTSBURG, CA 94565		2	2 071132001
PITTSBURG ANTIOCH HWY	Pittsburg,City OF	FROM ARCY LN TO COLUMBIA ST PITTSBURG, CA 94565		2	2 07C317417
PITTSBURG LAND DISPOSAL	GENERAL CHEM/ALLIED CORP.	NORTHEND OF NICHOLS ROAD PITTSBURG, CA 94565		2	2 071001N02
Pittsburg Marina, City of	PITTSBURG, CITY OF	PITTSBURG, CA		2	2 071180001
Pittsburg Plumbing	Pittsburg Plumbing	441 10th PITTSBURG, CA 94565		2	2 07-0478
PITTSBURG POWER PLANT	SOUTHERN ENERGY CALIFORNIA	696 10TH PITTSBURG, CA 94565		2	2 071030001

Figure 3.2 Results of a Place Search

Table 3.2 Place Search Fields

Field Name	Description
Identifier	Enter the Place Identifier in the text box. A complete identifier must be entered (e.g., “123” will not locate “1234” or “8123”).
Identifier Type	This field allows you to filter down to a specific identifier type. The default is “Any,” which will search all types. Note that all possible identifier types will be available, across all Place types. Selecting an identifier type that is incompatible with the selected Place type will result in records not being located.
Place Name	You can enter a full or partial Place name here. The search is not case-sensitive (e.g., “ac” would find “Acme” and “Trace”).
Physical Address	This field is used to search for the physical address (if defined). The system searches the number, direction, street, street type, and the suite/apartment of the address. The search is not case-sensitive (e.g., “Bradford” would find both “Bradford Way” and “North Bradford Street”).
City	This field is used to search for the Place location (if defined). The search is not case-sensitive (e.g., “spring” would find both “Springfield” and “Springdale City”).
ZIP	This field searches ZIP code (if defined). Only the first 5 digits need to be entered. If only 5 digits are entered, any ZIP code + 4 with those first 5 digits will be located.
County	This field searches County (if defined). The search is not case-sensitive (e.g., “rang” would find “Orange County”).
Regional Water Board	Selection of a Regional Board searches for Places located within the selected Water Board.
Latitude	This field searches for the Place location as specified by its latitude (if defined). Values can be entered for degrees/ minutes/seconds or decimal degrees. Must be an exact match.
Longitude	This field searches for the Place location as specified by its longitude (if defined). Values can be entered for degrees/ minutes /seconds or decimal degrees. Must be an exact match.
Related Party Name	This field allows you to search for Places related to a specified Party. A full or partial Party name can be entered. The search is not case-sensitive. This field can be used, for example, to locate a Facility by the agency, the operator, or a specific contact person.
Related Party Relationship	This field allows you to limit the search to Places with a specific relationship to the entered Party. The default is “All.”

Using the Places Search Engine

The CIWQS Place search engine is based on an AND search. This means that it will look for Places that match **all** of your search criteria. For example, entering “San Francisco” in the *Name* field and “EPA Water Type ->Bay/Estuary” in the *Place Type* field will find “San Francisco Bay” but not “San Francisco” or “Monterey Bay” because these do not match all the criteria that you entered.

Table 3.3 lists the fields included in the results table and describes each.

Table 3.3 Results Table

Field Name	*Description*
Place Name	Shows the name of the Place as a hyperlink. Clicking this link opens the record of the Place in the Place Editor.
Agency	If this is a Facility or other Place that has an “agency”, this field displays the agency name (related party with the relationship/role of agency). If no agency is defined for the Place or multiple agencies exist, nothing is displayed.
Physical Address	This field displays the Place’s physical address, if one has been defined.
Latitude/ Longitude	This field displays the Place’s latitude and longitude, if defined, in degrees/minutes/ seconds.
Regional Water Board	This field displays the number of the Water Board that has primary responsibility for regulation of the place.
Identifier	If the Place has been assigned an identifier that has been flagged as “primary,” it will be displayed here. If not, nothing will be shown.

If the Place record you were searching for appears in the Results table, you can access its record by clicking its name. If the Place of interest does not appear, you can enter new search criteria and click the “Search” button again to refresh the page.

If you have trouble finding an existing Place, try using fewer (or less stringent) search criteria. This will broaden your search.

3.2 The Place Editor

The Place Editor allows you to create a new Place or to modify the record for an existing Place. This page can be accessed by clicking the "Create New Place" button on the *Place Search* page or by clicking the name of a Place (in the *Place Name* field) in the results table when searching for an existing Place record.

There are seven tabs on the *Place Editor* page, and each tab records various types of Place information:

- General Information Tab
- SIC/NAICS Tab
- Related Parties Tab
- Related Places Tab
- Related Violations Tab
- Regulatory Measures Tab
- Additional Information Tab

Although individual tabs show different information, each has a common page header. The header shows the Place name, Regional Board, and Agency.

☞ **As information is saved in the Place Editor, the header information automatically refreshes to display updated information.**

3.2.1 General Information Tab

The General Information tab is the first page you see when you open the record for a Place or create a new Place record. The General Information tab captures basic information about the Place, including identifiers, name, and location information (Figure 3.3).

When you are creating a new Place, the General Information tab will be the only tab available for data entry until all required fields on the tab are filled out and the record has been saved. Saving the record activates the remaining tabs.

☞ **The "Save" button is activated only when new information has been added or removed. By default, it is inactive when the Place Editor is first opened.**

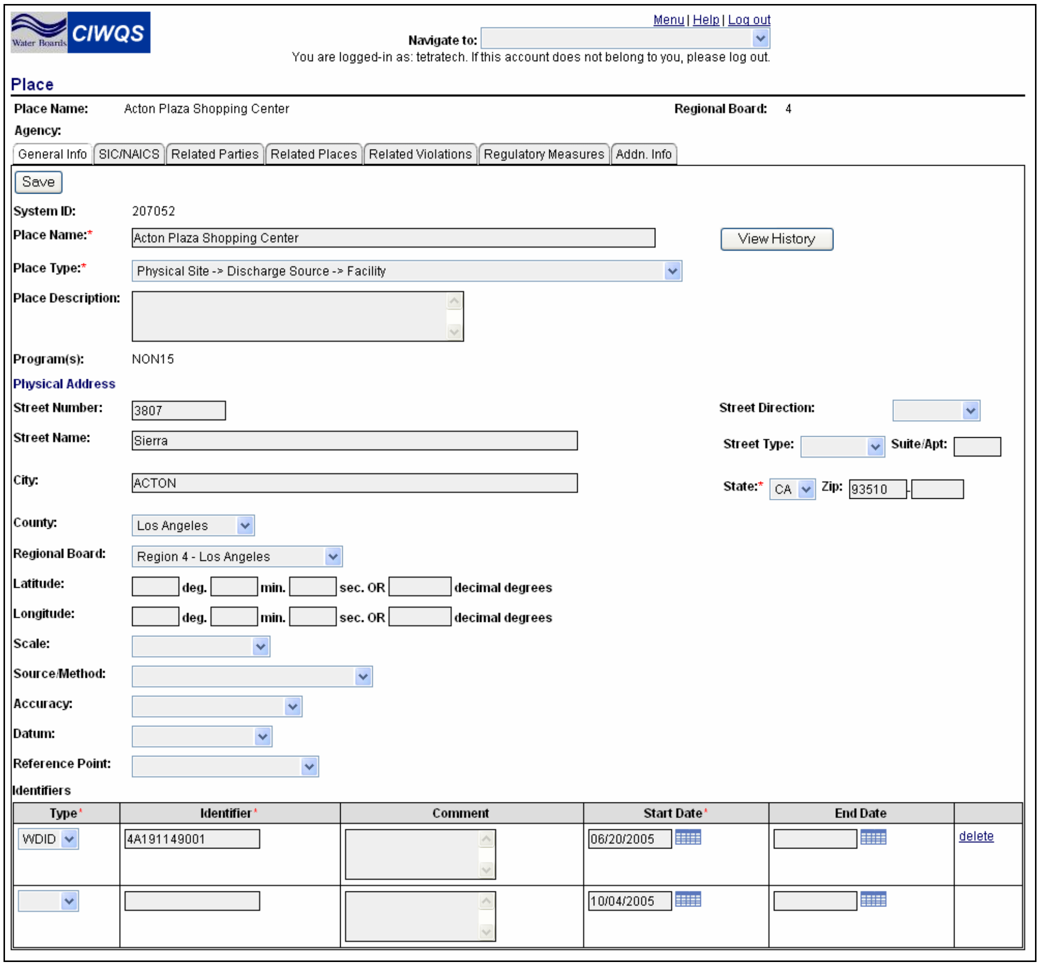


Figure 3.3 General Information Tab

Place Information

Basic information about a Place is captured in the fields in the upper part of the General Information tab (Figure 3.4). These fields include *System ID*, *Place Name*, *Place Type*, *Place Description*, and *Program(s)*. Both the *System ID* and *Program(s)* fields are read-only and are updated as necessary by the system. All required fields must be entered before the new record can be saved.

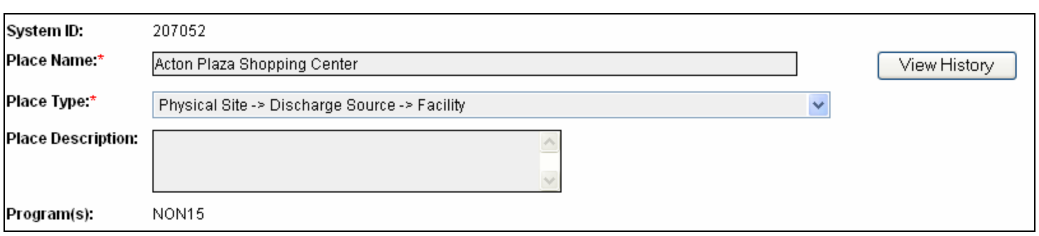


Figure 3.4 Basic Place Information Fields

The Place name and type are the only fields required before a Place record can be saved.

The first piece of information to be captured for a new Place is its name. After the Place Name is entered, select a Place Type from the drop-down menu. Optionally, you can add a brief description of the Place in the *Place Description* text field.

The *Program* field displays a list of the programs related to the Place. Programs are linked to a Place through the *Regulatory Measure* Module.

See Chapter 5 for more information on Regulatory Measures.

At this point, the "Save" button is activated and you can click it to save the record.

Required Fields

Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

In some instances, however, indicated fields are required only if you enter data into one field out of a group of several. For example, entering data into the *Street Direction* field on the General Information Tab requires you to then fill out information for the indicated *Address* fields. These fields are not required if you refrain from entering data into any of the fields.

Once the Place record has been saved, a System ID is generated and displayed at the top of the tab. The "View History" button is also activated. Clicking this button opens a new window to display the history of changes made to the Place name.

See Chapter 1 for more information on pop-up windows in CIWQS.

Place Address

The next set of information to be captured for a Place is its physical address. These fields can be found in the center of the tab (Figure 3.5). .

Not all Places will have a physical address.

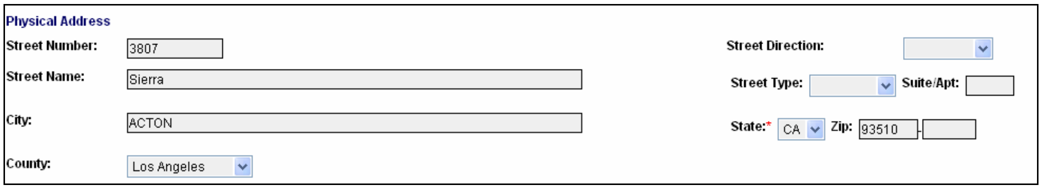


Figure 3.5 Place Address Fields

Table 3.4 lists the address fields and gives an example of how they should be entered.

Table 3.4 Place Address Fields

Field Name	*How to enter data for the address 1313 North Mockingbird Lane, San Jose, CA, 95116*
Address Type	Select the appropriate address type from the drop-down menu.
Street Number	Enter "1313" into the field.
Street Direction	Select "North" from the drop-down menu.
Street Name	Enter "Mockingbird" into the field.
Street Type	Select "Lane" from the drop-down menu.
Suite/Apt Mail Stop	Enter suite/apartment. information, if applicable (this field remains blank for this address).
City	Enter "San Jose" into the field.
State	Select "CA" from the drop-down menu.
ZIP	Enter "95116" into the first of the two text fields. (Format should be 99999 in the first box and 9999 in the second. Only the first five digits are required.)
County	Select "Santa Clara" from the drop-down menu.
Foreign Postal Code	Enter a foreign postal code, if applicable (this field remains blank for this address).

Additional Place Information

Additional information about a Place is captured in the lower part of the form (Figure 3.6). Table 3.5 lists these fields and describes each.

Recording Latitude and Longitude in CIWQS

You can enter latitude and longitude coordinates in the form of degrees/minutes/seconds or decimal degrees. If you enter decimal degrees, the system converts to degrees/minutes/ seconds when the user tabs out of the decimal degrees field. If you enter degrees, minutes, or seconds, the system will convert to decimal degrees when you tab out of one of these fields.

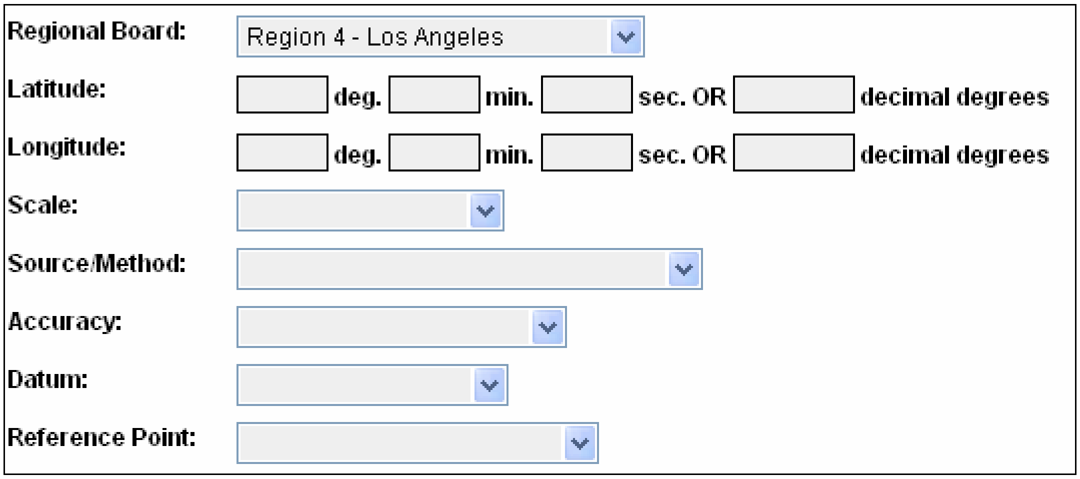


Figure 3.6 Additional Place Information Fields

Table 3.5 Additional Place Information Fields

Field Name	*Description*
Regional Board	Select the number of the Regional Board that has primary responsibility for regulation of the Place from the drop-down menu. If you are affiliated with a Regional Water Board, this field will default to the number of the Regional Water Board with which you are affiliated.
Latitude and Longitude	Enter the Place's geographic coordinates in degrees/minutes/seconds (including tenths) and/or decimal degrees (see sidebar above for additional information about this field). **The Reference Point is used to indicate to what point this coordinate refers (see below).**
Scale	Select the appropriate scale from the drop-down menu.
Source/Method	Select the source of the geographic data from the drop-down menu (e.g., GPS).
Datum	Select the datum for the geographic data from the drop-down menu (e.g., NAD83).
Accuracy	Select the accuracy level for the geographic data from the drop-down menu (e.g., 5 meters)
Reference Point	Select the reference point to which the latitude/longitude refers from the drop-down menu (e.g., spatial).

Identifiers

An identifier field can be found on most pages of the CIWQS interface. This generic field provides a way to attach unique numbers (or a combination of numbers and letters) to an entity. Within each Module, the list of identifier types is filtered to reflect options that are suitable for the entity (e.g., Place, Party, Violation, Regulatory Measure).

To add an identifier to the Place record, select an Identifier Type from the drop-down menu (Figure 3.7). Input the Identifier and the start date (the date the Identifier became or becomes active). The ( ) symbol next to the date field opens a calendar from which you can select a date, which is then automatically entered into the *Status Date* field. Optionally, you can enter text in the *Comments* field and enter an end date.

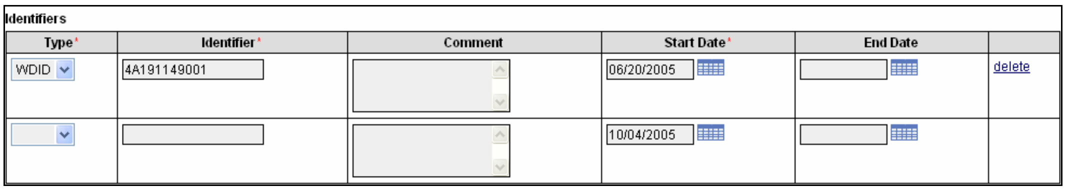


Figure 3.7 Place Identifiers

Clicking the "delete" hyperlink at the end of a row will remove an associated identifier from the Place record.

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

3.2.2 SIC/NAICS Tab

The SIC/NAICS Tab allows you to record the Standard Industrial Classification (SIC) codes and North American Industrial Classification System (NAICS) codes for a Place (Figure 3.8).

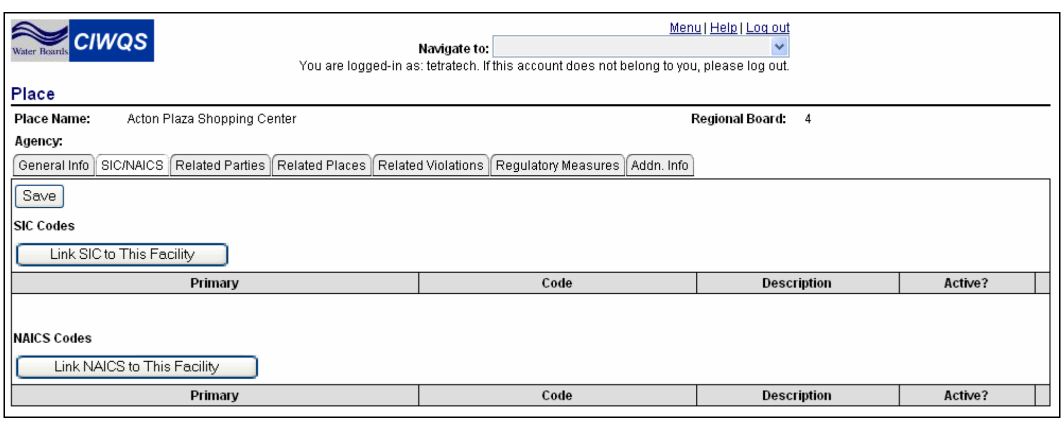
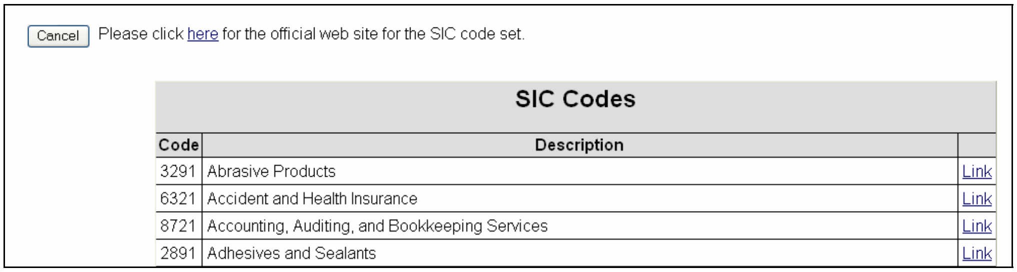


Figure 3.8 SIC/NAICS Tab

Typically, this tab is used only for a Place with "Facility" as its Place type.

To link a SIC or NAICS code to a Place, click the appropriate button ("Link SIC to This Facility" or "Link NAICS to This Facility"). Doing so opens the code selection pages (Figures 3.9 and 3.10) in new windows.

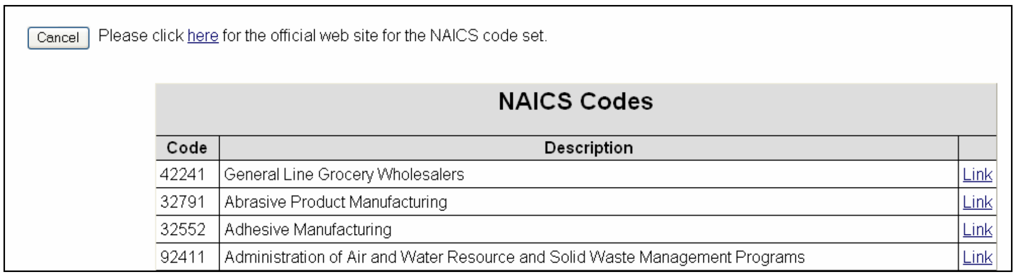


Cancel Please click here for the official web site for the SIC code set.

SIC Codes

Code	Description	
3291	Abrasive Products	Link
6321	Accident and Health Insurance	Link
8721	Accounting, Auditing, and Bookkeeping Services	Link
2891	Adhesives and Sealants	Link

Figure 3.9 SIC Code Selection Page



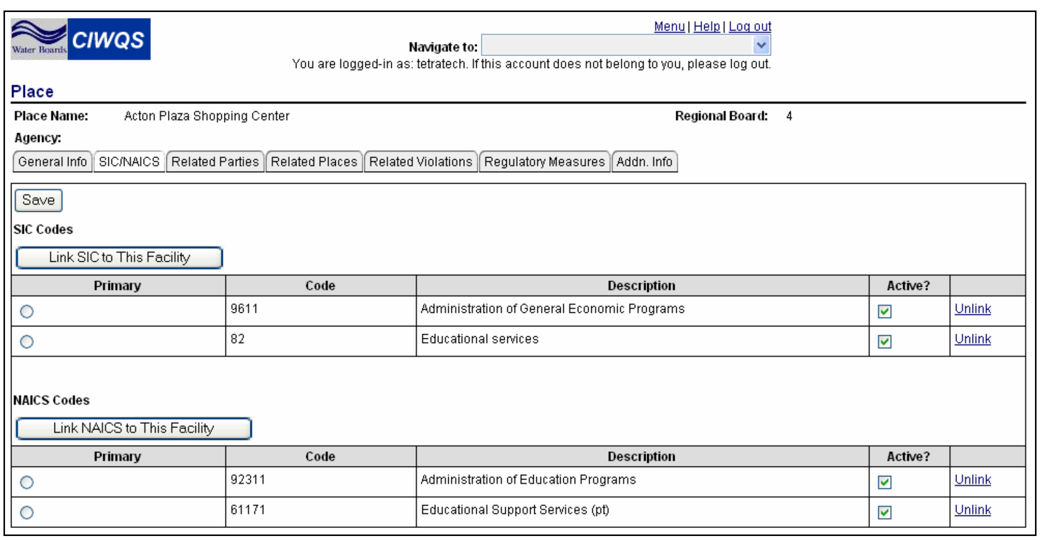
Cancel Please click here for the official web site for the NAICS code set.

NAICS Codes

Code	Description	
42241	General Line Grocery Wholesalers	Link
32791	Abrasive Product Manufacturing	Link
32552	Adhesive Manufacturing	Link
92411	Administration of Air and Water Resource and Solid Waste Management Programs	Link

Figure 3.10 NAICS Code Selection Page

To select a code, click the "Link" hyperlink in the appropriate row. This adds the selected code and returns you to the SIC/NAICS tab (Figure 3.11). Clicking the "Cancel" button returns you to the SIC/NAICS tab without adding a code.



Water Boards CIWQS

Menu | Help | Log out

Navigate to:

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

Place

Place Name: Acton Plaza Shopping Center Regional Board: 4

Agency:

General Info | SIC/NAICS | Related Parties | Related Places | Related Violations | Regulatory Measures | Addn. Info

Save

SIC Codes

Link SIC to This Facility

Primary	Code	Description	Active?	
○	9611	Administration of General Economic Programs	☑	Unlink
○	82	Educational services	☑	Unlink

NAICS Codes

Link NAICS to This Facility

Primary	Code	Description	Active?	
○	92311	Administration of Education Programs	☑	Unlink
○	61171	Educational Support Services (pt)	☑	Unlink

Figure 3.11 Place with SIC/NAICS Codes Added

No cross-checking is performed by the system to ensure that the SIC and NAICS codes match.

Once codes have been linked to the Place, the *Code* and *Description* fields display the selected SIC and/or NAICS information on the SIC/NAICS Tab. You have the option of selecting a primary code of either type by clicking the radio button in the appropriate table row.

The *Active?* field indicates whether the code is currently applicable to the Place. When there is a green check mark in the box, the code is marked as "Active." When the box is empty, the code is "Inactive."

To remove a code from the table, click the "Unlink" hyperlink in the appropriate table row. This unlinks the code from the Place but does not delete the code from the system.

For more information on SIC/NAICS codes, visit the U.S. Department of Labor OSHA Web site at http://www.osha.gov/oshstats/naics-manual.html.

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

3.2.3 Related Parties Tab

The Related Parties tab allows you to link Parties (People and Organizations) to the current Place (Figure 3.12). This is how relationships such as agencies/owners, operators, and program-specific contacts are specified.

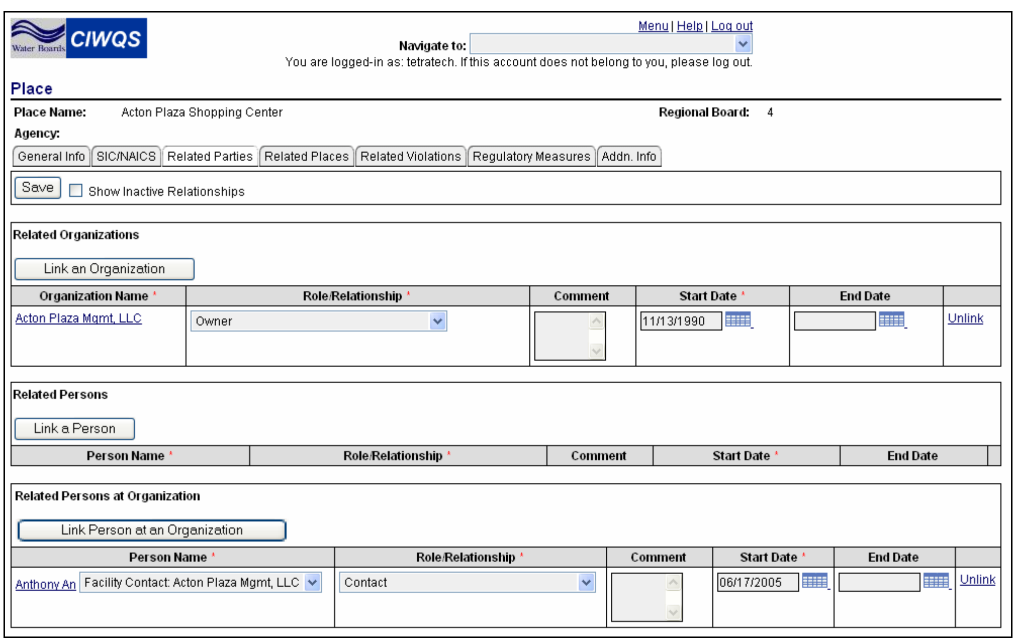


Figure 3.12 Related Parties Tab

See Chapter 4 for more information on Parties.

When the Related Parties tab is viewed, the default is for only the active relationships (relationships with a start date of today's date or earlier and an end date later than today's date) to be displayed. If you wish to see inactive relationships, select the box with the label "Show Inactive Relationships" next to the "Save" button at the top of the tab.

There are three options for linking Parties to the record:

- Link an Organization
- Link a Person
- Link a Related Person at an Organization (establishes roles)

Link an Organization

Clicking the "Link an Organization" button launches the *Party Search* page with the *Organization* checkbox pre-selected (the *Person* checkbox is clear). Enter the appropriate search criteria and click the "Search" button. When you have found the Organization you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Organizations Table (Figure 3.13).

To be linked to the current record, a Party must be pre-defined using the Create/Maintain Parties Module.

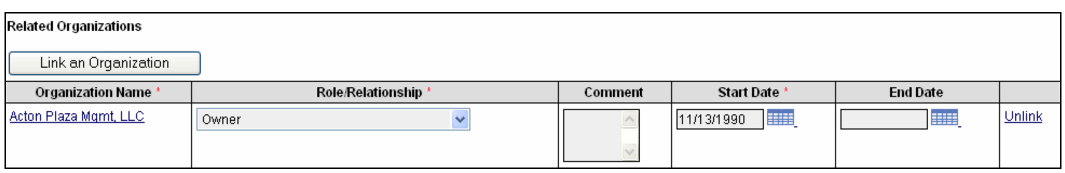


Figure 3.13 Linking an Organization

Additional information about the relationship with the linked Organization can be captured in the displayed fields. The *Role/Relationship* and *Start Date* fields are required for all linked Organizations.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Place and the linked Organization. The values available in the list change depending on the current Place type. The start date indicates the date the relationship became (becomes) effective.

Optionally, comments can be added to the *Comments* field and an *End Date* for the relationship can be established. The "Unlink" hyperlink removes the link to the Organization (the relationship between the Organization and the current Place) but does not delete the record for that Organization.

Link a Person

Clicking the "Link a Person" button launches the *Party Search* page with the *Person* checkbox pre-selected (the *Organization* checkbox is clear). Enter the appropriate search criteria and click the "Search" button. When you have found the Person you wish to link, click the "Select" hyperlink at the end of the corresponding row. This creates a new row in the Related Persons table (Figure 3.14).

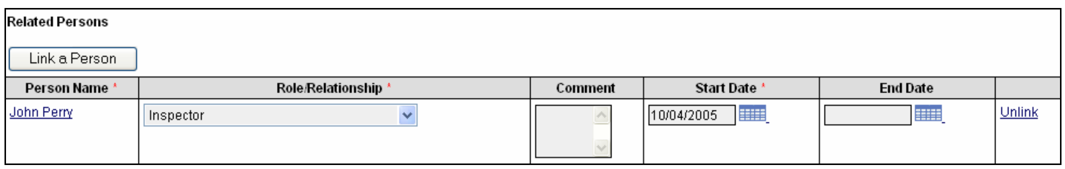


Figure 3.14 Linking a Person

Depending on your level of access, you might also be able to create a new record for a Person and then link the new Party record to the current record.

Additional information about the relationship with the linked Person can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked Persons.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Place and the linked Person. The values available in the list change depending on the current Place type. The start date indicates the date the relationship became (becomes) effective.

Optionally, comments can be added to the *Comments* field and an *End Date* for the relationship can be established. The "Unlink" hyperlink removes the link to the Person but does not delete the record for that Person.

Link a Related Person at an Organization

This button allows a Place to be linked to an affiliated Person. An affiliated Person is a person who has been linked to an Organization with a specific role/relationship.

An Example of Affiliation

John Smith (a Person) is an accountant for Company B (an Organization). John Smith is also a consultant for Companies A, B, and C (Organizations). In this example, John Smith has four affiliations: he has a role/relationship with Company B of "accountant" and a role/relationship with Companies A, B, and C of "consultant."

In this example, John Smith would be linked to Company B twice – once as an accountant and once as a consultant. He could be linked to Companies A and C once – as a consultant.

A Person who has been affiliated in this way (they have been linked/associated with an Organization) can be linked to a Place.

Clicking the "Link Person at an Organization" button launches the *Party Search* page with the Person checkbox pre-selected (the Organization checkbox is clear). Enter the appropriate search criteria and click the "Search" button. When you have found the Person you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Persons at Organization table (Figure 3.15). Table 3.6 describes the fields in this table.

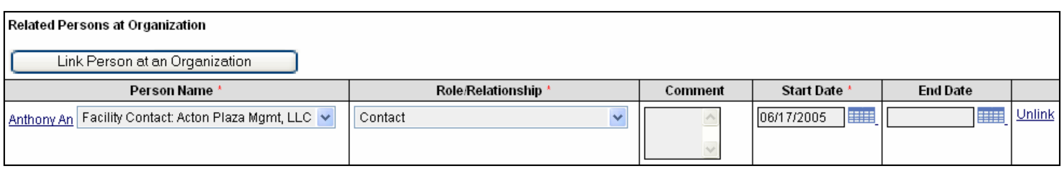


Figure 3.15 Linking a Person at an Organization

Table 3.6 Related Persons at Organization Table

Field Name	*Description*
Person Name	This field displays the name of the Person who was just selected using the *Party Search* page.
Role at Organization	Select a role/relationship from the drop-down menu to establish the connection between the current Place and the selected Party.
Comment	Use this optional field to input comments about the relationship.
Start Date	Enter the date the role/relationship became/becomes effective.
End Date	Enter the date the role/relationship becomes/became inactive.

Within this table, select the appropriate values from the *Party Name* and *Role/Relationship* drop-down menus. Enter the date the relationship became effective in the *Start Date* field.

Optionally, enter comments in the *Comments* field and an end date for the relationship.

The "Unlink" hyperlink removes the link to the Person but does not delete the record for that Person.

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

3.2.4 Related Places Tab

The Related Places tab allows you to link Places to the current record (Figure 3.16). This tab can be used to link Discharge Points to Discharge Facilities, or to associate other types of Places. When the Related Places tab is viewed, the default is for only the active relationships (relationships with a Start Date of today's date or earlier and an End Date later than today's date) to be displayed. If you wish to see inactive relationships, select the box with the label "Show Inactive Relationships" (in line with the "Save" button at the top of the tab).

Clicking the "Link a Place" button launches the *Place Search* page. Enter the appropriate search criteria and click the "Search" button. When you have found the Place you wish to link, click the "Select" hyperlink at the end of the corresponding row. This creates a new row in the Related Places Table.

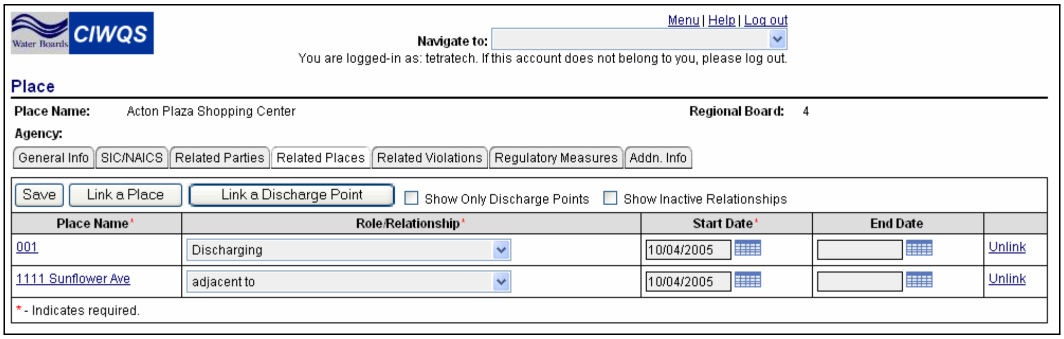


Figure 3.16 Related Places Tab

Additional information about the relationship with the linked Place can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked Places.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Place and the linked Place. The start date indicates the date the relationship became (becomes) effective.

To link a Discharge Point to a Place (typically a Facility), click the “Link a Discharge Point” button at the top of the tab. Clicking this button launches the *Place Search* page. In this case, only Places of type “Discharge Point” can be searched for or added. Enter the appropriate search criteria and click the “Search” button. When you have found the Discharge Point you wish to link, click the “select” hyperlink at the end of the corresponding row. This creates a new row in the Related Places Table.

Enter the appropriate data for the Discharge Point in the table fields, and click the “Save” button to update the record.

To view only related Discharge Points, select the “Show Only Discharge Points” checkbox at the top of the tab.

When you have entered or updated new information in the Related Places Tab, be sure to click the “Save” button at the top of the tab to avoid loss of data.

3.2.5 Related Violations Tab

The Related Violations tab displays all Violations related to the Place (Figure 3.17). It is not possible to add Violations to a Place using this tab. Violations must be created and assigned through the *Create/Maintain Violations Module.*

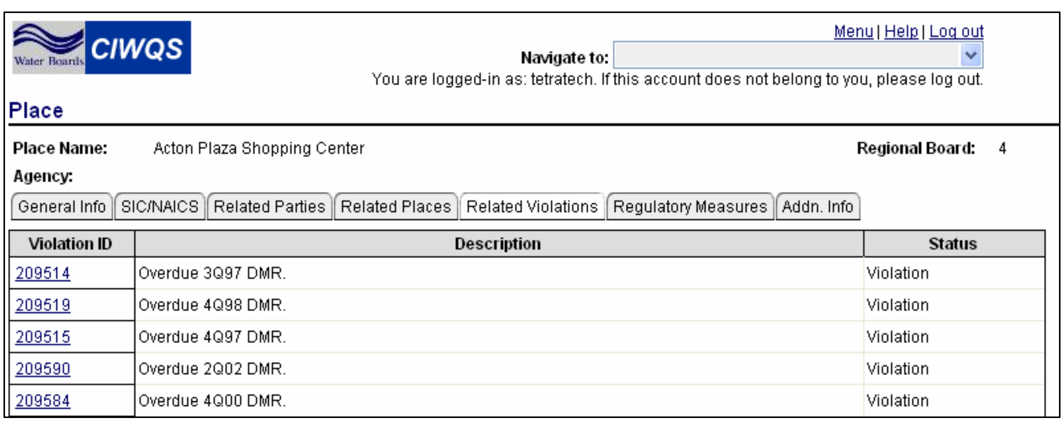


Figure 3.17 Related Violations Tab

See Chapter 9 for more information on the Violations Editor.

Clicking the hyperlink in the *Violation ID* field opens the record for the selected Violation in the Violations Editor.

3.2.6 Regulatory Measures Tab

The Regulatory Measures tab displays all Regulatory Measures related to the Party (Figure 3.18). It is not possible to add Regulatory Measures to a Party using this tab. Regulatory Measures must be created and assigned using the *Create/Maintain Regulatory Measures* Module.

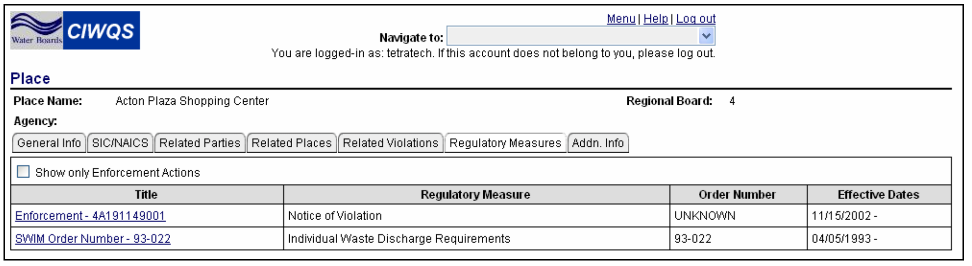


Figure 3.18 Regulatory Measures Tab

See Chapter 5 for more information on the Regulatory Measure Editor.

Clicking the hyperlink in the *Title* field opens the record for the selected Regulatory Measure in the Regulatory Measure Editor.

3.2.7 Additional Information Tab

The Additional Information tab is designed to capture any relevant information that the other tabs do not address. Additional information is recorded by documenting various attributes that apply to a particular Place type.

Because this page is used in several of the CIWQS Modules, it has been formatted to accept a wide range of data and information (Figure 3.19). The attributes that can be specified for a given Place are listed in the attribute table.

Contact the CIWQS Administrator if you wish to have an additional Place attribute added to the Additional Information tab.

When the Additional Information tab is viewed, the default is for only the active attributes (relationships with a Start Date of today's date or earlier and an End Date later than today's date) to be displayed. If you wish to see the inactive attributes, select the box with the label "Show Inactive" next to the "Save" button at the top of the tab.

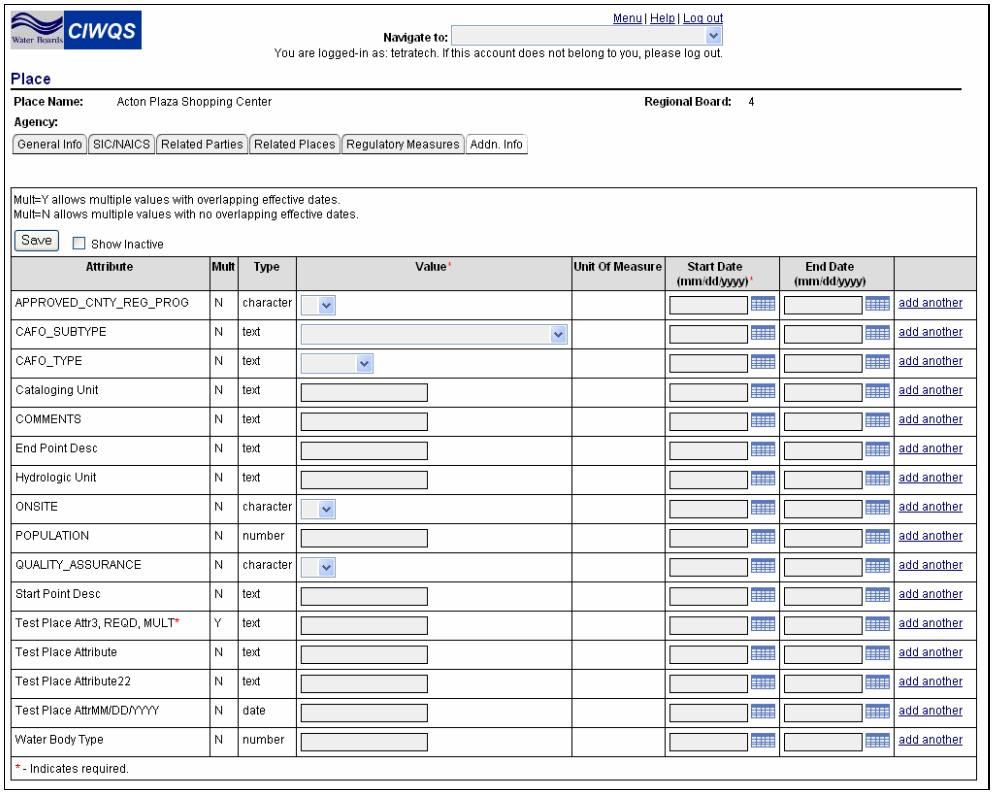


Figure 3.19 Additional Information Tab

All attributes allow multiple values to be entered by clicking the "add another" hyperlink at the end of the row. Only Attributes with a value of "Y" in the *Mult* field allow entries with overlapping start and end dates.

The fields of the Attribute Table are described in Table 3.7.

Table 3.7 Attribute Table Fields

Field	*Description*
Attribute	This field displays an attribute that can be recorded for the Place. Required attributes have an asterisk (*) prefix. This indicates that you are required to enter values for the *Value* and *Start Date* fields.
Value	Enter or select the value associated with the attribute. Depending on the attribute, this field might be displayed as a text field or as a drop-down menu. If the field is a text field, no data validation takes place.
Start Date	Enter the date the attribute was first used/was first true about the Facility/was first measured/was first reported/etc.
End Date	Enter the date the attribute was last used/was last true about the Facility/etc.

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

4
Parties Module

This chapter addresses the following topics:

- An Introduction to the Parties Module
- Searching for an Existing Party
- Creating a New Party

4.1 Introduction to the Parties Module

Parties are People and Organizations that own, operate, provide services to, receive services from, and otherwise have interest in a Facility or other Place. Parties also encompass "Agencies," which are the owners and operators of Facilities. 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.

4.1.1 Searching for a Party

Selecting the *Create/Maintain Parties* Module from the Main Menu takes you to the *Party Search* page (Figure 4.1), where you can decide to create a new Party or search for an existing Party. This page is used in several CIWQS Modules to search for Parties and is representative of the types of search pages found throughout the CIWQS Modules.

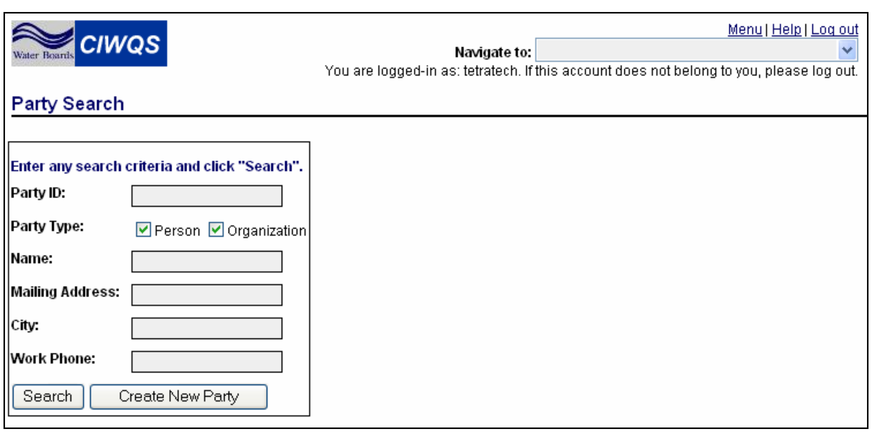


Figure 4.1 Party Search Page

To search for an existing Party, input criteria into the search fields. Table 4.1 lists these fields and describes how they can be used to search for related Parties.

Table 4.1 Party Search Fields

Field Name	*Description*
Party ID	Enter a Party ID to search for a Party record.
Person Checkbox	If selected, (default) records for People are included in the search.
Organization Checkbox	If selected, (default) records for Organizations are included in the search.
Name	This field searches for the name of an Organization or the last name of a Person. The search does not require wildcards and is not case-sensitive.
Mailing Address	This field searches for the primary address of a Person or Organization. The system searches for the Number, Street, Suite/Apartment, and Line 2 fields of the address. The search does not require wildcards and is not case-sensitive.
City	This field is used to search for the Party location (as specified in the primary address). Wildcards are not required, and the search is not case-sensitive.
Work Phone	This field is used to search for the Party telephone number (if specified). Numbers should be entered in the format 999-999-9999.

Using the CIWQS Search Engine

The CIWQS Party search engine is based on an AND search. This means that it will look for places that match all of your search criteria. For example, if you enter “Smith” in the Name field and “Houston” in the City field, the system will search for all Party records that satisfy both criteria. This search will not produce the record for John Smith of Baltimore or Ken Thomas from Houston because neither record satisfies both search requirements.

In addition, wildcards (placeholder symbols such as “%” or “*”) are not required for these searches and the searches are not case-sensitive. This means that entering “brad” in the Mailing Address field will find “1 Bradford Way” and “1300 Balbrader Street.”

After you click the "Search" button, a table appears below the search box showing the first 100 Party records that matched **all** the search terms you entered (Figure 4.2). Table 4.2 describes the information displayed in the Results table.

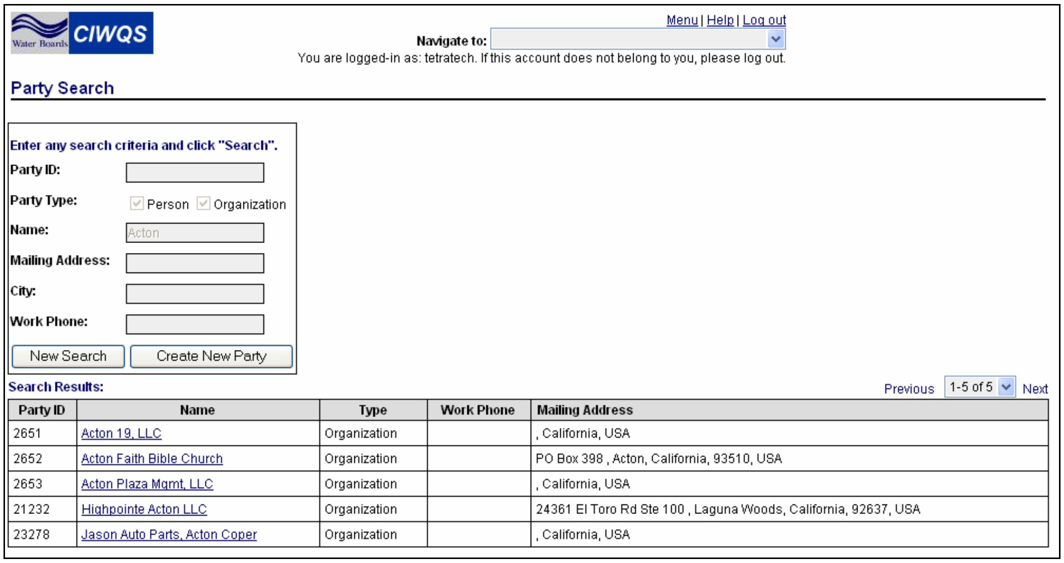


Figure 4.2 Results of a Party Search

Table 4.2 Results Table

Field Name	*Description*
Party ID	This field displays the Party ID.
Name	This field displays the name of the Person or Organization as a hyperlink. Clicking on this link opens the record for that Party in the Party Editor.
Type	This field indicates whether the Party is a Person or Organization.
Work Phone	This field shows the Party's work phone number (if specified).
Mailing Address	This field shows the primary mailing address of the Person or Organization. If the Party has more than one mailing address, no address is shown.

If the Party record you were searching for appears in the Results table, you can access its record by clicking its name. If the Party of interest does not appear, you can enter new search criteria and click the "Search" button again to refresh the page.

If you have trouble finding an existing Party, try using fewer (or less stringent) search criteria. This will broaden your search.

4.2 The Party Editor

The Party Editor page allows you to either enter data for a new Party or to modify the record for an existing Party. This page can be accessed by clicking the "Create New Party" button on the *Party Search* page or by clicking the Name hyperlink in the results table when searching for an existing Party.

There are six tabs on the Party Editor page, and each tab captures a related set of information about a Party:

- General Information Tab
- Related Parties Tab
- Related Places Tab
- Related Violations Tab
- Regulatory Measures Tab
- Additional Information Tab

Although individual tabs show different information, each has a common page header. The header shows the Party name, status, type, and Party ID for reference.

☞ **As information is saved in the Party Editor, the header fields automatically refresh to display updated information.**

4.2.1 General Information Tab

The General Information tab is the first page you see when you open the record for a Party or create a new Party record. The General Information tab captures basic information about the Party, including identifiers, name, and location information (Figure 4.3).

When you are creating a new Party, the General Information tab is the only tab available for data entry until all required fields on the tab are filled out and the record has been saved (as in Figure 4.3). Saving the record activates the remaining tabs.

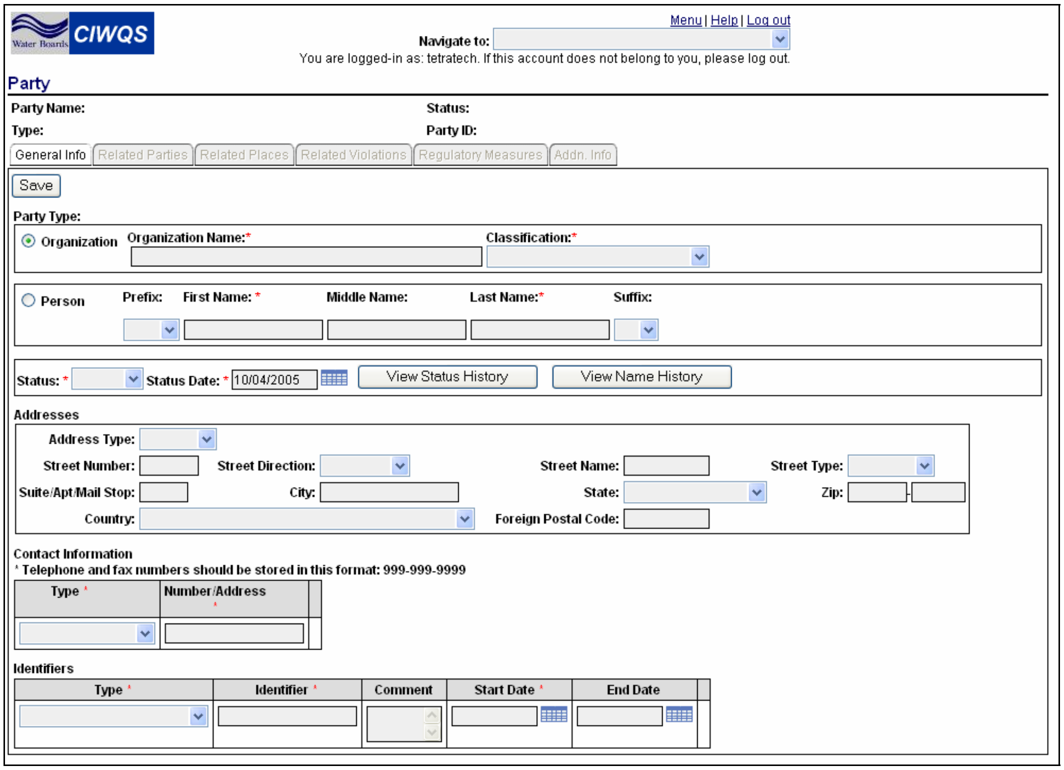


Figure 4.3 General Information Tab

Party Type and Status

Basic information about a Party is captured in the fields in the upper part of the form. These fields include Party type (and related information) and status. All required fields must be entered before a record can be saved.

The Party Type and Status fields are the only fields required before a Party record can be saved.

The first piece of information captured for a new Party is its type (Figure 4.4). A Party can be classified as either a Person or an Organization. Select the radio button next to the appropriate Party type at the top of the tab.

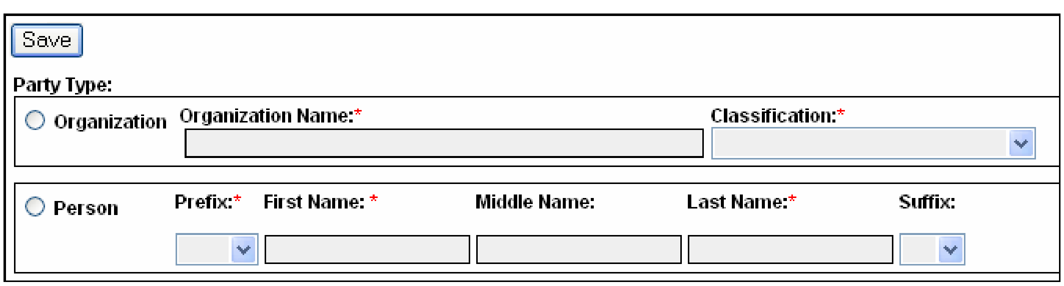


Figure 4.4 Selecting the Party Type

If you select "Organization," input an Organization name in the field provided and select a Classification from the drop-down menu.

If you select "Person" as your Party type, select a prefix from the drop-down menu and enter a first name and last name in the fields provided. You also have the option to enter a middle name and suffix.

Required Fields

Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

In some instances, however, indicated fields are required only if you enter data into one field out of a group of several. For example, entering data into the *Street Direction* field on the General Information tab requires you to then fill out information for the indicated *Address* fields. These fields are not required if you do not enter data into any of the fields.

Once a Party record has been saved, only the selected Party Type is displayed. You will no longer have the option to change the Party Type (Figure 4.3).

The next piece of Party information to be recorded is the Party Status (Figure 4.5). The *Status Date* field defaults to today's date when the record is created. This date can be changed if desired.

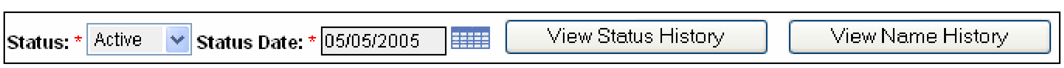


Figure 4.5 Status Fields

The ( ) symbol next to the date field opens a calendar from which you can select a date, which is automatically entered into the *Status Date* field.

Once you have entered the required information for the Party, click the "Save" button. If you are creating a new Party, clicking the "Save" button after entering the Party Type information creates the new record and gives you access to the remaining tabs in the Party Editor.

Status and Name History Buttons

There are two buttons to the right of the *Status* fields. The "View Status History" button opens a new window to show a table with the history of the Party status (Figure 4.6). The “View Name History” button shows a similar history of any changes made to the Party name (Figure 4.7).

Status History

Value	Effective Date	End Date
Inactive	2005-03-29	2005-03-29
Active	2005-03-29	2005-03-29
Active	2005-03-28	2005-03-28
Inactive	2005-02-15	2005-02-15
Active	2005-01-21	2005-01-21
Inactive	2005-01-21	2005-01-21
Active	2005-01-21	2005-01-21

Figure 4.6 Party Status History Table

Name History

Value	Effective Date	End Date
3M COMPANY	2005-02-11	
3M COMPANY	2005-01-21	2005-02-11
3M COMPANY1	2005-02-11	2005-02-11

Figure 4.7 Party Name History Table

Address Information

The Party address fields allow you to capture information for one or more addresses for the Party (Figure 4.8). Table 4.3 lists the address fields and gives an example of how they should be entered.

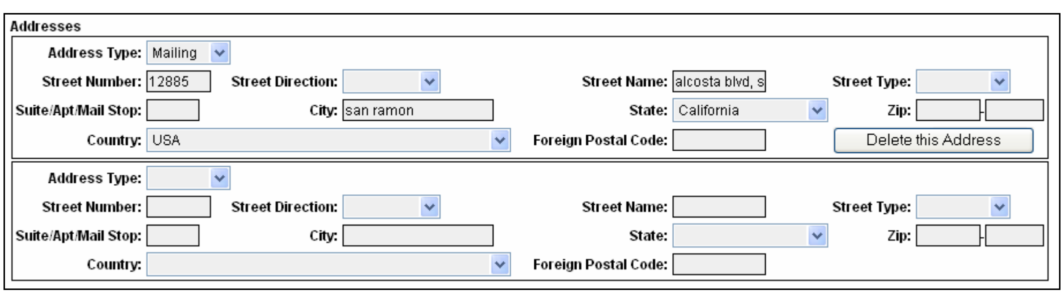


Figure 4.8 Party Address Fields

Table 4.3 Place Address Fields

Field Name	*How to enter data for the address 1313 North Mockingbird Lane, San Jose, CA, 95116*
Address Type	Select the appropriate address type from the drop-down menu.
Street Number	Enter “1313” into the field.
Street Direction	Select “North” from the drop-down menu.
Street Name	Enter “Mockingbird” into the field.
Street Type	Select “Lane” from the drop-down menu.
Suite/Apt Mail Stop	Enter suite/apartment. information, if applicable (this field remains blank for this address).
City	Enter “San Jose” into the field.
State	Select “CA” from the drop-down menu.
ZIP	Enter “95116” into the first of the two text fields. (Format should be 99999 in the first box and 9999 in the second. Only the first five digits are required.)
Country	Select “USA” from the drop-down menu.
Foreign Postal Code	Enter a foreign postal code, if applicable (this field remains blank for this address).

Click the “Delete this Address” button to delete an address from the Party record. Once a new address has been entered and saved, a new blank row is inserted into the table (as in Figure 4.8).

Contact Information

The contact information fields allow you to enter electronic address information for the Party (Figure 4.9). Options include “Cellular”, “Email”, “Emergency Phone”, “Fax”, “Pager”, “Phone and Fax”, “Telephone”, “Website”, “Work Email”, and “Work Phone”. All numbers and addresses should be entered in a valid format. The “delete” hyperlink deletes the selected row from the Party record.

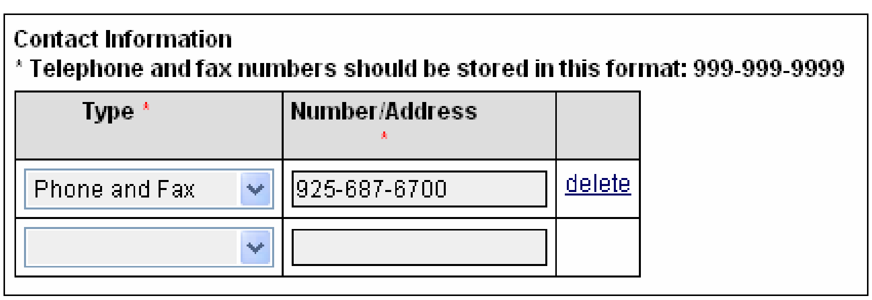


Figure 4.9 Contact Information Fields

As with the address table, a new blank row is inserted into the table as new contacts are entered and saved.

Identifiers

An identifier field can be found on most pages of the CIWQS interface. This generic field provides a way to attach unique numbers (or a combination of numbers and letters) to an entity. Within each Module, the list of identifier types is filtered to reflect options that are suitable for the entity (e.g., Place, Party, Violation, Regulatory Measures).

To add an identifier to the Party record, select an *Identifier Type* from the drop-down menu (Figure 4.10). Input the identifier and the start date (the date the identifier becomes effective or active). Optionally, you can enter text in the *Comments* field and enter an end date.

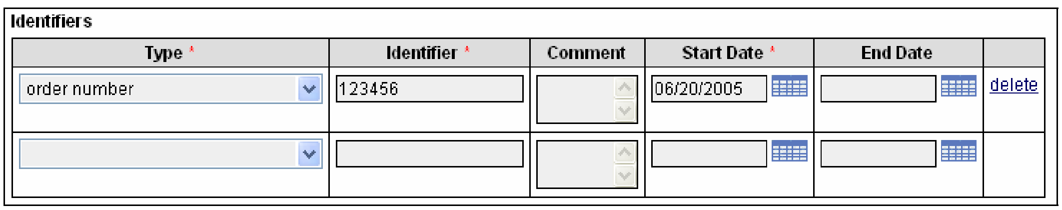


Figure 4.10 Party Identifiers

The system does not perform any data validation to make sure that the identifier is appropriate for the Party.

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

4.2.2 Related Parties Tab

The Related Parties tab allows you to link Parties to the current record (Figure 4.11). This is the means by which organizational structures (e.g., parent companies, subsidiaries, suppliers, employers, employees) are created.

When the Related Parties tab is viewed, the default is for only the active relationships (relationships with a start date of today's date or earlier and an end date later than today's date) to be displayed. If you wish to see inactive relationships, select the box with the label "Show Inactive Relationships" next to the "Save" button at the top of the tab.

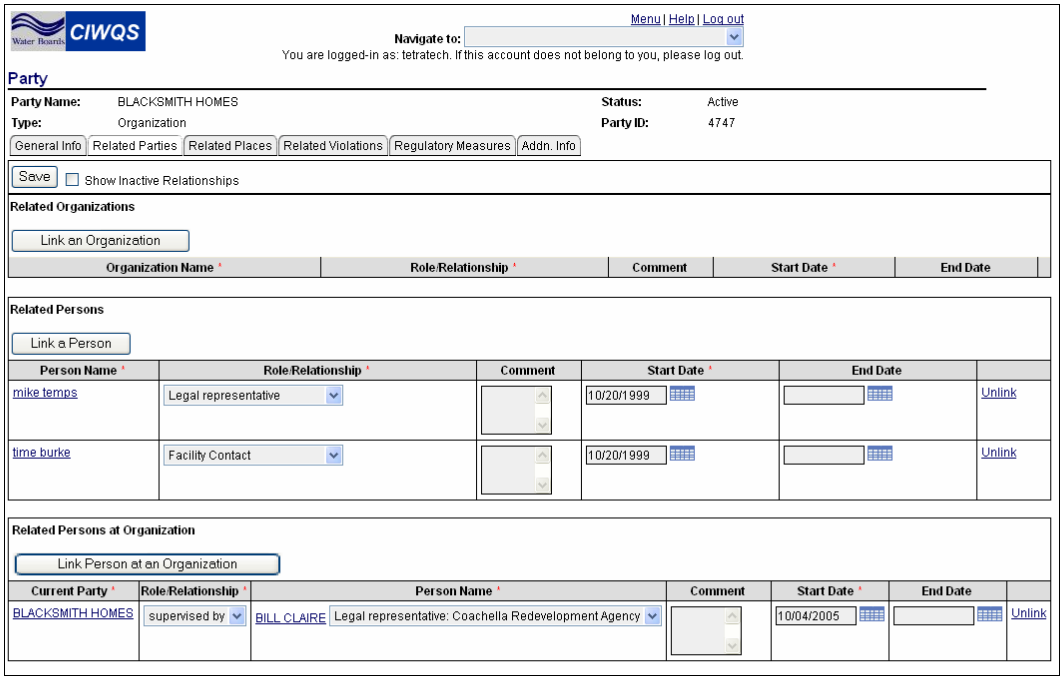


Figure 4.11 Related Parties Tab

There are three options for linking Parties to the record:

- Link an Organization
- Link a Person
- Link a Related Person at an Organization (establishes roles)

Linking People to a Party Record

Within the CIWQS system, a Person cannot be linked to another Person. When this tab is used to define relationships between Parties and the Party being defined is a Person, the “Link a Person” button and the associated table are disabled.

Party-to-Party relationships are limited in order for the relationships to be more clearly defined. The possible options for linking People and Organizations are demonstrated in the table below:

	Person	Organization	Person at Organization
Person	No	Yes	No
Organization	Yes	Yes	No
Person at Organization	No	No	Yes

Link an Organization

Clicking the "Link an Organization" button launches the *Party Search* page with the *Party Type* field set to "Organization". Enter the appropriate search criteria and click the "Search" button. When you have found the Organization you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Organizations table (Figure 4.12).

To be linked to the current record, a Party must be pre-defined using the *Create/Maintain Parties* Module.

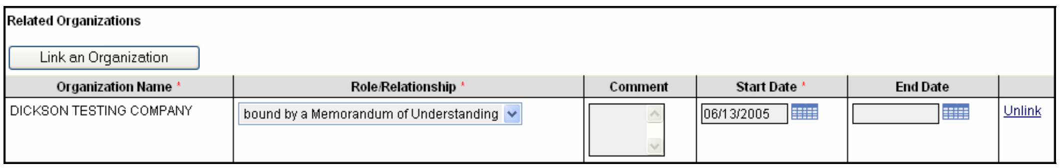


Figure 4.12 Linking an Organization

Additional information about the relationship with the linked Organization can be captured in the displayed fields. The *Role/Relationship* and *Start Date* fields are required for all linked Organizations.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Party and the linked Organization. The values available in the list change depending on the current Party Type. The Start Date indicates the date the relationship between the Parties became (becomes) effective.

Optionally, comments can be added to the *Comments* field and an *End Date* for the relationship can be established. The "Unlink" hyperlink removes the link to the Organization but does not delete the record for that Organization.

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

Link a Person

Clicking this button launches the *Party Search* page with the *Party Type* field set to "Person". Enter the appropriate search criteria and click the "Search" button. When you have found the Person you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Persons table (Figure 4.13).

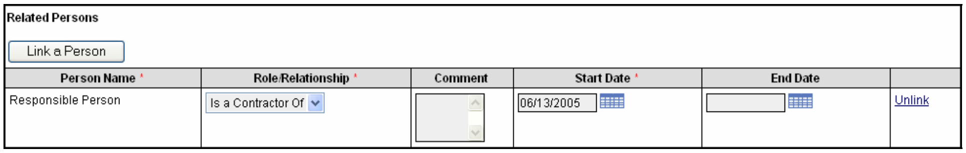


Figure 4.13 Linking a Person

Depending on your level of access, you might also be able to create a new record for a Person and then link the new Party record to the current record.

Additional information about the relationship with the linked Person can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked Persons.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Party (an Organization) and the linked Person. The start date indicates the date the relationship between the Parties became (becomes) effective.

Optionally, comments can be added to the *Comments* field and an end date for the relationship can be established. The "Unlink" hyperlink will remove the link to the Person but will not delete the record for that Person.

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

Link a Related Person at an Organization

This button allows you to link an affiliated Person to another affiliated Person or to an Organization. An affiliated person is a person who has been linked to an Organization with a specific role/relationship.

Clicking the "Link a Person at an Organization" button launches the *Party Search* page with the *Party Type* field set to "Person". As described above, enter the appropriate search criteria and click the "Search" button. When you have found the person you wish to link, click the "Select" hyperlink at the end of the corresponding row. This creates a new row in the Related Person at Organization table (Figure 4.14). Table 4.4 describes the options that can be selected in the table.

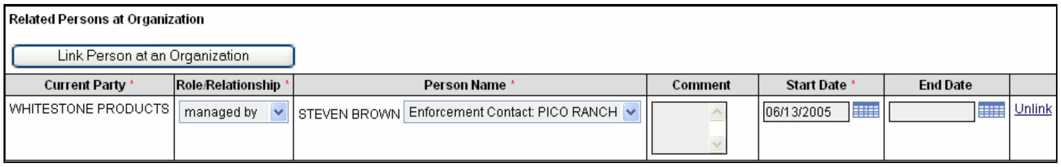


Figure 4.14 Linking a Person at an Organization

Table 4.4 Related Person at Organization Table

Field Name	*Description*
Current Party (role at Organization)	This field displays the name of the Party (Person or Organization) as defined on the General Information tab. This is **not** the Party that was just selected using the *Party Search* page. **If the current Party is a Person, a drop-down menu is included in the Current Party field listing all the Organizations to which this Person has already been linked and the Person's role in the Organization. Select the appropriate Organization/role from the drop-down menu if necessary.**
Role/Relationship	Select the role/relationship between the Current Party and the Party selected through the *Party Search* page from the drop-down menu.
Person Name (role at Organization)	This field displays the name of the Party selected through the *Party Search* page and a drop-down menu of all relationships this person has at his or her linked Organizations. Select the appropriate role from the drop-down menu.

An Example of Affiliation

John Smith (a Person) is an accountant for Company B (an Organization). John Smith is also a consultant for Companies A, B, and C (Organizations). In this example, John Smith has four affiliations: he has a role/relationship with Company B of "accountant" and a role/relationship with Companies A, B, and C of "consultant."

In this example, John Smith would be linked to Company B twice — once as an accountant and once as a consultant. He would be linked to Companies A and C once — as a consultant.

Select the appropriate values within the *Current Party*, *Role/Relationship*, and *Person Name* columns. Enter the date the relationship became effective in the *Start Date* field.

Optionally, enter comments in the *Comments* field and an end date for the relationship.

The "Unlink" hyperlink removes the link to the Person but does not delete the record for that Person.

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

4.2.3 Related Places Tab

The Related Places tab allows you to link Places to the current record (Figure 4.15). Typically, this tab is used to link a Person or an Organization to a Facility.

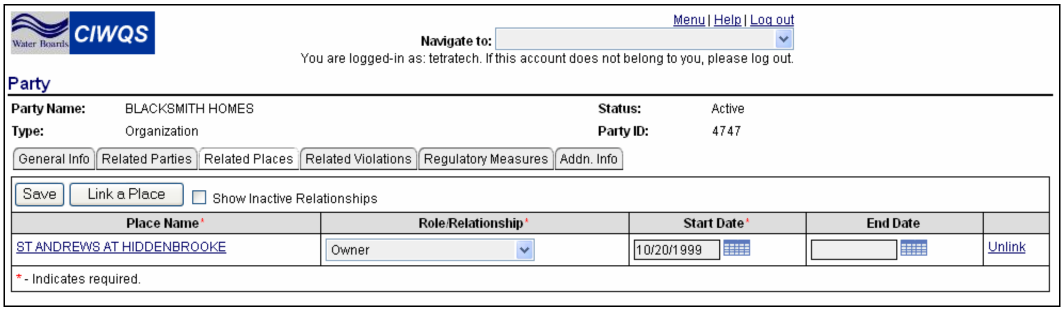


Figure 4.15 Related Places Tab

When the Related Places tab is viewed, the default is for only the active relationships (relationships with a start date of today's date or earlier and an end date later than today's date) to be displayed. If you wish to see inactive relationships, select the box with the label "Show Inactive Relationships" next to the "Save" button at the top of the tab.

Clicking the "Link a Place" button launches the *Place Search* page. Enter the appropriate search criteria and click the "Search" button. When you have found the Place you wish to link, click the "Link" hyperlink at the end of the corresponding row. This creates a new row in the Related Places Table (as shown in Figure 4.15).

Additional information about the relationship with the linked Place can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked Places.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Place and the linked Place. The start date indicates the date the relationship became (becomes) effective.

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

4.2.4 Related Violations Tab

The Related Violations tab displays all Violations related to the Party (Figure 4.16). It is not possible to add Violations to a Party using this tab. Violations must be created and assigned through the *Create/Maintain Violations Module*.

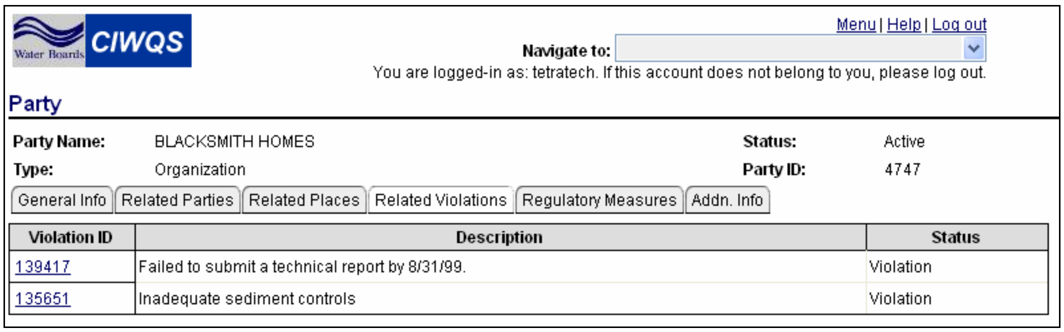


Figure 4.16 Related Violations Tab

See Chapter 9 for more information on the Violations Editor.

Clicking the hyperlink in the *Violation ID* field opens the record for the selected Violation in the Violations Editor.

4.2.5 Regulatory Measures Tab

The Regulatory Measures tab displays all Regulatory Measures related to the Party (Figure 4.17). It is not possible to add Regulatory Measures to a Party using this tab. Regulatory Measures must be created and assigned using the *Create/Maintain Regulatory Measures* Module.

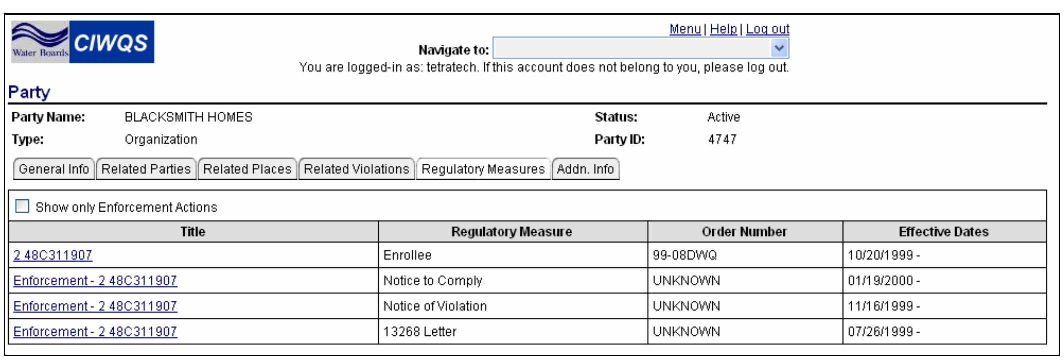


Figure 4.17 Regulatory Measures Tab

See Chapter 5 for more information on the Regulatory Measure Editor.

Clicking the hyperlink in the *Title* field opens the record for the selected Regulatory Measure in the Regulatory Measure Editor.

4.2.6 Additional Information Tab

The Additional Information tab is designed to capture any relevant information that the other tabs do not address. Additional information is recorded by documenting various attributes that apply to a particular Place Type.

Because this page is used in several of the CIWQS Modules, it has been formatted to accept a wide range of data and information (Figure 4.18). The attributes that can be specified for a given Party are listed in the Attribute table.

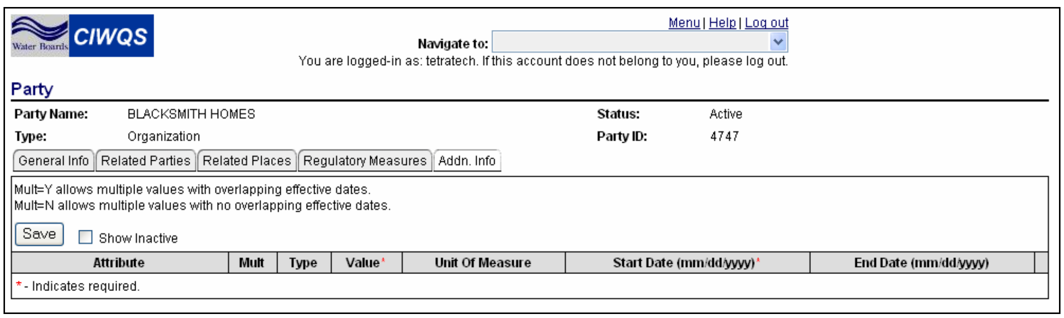


Figure 4.18 Additional Information tab

Contact the CIWQS System Administrator if you wish to have an additional Party attribute added to the Additional Information tab.

When the Additional Information tab is viewed, the default is for only the active attributes (relationships with a Start Date of today's date or earlier and an End Date later than today's date) to be displayed. If you wish to see the inactive attributes, select the box with the label "Show Inactive" next to the "Save" button at the top of the tab.

All attributes allow multiple values to be entered by clicking the "add another" hyperlink at the end of the row. Only attributes with a value of "Y" in the *Mult* field allow entries with overlapping start and end dates.

The editable fields of the Attribute table are described in Table 4.5.

Table 4.5 Attribute Table Fields

Field	Description
Attribute	This field displays an attribute that can be recorded for the Party. Required attributes have an asterisk (*) prefix. This indicates that you are required to enter values for the *Value* and *Start Date* fields.
Value	Enter or select the value associated with the attribute. Depending on the attribute, this field may be displayed as a text field or as a drop-down menu. If the field is a text field, no data validation takes place.
Start Date	Enter the date the attribute was first used/was first true about the Facility/was first measured/was fist reported/etc.
End Date	Enter the date the attribute was last used/was last true about the Facility/etc.

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

5
Regulatory Measures

This chapter addresses the following topics:

- Overview of Regulatory Measures
- How to Search for a Regulatory Measure
- How to Create and Edit Regulatory Measures

5.1 Introduction

The *Regulatory Measures* Module is where the specifications for eSMR reports are input and activated. The *Regulatory Measures* Module can be accessed from the CIWQS Main Menu or by using the Navigation drop-down menu found at the top of each page.

Further information regarding the standardization of NPDES permits for data entry can be found in the procedures document "Coding California NPDES Permits for California Integrated Water Quality System (CIWQS)".

5.1.1 Searching for a Regulatory Measure

Selecting the *Create/Maintain Regulatory Measures* Module from the CIWQS Main Menu brings you to the *Regulatory Measure Search* page (Figure 5.1). This page is used by several CIWQS Modules to search for Regulatory measures and is representative of the types of search pages found throughout the CIWQS Modules.

From this page, you can use the search fields to find an existing Regulatory Measure or click the "Create New Regulatory Measure" button to create a new record. The search fields and a description of each are listed in table 5.1.

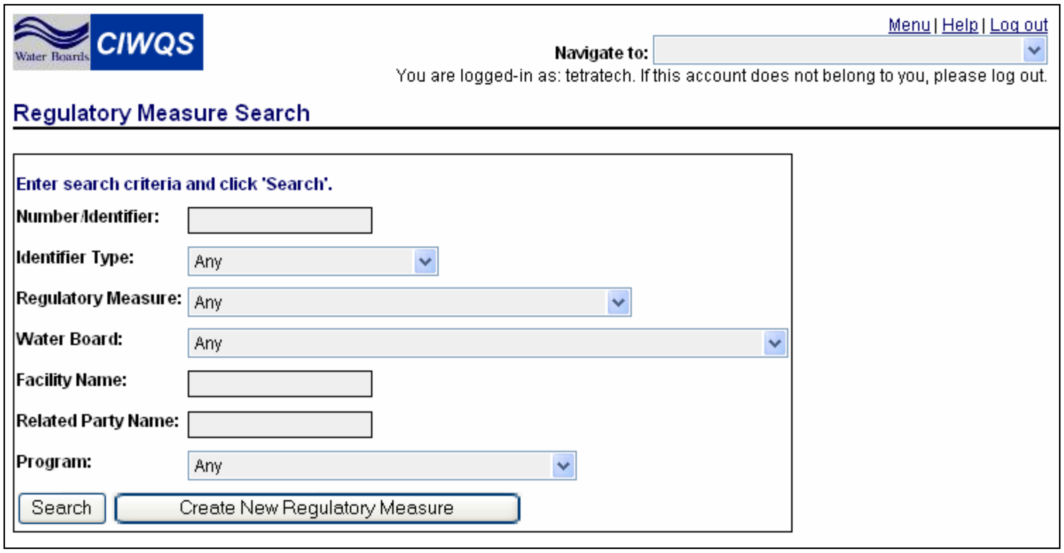


Figure 5.1 Regulatory Measure Search Page

Table 5.1 Regulatory Measure Search Fields

Field Name	*Description*
Number/Identifier	Enter an identifier for the Regulatory Measure. This search engine cannot be used for indirect searches (e.g., you cannot search for a Regulatory Measure by a Place or Party Identifier).
Identifier Type	Select an identifier type from the drop-down menu.
Regulatory Measure	Select the type of Regulatory Measure from the drop-down menu.
Water Board	Select the number of the associated Water Board from the drop-down menu.
Facility Name	Enter the full or partial name of a Facility. The search is not case-sensitive.
Related Party Name	Enter the full or partial name of a Party (either an organization or last name) that is related to the targeted Regulatory Measure. The search is not case-sensitive.
Program	Select the related program from the drop-down menu.

Enter the appropriate criteria and click the “Search” button to initiate a search. The first 100 Regulatory Measures that match your search criteria (and that you have access to) are displayed in the results table (Figure 5.2).

Table 5.2 identifies the fields in the search results table and describes any related functions.

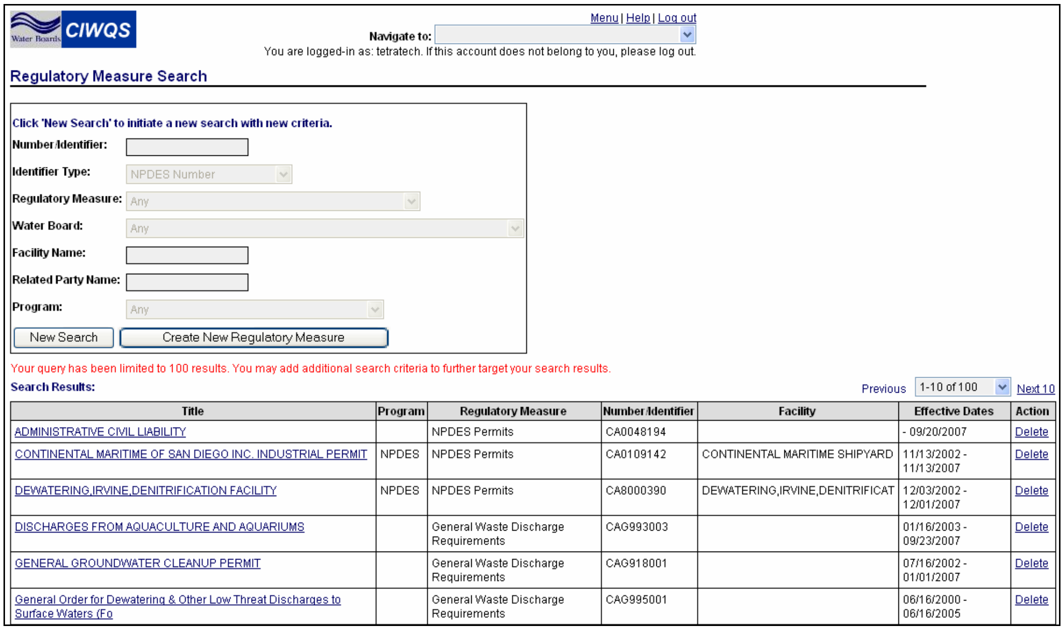


Figure 5.2 Search Results for Regulatory Measures

Table 5.2 Regulatory Measure Search Result Table

Field Name	*Description*
Title	This field displays the title of the Regulatory Measure as a hyperlink. Clicking this link opens the Regulatory Measure Editor.
Program	This field displays a comma-delimited list of programs associated with the Regulatory Measure.
Regulatory Measure	This field shows the Regulatory Measure type (e.g., "NPDES permit" or "ACL").
Number/Identifier	This field shows the identifier that matches the one entered, if one was entered. If no identifier was used in the search, or if multiple matches are found, the Order Number is displayed for Orders and the primary identifier is shown for other types of Regulatory Measures.
Facility	This field displays a comma-delimited list of associated Facilities.
Effective Dates	This field shows the effective start and expiration dates of the Regulatory Measure (MM/DD/YYYY format).

If the Regulatory Measure you are searching for appears in the Results table, you can access its record by clicking its Title. If the Regulatory Measure of interest does not appear, click the "New Search" button to refresh the page and clear the previous search.

Using the CIWQS Search Engine

The CIWQS search engine is based on an AND search. This means that it will look for places that match **all** of your search criteria. For example, you can select Water Board "1" and Regulatory Measure type "NPDES Permit" and the system will search for all Regulatory Measures that are both NPDES Permits and associated with Water Board 1. This search will not find records for NPDES Permits found outside of Water Board 1 or Regulatory Measures from Water Board 1 that are not NPDES Permits.

In addition, wildcards (place holder symbols such as "%", or "*") are not required for these searches, and the searches are not case-sensitive. This means that entering "cap" in the Facility field will find "Capitol City Plant" and "Hardcap Stoneworks".

If the Regulatory Measure you are searching for appears in the Results table, you can access its record by clicking its Title. If the Regulatory Measure of interest does not appear, click the "New Search" button to refresh the page and clear the previous search.

Access Privileges

You will only be able to search for Regulatory Measures to which you have been granted access. If you are at a Regional Water Board, you will have access to all Regulatory Measures for which your Water Board has responsibility for all enrollees (Facilities) in the Regulatory Measures. In the case of Regulatory Measures that cross Water Board Regions, your User profile must indicate that you have access to data from all of the related regions. This functionality is designed to ensure that a User from one Regional Water Board does not have access to Regulatory Measures for another Water Board.

☞ **If you have trouble finding an existing Regulatory measure, try using fewer (or less stringent) search criteria. This broadens your search.**

To delete the Regulatory Measure, click the "Delete" hyperlink in the *Action* column. You are prompted to verify that you wish to delete the record. Click "OK" to delete the record, or click "Cancel" to cancel the operation without deleting the record.

☞ **Only users with "Update" or "Super" access to this function will be able to delete Regulatory measures. Contact a System Administrator if you have questions regarding this feature.**

Only Regulatory Measures with no associated Places or Parties can be deleted.

5.1.2 Creating a New Regulatory Measure

When you create a new Regulatory Measure, you have the option of starting from scratch or copying from another (previously defined) Regulatory Measure. You may want to use the second option, for example, when you are entering a Regulatory Measure that replaces another (e.g., modification or renewal) or when a "template" Regulatory Measure has been created that is used as a model for other Regulatory Measures.

Information from previously established Regulatory Measures can be brought forward into new Regulatory Measures when a new record is created or when specifying Requirements for established Regulatory Measures.

To create a new Regulatory Measure, click the "Create New Regulatory Measure" button on the *Regulatory Measure Search* page. When a new Regulatory Measure is created, you are first asked, "Will the new regulatory measure amend, extend, or replace an existing regulatory measure?" (Figure 5.3).

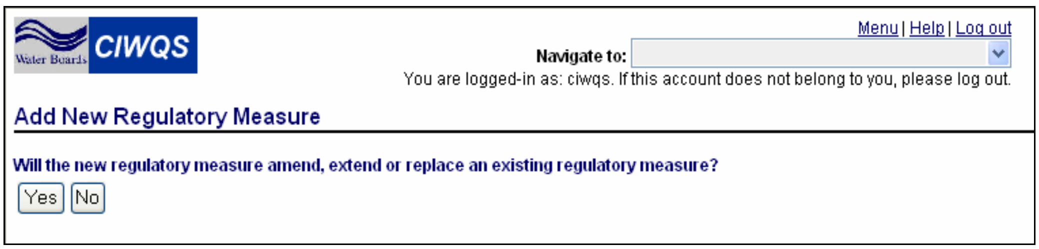


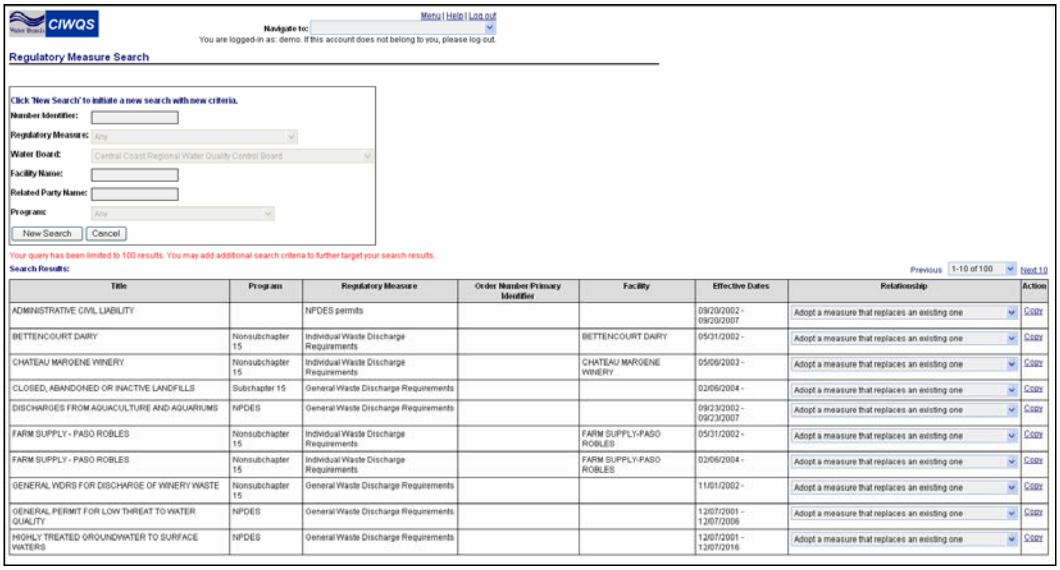
Figure 5.3 Prompt when Creating a new Regulatory Measure

If you wish to create a new Regulatory Measure from scratch, click "No". This brings you directly to the Regulatory Measure Editor (see Section 5.2).

If you elect to create a new Regulatory Measure that is based on a previous Regulatory Measure, click the "Yes" button. You are directed to the *Regulatory Measure Search* page from which you can search for and select the Regulatory Measure from which you would like to pull information.

Enter the appropriate search criteria and click the "Search" button. The Results table for this search is slightly different than the one described above (Figure 5.4).

Use the drop-down menu in the *Relationship* column to indicate how the new Regulatory Measure relates to the existing Regulatory Measure.



Title	Program	Regulatory Measure	Order Number Primary Identifier	Facility	Effective Dates	Relationship	Action
ADMINISTRATIVE CIVIL LIABILITY		NPDES permits			09/20/2002 - 09/20/2007	Adopt a measure that replaces an existing one	Copy
BETTENCOURT DAIRY	Nonsubchapter 15	Individual Waste Discharge Requirements		BETTENCOURT DAIRY	05/31/2002 -	Adopt a measure that replaces an existing one	Copy
CHATEAU MARGENE WINERY	Nonsubchapter 15	Individual Waste Discharge Requirements		CHATEAU MARGENE WINERY	05/06/2003 -	Adopt a measure that replaces an existing one	Copy
CLOSED, ABANDONED OR INACTIVE LANDFILLS	Subchapter 15	General Waste Discharge Requirements			02/06/2004 -	Adopt a measure that replaces an existing one	Copy
DISCHARGES FROM AQUACULTURE AND AQUARIUMS	NPDES	General Waste Discharge Requirements			09/23/2002 - 09/23/2007	Adopt a measure that replaces an existing one	Copy
FARM SUPPLY - PASO ROBLES	Nonsubchapter 15	Individual Waste Discharge Requirements		FARM SUPPLY-PASO ROBLES	05/31/2002 -	Adopt a measure that replaces an existing one	Copy
FARM SUPPLY - PASO ROBLES	Nonsubchapter 15	Individual Waste Discharge Requirements		FARM SUPPLY-PASO ROBLES	02/06/2004 -	Adopt a measure that replaces an existing one	Copy
GENERAL WDRS FOR DISCHARGE OF WINERY WASTE	Nonsubchapter 15	General Waste Discharge Requirements			11/01/2002 -	Adopt a measure that replaces an existing one	Copy
GENERAL PERMIT FOR LOW THREAT TO WATER QUALITY	NPDES	General Waste Discharge Requirements			12/07/2001 - 12/07/2006	Adopt a measure that replaces an existing one	Copy
HIGHLY TREATED GROUNDWATER TO SURFACE WATERS	NPDES	General Waste Discharge Requirements			12/07/2001 - 12/07/2016	Adopt a measure that replaces an existing one	Copy

Figure 5.4 Regulatory Measure Search Results

Click the "Copy" hyperlink to select the Regulatory Measure as the source of information for the new Regulatory Measure.

All data, with the exception of identifiers, inspections, and tasks are copied. Identifiers, inspections and tasks need to be re-entered, as appropriate.

You will be asked whether you wish to copy all requirements from the source Regulatory Measure (Figure 5.5). If you do not wish to at this point, you may copy them one monitoring location at a time via the Requirements tab within the Regulatory Measure Editor (as discussed in Section 5.2.5).

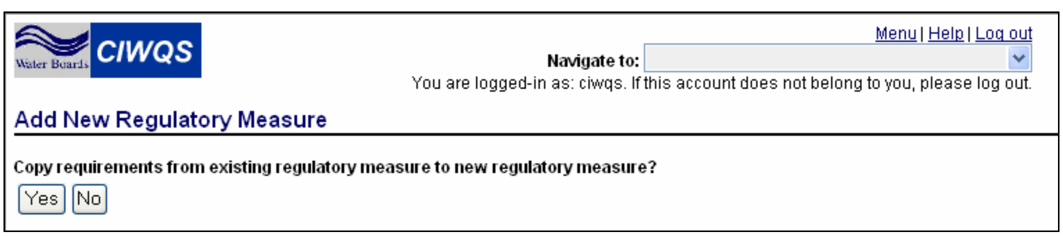


Figure 5.5 Choose whether you wish to copy Requirements

Selecting "Yes" copies all requirements from the source Regulatory Measure and brings you to the Regulatory Measure Editor. Selecting "No" brings you to the Regulatory Measure Editor without copying the requirements.

5.2 The Regulatory Measure Editor

Once you have chosen a Regulatory Measure to edit or elected to create a new Regulatory Measure, you are directed to the Regulatory Measure Editor.

There are 10 tabs on the Regulatory Measure Editor page, and each tab captures related sets of information about a Regulatory Measure.

- General Information Tab
- Related Parties Tab
- Related Places Tab
- Monitoring Locations Tab
- Requirements Tab
- Inspections Tab
- Tasks Tab
- Documents Tab
- Additional Information Tab
- Attachments Tab

For Regulatory Measures of an "Enforcement" type, an Enforcement tab also appears within the Regulatory Measure Editor. See Chapter 12 for more information on the Enforcement tab.

While individual tabs show different information, each has a common page header. The header shows the Regulatory Measure title, Order number, status, effective dates, and the number of the related Water Board.

As information is saved within the Regulatory Measure Editor, the header information automatically refreshes to display any updated information.

5.2.1 General Information Tab

The General Information tab is the first page you see when you open the record for a Regulatory Measure or create a new Regulatory Measure (Figure 5.6). The General Information tab captures basic information including title, description, Order number, and identifiers.

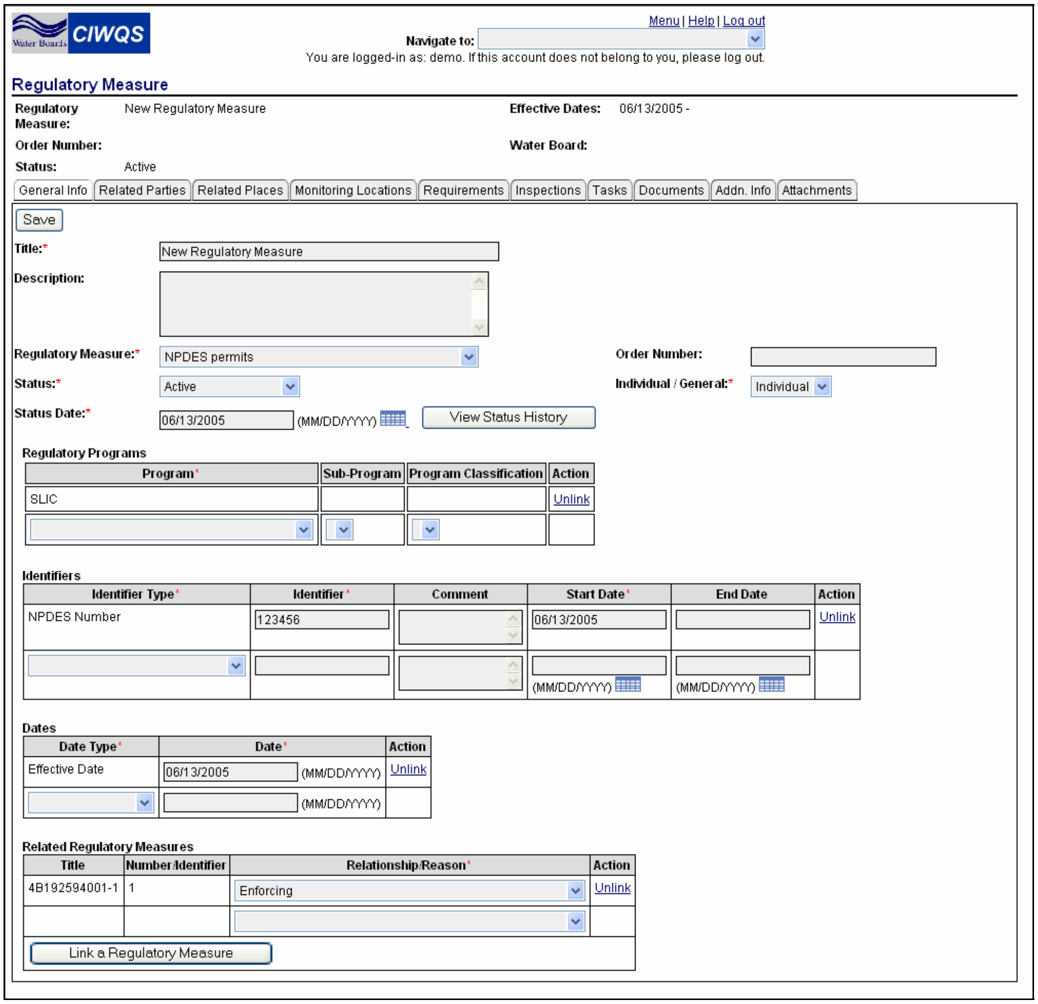


Figure 5.6 General Information Tab

When you are creating a new Regulatory Measure, the General Information tab is the only one available for data entry until all required fields on the tab are filled out and the record has been saved. Saving the record activates the remaining tabs.

Required Fields

Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

In some instances, however, indicated fields are only required if you enter data into one field out of a group of several. For example, no value is required in the Relationship/Reason field at the bottom of the form unless a Regulatory Measure is linked to the current record.

The *Title*, *Regulatory Measure* (type), *Status*, *Status Date*, *Order Number*, Permit Type (*Individual/General*), *Identifier Type*, *Identifier* (value), *Date Type* and *Date* fields are required before a Regulatory Measure can be saved.

The "Save" button is only activated once new information has been added or removed from the tab. By default, it is inactive when the Regulatory Measure Editor is first opened.

Regulatory Measure Information

Basic information about a Regulatory Measure is captured in the fields in the upper part of the General Information tab (Figure 5.7). These fields include *Title*, *Description*, *Regulatory Measure* type, *Order Number*, *Status*, Permit Type *(Individual/General*) and *Status Date*.

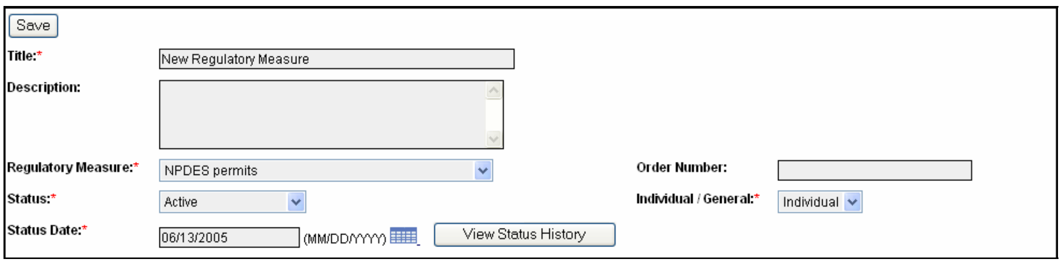


Figure 5.7 Basic Regulatory Measure Information

Table 5.3 describes the basic information fields and their requirements.

Next to the *Status Date* field is the "View Status History" button. Clicking this button opens a new window to display the history of changes made to the status of the Regulatory Measure (Figure 5.8).

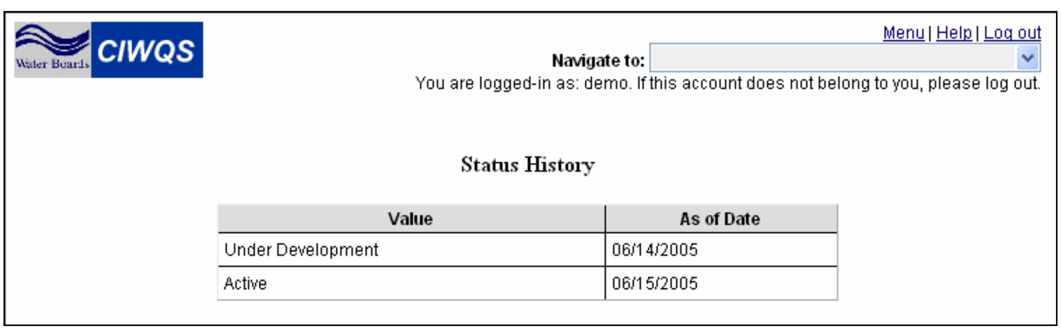


Figure 5.8 View Status History Table

See Chapter 1 for more information on pop-up windows in CIWQS.

Table 5.3 Basic Information Fields

Field Name	*Description*	*Required*
Title	Enter the name or a brief description of the Regulatory Measure.	Y
Description	Enter a description of the Regulatory Measure.	N
Regulatory Measure (type)	Select the type of Regulatory Measure (e.g., ACL, NPDES Permit) from the drop-down menu.	Y
Order Number	Enter the number for the Order. This field is only enabled for Regulatory Measures of certain types (e.g., NPDES Permits).	Y
Status	Select the Status from the drop-down menu.	Y
Status Date	Enter the date the current status became effective in the format (MM/DD/YYYY). Selecting the ( ) symbol next to the date field opens a calendar from which you can select a date that is automatically entered into the *Status Date* field.	Y
Individual/ General	Indicate whether the Regulatory Measure (if type "Order) is an Individual or General permit. This selection is important because it controls how the system behaves when multiple Facilities are assigned (enrolled) to an Order.	Y

Regulatory Programs

The next section of the tab captures information about the program under which the Regulatory Measure is issued (Figure 5.9). To indicate the related regulatory program, select a value from the *Program* drop-down menu (required). This refreshes the *Sub-Program* (only enabled for certain Programs) and *Program Classification* fields to display default options (if relevant values exist). Change the values in these fields as appropriate.

Regulatory Programs

Program*	Sub-Program	Program Classification	Action
NPDES			Unlink

Figure 5.9 Regulatory Programs Fields

Once the record has been saved, the Action field displays an "Unlink" hyperlink. Click this link to unlink the program from the Regulatory Measure and delete the row from the table.

A new, blank row is added to the Regulatory Programs table when the record is saved.

Identifiers

An identifier field can be found on most pages of the CIWQS interface. This generic field provides a way to attach unique numbers (or a combination of numbers and letters) to an entity. Within each module, the list of identifier types is filtered to reflect options that are suitable for the entity (Place, Party, Violation, Regulatory Measure, etc.).

To add an identifier to the record, select an *Identifier Type* from the drop-down menu (Figure 5.10). Input the Identifier and the Start Date (the date the identifier became or becomes active). Optionally, you can enter text in the *Comments* field and enter an End Date.

Identifiers

Identifier Type*	Identifier*	Comment	Start Date*	End Date	Action
NPDES Number	123456		06/13/2005		Unlink
			(MM/DD/YYYY)	(MM/DD/YYYY)	

Figure 5.10 Identifier Fields

Once the record has been saved, the Action field displays an "Unlink" hyperlink. Click this link to unlink the Identifier for the Regulatory Measure and delete the row from the table.

Dates

The *Dates* fields allow you to add one or more related dates to a record (Figure 5.11). At least one date must be entered for a Regulatory Measure before the record can be saved. Select a Date Type from the drop-down menu. Next, enter the related Date in the format (MM/DD/YYYY).

Dates

Date Type*	Date*	Action
Effective Date	05/09/2005 (MM/DD/YYYY)	Unlink
	(MM/DD/YYYY)	

Figure 5.11 Date Fields

Once the record has been saved, the Action field displays an "Unlink" hyperlink. Click this link to unlink the date for the Regulatory Measure and delete the row from the table.

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

Related Regulatory Measures

The last group of fields on the General Information tab represents those that allow you to link a related Regulatory Measure to the current record.

For more information on related Regulatory Measures, see section 5.3.2.

To link a Regulatory Measure, click the "Link a Regulatory Measure" button. This launches the *Regulatory Measure Search* page. Enter the appropriate search criteria for the Regulatory Measure you would like to link and click the "Search" button.

Click the "link" hyperlink at the end of the row in the Search Results table to link the selected Regulatory Measure to the current record. The selected Regulatory Measure appears in the table at the bottom of the General Information tab (Figure 5.12). Select a *Relationship/Reason* from the drop-down menu to indicate how the linked record is related to the current record.

Related Regulatory Measures

Title	Number/Identifier	Relationship/Reason*	Action
4B192594001-1	1	Enforcing	Unlink

Link a Regulatory Measure

Figure 5.12 Related Regulatory Measure Fields

Once the record has been saved, the Action field displays an "Unlink" hyperlink. Click this link to unlink the Regulatory Measure and delete the row from the table.

When information has been entered in all of the required fields, click the "Save" button to save the record. Once the record has been saved, the header information at the top of the page is refreshed and the remaining tabs are available for data entry.

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

5.2.2 Related Parties Tab

The Related Parties tab allows you to link Parties (People and Organizations) to the Regulatory Measure (Figure 5.13).

See Chapter 4 for more information on Parties.

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When the Related Parties tab is first opened, the default is for only the active relationships to be displayed (relationships with a Start Date with today's date or earlier and an End Date later than today's date). If you wish to see inactive relationships instead, select the box next to the "Save" button at the top of the tab with the label "Show Inactive Relationships".

Each Party can be associated either with one of the linked Facilities (see section 5.2.3) or the Regulatory Measure.

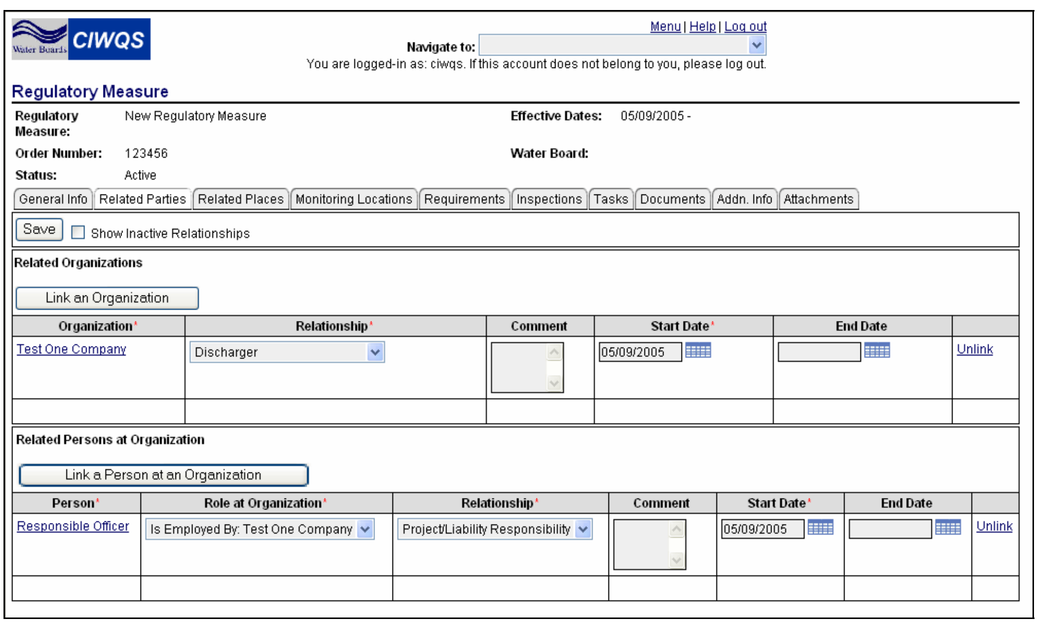


Figure 5.13 Related Parties Tab

There are two options for linking Parties to the record:

- Link an Organization
- Link a Related Person at an Organization (establishes roles)

Link an Organization

Clicking the "Link an Organization" button launches the *Party Search* page with the *Organization* checkbox pre-selected (the Person checkbox will be clear). Enter the appropriate search criteria and click the "Search" button.

Click the "Cancel" button at any time to return to the Regulatory Measure without linking an Organization.

When you have found the Organization you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Organizations table (Figure 5.14).

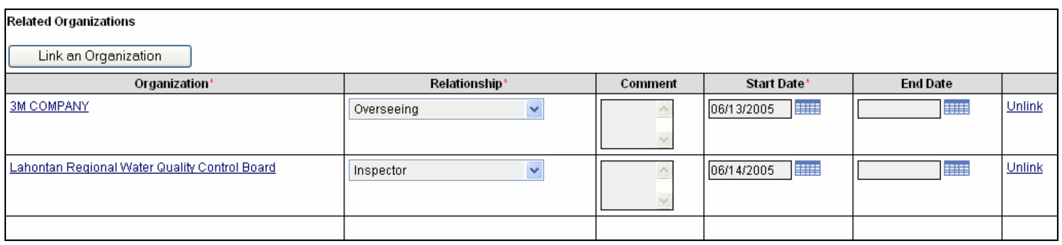


Figure 5.14 Linked Organization Table

A Party must be pre-defined via the *Create/Maintain Parties* Module to be linked to the current record.

Information about the relationship with the linked Organization can be captured in the displayed fields. Choose a value from the *Relationship* drop-down menu to establish the relationship between the current Regulatory Measure and the linked Organization. Enter a *Start Date* to indicate the date the relationship became (becomes) effective.

Optionally, comments can be added to the *Comments* field, and an End Date for the relationship can be entered. Click the "Unlink" hyperlink to remove the link to the Organization. This does not delete the record for that Organization.

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

Link a Related Person at an Organization

Clicking the “Link a Related Person at an Organization” button allows you to link an affiliated Person to the Regulatory Measure. An affiliated Person is a Person who has already been linked to an Organization (via the *Create/Maintain Parties Module*) with a specific role/relationship.

Clicking the “Link a Related Person at an Organization” button launches the *Party Search* page with the Person checkbox pre-selected (the Organization checkbox will be clear). Enter the appropriate search criteria and click the “Search” button.

Click the “Cancel” button at any time to return to the Regulatory Measure without linking a Person.

When you have found the person you wish to link, click the “Select” hyperlink at the end of the corresponding row. This creates a new row in the Related Persons at Organization table (Figure 5.15).

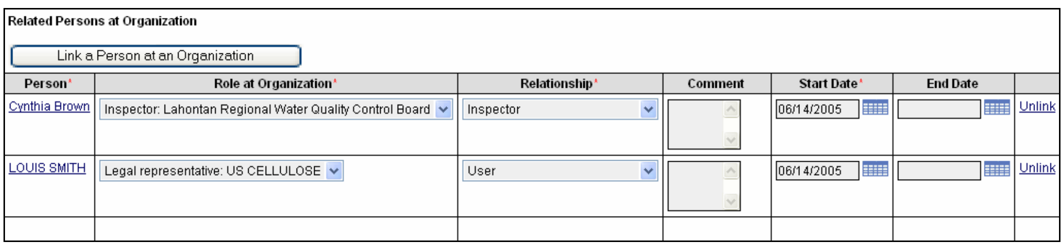


Figure 5.15 Related Persons at Organization Table

Within this table, select the appropriate values from the *Role at Organization* (establishes the relationship between the linked Person and his or her affiliated Organization) and *Relationship* (establishes the connection between the Regulatory measure and the Person) drop-down menus. Enter the date the relationship became (becomes) effective in the *Start Date* field.

Optionally, enter comments in the *Comments* field and an *End Date* for the relationship. Clicking the “Unlink” hyperlink removes the link to the Person but does not delete the record for that Person.

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

5.2.3 Related Places Tab

The Related Places tab allows you to link Places (enrolled Facilities, for example) to the current record (Figure 5.16).

See Chapter 3 for more information on Places.

When the Related Places tab is viewed, the default is for only the active relationships (relationships with a Start Date of today's date or earlier and an End Date later than today's date) to be displayed. If you wish to see inactive relationships instead, select the box with the label "Show Inactive Relationships" next to the "Save" button at the top of the tab.

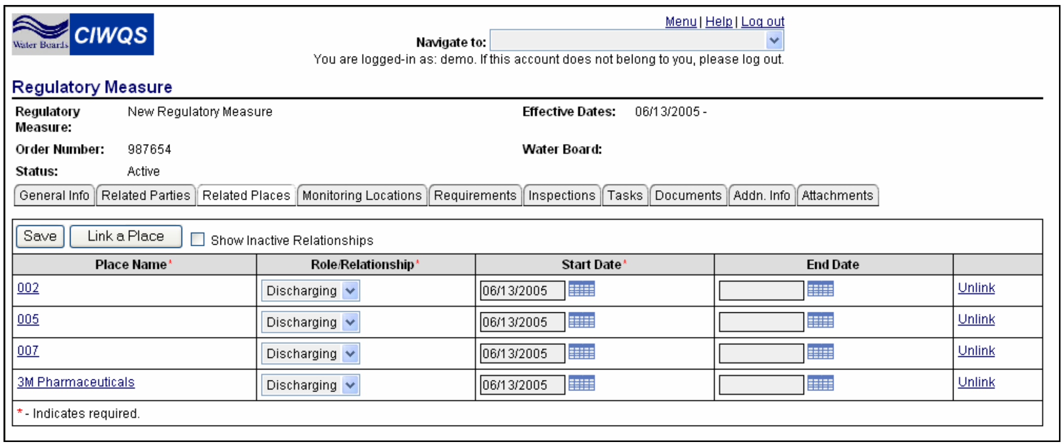


Figure 5.16 Related Places Tab

For the purpose of associating Discharge Points to a Regulatory Measure (see section 5.2.4), you only need to link the related Facility. All Discharge Points related to linked Facilities are accessible (via the Monitoring Locations tab) without explicitly linking them to the Regulatory Measure.

Clicking the "Link a Place" button launches the *Place Search* page. Enter the appropriate search criteria and click the "Search" button.

Click the "Cancel" button at any time to return to the Regulatory Measure without linking a Place.

When you have found the Place you wish to link, click the "Select" hyperlink at the end of the corresponding row. This creates a new row in the Related Places table.

Within this table, select the appropriate values from the *Role/Relationship* field. This establishes the reason for the link between the Place and the

Regulatory Measure. Enter the date the relationship became (becomes) effective in the *Start Date* field.

Optionally, enter an End Date for the relationship. Clicking the "Unlink" hyperlink removes the link to the Place but will not delete the record for that Place.

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

5.2.4 Monitoring Locations Tab

The Monitoring Locations tab allows you to collect information about Monitoring Locations as defined within a Regulatory Measure (Figure 5.17). Monitoring Locations are the basic element on which many requirements are placed and for which raw and pre-calculated data are reported.

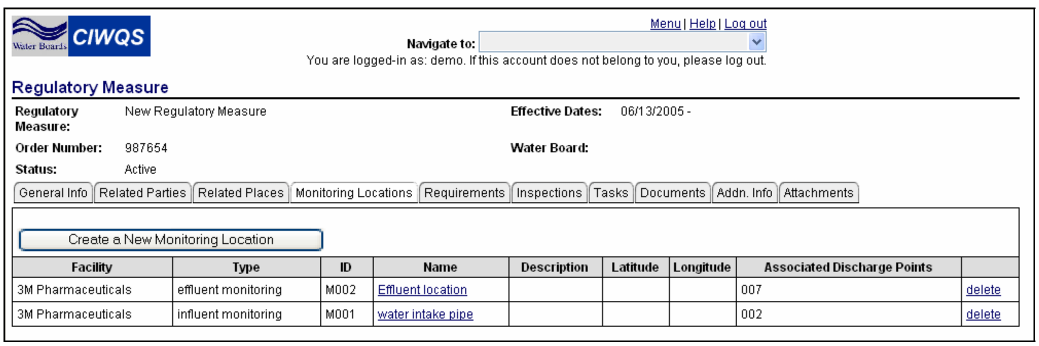


Figure 5.17 Monitoring Locations Tab

Monitoring Locations are linked to Discharge Points (Places). All Discharge Points associated with linked Facilities (via the Related Places tab) are accessible through this tab without having to link each Discharge Point individually.

Unlike Discharge Points, Monitoring Locations are specific to a Facility and are specific to a Regulatory Measure. Discharge Points are only specific to a Facility.

To add a new Monitoring Location, click the "Create a new Monitoring Location" button. This opens the *Add Monitoring Location* page within the Monitoring Locations tab (Figure 5.18).

Here, you can enter data into the fields to create a record for a new Monitoring Location associated with the current Regulatory Measure. Table 5.4 describes the fields on the *Add Monitoring Location* page.

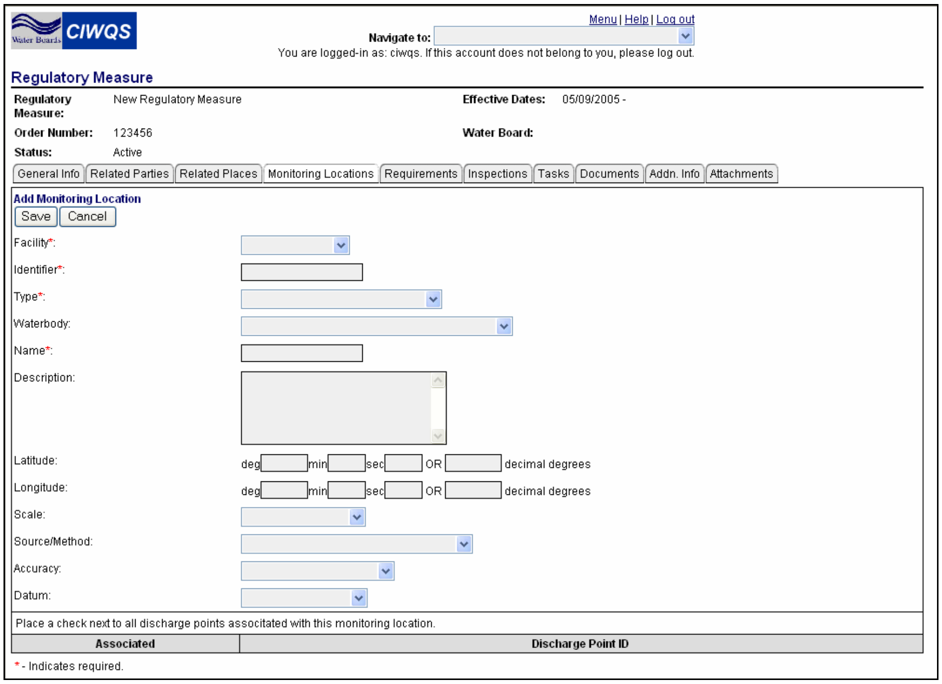


Figure 5.18 Add Monitoring Location Page

Table 5.4 Add Monitoring Location Fields

Field Name	*Description*
Facility	Select the name of the associated Facility from the drop-down menu.
Identifier	Enter the number (or string of alphanumeric characters) assigned to the Monitoring Location.
Type	Select the type of Monitoring Location (e.g., influent, receiving waters).
Waterbody	If the Monitoring Location Type is "receiving water," this is a required field. This field is optional for other Monitoring Location types. All Places of type "waterbody" (or equivalent) are available.
Name	Enter a brief name for the Monitoring Location.
Description	Enter a description of the Monitoring Location.
Latitude	Enter the latitude for the Monitoring Location in degrees/minutes/seconds or decimal degrees.
Longitude	Enter the longitude for the Monitoring Location in degrees/minutes/seconds or decimal degrees.
Scale	Select the geographic scale from the drop-down menu.
Source/Method	Select the source of the geographic data from the drop-down menu (e.g., GPS).
Accuracy	Select the accuracy level for the geographic data from the drop-down menu (e.g., 5 meters).
Datum	Select the datum for the geographic data from the drop-down menu (e.g., NAD83).

Recording Latitude and Longitude in CIWQS

Latitude and Longitude coordinates can be entered in the form of degrees/minutes/seconds or decimal degrees. If the user enters decimal degrees, the system converts to degrees/minutes/ seconds when the user tabs out of the decimal degrees field. If the user enters degrees, minutes, or seconds, the system converts to decimal degrees when the user tabs out of one of these fields.

When creating a new record, keep in mind that:

1. Each Monitoring Location is linked to a single Facility. The Monitoring Location can be linked to any Facility that has been related to the Regulatory Measure via the Related Places tab.
2. Each Monitoring Location is related to at least one Place within an associated Facility (e.g., Discharge Point).

When a Monitoring Location is linked to a Facility, the table at the bottom of the page refreshes to show all Discharge Points related to that facility.

Select the Discharge Point(s) you would like to associate with the Monitoring Location by selecting the checkbox in the appropriate row(s) (Figure 5.19).

Place a check next to all discharge points associtated with this monitoring location.

Associated	Discharge Point ID
☐	200924: 001
☑	200944: 002
☐	200945: 003
☐	200951: 005
☐	200953: 007

Figure 5.19 Associated Discharge Points

To save the information recorded for the Monitoring Location, click the “Save Monitoring Location” at the top of the page. To return to the Regulatory Measure Editor without creating a new Monitoring Location, click the “Cancel” button.

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

The Monitoring Location you have created is listed on the Monitoring Location tab within the table (Figure 5.20). The table lists the information recorded on the Add Monitoring Location page. The fields are read-only. Click on the name of the Monitoring Location to open the *Add Monitoring Location* page and edit the record.

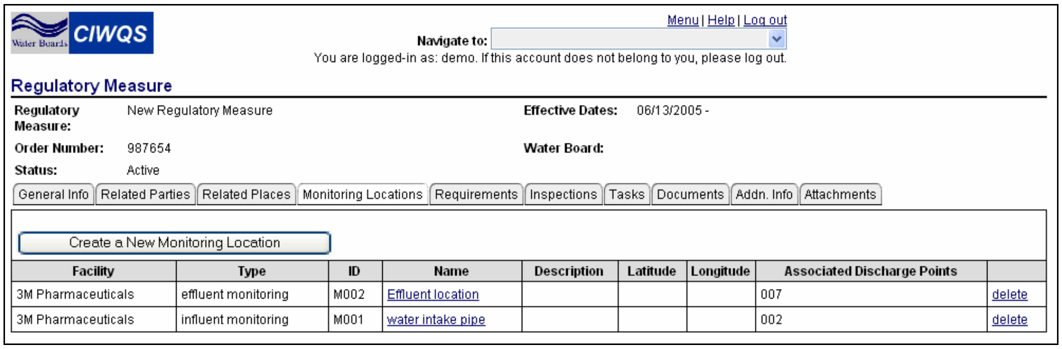


Figure 5.20 Defined Monitoring Locations

Click the "delete" hyperlink within the appropriate row of the table to delete the Monitoring Location.

Only Monitoring Locations that have no associated requirements can be deleted.

5.2.5 Requirements Tab

The Requirements tab allows you to create narrative and numeric/limit requirements (including monitoring and sampling) and to link these requirements to reporting schedules.

From this tab it is possible to:

- Add Narrative Requirements
- Add Numeric Requirements
- Set Reporting Schedules
- Copy Requirements from another Order
- Activate a Regulatory Measure to eSMR
- Delete previously established Requirements

These actions are performed using the various buttons at the top of the tab. A list of Requirements that have already been established for the Regulatory Measure are shown in the Requirements table (Figure 5.21).

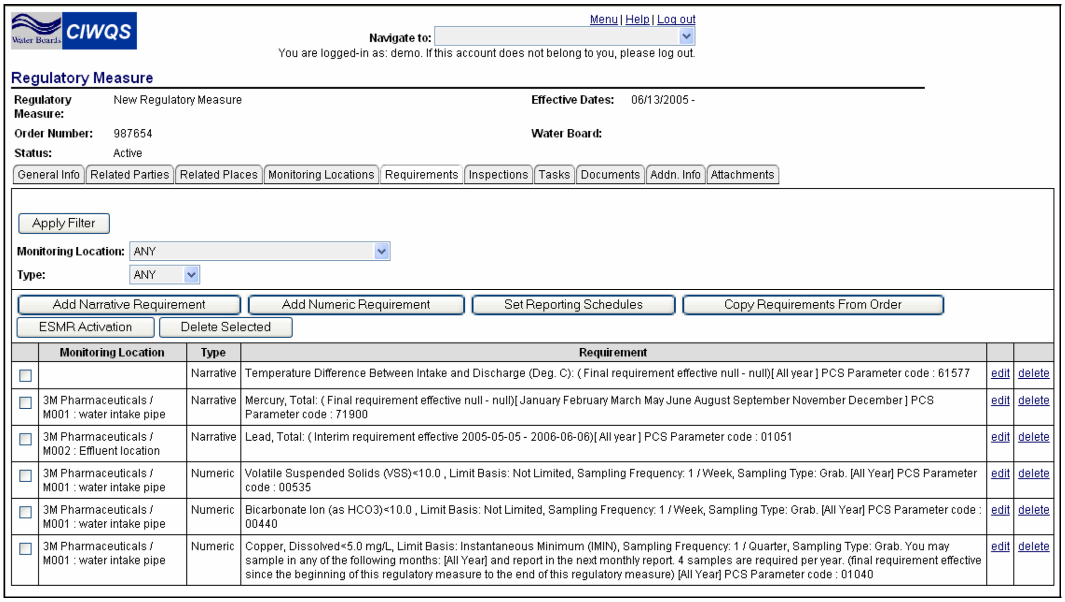


Figure 5.21 Requirements Tab

The Requirements table displays all Requirements linked to the Regulatory Measure. You can select multiple Requirements by selecting the checkboxes preceding each row. Requirements can be edited by clicking the "edit" link or deleted by clicking the "delete" hyperlink.

Each Regulatory Measure can have many related Requirements. The fields at the top of the tab allow you to filter the related Requirements to find the Requirement you wish to edit or change (Figure 5.22).

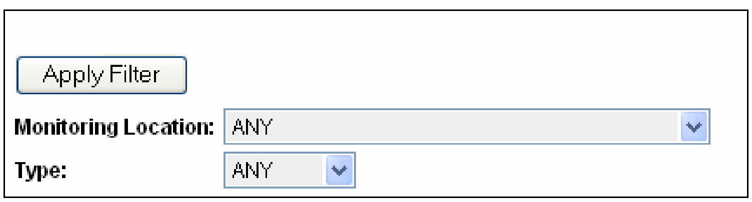


Figure 5.22 Requirements Filter Fields

Select a *Monitoring Location* from the drop-down menu to filter Requirements based on a Monitoring Location. Select a Requirement type from the *Type* drop-down menu to filter Requirements by this characteristic. Click the "Apply Filter" button to find the Monitoring Locations that match your search criteria.

Types of Requirements

There are three basic types of Requirements:

- Narrative

- Numeric (including limits and monitoring requirements)
- Reporting

Narrative Requirements are text-based, and most are created for the entire Regulatory Measure or Facility. In some cases, however, a Narrative Requirement may be written for a specific Monitoring Location or for multiple monitoring locations.

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

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

Create a Narrative Requirement

To create a Narrative Requirement, click the "Add Narrative Requirement" button below the filter fields. This opens the *Add Narrative Requirement* page (Figure 5.23). This page allows you to enter information for a specific requirement.

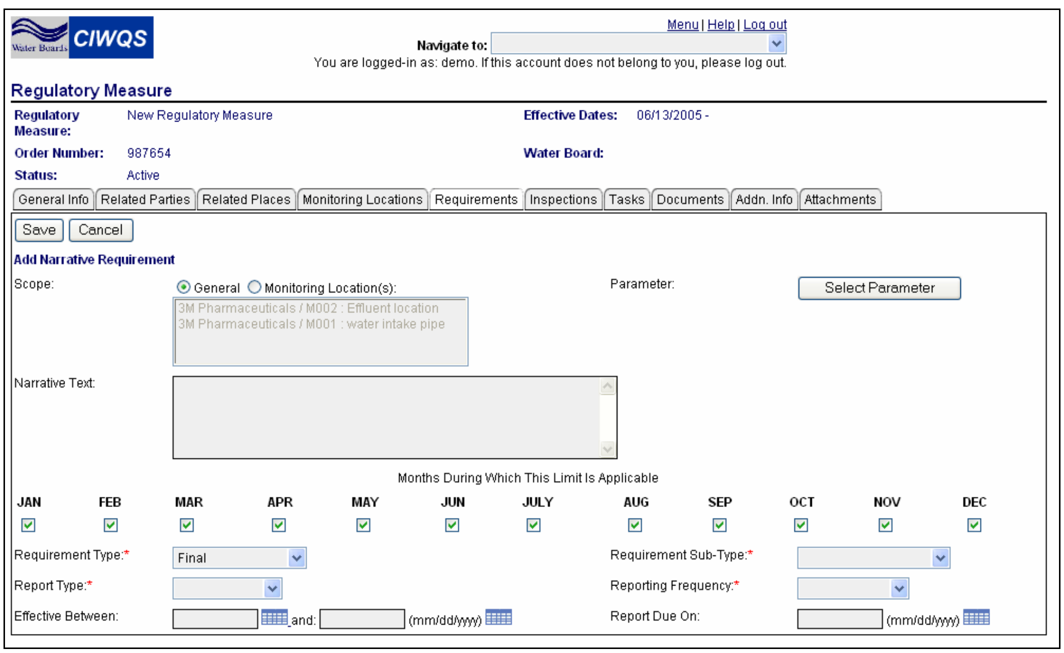


Figure 5.23 Add Narrative Requirement Page

To create a Narrative Requirement, you must:

1. Determine the scope of the Requirement

2. Indicate the Parameter to which to Requirement applies
3. Provide a description of the Requirement
4. Establish Reporting Requirements (applicable sampling months, Report type, Report frequency, due dates)
5. Indicate Effective Dates
6. Select the Requirement Type

These steps are covered in detail below.

Scope

Indicate whether the Requirement applies to the entire Regulatory Measure ("General") or whether the Requirement applies to a single Monitoring Location by selecting the appropriate *Scope* radio button.

If multiple Facilities are assigned to this Regulatory Measure and "General" is selected (default), the Requirement is applied to all Monitoring Locations and all Facilities.

If "Monitoring Location" is selected, the Scope list-box is enabled and lists all Monitoring Locations defined within this Regulatory Measure. Each Monitoring Location is displayed with the information "Facility Name/Monitoring Location ID: Monitoring Location Name".

Select one or more (by holding down the "Ctrl" key while making your selections) Monitoring Locations from the list.

☞ **Selection of a Monitoring Location implies selection of a Facility, as each Monitoring Location is assigned to one and only one Facility.**

Parameter

The *Parameter* field lists the Parameter associated with the Requirement. This field is read-only and is populated with the information selected using the Parameter Search.

To assign a Parameter to a Narrative Requirement, click the "Parameter" button. This launches the *Parameter Search* page (Figure 5.24).

The *Parameter Search* page was created to simplify the entry of Parameters, which often have synonyms and complex spellings. By searching, you do not have to type "official" parameter lists or scroll through a long list.

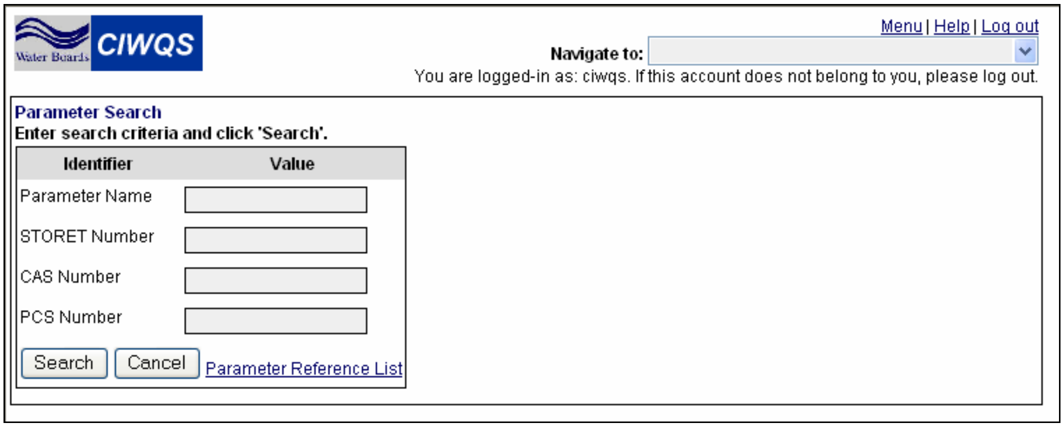


Figure 5.24 Parameter Search Page

Table 5.5 describes the search field requirements.

Clicking the "Parameter Reference List" hyperlink within the search area opens a new window with a list of Parameter names and their synonyms.

When you have entered the appropriate search terms, click the "Search" button.

You must enter search criteria into at least one field to search for Parameters.

Table 5.5 Parameter Search Fields

Field Name	*Description*
Parameter Name	Enter all or part of the name of a Parameter or one of its synonyms (not including fraction and measurement type). No wildcards are required. The system searches for any parameter or synonym that contains the text. If the match is made on a synonym, the synonym is shown in the results table.
STORET Number	Enter in the STORET number of the Parameter. The entire number must be entered.
CAS Number	Enter in the CAS number of the Parameter. The entire number must be entered.
PCS Number	Enter in the PCS number of the Parameter. The entire number must be entered.

The results table lists the Parameters that meet your search criteria (Figure 5.25). To select a Parameter to add to the Narrative Requirement, click the "Select" hyperlink. This returns you to the *Add Narrative Requirement* page, and the selected Parameter is listed in the *Parameter* field.

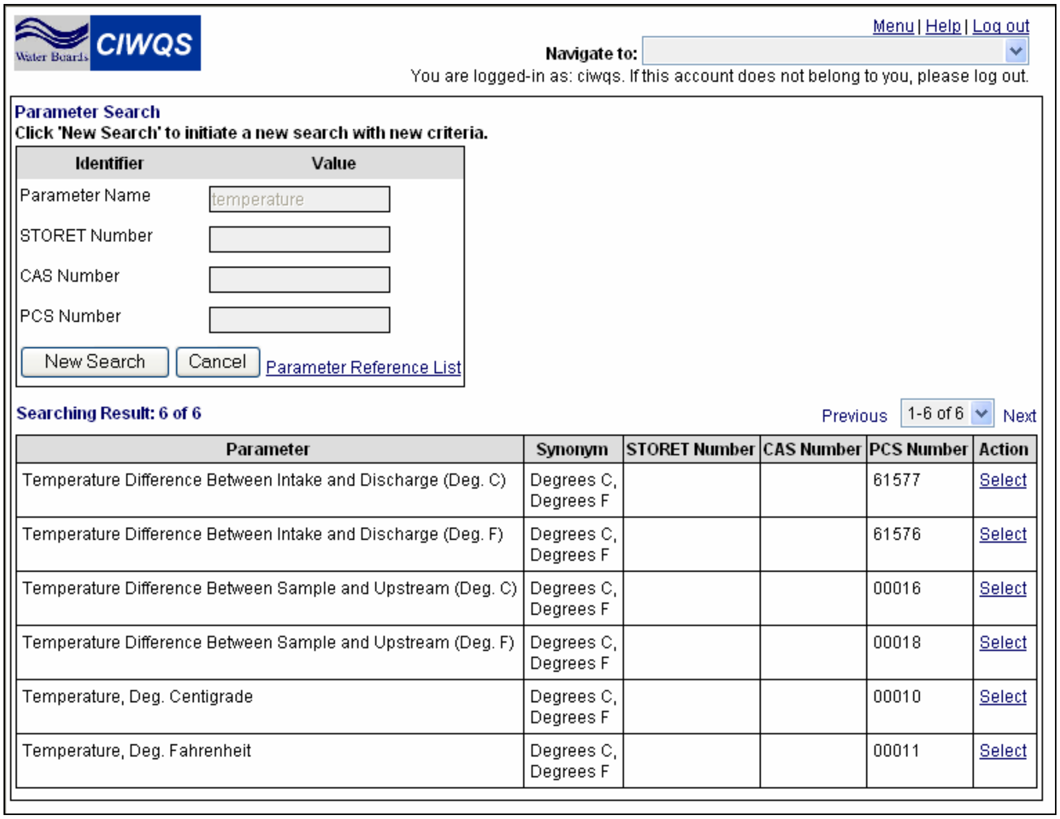


Figure 5.25 Parameter Search Results

Click the "Cancel" button to return to the Regulatory Measure Module without adding (or changing) a Parameter.

Narrative Text

Once a Parameter has been selected, add the narrative text of the Requirement in the *Narrative Text* field.

Applicable Months

Use the *Applicable Months* checkboxes to indicate the months for which this requirement is applicable. These 12 checkboxes are, by default, selected. If selected, this indicates that this Requirement is applicable during that month.

Remaining Fields

Table 5.6 lists the remaining fields on this page and describes each one.

When you have entered all of the information for the Narrative Requirement, click the "Save" button at the top of the tab to save your information. Click the "Cancel" button to return to the Requirements tab without saving the Narrative Requirement.

Applicable Months

Examples of sampling month combinations:

Sample once per year, report in the next monthly report; Jan = Yes, Feb = Yes, March = Yes,…, Dec = Yes (the sample may be taken in any month)

Sample in February and report on the next monthly report; Jan = No, Feb = Yes, March = No,…, Dec = No

Sample in any summer (June, July, August) month and report on the next monthly report; Jan = No, Feb = No,…, May = No, June = Yes, July = Yes, Aug = Yes, Sept = No,…

Table 5.6 Additional Narrative Requirement Fields

Field Name	Description
Requirement Type	Select the type of Requirement from the drop-down menu.
Requirement Sub-Type	Select the Requirement Sub-Type from the drop-down menu (if applicable).
Report Type	Select the report type on which this Requirement will appear. Choices include: SMR, Supplemental Report, One-time, etc.
Reporting Frequency	Select the report (monthly report, quarterly report, semi-annual report, or annual report) on which this Requirement is to be reported. This field is only enabled if a repeating report type (such as "SMR") is selected.
Effective Between	Enter the dates the Requirement is effective. By default, the fields are left blank. This indicates that the Requirement is effective for the entire lifetime of the Regulatory Measure.
Report Due On	Enter the specific date on which the report is due. This field is enabled only if a one-time report type (such as "Supplemental" or "One-Time") is selected.

Floating Reports

A floating report (selected via the *Reporting Frequency* field) is used for limits in which the sample can be taken at a time of the Discharger's choosing (within certain restrictions). In these cases, the Discharger is asked to submit the results of the sample on the next monthly report. Selecting *floating* indicates that the Discharger may sample in any month marked with a "Y" in "Allowed Sampling Months."

On each month's report, the Discharger has the option of reporting the sample values (or pre-calculated result) in support of this requirement. The error checker will **not** identify missing values in this case, since it is not a non-compliance event (potential violation) until the year has ended. Only then will the compliance checker determine if the Discharger has a non-reporting violation (i.e., if no sample results were reported in support of the requirement in a twelve-month period).

Create a Numeric Requirement

To add a Limit/Monitoring Requirement, click the "Add Numeric Requirement" button. This opens the *Add Numeric Requirements* page (Figure 5.26).

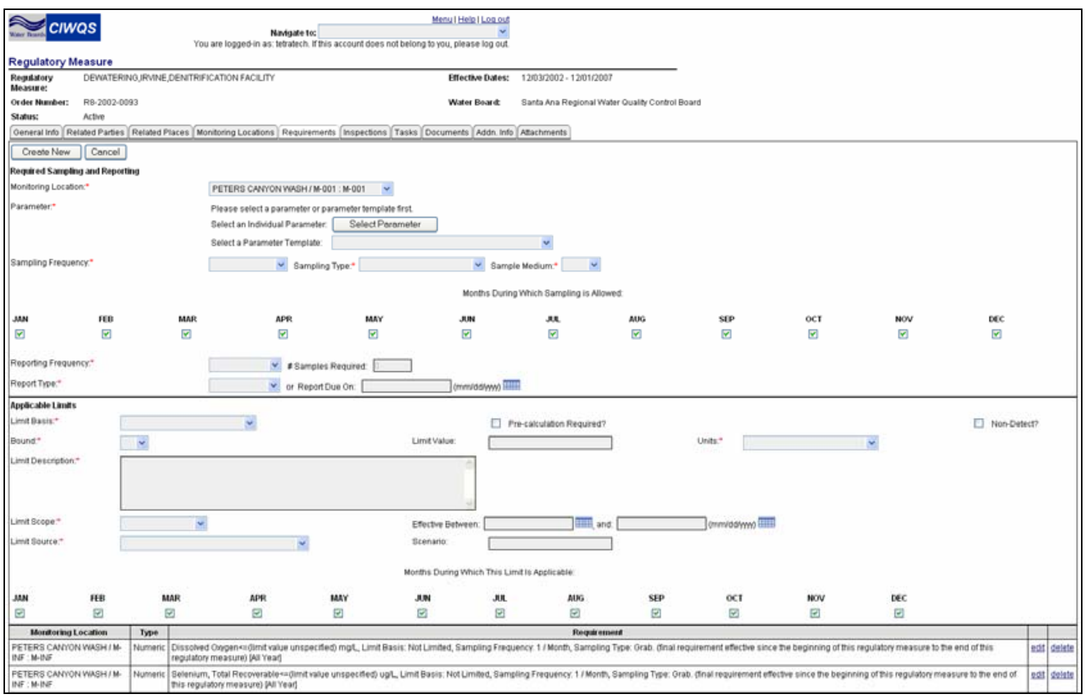


Figure 5.26 Add Numeric Requirements Page

The *Add Numeric Requirements* page is divided into three sections: Required Sampling and Reporting, Applicable Limits, and the Numeric Requirements table. The first two sections allow you to capture information for a new Numeric Requirement. The Requirements table lists the Numeric Requirements that have already been established for the Regulatory Measure.

Click the "Cancel" button at any time to return to the Requirements tab without creating a new Numeric Requirement.

To create a Numeric Requirement, you must:

1. Indicate the Parameter to which to Requirement applies
2. Indicate the related Monitoring Requirement
3. Indicate the sampling type, frequency, and medium as well as applicable sampling months
4. Establish Reporting Requirements (number of samples per Report, reporting frequency)
5. Define applicable limits (if appropriate)

These steps are covered in detail below.

Required Sampling and Reporting

First, select a single Parameter to associate with the Requirement or, alternatively, select a Parameter Template. Selecting a Parameter Template automatically generates a set of related Numeric Requirements for the selected Monitoring Location.

If you wish to select an individual Parameter, click the "Select Parameter" button. This launches the *Parameter Search* page (described above). Use the search fields to find the appropriate Parameter and click the "Select" hyperlink to associate the Parameter with the Requirement.

Click the "Cancel" button to return to the Numeric Requirement without adding a Parameter.

The Parameter shown is the base Parameter (e.g., Copper) plus the Parameter fraction (e.g., Dissolved) plus the measurement type (*concentration* or *quantity*).

To select a Parameter Template, select the appropriate Template from the drop-down menu.

Next, select the related Monitoring Location from the *Monitoring Location* drop-down menu. Selection of a Monitoring Location implies selection of a Facility, as each Monitoring Location is assigned to only one Facility.

Once the Monitoring Location and an associated Parameter (or Parameter Template) have been established, data can be captured in the remaining fields of the Required Sampling and Reporting section.

Table 5.7 lists the remaining fields in this section and gives a description of each.

Table 5.7 Required Sampling and Reporting Fields

Field Name	Description
Parameter Template	Select the Parameter Template from the drop-down menu.
Sampling Frequency	Select a value from the drop-down menu to indicate the frequency with which samples must be taken.
Sampling Type	Select a value from the drop-down menu to indicate the type of sample required.
Sampling Medium	Select a value from the drop-down menu to indicate the sampling medium required.
Sampling Months Allowed	For Requirements in which the discharger samples less often than once/month (e.g., once/year), but needs to report the results on the next monthly report, these 12 fields can be used to indicate the months in which a sample may be taken (see sidebar below).
Reporting Frequency	Select a value to indicate the report (monthly report, quarterly report, semi-annual report, annual report, or floating report) that this Requirement is to be reported on from the drop-down menu.
# Samples Required	Enter the number of samples required per period (as selected in the sampling frequency field).
Report Type	Select the report type on which this Requirement will appear from the drop-down menu.
Report Due On	Enter the date on which the report is due. This field is only enabled if a one-time report type (such as "Supplemental" or "One-Time") is selected.

Applicable Limits

Once you have filled in the fields in the Required Sampling and Reporting section, move down to the Applicable Limits section. Table 5.8 lists the fields in this section and provides a description for each one.

Table 5.8 Fields in the Applicable Limits Section

Field Name	Description
Limit Basis	Indicate the mechanism by which sample data is aggregated (e.g., monthly minimum) from the drop-down menu.
Pre-calculation Required?	Indicate whether pre-calculation of the value is required by selecting the checkbox.
Non-Detect	Indicate whether a sample was detected.
Bound	<, <=, >, or >=. If this is a "sample only" requirement, the bound may be left blank.
Limit Value	Enter the numeric limit. If this is a "sample only" requirement, the limit may be left blank. For more complex requirements (e.g., those that are pH-dependent), text may be entered into this field.
Units	Enter the units for the limit. The selected units must be appropriate for the parameter/measurement type.
Limit Description	This field allows you to enter additional information to further define the limit value. In some cases, this may replace a limit value. For example, if the limit is pH or temperature dependent, the limit description can be used to state this and to provide the values or provide a pointer to a table of values.
Limit Scope	Select the limit scope (final or interim) from the drop-down menu.
Effective Dates	Indicate the dates the requirement is effective. By default, these fields are left blank. This means that the requirement is effective for the entire lifetime of the Regulatory Measure.
Limit Source	Indicate the regulatory citation (e.g., "Basin Plan" for the Requirement.
Scenario	Indicate the scenario for the Requirement.
Applicable Months	Indicate the months for which this requirement is applied.

Pre-Calculation Required

Some limit bases allow the system to calculate a summary result based on raw data. In other cases, the system is unable to perform the calculations or the system is unable to interpret external factors (e.g., the system cannot evaluate "if there were 15 or more days with rainfall"). For these situations, pre-calculation by the Discharger is required. This field will automatically fill based on the selected limit basis. If the limit basis required pre-calculation, this field is checked and becomes Read Only. If the limit basis allows system-calculation, this field is left unchecked. However, the user may elect to check this if there are external factors which indicate that pre-calculation will be necessary.

When you have finished entering data for the Numeric Requirement, click the "Create New" button at the top of the page. This saves your information and displays the Requirement (or set of Requirements) in the Numeric Requirements table at the bottom of the page. Requirements are sorted by Parameter. The text shown is the "Requirement text".

Click the Requirements tab to return to the Requirements table (as shown in Figure 5.21). The new Requirement(s) are displayed in the table.

Set a Reporting Schedule

The *Set Reporting Schedule* page allows you to define the date that each type of report is due (monthly/floating, quarterly, semi-annually, and annually).

Reporting Schedules cannot be set unless the Regulatory Measure meets all of the requirements for eSMR activation. These requirements are discussed in section 5.3.

Click the "Back to Requirements" button at any time to return to the Requirements tab.

To set a Reporting Schedule, click the "Set a Reporting Schedule" button. This opens the *Set Reporting Schedule* page (Figure 5.27).

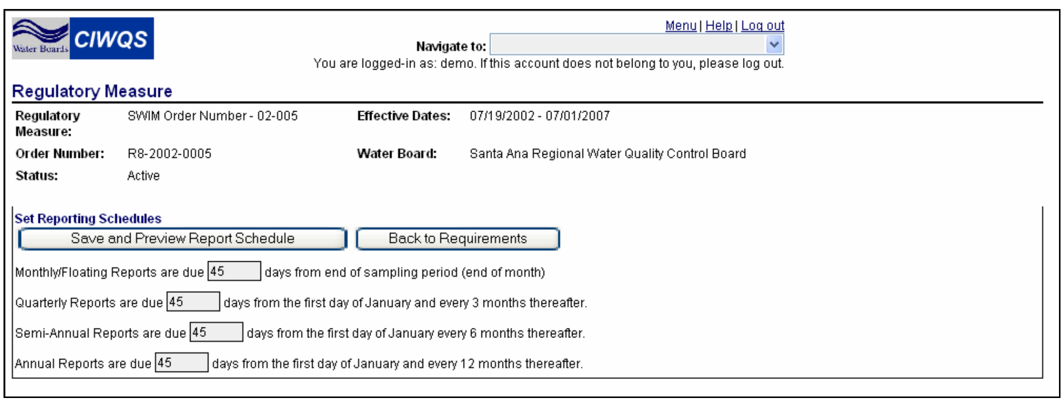
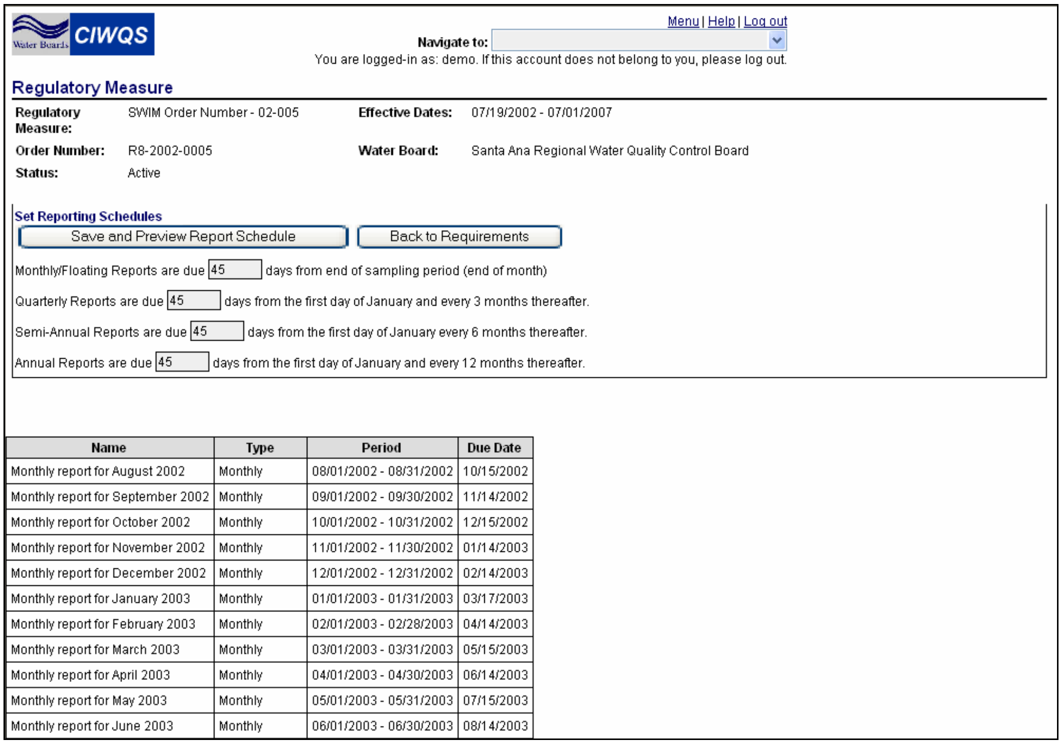


Figure 5.27 Set Reporting Schedule Page

Adjust the four values as necessary. Click the "Save and Preview Report Schedule" button to view a table of reports in the results table below the reporting schedule fields (Figure 5.28).



Menu | Help | Log out
Navigate to:
You are logged-in as: demo. If this account does not belong to you, please log out.

Regulatory Measure

Regulatory Measure: SWIM Order Number - 02-005
Effective Dates: 07/19/2002 - 07/01/2007
Order Number: R8-2002-0005
Water Board: Santa Ana Regional Water Quality Control Board
Status: Active

Set Reporting Schedules

Save and Preview Report Schedule | Back to Requirements

Monthly/Floating Reports are due 45 days from end of sampling period (end of month)

Quarterly Reports are due 45 days from the first day of January and every 3 months thereafter.

Semi-Annual Reports are due 45 days from the first day of January every 6 months thereafter.

Annual Reports are due 45 days from the first day of January and every 12 months thereafter.

Name	Type	Period	Due Date
Monthly report for August 2002	Monthly	08/01/2002 - 08/31/2002	10/15/2002
Monthly report for September 2002	Monthly	09/01/2002 - 09/30/2002	11/14/2002
Monthly report for October 2002	Monthly	10/01/2002 - 10/31/2002	12/15/2002
Monthly report for November 2002	Monthly	11/01/2002 - 11/30/2002	01/14/2003
Monthly report for December 2002	Monthly	12/01/2002 - 12/31/2002	02/14/2003
Monthly report for January 2003	Monthly	01/01/2003 - 01/31/2003	03/17/2003
Monthly report for February 2003	Monthly	02/01/2003 - 02/28/2003	04/14/2003
Monthly report for March 2003	Monthly	03/01/2003 - 03/31/2003	05/15/2003
Monthly report for April 2003	Monthly	04/01/2003 - 04/30/2003	06/14/2003
Monthly report for May 2003	Monthly	05/01/2003 - 05/31/2003	07/15/2003
Monthly report for June 2003	Monthly	06/01/2003 - 06/30/2003	08/14/2003

Figure 5.28 Reports Table

Only those reports for which there are requirements are displayed. For example, if there are no requirements in this Regulatory Measure on a semi-annual schedule, the "Semi-Annual Reports are due…" statement does not appear on this tab.

Copy a Requirement from an Order

Click the "Copy Requirements from Order" button to copy Requirements from another Regulatory Measure and Monitoring Location to the current Regulatory Measure/Monitoring Location. You can use this function to copy Requirements from a "template" Regulatory Measure or from another Regulatory Measure with a similar Monitoring Location.

To copy a Requirement from another Order, click the "Copy Requirements from Order" button on the Requirements tab. This launches the *Regulatory Measure Search* page (described above). Enter the appropriate search criteria and click the "Search" button. When you have found the appropriate Regulatory Measure, click the "Select" hyperlink in the appropriate row. This opens the *Select Requirement Source* page (Figure 5.29).

From this page, select the Requirement Type(s), Source Monitoring Location, and Target Monitoring Location (defaults to the Monitoring Location selected, if any, on the Requirements tab). You can select multiple values from a list box by holding down the Ctrl key while selecting values.

The list of source Monitoring Locations is the list of Monitoring Locations in the source Regulatory Measure.

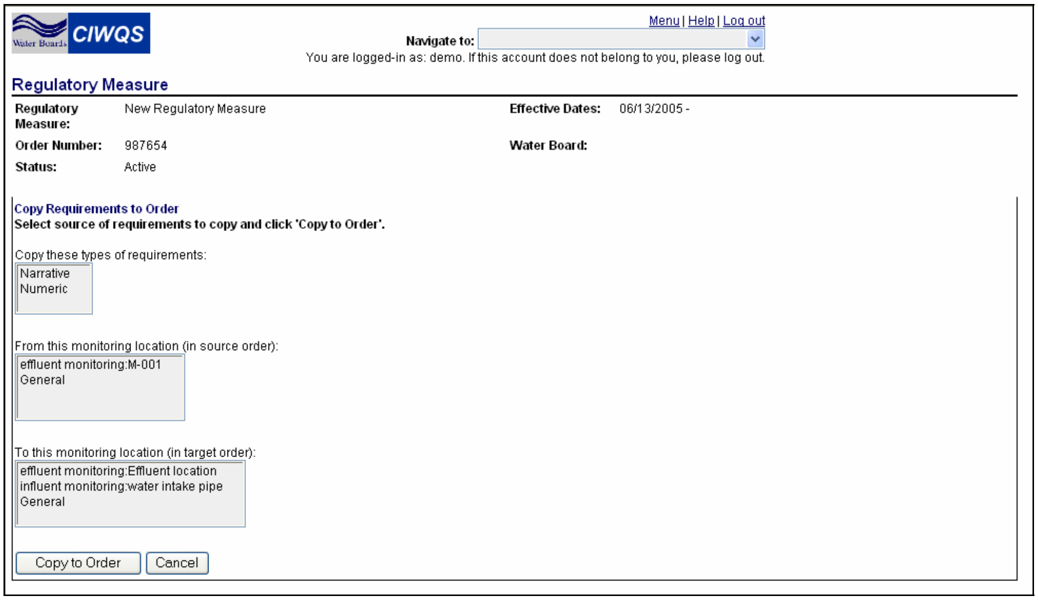


Figure 5.29 Select Requirement Source Page

Click the "Copy to Order" button to import the Requirement information and return to the Requirements tab or click the "Cancel" button to return to the Requirements tab without importing the information.

If Requirements were imported, they are now displayed on the Requirements tab and can be edited or deleted as required (as described above).

eSMR Activation

eSMR Activation is covered in section 5.3 below.

Delete Selected

As mentioned above, Requirements can be deleted by clicking the "delete" hyperlink at the end of each row. Requirements can also be deleted by selecting them (selecting the checkbox at the beginning of the row) and then clicking the "Delete Selected" button.

5.2.6 Inspections Tab

The Inspections tab allows you to schedule Inspections for the Regulatory Measure. This tab is available for both non-activated and activated Regulatory Measures. In this way, Inspections can be scheduled while the Regulatory Measure is being developed or after it has been activated. Inspections can be listed with or without due dates or assigned staff. Staff and dates can later be assigned using this tab or through the *Create/Maintain Inspections* Module.

See Chapter 10 for more information on the *Create/Maintain Inspections* Module.

Clicking the "Add New Inspection" button creates a new row in the Inspection Table for the purposes of creating a planned Inspection (Figure 5.30).

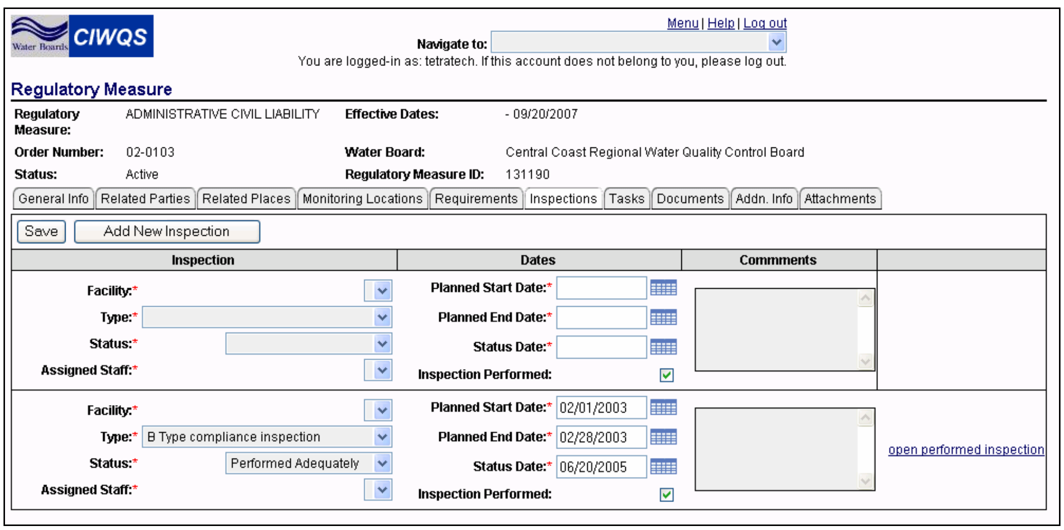


Figure 5.30 Inspections Tab

Table 5.9 lists the fields within this table and provides a description of each one.

When you have entered data for a new Inspection or have added information to an existing Inspection, click the "Save" button at the top of the tab.

Click the "remove planned inspection" hyperlink to delete the scheduled Inspection. If there is a linked performed Inspection, the record cannot be deleted.

Click the "create performed Inspection" hyperlink to create a performed Inspection for the scheduled Inspection via the *Create/Maintain Inspection*

Module. If a performed Inspection already exists, the hyperlink reads “open performed inspection”.

Table 5.9 Create a New Inspection Field.

Field Name	Description
Facility	If this Regulatory Measure has multiple Facilities enrolled, select the Facility from the drop-down menu. If only one Facility is enrolled, this field auto-populates.
Type	Select the Type of Inspection (e.g., Type A Compliance Inspection) from the drop-down menu.
Status	Select the status of the Inspection (e.g., planned, in progress, completed) from the drop-down menu.
Assigned Staff	Select the name of the staff member with lead responsibility for this Inspection. This may change depending on the status of the Inspection. This field does not auto-populate based on Tasks. The values in the drop-down menu are derived from the list of People linked to the Regulatory Measure via the Related Parties tab.
Planned Start Date	Enter the planned start date for the Inspection.
Planned End Date	Enter the planned end date for the Inspection.
Status Date	Enter the date the status became (becomes) effective.
Inspection Performed	Select the checkbox to indicate that the Inspection has been performed.
Comments	Enter comments (up to 2000 characters) pertaining to the Inspection.

STOP **When you have entered or updated new information in the Inspections tab, be sure to click the “Save” button at the top of the tab to avoid loss of data.**

5.2.7 Tasks Tab

The Tasks tab allows you to assign a task, or event, to a Regulatory Measure (Figure 5.31). The controls at the top of the tab allow you to:

- Create a new Task
- Create a Template Task
- Save new tasks to the Regulatory Measure

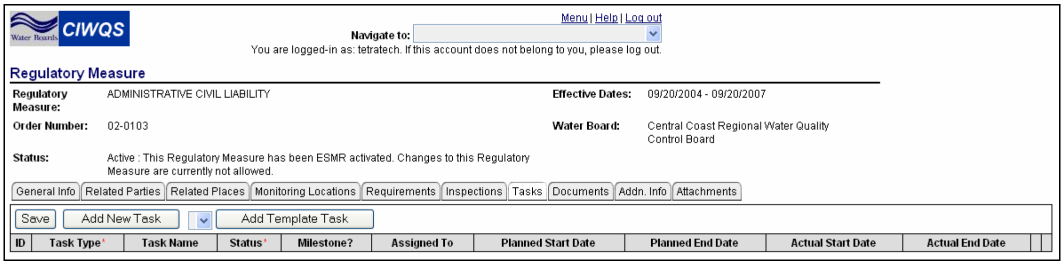


Figure 5.31 Tasks Tab

To create a new Task, click the “Add New Task” button. This adds a new row to the Task table (Figure 5.32).

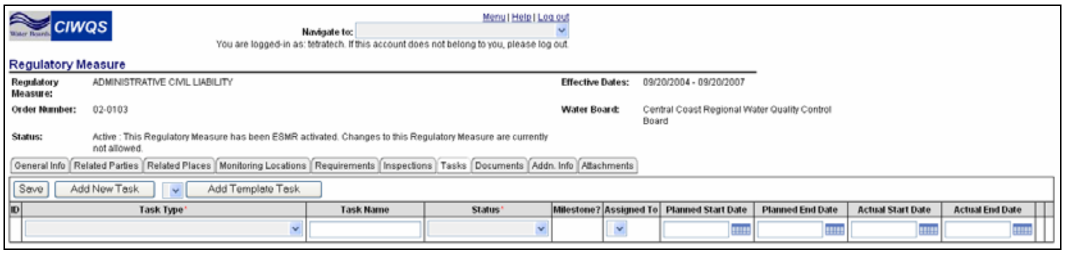


Figure 5.32 Add a New Task

To add a template Task, select the type of template you wish to use from the drop-down menu at the top of the tab and click the “Add Template tab” button. This adds a row for the template task with the values of the Task Type drop-down menu filtered to reflect the selected template type (Figure 5.33).

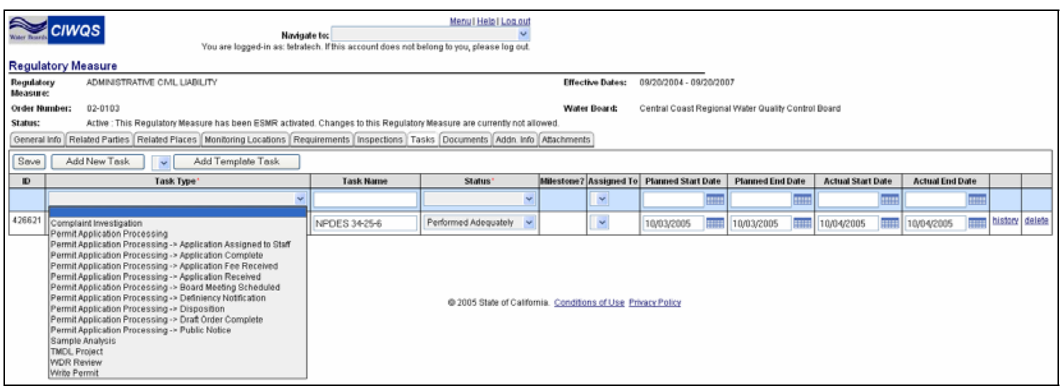


Figure 5.33 Adding a Template Task

Table 5.10 lists the fields on this tab and gives a description of each.

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

Table 5.10 Fields on the Tasks Tab

Field Name	Description
ID	This field will auto-populate once the record is saved.
Task Type	Select the Task Type from the drop-down menu.
Task Name	Enter the name of the Task.
Status	Select the Status of the Task from the drop-down menu.
Milestone?	Indicate whether there is a Milestone related to this Task.
Assigned To	Select the staff member assigned to this Task.
Planned Start Date	Enter the Planned Start Date of the Task.
Planned End Date	Enter the Planned End Date of the Task.
Actual Start Date	Enter the Actual Start Date of the Task.
Actual End Date	Enter the Actual End Date of the Task.

Click the "history" hyperlink to open a new window with the Task history displayed in a table (Figure 5.34).

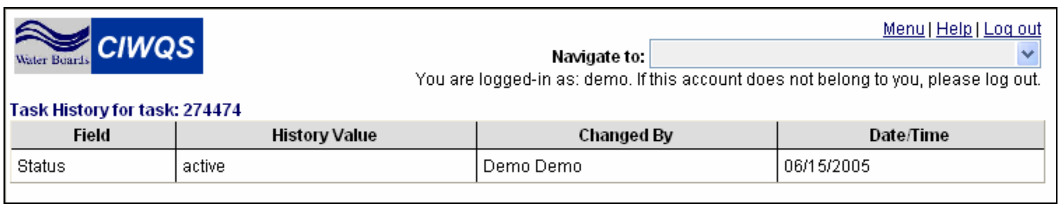


Figure 5.34 Task History Table

Click the "delete" hyperlink to delete the Task from the Regulatory Measure record.

5.2.8 Documents Tab

The Documents tab allows you to identify external documents (in hard copy format) that are related to a Regulatory Measure. For example, files located in your office may be related to the Regulatory Measure that are unavailable as electronic documents. This tab provides a way to indicate available, related Documents that cannot be uploaded via the Attachments tab.

Documents that have already been linked to the Regulatory Measure are listed in the table at the bottom of the page (Figure 5.35).

To associate a Document with a Regulatory Measure, click the "Add a Document" button. This launches the *Add Document* page where you can fill in fields required to create a new record for an associated Document (Figure 5.36).

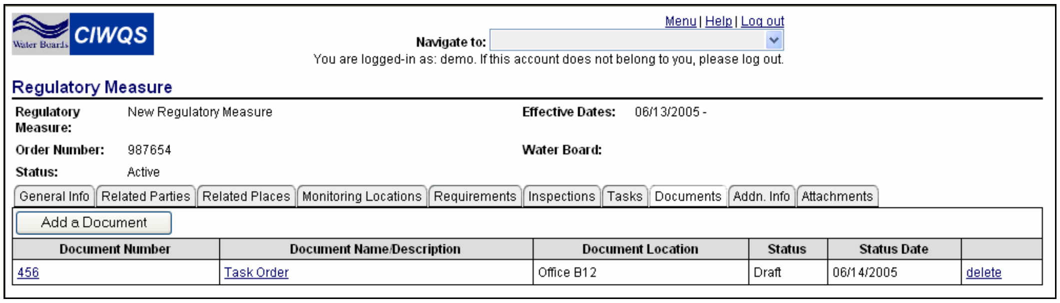


Figure 5.35 Document Tab

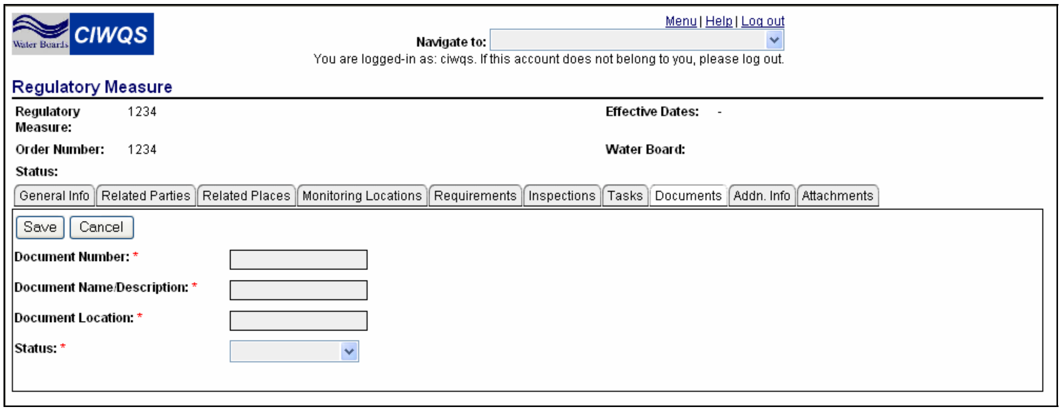


Figure 5.36 Add a Document Page

Table 5.11 provides the description of each field on the Document page.

Table 5.11 Document Fields

Field Name	*Description*
Document Number	Enter a reference number for the Document. As a free-entry field, any numbering system can be used. Typically, this would be the file number.
Document Name/Description	Provide a description of the Document or the Document title.
Document Location	Enter where the Document is located.
Status	Indicate the Status of the Document (e.g., under review, approved) from the drop-down menu.
Status Date	Select the last date that the document's status was changed.

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

Click the Document number or Document name/description to open the *Add Document* page and edit the record for a Document.

5.2.9 Additional Information Tab

The Additional Information tab is designed to capture any relevant information that the other tabs do not address. Additional information is recorded by documenting various attributes that apply to a particular Regulatory Measure type.

As this page is used in several of the CIWQS Modules, it has been formatted to accept a wide range of data and information (Figure 5.37). The attributes that can be specified for a given Regulatory Measure type are listed in the attribute table.

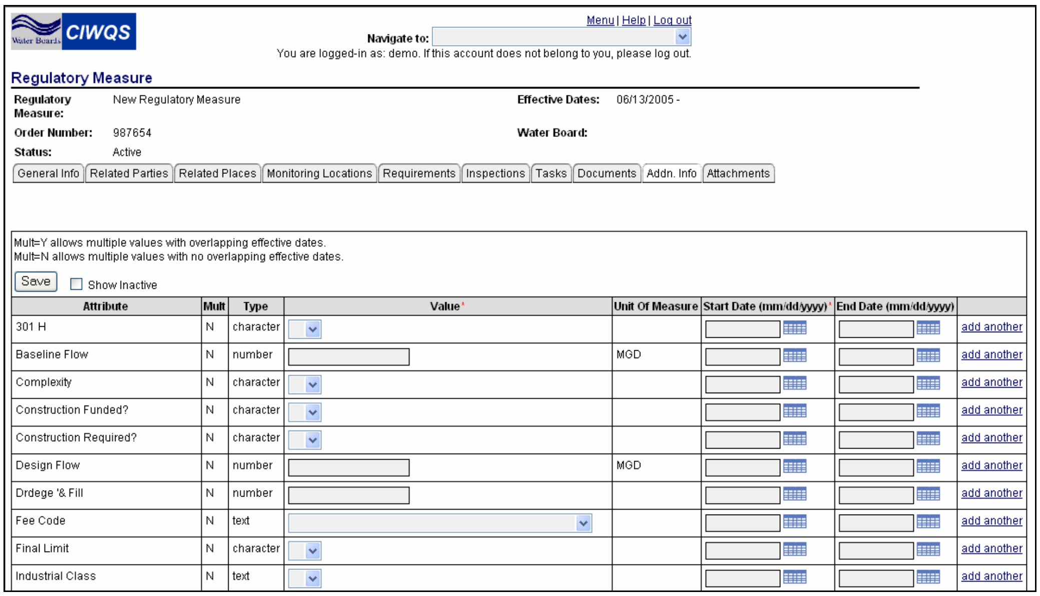


Figure 5.37 Additional Information Tab

When the Additional Information tab is viewed, the default is for only the active attributes (relationships with a Start Date of today's date or earlier and an End Date later than today's date) to be displayed. If you wish to see the inactive attributes instead, select the box with the label "Show Inactive" next to the "Save" button at the top of the tab.

Contact the CIWQS Administrator if you wish to have an additional Regulatory Measure attribute added to the Additional Information tab.

All attributes allow multiple values to be entered by clicking the "add another" hyperlink at the end of the row. Only Attributes with a value of "Y" in the *Mult* field allow entries with overlapping start and end dates.

The fields of the Attribute Table are described in Table 5.12.

Table 5.12 Attribute Table Fields

Field	*Description*
Attribute	Displays an attribute that can be recorded for the Regulatory Measure. Required attributes are prefixed with an asterisk (*). This indicates that you are required to enter values for the *Value* and *Start Date* fields.
Value	Enter or select the value associated with the attribute. Depending on the attribute, this field may be displayed as a text field or as a drop-down list box. If the field is a text field, no data validation takes place.
Start Date	Enter the date the attribute was first used/was first true about the Regulatory Measure/was first measured/was first reported/etc.
End Date	Enter the date the attribute was last used/was last true about the facility/etc.

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

5.2.10 Attachments Tab

The Attachments tab allows you to attach any relevant file (e.g., word processing, graphics, photo, spreadsheet, etc.) to the Regulatory Measure.

Upon retrieval, the list of files is sorted by file name. A particular file name can only be used once per Regulatory Measure.

To upload a new file, select the "Browse" button. A new page opens where you can select the file you want to upload (Figure 5.38).

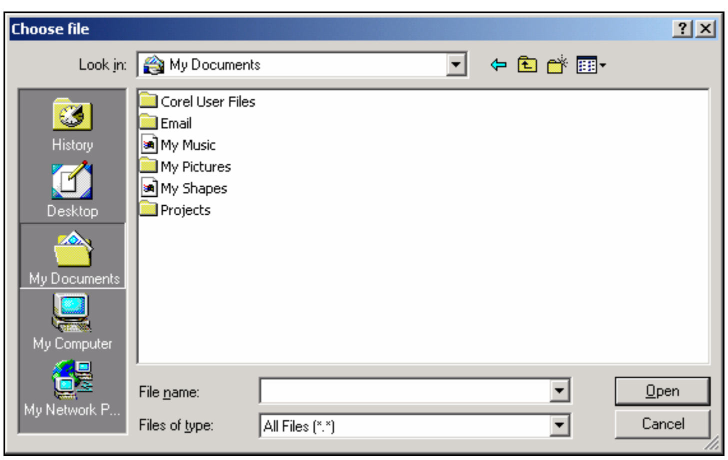


Figure 5.38 Browsing for an Attachment

Once you have located the appropriate file, select the file and click the "Open" button. The Choose File window closes, and the name and file path of the selected file appears in the text field next to the "Browse" button. Enter a description of the file in the *File Description* field. Click the "Upload File" button. The new Attachment will show up in the table at the bottom of the Attachment page (Figure 5.39).

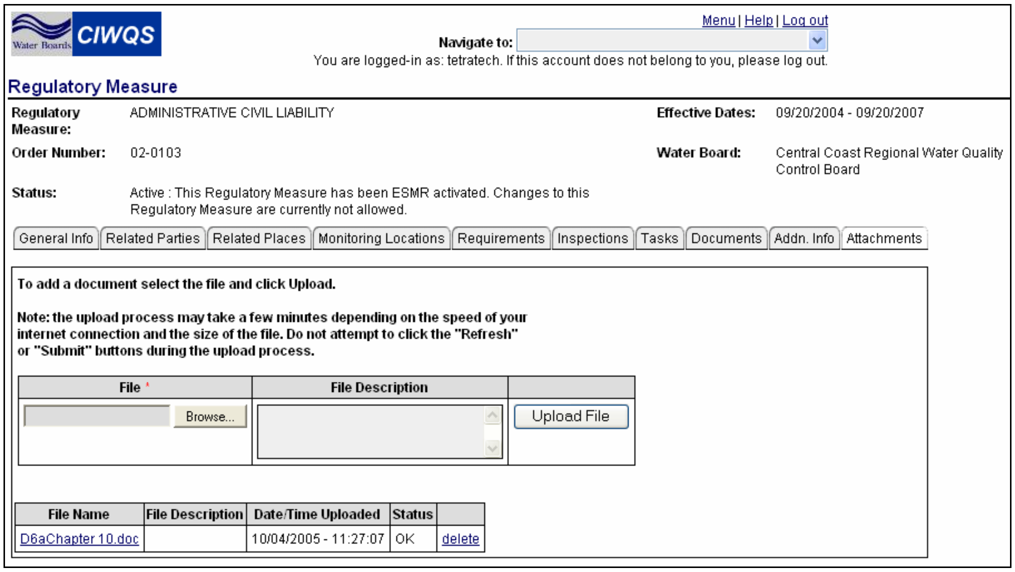


Figure 5.39 Attachments Tab

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 downloads the associated file using your browser's standard download capabilities.

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

5.3 Activation to eSMR

Activation is the process by which authorized Water Board Staff create legally binding reports which are made available through the eSMR Module. Until a Regulatory Measure is activated, the Requirements within the Regulatory Measure are not considered effective and no SMRs can be submitted for the Regulatory Measure.

Simply entering an issuance or effective date does not activate the Regulatory Measure in the system.

Before a Regulatory Measure can be activated, the following requirements must be met:

- The Regulatory Measure must contain an Effective Date and an Expiration Date
- The Regulatory Measure must be linked to one or more Facilities
- The Regulatory Measure must have one or more Requirements with a Reporting Type of "SMR". One or more of these Requirements should have a sampling frequency of a type other than "continuous" or "per discharge"
- None of the Requirements should contain a sampling frequency of "once only"
- All of the mandatory (marked with asterisks) on screen controls and on the *Add Numeric Requirement* and *Add Narrative Requirement* pages should contain appropriate values
- All Regulatory Measures with Requirements with a reporting frequency type "floating" should also have at least one Requirement with a reporting frequency of type "monthly" with a matching time period (in other words, the floating Requirement should be partnered with a monthly reporting Requirement)
- The Regulatory Measure must contain one or more related (linked) Parties representing one of the Waterboards and they should have the role/relationship of "regulating"
- The Regulatory Measure should have set reporting schedules

5.3.1 Activation

To activate a Regulatory Measure, click the "ESMR Activation" button on the Requirements tab (Figure 5.40).

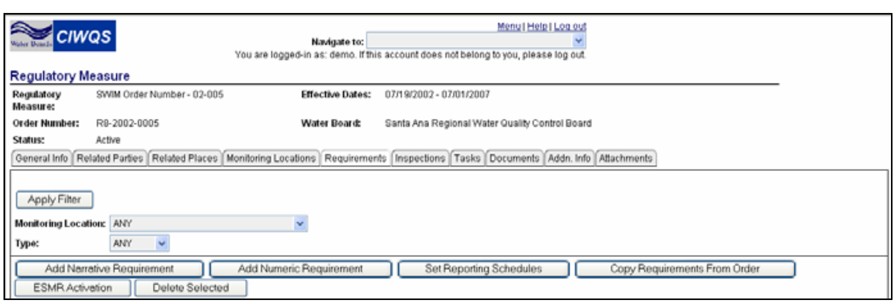


Figure 5.40 Requirements Tab

This opens the *eSMR Activation* page (Figure 5.41) which shows all of the reports that are related to the Regulatory Measure.

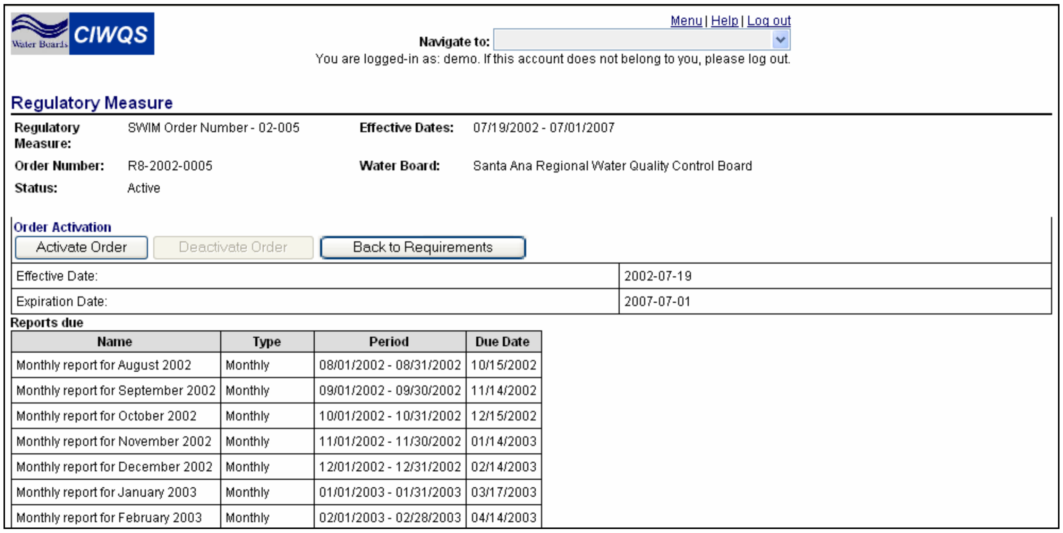


Figure 5.41 ESMR Activation Page

Click the "Activate Order" button to activate the Regulatory Measure. If one or more of the requirements listed above are not met, an error message is displayed at the top of the tab.

When a Regulatory Measure is activated, the system runs each reporting schedule (as described in section 5.2.5) and generates a "report due" record for each report due between the effective start date and effective end date (expiration) of the Regulatory Measure. These Reports are made available in the *eSMR* Module for data entry and submission.

See Chapter 7 for more information on the *eSMR* Module.

5.3.2 Deactivation

To deactivate a Regulatory Measure, click the "Deactivate Order" button on the *ESMR Activation* page.

5.3.3 Expiration of Regulatory Measures

In some cases, a Regulatory Measure may expire without being renewed or replaced. When this occurs, outstanding Reports (Future and In Progress Reports) and Requirements remain in effect – even though the Regulatory Measure itself has expired. A "Report due" record is generated for each Regulatory Measure that remains activated but has expired for 60 days after the established End Date.

"Due report" records that have already been created will not be recreated. This process continues until the Regulatory Measure is manually de-activated. The system does not automatically de-activate Regulatory Measures. In this case, any reports that have not yet been started (Past Due or Future) are removed from the queue. Submitted and In Progress reports remain in the system.

Activation of a Regulatory Measure automatically activates requirements of related (or child) Regulatory Measures. See section 5.4.1 below for more information on related Regulatory Measures.

5.4 Replace and Supersede Requirements

In some cases, the Requirements in a Regulatory Measure replace, permanently or temporarily, the Requirements of another. For example, a Permit Order may contain a set of Requirements. An Enforcement Order may then add additional Requirements and replace Requirements.

Suppose we have a Permit Order with three requirements (A, B, and C).

Permit Order

- Requirement A
- Requirement B
- Requirement C

Due to non-compliance, an Enforcement Order is issued that adds two new requirements (D, E) and replaces requirement B.

Enforcement Order

- Replace Requirement B
- New Requirement D
- New Requirement E

The Enforcement Order is in effect for a period of three months (May 1, 2005 to July 31, 2005).

In order to make the new (D, E) and updated (B) requirement available to the *Submit a Monitoring Report* and *Compliance Check* Modules, the

Enforcement Order must be *activated*. In addition, the system needs to know that the original requirement B has been superseded. To do this, the Enforcement Order actually needs to contain **all** of the Permit Order requirements (A, C), the new Enforcement Order Requirements (D, E), the original requirement B, and the updated requirement B. To do this, the requirements from the Permit Order need to be copied into the Enforcement Order.

Permit Order		**Enforcement Order**
◆ Requirement A ◆ Requirement B ◆ Requirement C	→	◆ Requirement A ◆ Requirement B ◆ Requirement C

Next, the old Requirement B needs to have its effective dates updated:

Enforcement Order

- Requirement A
- Requirement B (end April 30)
- Requirement C

Next, the new Requirement B needs to be added, with the appropriate effective dates:

Enforcement Order

- Requirement A
- Requirement B (end April 30)
- Requirement C
- Updated Requirement B (5/31 – 7/31)

If, after the enforcement period ends, the original requirement B returns, we can add that in as well:

Enforcement Order

- Requirement A
- Requirement B (end April 30)
- Requirement C
- Updated Requirement B (5/31 – 7/31)
- Original Requirement B (start 8/1)

Alternatively, another Permit Order could be created which re-instates the old requirement B.

The new (D, E) requirements can be added:

Enforcement Order

- Requirement A
- Requirement B (end April 30)
- Requirement C
- Updated Requirement B (5/31 – 7/31)
- Original Requirement B (start 8/1)
- Requirement D
- Requirement E

Finally, you need to *de-activate* the original Permit Order and *activate* the new Enforcement Order. Once this happens, eSMR stops using the original requirement B on April 30, uses the revised requirement B between May 1 and July 31, and reverts to the original requirement on August 1.

The original Permit Order has not been changed and can be viewed for historic purposes.

The Enforcement Order should be linked to the Permit Order for reference. To assist users, particularly Dischargers, a common Order Number scheme should be devised.

5.4.1 Linking Regulatory Measures

Regulatory Measures can be linked via the *Related Regulatory Measures* functionality on the General Information tab. You can link together regulatory measures to create new regulatory measures. For example, suppose you have a Permit Order with three requirements (A, B, and C).

Permit Order

- Requirement A
- Requirement B
- Requirement C

This Permit Order is later amended to add two new requirements (D, E) and to replace requirement B. A *new* regulatory measure is created that describes D, E, and the new B:

New Permit Order

- Replace Requirement B
- New Requirement D
- New Requirement E

Instead of using the copying functionality described in Section 5.2.5 to support this functionality (essentially creating a new regulatory measure with requirements A, new B, C, D, and E), the two regulatory measures can be tied together. To do this, a "master" regulatory measure is created and the two Permit Orders are linked to it as children:

MASTER REGULATORY MEASURE

Permit Order

- Requirement A
- Requirement B
- Requirement C

Enforcement Order

- New Requirement B
- New Requirement D
- New Requirement E

The relationship indicates that these are both "children" of the "Master" regulatory measure.

You also need to indicate that the old requirement B is no longer used. If this is not done, both the old requirement B and the new requirement B will be assumed to be in effect. To accomplish this, the original permit order needs to be opened and the end date for the old requirement B needs to be changed/set. The following depicts the final setup:

MASTER REGULATORY MEASURE

Permit Order

- Requirement A
- Requirement B (end 4/30)
- Requirement C

Enforcement Order

- New Requirement B (start 5/1)
- New Requirement D
- New Requirement E

Note: The choice to use the approach described in Sections 0 vs. the approached described here (Section 0) will depend on circumstance.

Activation of a Regulatory Measure automatically activates any "child" regulatory measures. Therefore, when the "Master Regulatory Measure" is activated, the two children are activated (or re-activated) as well. The "Master Regulatory Measure" is the one listed in the *eSMR* Module. However, the requirements of the children are inherited as being part of the master.

☞ **Manual activation of a child may create duplicate SMRs or SMR requirements.**

6
Reports Module

This chapter addresses the following topics:

- Reports available through the Reports Module

6.1 Introduction

Clicking on the Run Reports Module opens the *Report List* page (Figure 6.1).

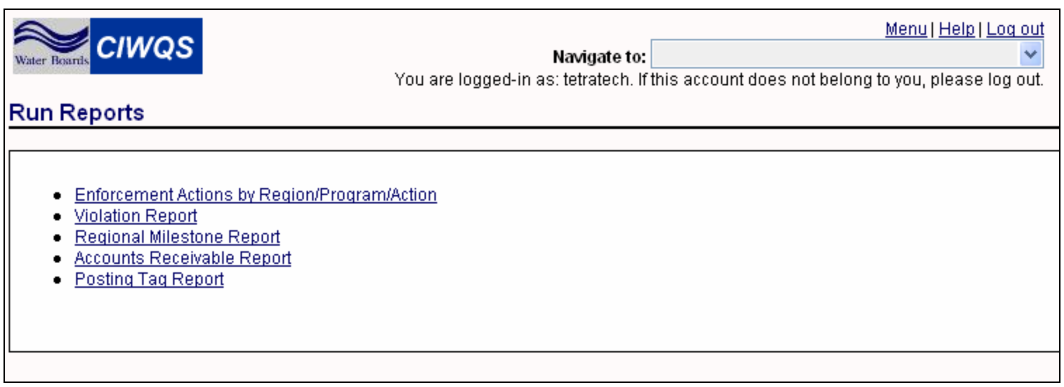


Figure 6.1 Report List Page

The system lists all reports available to you. Clicking on a report hyperlink launches the report.

6.2 Enforcement Actions by Region/Program/Action

Clicking on the hyperlink for the “Enforcement Actions by Region/Program/Action” opens the report entry page of the same name (Figure 6.2).

Click the “Cancel” button to return to the main Reports page without running the report.

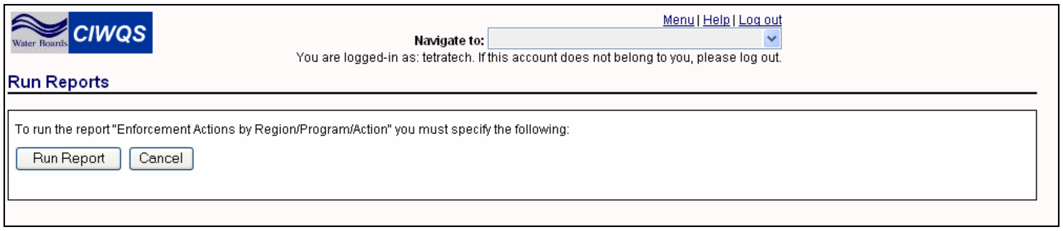
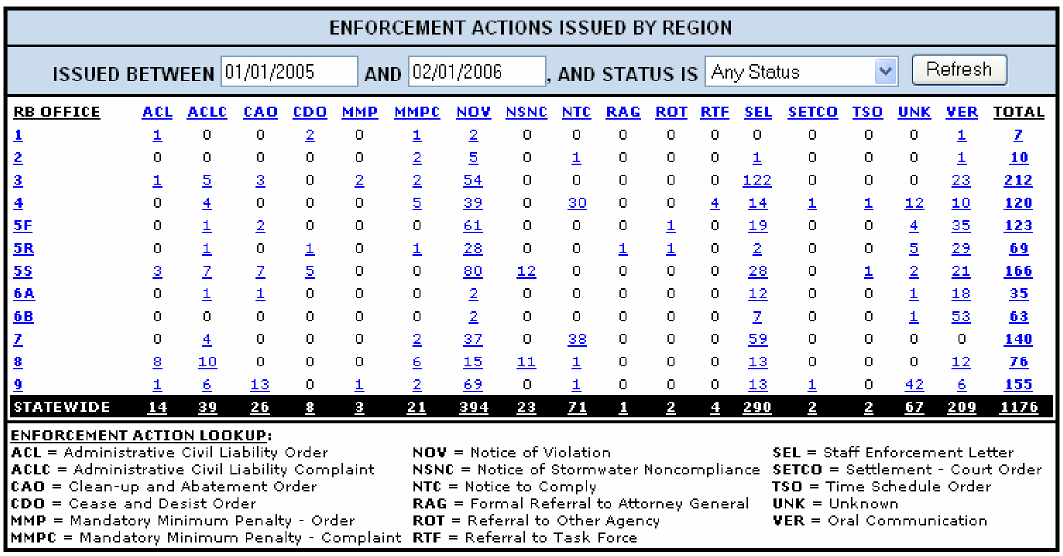


Figure 6.2 Enforcement Actions by Region/Program/Action Report Entry Page

Click the "Run Report" button to run the report.

The Enforcement Actions report will open in a new window. This window may not open properly if pop-up windows are disabled on your browser.

See Chapter 1 for more information on pop-up windows.



ENFORCEMENT ACTIONS ISSUED BY REGION

ISSUED BETWEEN 01/01/2005 AND 02/01/2006, AND STATUS IS Any Status [Refresh]

RB OFFICE	ACL	ACLC	CAO	CDO	MMP	MMPC	NOV	NSNC	NTC	RAG	ROT	RTF	SEL	SETCO	TSO	UNK	VER	TOTAL
1	1	0	0	2	0	1	2	0	0	0	0	0	0	0	0	0	1	7
2	0	0	0	0	0	2	5	0	1	0	0	0	1	0	0	0	1	10
3	1	5	3	0	2	2	54	0	0	0	0	0	122	0	0	0	23	212
4	0	4	0	0	0	5	39	0	30	0	0	4	14	1	1	12	10	120
5F	0	1	2	0	0	0	61	0	0	0	1	0	19	0	0	4	35	123
5R	0	1	0	1	0	1	28	0	0	1	1	0	2	0	0	5	29	69
5S	3	7	7	5	0	0	80	12	0	0	0	0	28	0	1	2	21	166
6A	0	1	1	0	0	0	2	0	0	0	0	0	12	0	0	1	18	35
6B	0	0	0	0	0	0	2	0	0	0	0	0	7	0	0	1	53	63
7	0	4	0	0	0	2	37	0	38	0	0	0	59	0	0	0	0	140
8	8	10	0	0	0	6	15	11	1	0	0	0	13	0	0	0	12	76
9	1	6	13	0	1	2	69	0	1	0	0	0	13	1	0	42	6	155
STATEWIDE	14	39	26	8	3	21	394	23	71	1	2	4	290	2	2	67	209	1176

ENFORCEMENT ACTION LOOKUP:

ACL = Administrative Civil Liability Order
ACLC = Administrative Civil Liability Complaint
CAO = Clean-up and Abatement Order
CDO = Cease and Desist Order
MMP = Mandatory Minimum Penalty - Order
MMPC = Mandatory Minimum Penalty - Complaint
NOV = Notice of Violation
NSNC = Notice of Stormwater Noncompliance
NTC = Notice to Comply
RAG = Formal Referral to Attorney General
ROT = Referral to Other Agency
RTF = Referral to Task Force
SEL = Staff Enforcement Letter
SETCO = Settlement - Court Order
TSO = Time Schedule Order
UNK = Unknown
VER = Oral Communication

Figure 6.3 Enforcement Actions Issued by Region

The Enforcement Actions report displays all Enforcement Actions of a selected status and date range for each of the California Regional Water Boards. Each column of the table represents a specific type of Enforcement Action. Each row of the table represents a Regional Water Board.

Each action type acronym is defined at the bottom of the table.

The fields at the top of the report allow you to filter your results by date and Enforcement Action status. Use the *Issued Between* fields to enter the dates between which you wish to search. Use the *Status* drop-down menu to narrow the type of Enforcement Actions displayed within the table.

When you have entered new criteria into the filter fields, click the "Refresh" button to reload the table.

6.2.1 Enforcement Action Sub-Reports

The Enforcement Actions report contains many hyperlinks. Clicking on one of the links at the top of the table (i.e., ACL, ACLC, CAO, CDO, etc.) brings you to a sub-report that shows Enforcement Actions for a specific type of Action issued, listed by region and program (Figure 6.4). The program type acronyms are defined at the bottom of the sub-report.

ENFORCEMENT ACTION "Administrative Civil Liability Order (ACL)" ISSUED BY REGION AND PROGRAM
Return to Overall Report

ISSUED BETWEEN 01/01/2005 AND 02/01/2006 , AND STATUS IS Active Refresh

RB OFFICE	CONSTW	INDSTW	MNSTW1	NON15	SUB15	TOTAL
1	0	0	0	1	0	1
3	0	0	1	0	0	1
5S	0	0	0	1	1	2
8	1	7	0	0	0	8
9	1	0	0	0	0	1
STATEWIDE	2	7	1	2	1	13

PROGRAM TYPE LOOKUP:
CONSTW = Construction Stormwater
INDSTW = Industrial Stormwater
MNSTW1 = Municipal Storm Water Phase I
NON15 = Nonsubchapter 15
SUB15 = Subchapter 15

Figure 6.4 Enforcement Action "Administrative Civil Liability Order (ACL)" Issued by Region and Program Sub-report

Clicking on a link for one of the Regional Boards (from the main Enforcement Action report) brings you to a sub-report that shows types of Enforcement Actions by the various programs operating within the Regional Board (Figure 6.5). Here, both the program and Enforcement Action type acronyms are defined at the bottom of the table.

ENFORCEMENT ACTIONS ISSUED BY PROGRAM FOR REGION "1"
Return to Overall Report

ISSUED BETWEEN 01/01/2005 AND 02/01/2006 , AND STATUS IS Any Status Refresh

PROGRAM	ACL	CDO	MMPC	NOV	VER	TOTAL
INDSTW	0	1	0	0	0	1
NON15	1	0	0	2	0	3
NPDES	0	1	1	0	1	3
PTPRG	0	0	0	0	1	1
STATEWIDE	1	2	1	2	2	8

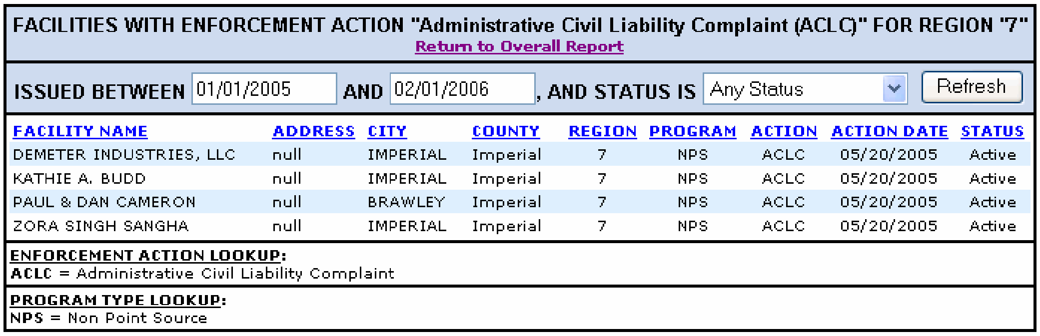
ENFORCEMENT ACTION LOOKUP:
ACL = Administrative Civil Liability Order
CDO = Cease and Desist Order
MMPC = Mandatory Minimum Penalty - Complaint
NOV = Notice of Violation
VER = Oral Communication

PROGRAM TYPE LOOKUP:
INDSTW = Industrial Stormwater
NON15 = Nonsubchapter 15
NPDES = NPDES
PTPRG = Pretreatment program

Figure 6.5 Enforcement Actions Issued by Program for Region "1" Sub-report

Each of the numerical values in the overall report and sub-reports mentioned above is also displayed as a hyperlink. Clicking on any of these links brings you to a report that shows all of the Facilities that have

Enforcement Actions of the particular type selected. For example, clicking on the value displayed for ACLC Enforcement Actions for Region 7 displays the report shown in Figure 6.6.



FACILITIES WITH ENFORCEMENT ACTION "Administrative Civil Liability Complaint (ACLC)" FOR REGION "7"
Return to Overall Report

ISSUED BETWEEN 01/01/2005 AND 02/01/2006, AND STATUS IS Any Status Refresh

FACILITY NAME	ADDRESS	CITY	COUNTY	REGION	PROGRAM	ACTION	ACTION DATE	STATUS
DEMETER INDUSTRIES, LLC	null	IMPERIAL	Imperial	7	NPS	ACLC	05/20/2005	Active
KATHIE A. BUDD	null	IMPERIAL	Imperial	7	NPS	ACLC	05/20/2005	Active
PAUL & DAN CAMERON	null	BRAWLEY	Imperial	7	NPS	ACLC	05/20/2005	Active
ZORA SINGH SANGHA	null	IMPERIAL	Imperial	7	NPS	ACLC	05/20/2005	Active

ENFORCEMENT ACTION LOOKUP:
ACLC = Administrative Civil Liability Complaint

PROGRAM TYPE LOOKUP:
NPS = Non Point Source

Figure 6.6 Facilities with Enforcement Action "Administrative Civil Liability Complaint (ACLC)" for Region 7 report

Clicking any of the column headers will sort the table by the selected criteria. For example, clicking the "Program" hyperlink will sort the table alphabetically by program type.

Enforcement Action and Program type acronyms are defined at the bottom of the table.

Clicking the "Return to Overall Report" hyperlink from any of the sub-reports will return you to the main Enforcement Action report.

The filter fields at the top of the sub-reports work the same way as for the main report.

6.1.2 Violation Report

Clicking on the hyperlink for the "Violation Report" opens the report entry page of the same name (Figure 6.7).

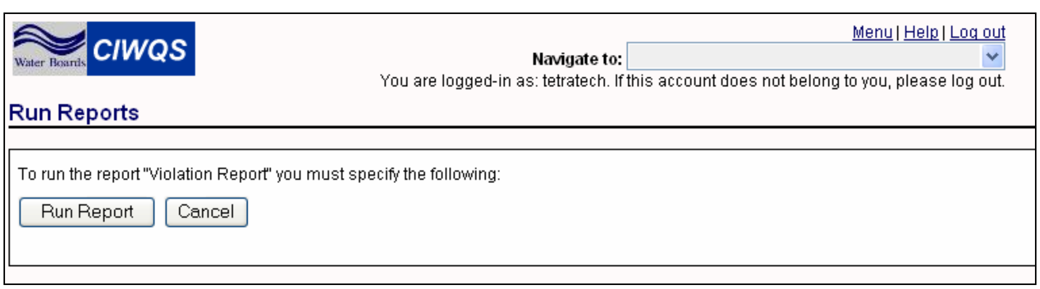


Figure 6.7 Violation Report Entry Page

Click the "Cancel" button to return to the main Reports page without running the report.

Clicking the "Run Report" button will open a new window that will allow you to set the parameters and output options for the Violation report.

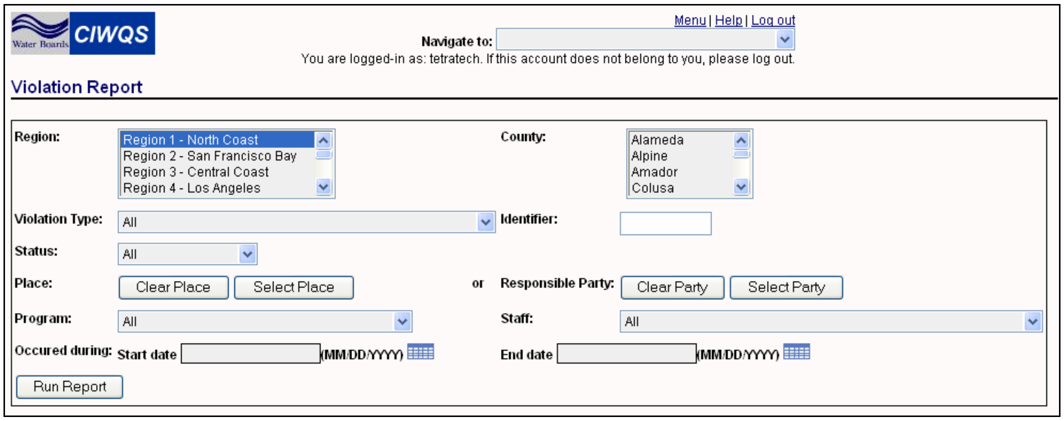


Figure 6.7 Violation Report Entry Page

Table 6.1 lists the available fields and their description.

Table 6.1 Violation Report Selection Fields

Field Name	*Description*
Regional Board	Select the number of the Regional Board that has primary responsibility for regulation of the Place from the drop-down menu. If you are affiliated with a Regional Water Board, this field will default to the number of the Regional Water Board with which you are affiliated.
Latitude and Longitude	Enter the Place's geographic coordinates in degrees/minutes/seconds (including tenths) and/or decimal degrees (see sidebar above for additional information about this field). **The Reference Point is used to indicate to what point this coordinate refers (see below).**
Scale	Select the appropriate scale from the drop-down menu.
Source/Method	Select the source of the geographic data from the drop-down menu (e.g., GPS).
Datum	Select the datum for the geographic data from the drop-down menu (e.g., NAD83).
Accuracy	Select the accuracy level for the geographic data from the drop-down menu (e.g., 5 meters)
Reference Point	Select the reference point to which the latitude/longitude refers from the drop-down menu (e.g., spatial).

CIWQS Water Board User's Guide

Part III

Data Entry:
The eSMR

7
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

7.1 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).

Regional Water Board staff can access eSMRs for all Facilities operating in their region. State Water Board staff can access data for all Facilities.

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.

7.2 Selecting a Self Monitoring Report

Before data can be entered in a given report the relevant 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 7.1) if multiple Facilities have standing Orders or the *Select Order* page if only one Facility has an Order in place.

7.2.1 Select Facility Page

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 7.1). The table on the *Select Facility* page displays the Facilities with which you are associated.

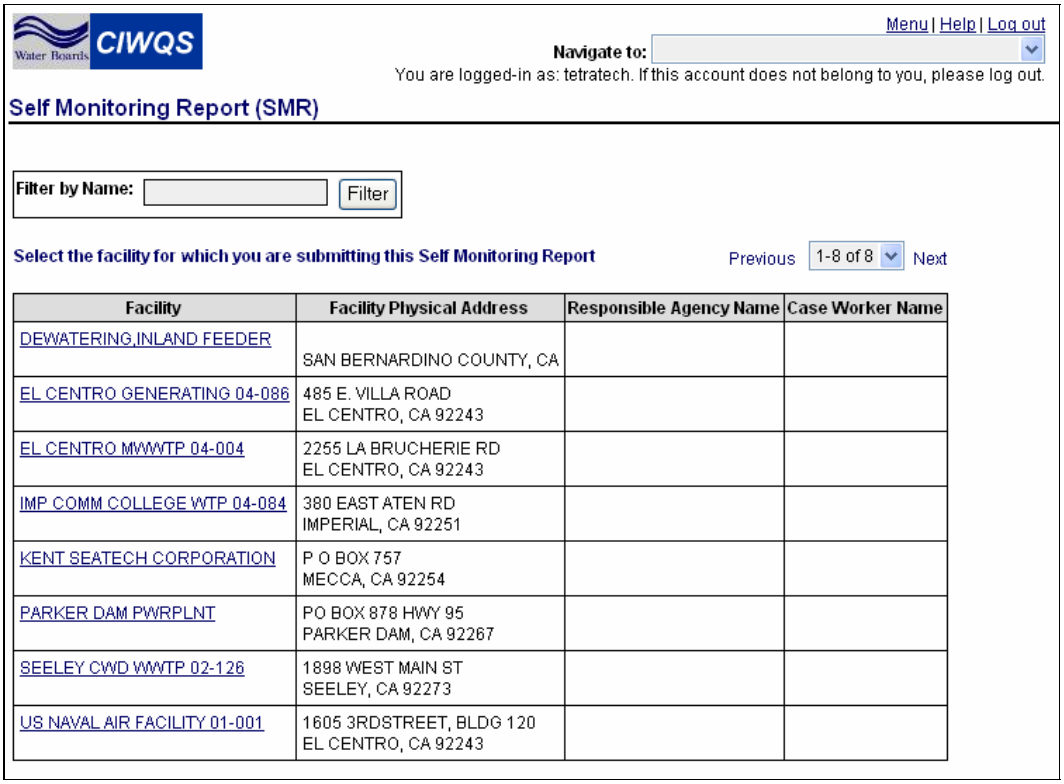


Figure 7.1 Select Facility page

Table 7.1 describes the table columns.

Table 7.1 Fields on the Select Facility page

Field Name	Description
Facility	Identifies the name of the Facility. Clicking on the name 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 7.2).

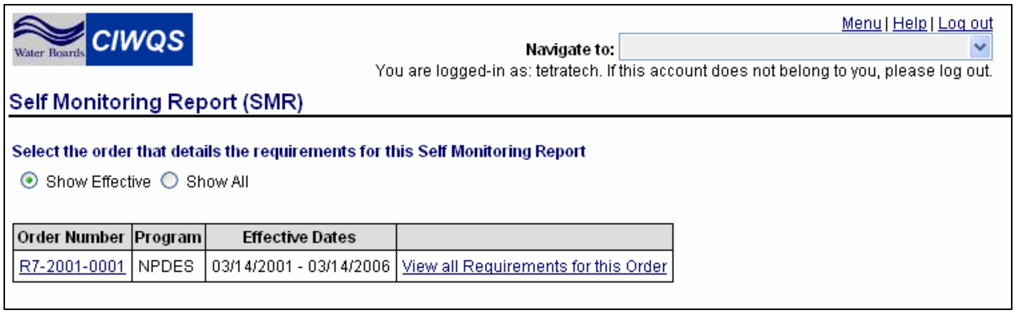


Figure 7.2 Select Order Page

7.2.2 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 7.2 lists the Order table fields and describes each one.

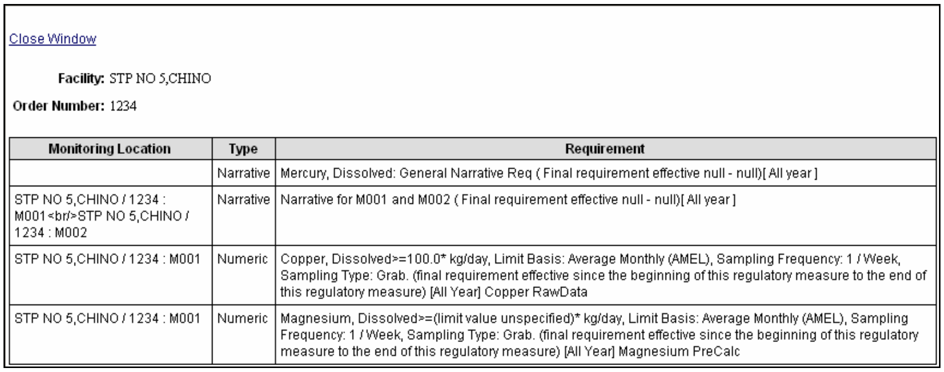
Table 7.2 Fields on the Select Order Page

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 7.3).

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 is listed once for each Monitoring Location.


Close Window

Facility: STP NO 5,CHINO

Order Number: 1234

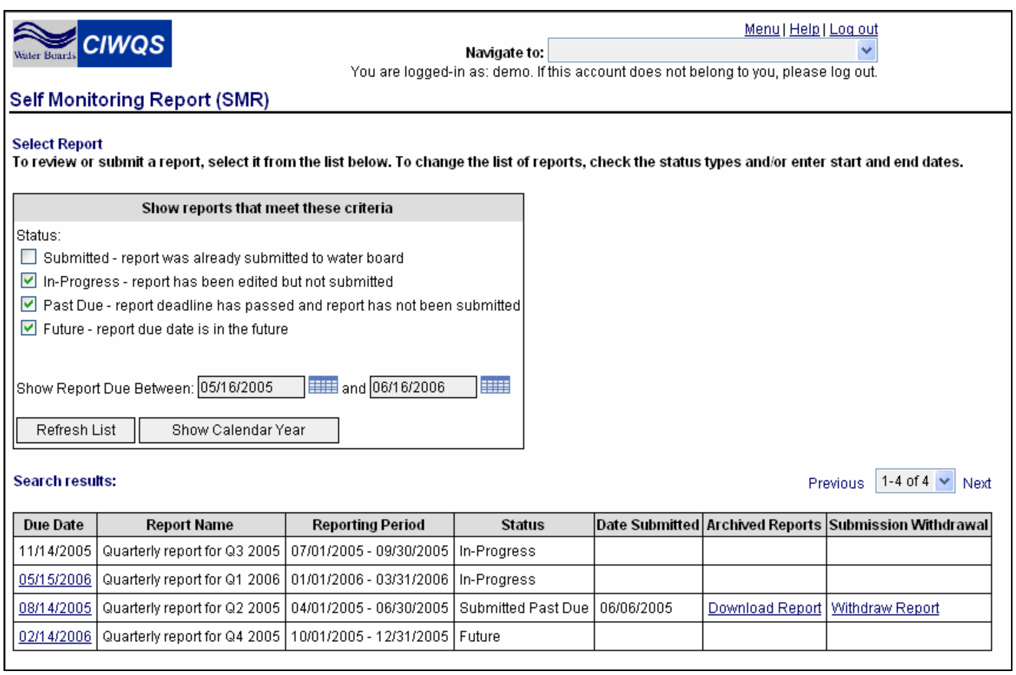
Monitoring Location	Type	Requirement
	Narrative	Mercury, Dissolved: General Narrative Req (Final requirement effective null - null)[All year]
STP NO 5,CHINO / 1234 : M001 STP NO 5,CHINO / 1234 : M002	Narrative	Narrative for M001 and M002 (Final requirement effective null - null)[All year]
STP NO 5,CHINO / 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.

7.2.3 Select Reports Page

Selecting an Order Number from the table on the *Select Order* page (by clicking on the Order number hyperlink) brings you to the *Select Reports* page (Figure 7.4). This page lists all Reports assigned to this Order and shows the status for each Report.


Water Boards CIWQS

Menu | Help | Log out

Navigate to:

You are logged-in as: demo. 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
- [x] In-Progress - report has been edited but not submitted
- [x] Past Due - report deadline has passed and report has not been submitted
- [x] Future - report due date is in the future

Show Report Due Between: 05/16/2005 and 06/16/2006

Refresh List | Show Calendar Year

Search results:

Previous 1-4 of 4 Next

Due Date	Report Name	Reporting Period	Status	Date Submitted	Archived Reports	Submission Withdrawal
11/14/2005	Quarterly report for Q3 2005	07/01/2005 - 09/30/2005	In-Progress			
05/15/2006	Quarterly report for Q1 2006	01/01/2006 - 03/31/2006	In-Progress			
08/14/2005	Quarterly report for Q2 2005	04/01/2005 - 06/30/2005	Submitted Past Due	06/06/2005	Download Report	Withdraw Report
02/14/2006	Quarterly report for Q4 2005	10/01/2005 - 12/31/2005	Future			

Figure 7.4 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" 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 7.3 lists the fields shown in the Reports table and provides a description of each.

Table 7.3 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 following 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.
Submission Withdrawal	Click the link in this column to withdraw a Report.

You will have access to Reports that are Past Due, Future or Submitted. For In Progress Reports, the following rules apply:

1. If a Discharger started the In Progress report, the report can be opened and edited by any authorized User from that Facility. A Water Board User cannot open the report until the report has been submitted.

2. If a Water Board User started the In Progress report, only Water Board Users with access to that Facility can open (and edit, if authorized) the report until the report has been submitted.

☛ **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 7.4.

Table 7.4 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 7.3.10 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

Click the "Withdraw Report" hyperlink in the *Submission Withdrawal* field to withdraw a Submitted Report. 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 Water Board notes are retained (but hidden from the Discharger). All other data, such as violations (potential and confirmed), enforcement actions, penalties, etc. 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 will be 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.

Entering an eSMR Without Data Entry

During the phased implementation of the CIWQS system, some Dischargers will continue to submit hard copies of SMRs. A Water Board user may wish to log the date that the hard copy was received without immediately performing data entry. This can be accomplished by selecting a Future or Past Due Report running an error report and submitting the Report using the Cover Letter Tab. The Water Board Notes Tab can then be made to enter in comments and to document the Report was submitted.

7.3 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.

Water Board Notes Provides a place to add additional information about a submittal. This tab is only available after a Report has been submitted.

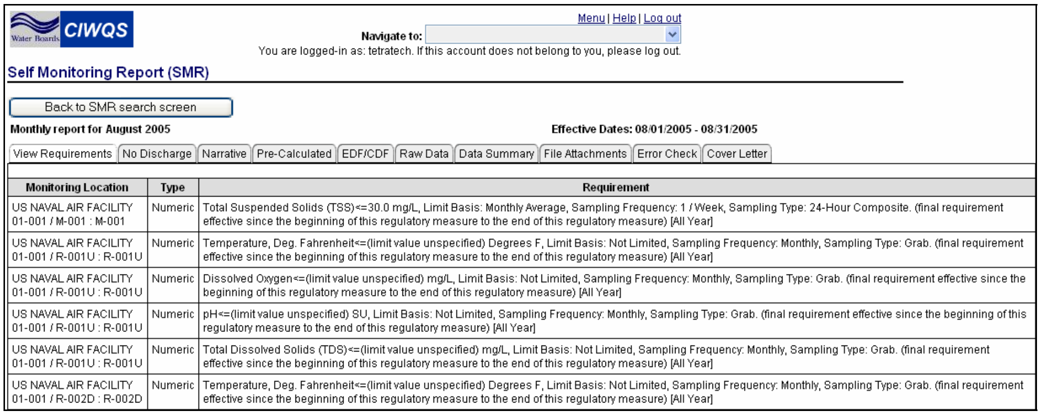
Click the "Back to SMR Search Screen" button at any time to return to the *Select Reports* page.

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

7.3.1 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 7.5).

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.



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 7.5 View Report Requirements Tab

See Chapter 5 for more information on Regulatory Measures.

7.3.2 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 7.6).

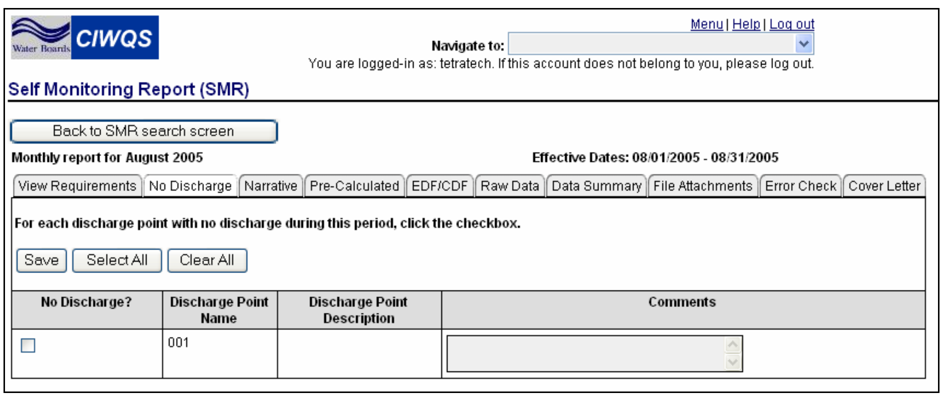


Figure 7.6 No Discharge Tab

The table shown lists the name and description of all Discharge Points associated with the Report (assigned via the *Regulatory Measures* Module).

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 might not be applicable.

If a Monitoring Location has multiple associated Discharge Points and at least one of those Discharge Points had measurable discharge for 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 update the record with the indicated "No Discharge" Points.

STOP **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.**

7.3.3 Narrative Tab

The Narrative tab (Figure 7.7) 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, you must 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 refreshes 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" appear.

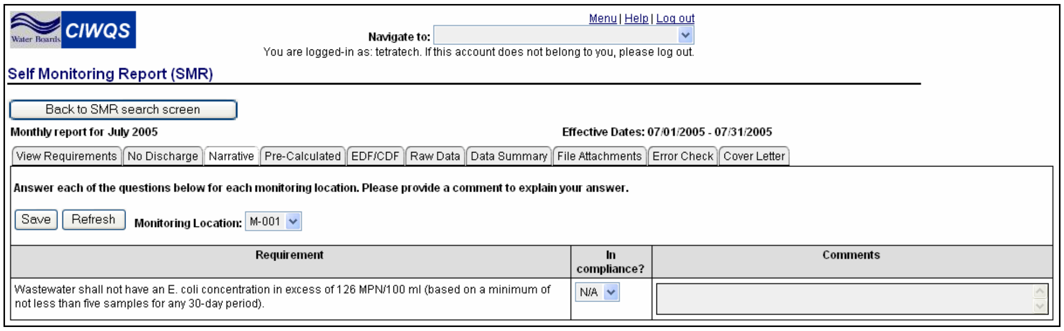


Figure 7.7 Narrative Requirements Tab

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. Missing data in the *Comments* field will be caught by the error check.

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.

7.3.4 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 7.8)

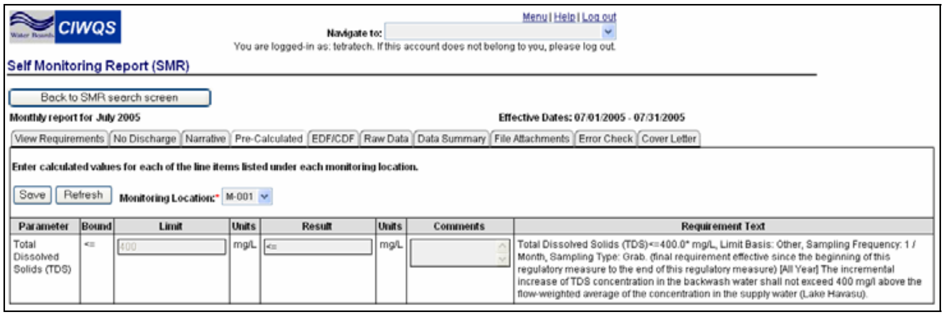


Figure 7.8 Pre-Calculated Requirements Tab

To begin entering information for Pre-Calculated Requirements, select a Monitoring Location from the drop-down menu at the top of the tab. Selecting a Monitoring Location refreshes the table to show only those Pre-Calculated Requirements associated with the selected Monitoring Location. Table 7.5 lists the fields shown in the Pre-Calculated Requirements table and gives a description of each.

Table 7.5 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 appears here and the field is 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 are 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 updates 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.

7.3.5 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 7.9). 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).

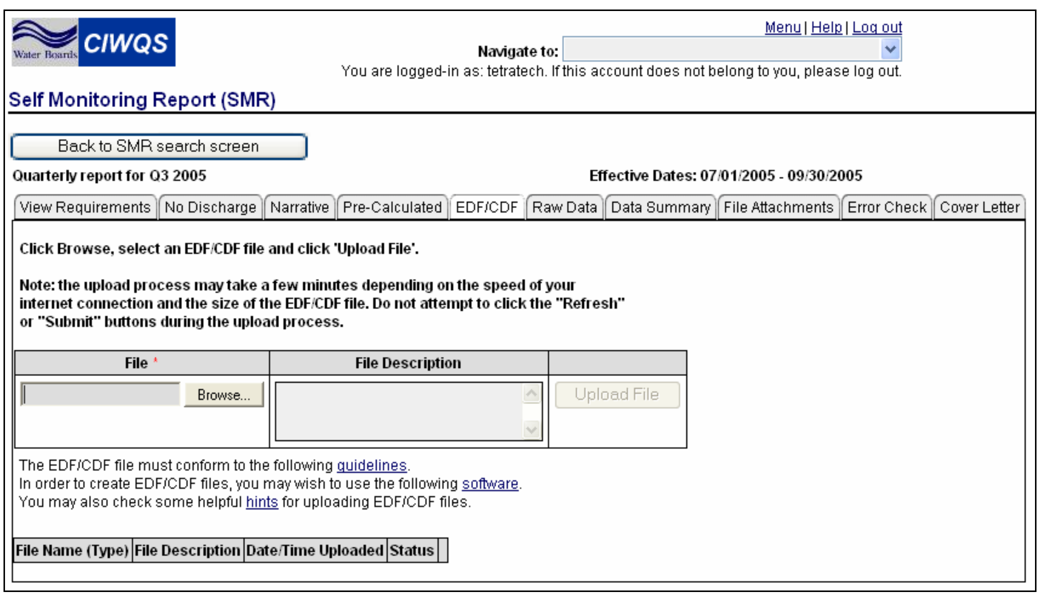


Figure 7.9 EDF/CDF Tab

See Chapter 8 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 7.10). 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 appears in the *File* field.

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

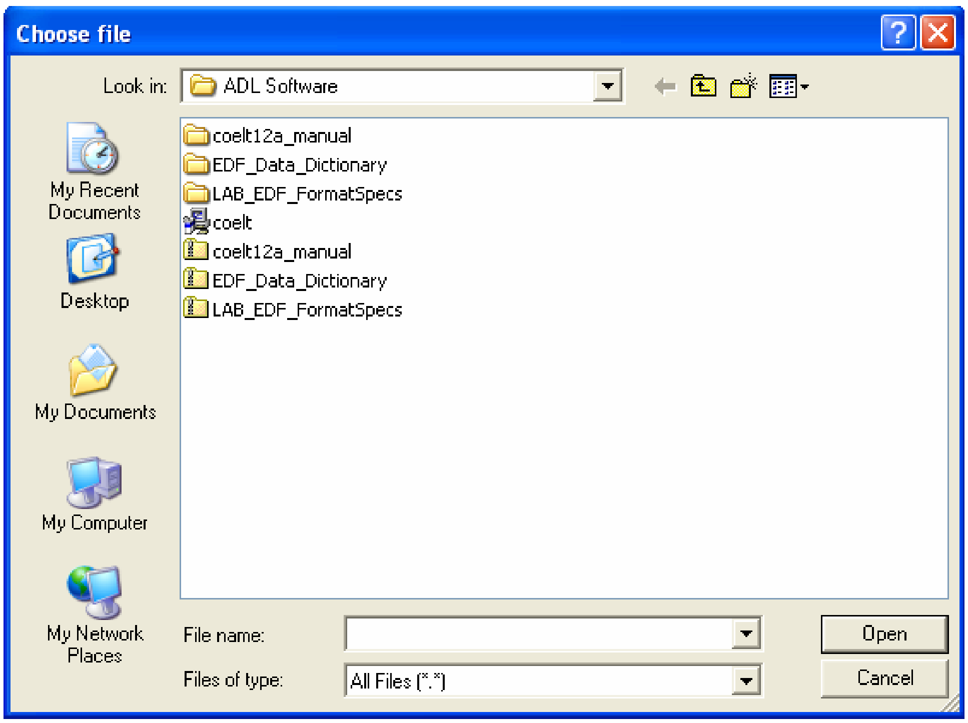


Figure 7.10 Choose File Window

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

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 associated 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).

7.3.6 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 7.11).

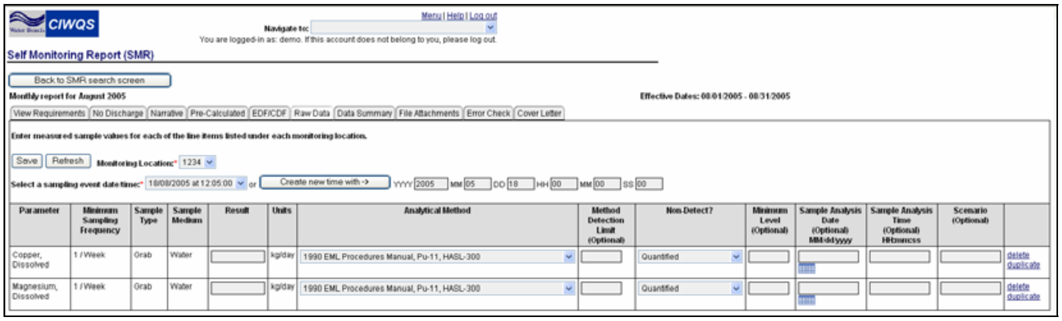


Figure 7.11 Raw Data Tab

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 is 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 7.6 lists the fields in the parameter table and gives a description of each one.

☞ **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.

Table 7.6 Parameter Table Fields

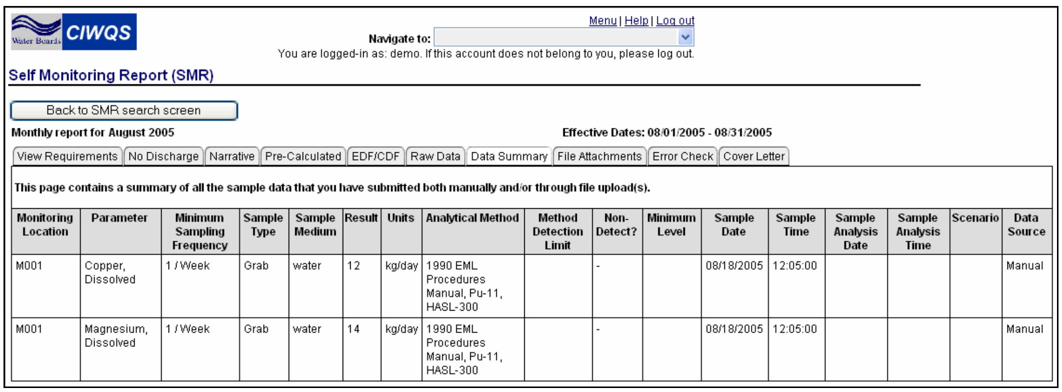
Field Name	*Description*
Parameter	A parameter row is automatically displayed for each parameter that is specified in the Order for the selected Monitoring Location that could be sampled during the entered date/time sampling event.
Minimum Sampling Frequency	This field retrieves the sampling frequency 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.**

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.

7.3.7 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 7.12). 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.



CIWQS
Menu | Help | Log out
Navigate to:
You are logged-in as: demo. If this account does not belong to you, please log out.
Self Monitoring Report (SMR)
Back to SMR search screen
Monthly report for August 2005
Effective Dates: 08/01/2005 - 08/31/2005
View Requirements | No Discharge | Narrative | Pre-Calculated | EDF/CDF | Raw Data | Data Summary | File Attachments | Error Check | Cover Letter
This page contains a summary of all the sample data that you have submitted both manually and/or through file upload(s).

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 7.12 Sample Data Summary Tab

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.

7.3.8 File Attachments Tab

The Attachments tab allows you to attach a file (e.g., text document, graphics or photo, spreadsheet, etc.) to the sSMR (Figure 7.13). 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 attachments tab.

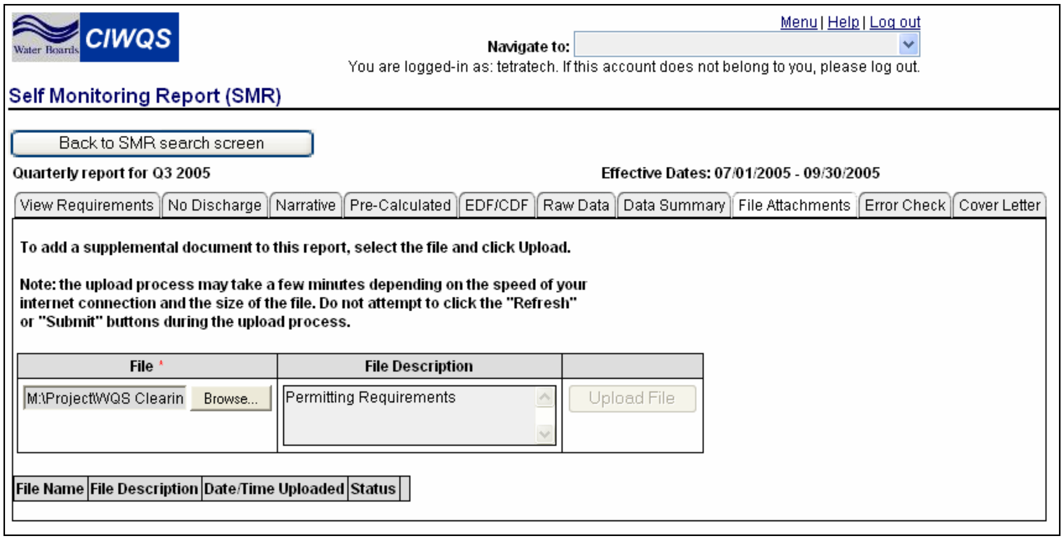


Figure 7.13 File Attachments Tab

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 7.10). 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 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 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 downloads 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 reupload the file to CIWQS.

7.3.9 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 7.14). Non-compliance events are classified as Narrative, Numeric or Reporting.

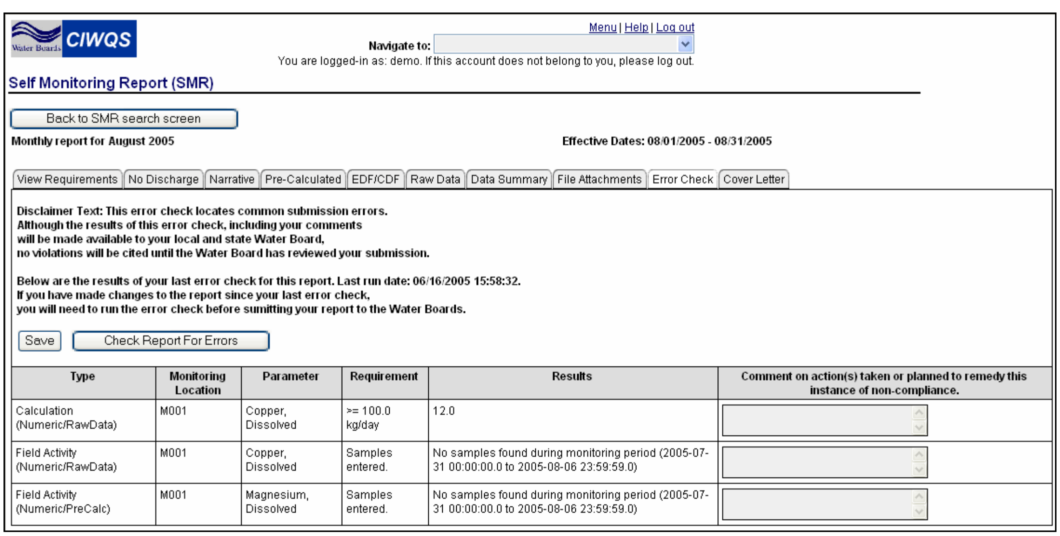


Figure 7.14 Error Check Tab

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

When the Error Check tab is first viewed, no errors are reported in the table. To run the Error Check, click the "Check Report for Errors" button. This initiates the check and populates 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 7.7 lists the fields in the Error Report table and describes each one.

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.

Table 7.7 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.

7.3.10 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 7.15).

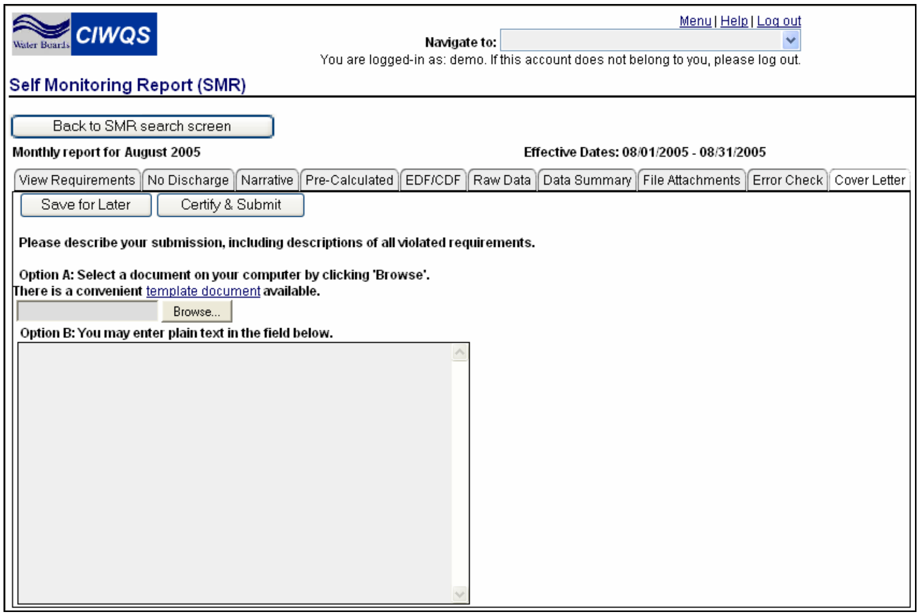


Figure 7.15 Cover Letter Tab

The Cover Letter

The cover letter is another vehicle for providing additional or supplementary information for an eSMR 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.

STOP **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. 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 authorized staff 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 all of the conditions have been met, you will be granted access to the Certify and Submit page (Figure 7.16). This screen allows you to mark a submission complete. You will be prompted to enter the name of the person who submitted/signed the paper submission.

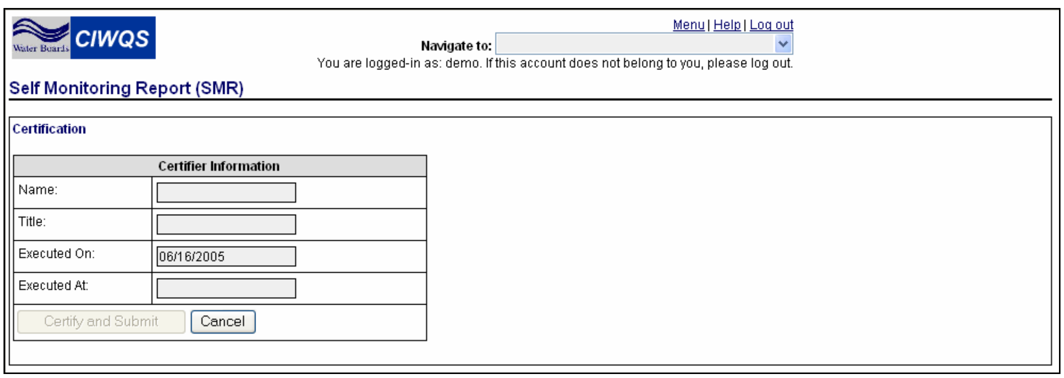


Figure 7.16 Certify and Submit Page

Once you have entered data into all fields on the form, the "Certify and Submit" button is activated. Click this button to submit the SMR and receive confirmation of the submission (Figure 7.17).

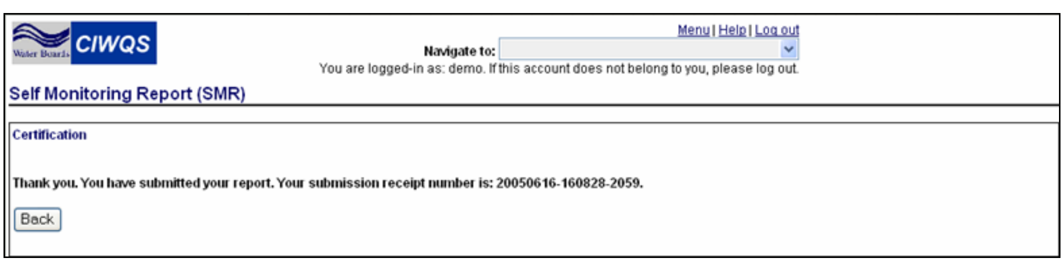


Figure 7.17 Certification of SMR Submission

Click the "Back" button to return to the *SMR* Module at the Cover Letter tab. The Water Board Notes tab will now appear at the end of the row of tabs.

7.3.11 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>).*

7.3.12 Water Board Notes

The *Water Board Notes* tab appears only for Water Board users and only for Submitted reports (Figure 7.18). Any In-Progress Reports, including those being data entered by Water Board staff, will not show this tab.

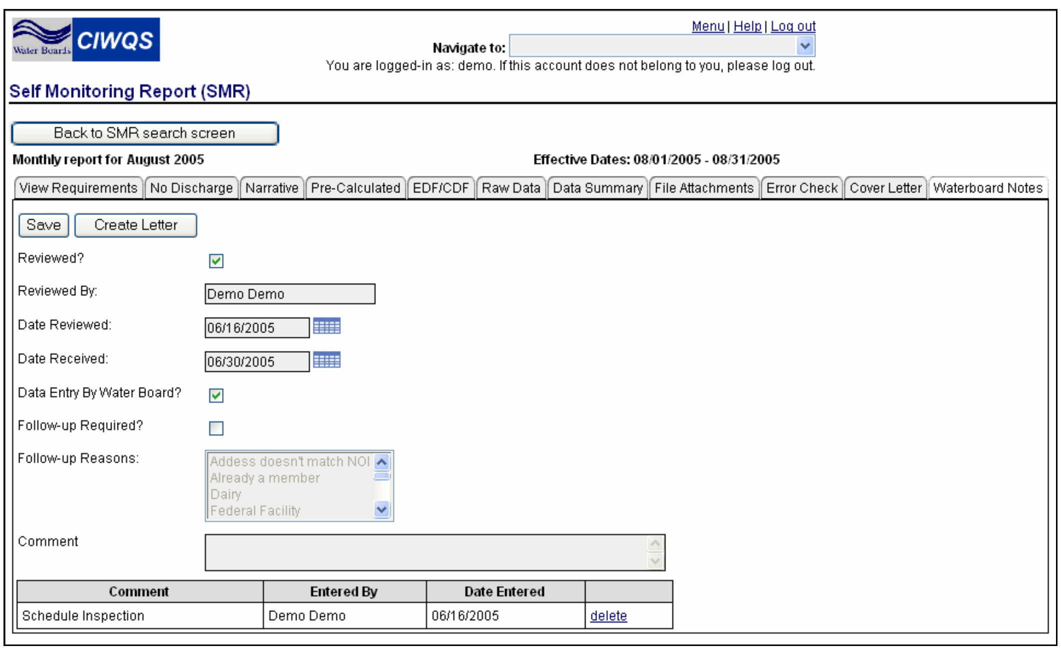


Figure 7.18 Water Board Notes Tab

☞ **Information entered on this form is not used to generate non-compliance events.**

Notes regarding the submission are added to the fields in the upper part of the form. Notes that have already been entered are shown in the table at the bottom of the page. The notes entered here are additive and shown in reverse chronological order. Table 7.8 describes the data entry fields on the Water Board Notes Tab.

Table 7.8 Data Entry Fields

Field Label	*Description*
Reviewed?	This checkbox indicates that a Water Board staff member has reviewed the SMR. By default, this is clear.
Reviewed By	When the *Reviewed?* checkbox is selected, this field becomes enabled and is automatically filled with the first and last name of the current user. It can then be changed, if necessary, to indicate the name of the person performing the review. If the *Reviewed?* checkbox is clear, this field is cleared.
Date Reviewed	When the *Reviewed?* checkbox is selected, this field becomes enabled and is automatically filled with the current date. It can be changed, if necessary, if the review took place on another date (any past or present date may be entered; future dates cannot be entered). If the *Reviewed?* checkbox is clear, this field is cleared.
Date Received	This is the date the SMR was received. If the SMR was received electronically, this is automatically filled with the date the SMR was certified and submitted. If the SMR was hand-entered by a Water Board, this is blank. This is the date that is used to determine if an SMR was submitted on time or not.
Data Entry by Water Board?	This checkbox indicates if the SMR was data-entered by a Water Board staff member (or other authorized party). It will be cleared for electronically submitted SMRs and selected if the SMR was put into the "in progress" state by a Water Board staff member. This checkbox can be changed, however, if necessary.
Follow-Up Required?	Indicates if additional follow-up is required. By default, it is cleared.
Follow-Up Reasons	This field lists all the reasons (from reference table) for follow-up. It is enabled only if *Follow-Up Required?* is checked and is cleared if *Follow-Up Required?* is unchecked.
Comment	Enter comments as needed for the review.
Entered By	This field displays the name of the user entering the comment. This is automatically filled for each new row created.
Date Entered	Shows the date the comment was entered. This field is automatically filled for each new row created.

When you have finished entering information, be sure to click the "Save" button at the top of the tab to avoid loss of data.

Click the "Create Letter" button to create a letter showing the review information for this submission.

8
Uploading Data to CIWQS

This chapter addresses the following topics:

- Data formats
- Requirements for uploading data
- Data mapping

8.1 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.

8.1.1 EDF Support

This release of CIWQS supports 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)

8.1.2 CDF Support

This release of CIWQS supports the CIWQS Deliverable 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.

8.2 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 screen. 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.

8.2.1 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 Web site 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!

8.2.2 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. 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:

- 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.

8.2.3 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 8.1 shows how data is mapped to the CIWQS data fields.

Table 8.1 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

8.3 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 8.1).

Figure 8.1 Links for CIWQS Data Format

8.3.1 File Preparation

The CIWQS Data Format tool should be used to prepare a CDF submission. This tool generates 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!

8.3.2 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. 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, 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.

8.3.3 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 8.2 shows how data is mapped to the CIWQS data fields.

Table 8.2 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.

8.4 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:

8.4.1 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).

8.4.2 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.

8.5 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.

CIWQS Water Board User’s Guide

Part IV

Enforcement

9
Violations Module

This chapter addresses the following topics:

- An introduction to the *Violations* Module
- Searching for an existing Violation
- Creating a new Violation

9.1 Introduction to the Violations Module

The *Violations* Module allows you to create and track potential and verified Violations. Potential Violations are deviations from permit requirements that are identified during Inspections or by running an error check within the *eSMR* Module. Verified Violations are those identified and tracked as part of Enforcement actions. The *Violations* Module can be accessed through the CIWQS Main Menu or by using the Navigation drop-down menu found at the top of each page.

9.1.1 Searching for a Violation

Selecting the *Create/Maintain Violations* Module brings you to the *Violations Search* page (Figure 9.1) where you can create a new Violation or search for an existing Violation.

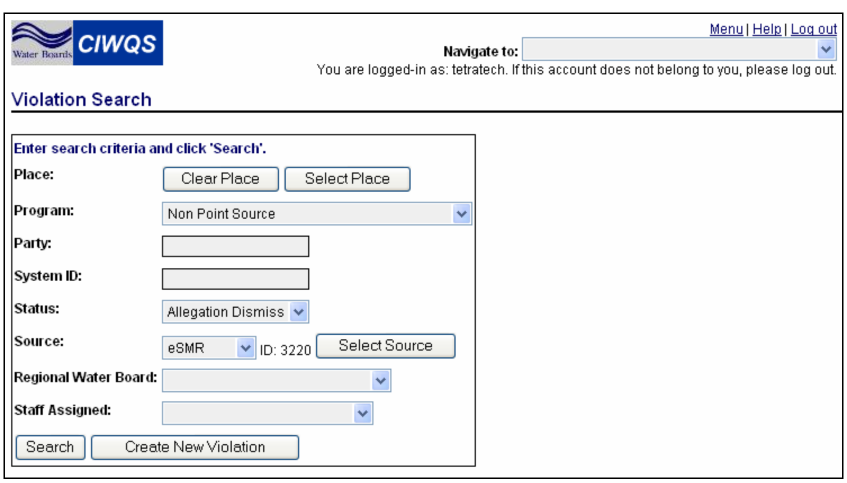


Figure 9.1 Violation Search Page

To search for an existing Violation, input criteria into the search fields and click the "Search" button. Click the "Create New Violation" button to open the Violations Editor and create a new record.

Table 9.1 describes the search criteria fields.

Table 9.1 Violation Search Fields

Field Name	*Description*
Program	Select a program from the drop-down menu.
Party	Use this field to search for a full or partial name of a Party. This search field is not case-sensitive.
System ID	Enter a system ID.
Status	Select a status from the drop-down menu to search for Violations with a specific status (e.g., Allegation, Dismissed).
Source	Select a source from the drop-down menu to select the source of a Violation (e.g., Chemical Spill, Storm).
Select Source	Selecting "eSMR" or "Inspection" activates this button. This button is explained further below.
Regional Water Board	Select a Regional Water Board from the drop-down menu to locate Violations related to Facilities regulated by a specific Water Board.
Staff Assigned	Select a name from the drop-down menu to find Violations assigned to a particular staff member. This search uses the assigned staff member and not the task assignments.

Place

To search for a Violation related to a particular Place, click the "Select Place" button. This opens the *Place Search* page, where you can search for the appropriate Place using the search criteria fields.

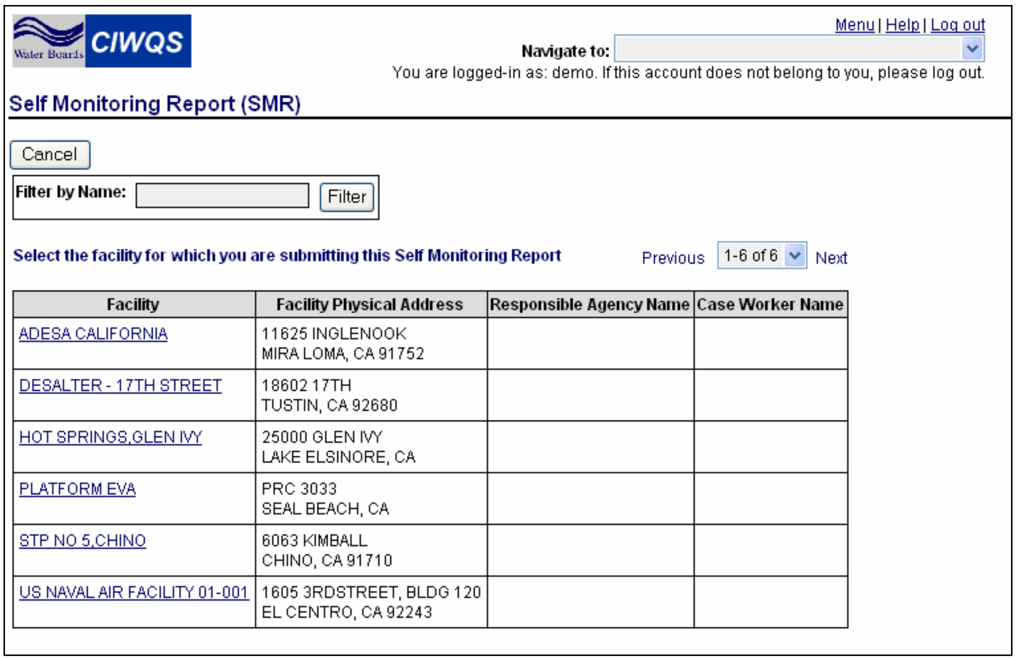
See Chapter 3 for more information on searching for Places.

When you have found the Place related to the Violation you wish to find, click the "link" hyperlink at the end of the corresponding row in the Place Search results table. This returns you to the *Violation Search* page with the name of the Place displayed in the Place field. Click the "Clear Place" button to remove the selected Place from the search criteria.

Source

If you select “eSMR” or “Inspection Violation” from the Source drop-down menu, the “Select Source” button is activated. Clicking this button opens either the *Select Facility* page (the first step in selecting a related eSMR) or the *Inspection Search* page. Using the “Select Source” button allows you to search for either a Self-Monitoring Report or an Inspection Violation if you don’t already know the system ID, so you can use them in your search for a Violation record.

Selecting “eSMR” takes you to the *Select Facility* page (Figure 9.2). All Facilities that you have access to will be listed on this page.



Facility	Facility Physical Address	Responsible Agency Name	Case Worker Name
ADESA CALIFORNIA	11625 INGLENOOK MIRA LOMA, CA 91752		
DESALTER - 17TH STREET	18602 17TH TUSTIN, CA 92680		
HOT SPRINGS,GLEN IVY	25000 GLEN IVY LAKE ELSINORE, CA		
PLATFORM EVA	PRC 3033 SEAL BEACH, CA		
STP NO 5,CHINO	6063 KIMBALL CHINO, CA 91710		
US NAVAL AIR FACILITY 01-001	1605 3RDSTREET, BLDG 120 EL CENTRO, CA 92243		

Figure 9.2 Select Facility Page from the Violation Search Page

Click the “Cancel” button on this page, or the following pages, to return to the *Violation Search* page without selecting an eSMR.

See Chapter 7 for more information on how to search for a Self-Monitoring Report.

When you have selected the appropriate Facility, Order and Report, you can then click the “link” hyperlink next to the Report you wish to use to search for a Violation. This brings you back to the *Violation Search* page with the system ID of the selected Report in the *ID* field.

Selecting “Inspection” from the *Source* drop-down menu takes you to the *Inspection Search* page (Figure 9.3).

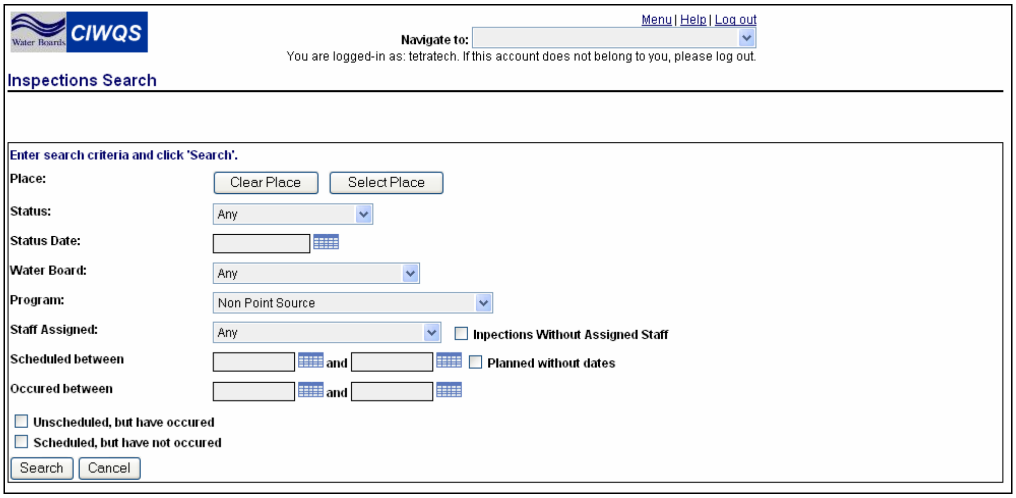


Figure 9.3 Inspections Search Page from the Violation Search Page

See Chapter 10 for more information on how to search for an Inspection.

When you have found the appropriate Inspection, click the "link" hyperlink next to the Inspection you wish to use to search for a Violation. This brings you back to the *Violation Search* page with the system ID of the selected Inspection in the *ID* field.

Using the CIWQS Search Engine

The CIWQS Violations search engine is based on an AND search. This means that it looks for Violations that match ALL of your search criteria. For example, you can enter "NPDES" in the Program field and "Acme" in the Party field and the system will search for all Violations for Parties with "Acme" in their name that have Violations related to NPDES. The search will not find Violations for Parties with the name "Acme" for other program types or NPDES Violations for other Parties.

In addition, wildcards (place holder symbols such as "%", or "*") are not required for these searches and the searches are case insensitive. This means that entering "Acme" in the Party field will find "Acme Industries" and "Pacmel Corporation".

To clear the *ID* field, select the " " (blank) option from the *Source* drop-down menu. This refreshes the page and clears the *ID* field.

Click the "Search" button when you have finished entering your search criteria. The Violation Results table refreshes to show up to the first 100 Violation records that matched **all** of the search terms you entered (Figure

9.4). Table 9.2 details the information that will be displayed in the results table.

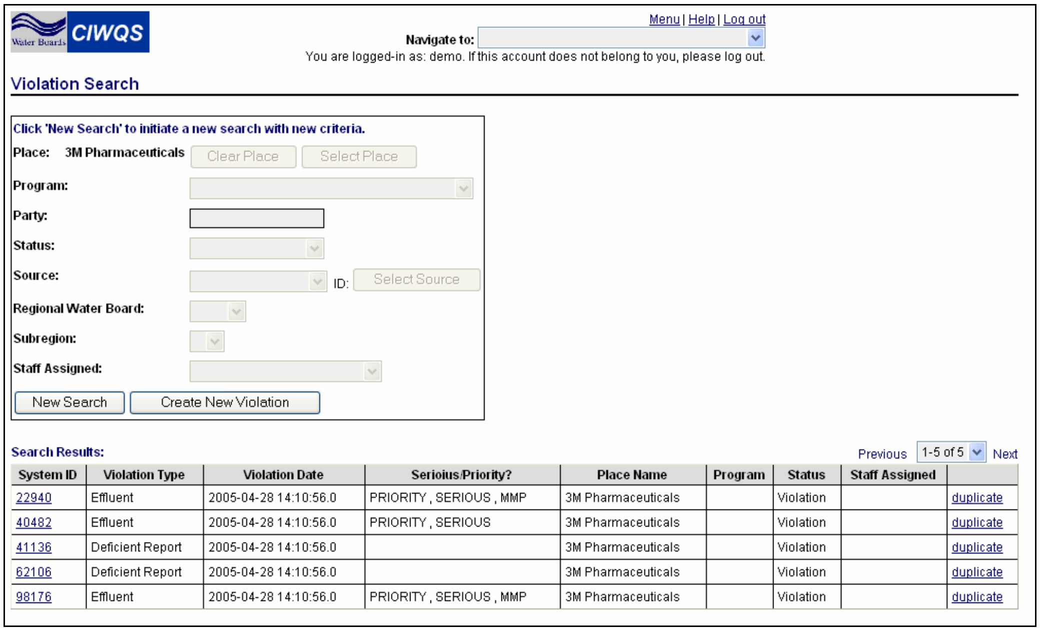


Figure 9.4 Results of a Violation Search

Table 9.2 Results Table

Field Name	*Description*
System ID	Shows the unique system-generated ID for the Violation. Clicking on the ID hyperlink opens the Violation record.
Violation Type	Shows the Violation type.
Violation Date	Shows the Violation occurrence date and time.
Serious/Priority?	If the Violation is serious and/or a priority, that information is indicated here.
Place Name	Shows the name of the Place where the Violation occurred.
Program	Indicates the program under which the Violation is being cited.
Status	Shows the status of the Violation
Staff Assigned	Indicates which Water Board staff member is the lead currently assigned to the Violation.

Clicking the "duplicate" hyperlink creates a new Violation record. All data in the duplicated Violation is copied including links to other People and Places. A new system-generated Violation ID is generated for the new record.

If the Violation record you were searching for appears in the Results table, you can access its record by clicking the System ID hyperlink. If the

Violation of interest does not appear, you can click the "New Search" button to refresh the page and clear the search criteria fields.

☞ **If you have trouble finding an existing Violation, try using fewer search criteria. This will broaden your search.**

Click the System ID hyperlink in the results table to open the record for that Violation in the Violations Editor.

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9.2 The Violations Editor

The Violations Editor allows you to either enter data for a new Violation or to modify the record for an existing Violation. This page can be accessed by clicking the "Create New Violation" button on the *Violation Search* page or by clicking the System ID hyperlink in the results table when searching for an existing Violation.

There are eight tabs on the Violation Editor, and each tab captures related sets of information about a Violation.

- General Information Tab
- Requirements Tab
- Related Parties Tab
- Related Places Tab
- Linked Enforcement Actions Tab
- Documents Tab
- Additional Information Tab
- Attachments Tab

While individual tabs show different information, each has a common page header. The header shows the Violation ID, related program, Water Board, staff assignment, Facility, status and Order number for reference.

☞ **As information is saved within the Violation Editor, the header information automatically refreshes to display updated information.**

9.2.1 General Information Tab

The General Information tab is the first page you see when you open a record for an existing Violation or create a new Violation record. The

General Information tab captures basic information about the Violation including relevant Violation dates, Status, and Source information (Figure 9.5).

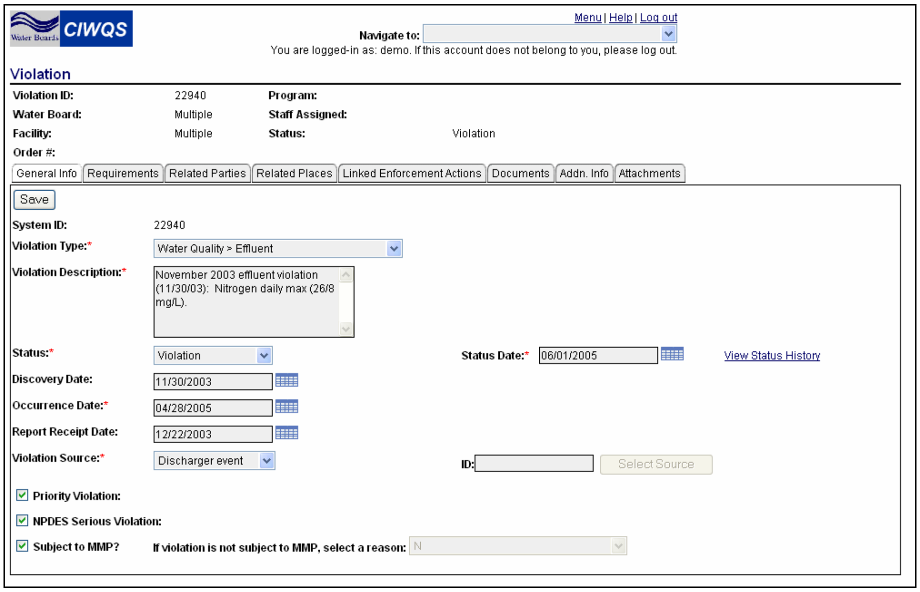


Figure 9.5 General Information Tab

When you are creating a new Violation, the General Information tab will be the only tab available for data entry until all required fields on the tab are filled out and the record has been saved. Saving the record for the first time activates the remaining tabs.

The Violation Type, Violation Description, Status, Status Date, Occurrence Date and Violation Source are all required before a Violation record can be saved.

Required Fields
Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

Violation Type & Description

The first pieces of information captured for a new Violation are its Type, Sub-Type, and Description (Figure 9.6).

The *System ID* field is read-only and displays a system-generated ID for the Violation. The *System ID* field is refreshed and populated once the record has been saved.

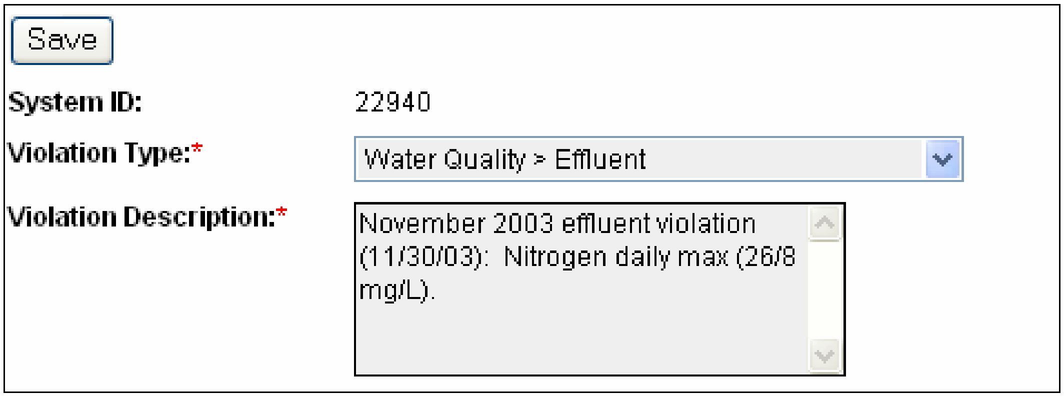


Figure 9.6 Violation Type Description Fields

A Violation can be classified as:

- Calculation
- Monitoring
- Other Requirement
- Reporting
- Water Quality

These categories are further broken down to reflect sub-types within the *Violation Type* drop-down menu.

Select from the drop-down menu to select the appropriate Violation type. Enter a narrative report of the Violation in the *Violation Description* field.

Violation Status and Dates

The next pieces of Violation information to be recorded are the Violation status and applicable dates (Figure 9.7). Select the Violation Status from the drop-down menu.

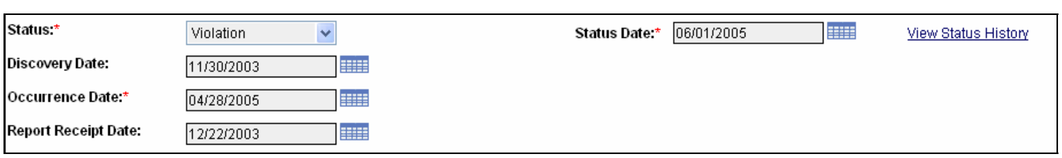
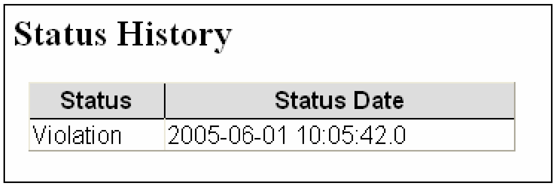


Figure 9.7 Violation Status and Date Fields

Two of the four date fields are required: the *Status Date* field, and the *Occurrence Date* field. The status date is the date that the status was last changed. The occurrence date is the date that the violation actually occurred.

Optionally, you can input a discovery date and report receipt date. The discovery date is the date that the Violation was discovered. The report receipt date is the date that the Water Board received a report regarding the Violation.

Click the “View Status History” hyperlink to open a new window that displays a history of changes made to the Violation status (Figure 9.8).


Status History

Status	Status Date
Violation	2005-06-01 10:05:42.0

Figure 9.8 View Status History Page

See Chapter 1 for more information about pop-ups in CIWQS.

Violation Source

The Violation source and source ID are the next two pieces of information captured for a Violation (Figure 9.9).

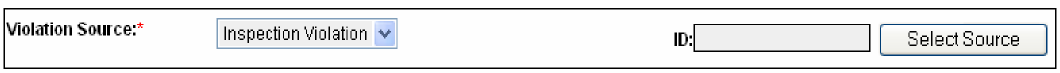


Figure 9.9 Violation Source

When you have finished entering the Violation Source information, click the “Save” button to save the Violation record. You now have access to the remaining tabs of the Violations Editor.

If you select “eSMR” or “Inspection Violation” as the Violation source, the “Select Source” button is activated. Click the “Select Source” button to launch either the *Select Facility* page or the *Inspections Search* page. This button allows you to associate an eSMR or Inspection ID with the Violation (as described above).

Click the “Cancel” button at any time (on either the *Select Facility* or *Inspections Search* page) to return to the Violations Editor without linking an eSMR or Inspection to the Violation.

Additional Information

Four additional pieces of information that can be captured for the Violation can be found at the bottom of the General Information tab (Figure 9.10).

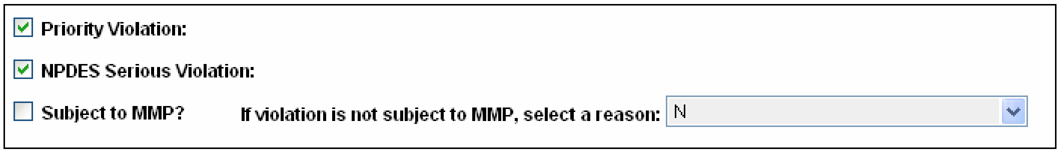


Figure 9.10 Additional Information Fields

Select the checkbox for "Priority Violation", if applicable. If the item is a priority Violation, the checkbox for "NPDES Serious Violation" can also be selected.

If the program for the Violation is NPDES and the NPDES Serious Violation box is selected, then the Priority Violation checkbox will automatically be selected and cannot be cleared.

If an NPDES Serious Violation is counted towards the Mandatory Minimum Penalty (MMP), the "Subject to MMP" checkbox can be selected. If the program is not NPDES, the box will be disabled and cleared. If the program is NPDES and this box is clear, the *If violation is not subject to MMP, select a reason* field is enabled and is required.

If the drop-down menu is enabled, select a value, as appropriate, to complete data entry for the General Information tab.

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

Once you have saved the information in the General Information tab, you can enter data in the remaining tabs of the Violation Editor.

9.2.2 Requirements Tab

The Requirements tab displays information on the Requirement that is the subject of the Violation (Figure 9.11).

Each Violation can only be associated with one Requirement. If multiple related requirements were violated, each must have its own Violation.

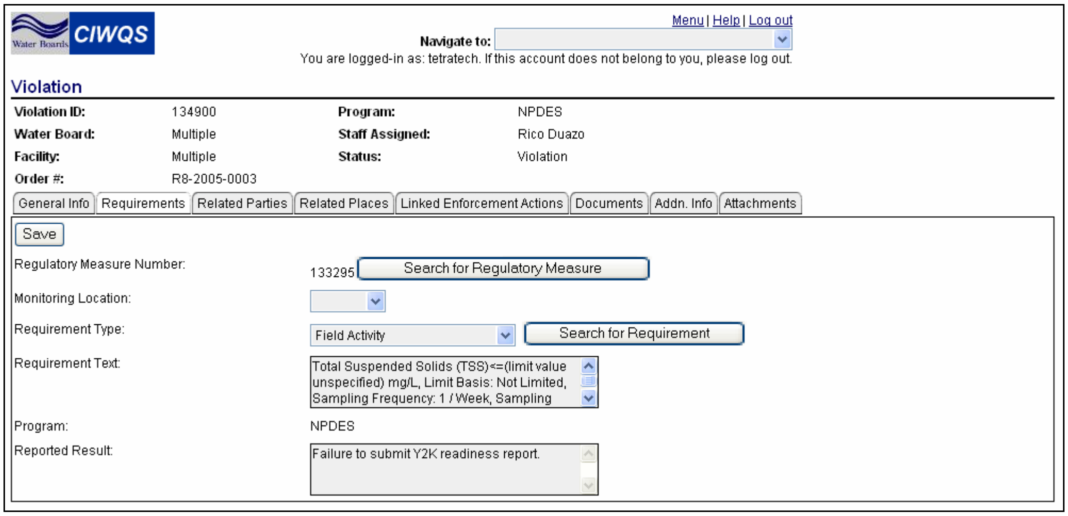


Figure 9.11 Requirements Tab

Regulatory Measure

When the Requirements tab is selected for an established Violation, the System ID of the associated Regulatory Measure (e.g., Order) under which the Violation has occurred is shown as read-only in the *Regulatory Measure* field. To associate a Regulatory Measure with a new Violation, click the "Search for Regulatory Measure" button. This launches the *Regulatory Measure Search* page. Enter the appropriate search criteria and click the "Search" button.

See Chapter 5 for more information on searching for Regulatory Measures.

When you have found the Regulatory Measure to which you wish to link, click the "link" hyperlink at the end of the corresponding row. The Regulatory Measure Number (System ID) for the linked record will be shown on the Requirements tab (Figure 9.12).

If a Regulatory Measure is selected, all remaining fields on the tab are required before the record can be saved.

Figure 9.12 Regulatory Measure Number

The associated Regulatory Measure can be changed by clicking the "Search for Regulatory Measure" button and linking an alternate Regulatory Measure.

Monitoring Location & Requirements

Once a Regulatory Measure number has been specified, you may enter information related to the Monitoring Location and associated Requirements (Figure 9.13). Select the Monitoring Location at which the Violation occurred from the drop-down menu. This Monitoring Location should be based on the Monitoring Location defined in the selected Regulatory Measure.

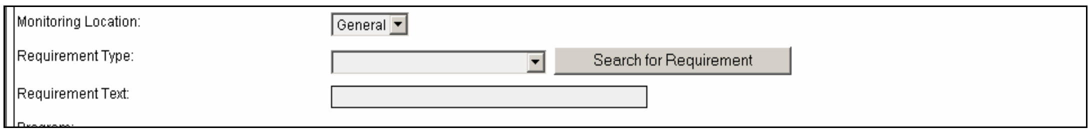


Figure 9.13 Monitoring Location & Requirements

Select a Requirement type (e.g., reporting, record-keeping, basin plan, etc.) from the drop-down menu. Click the “Search for Requirement” button to search for all Requirements of that type. Clicking this button opens a page that lists all Requirements for that Regulatory Measure of the selected type (Figure 9.14). Click the “link” hyperlink at the end of the appropriate row to link the Requirement to the Violation and return to the Requirements tab.

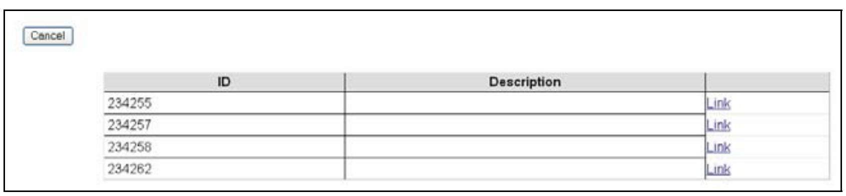


Figure 9.14 Link Requirement Page

Click the “Cancel” button to return to the Requirements tab without linking a Requirement.

The *Requirement Text* field shows the full text of the requirement (as displayed in the description column of the *Link Requirement* page). If the Requirement was selected using the “Search for Requirement” tab, the field auto-populates with relevant information (and is read-only). If no search was performed, you may enter text into this field.

Program & Reported Result

The *Program* and *Reported Result* fields are found at the bottom of the Requirements tab (Figure 9.15). The *Program* field is read-only and it displays the program associated with the Requirement. This field auto-populates when a Requirement is linked to the Violation. The reported result for the Requirement can be written into the text box at the bottom of the page. The *Reported Result* field defaults to the Violation description entered on the General Information tab.

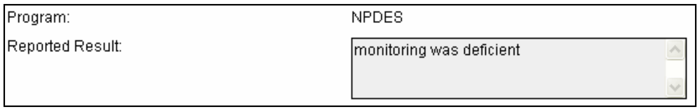


Figure 9.15 Program and Reported Result Fields

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

9.2.3 Related Parties Tab

The Related Parties tab allows you to link People and Organizations to the current record (Figure 9.16). The list of Related Parties for a Violation is pre-populated when a Regulatory Measure is linked to the Violation. The Relationship defaults to "undefined".

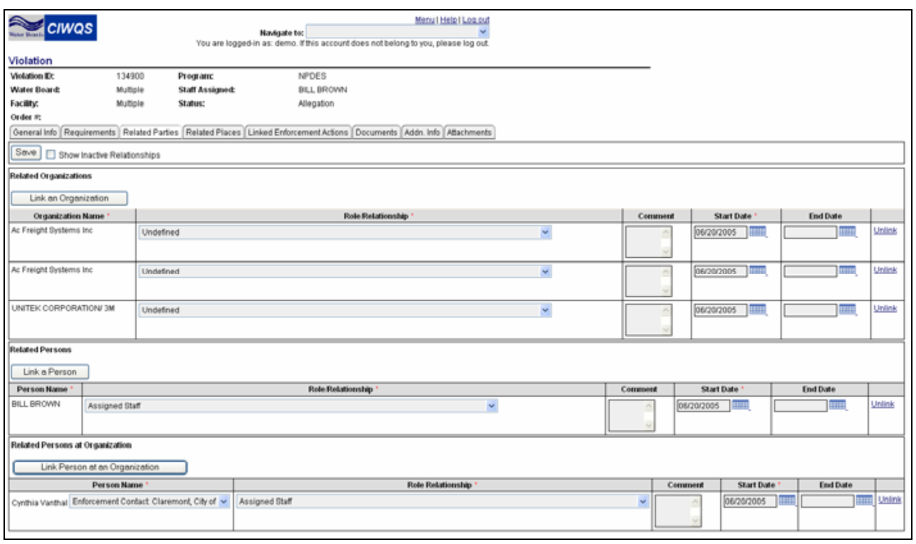


Figure 9.16 Related Parties Tab

When the Related Parties tab is viewed, the default is for only the active relationships to be displayed (relationships with a Start Date with today's date or earlier and an End Date of a date later than today's date). If you wish to see inactive relationships instead, select the box next to the "Save" button at the top of the tab with the label "Show Inactive Relationships".

There are three options for linking Parties to the record:

- Link an Organization

- Link a Person
- Link a Related Person at an Organization (establishes roles)

Link an Organization

Clicking the “Link an Organization” button launches the *Party Search* Page with the *Party Type* field set to “Organization”. Enter the appropriate search criteria and click the “Search” button.

Click the “Cancel” button at any time to return to the Related Parties tab without linking an Organization.

When you have found the Organization you wish to link, click the “select” hyperlink at the end of the corresponding row. This creates a new row in the Related Parties tab (Figure 9.17).

A Party must be pre-defined using the *Create/Maintain Parties* Module in order to be linked to the current record.

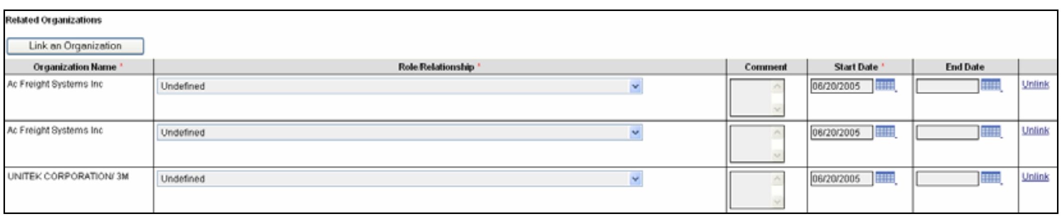


Figure 9.17 Linking an Organization

Additional information about the relationship with the linked Organization can be captured in the displayed fields. The *Role/Relationship* and *Start Date* fields are required for all linked Organizations.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Violation and the linked Organization. The start date indicates the date the relationship between the Parties became (becomes) effective. The *Start Date* field is auto-populated with today’s date when an Organization is linked. This date can be changed, as required.

Optionally, comments can be added to the *Comments* field and an end date for the relationship can be established. Clicking the “Unlink” hyperlink removes the link to the Organization but does not delete the record for that Organization.

Link a Person

Clicking this button launches the *Party Search* page with the *Party Type* field set to "Person". Enter the appropriate search criteria and click the "Search" button.

Click the "Cancel" button at any time to return to the Related Parties tab without linking a Person to the Violation.

When you have found the person you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Parties tab (Figure 9.18).

Figure 9.18 Linking a Person

Additional information about the relationship with the linked Person can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked People.

Choosing a role/relationship from the drop-down menu establishes the relationship between the current Violation and the linked Person. The start date indicates the date the relationship between the Parties became (becomes) effective. The Start Date field is auto-populated with today's date when a Person is linked to the Violation. This date can be changed, as required.

Optionally, comments can be added to the *Comments* field and an end date for the relationship can be established. Clicking the "Unlink" hyperlink removes the link to the Person but does not delete the record for that Person.

Link a Related Person at an Organization

This button allows you to link an affiliated Person to the Violation. An affiliated person is a person who has been linked to an Organization with a specific role/relationship.

See Chapter 4 for more information on affiliated people.

Clicking the "Link a Person at an Organization" button launches the *Party Search* page with the *Party Type* field set to "Person". Enter the appropriate search criteria and click the "Search" button. When you have found the person you wish to link, click the "select" hyperlink at the end of the corresponding row. This creates a new row in the Related Person at Organization table (Figure 9.19). The Related Person at Organization table is described in Table 9.3.

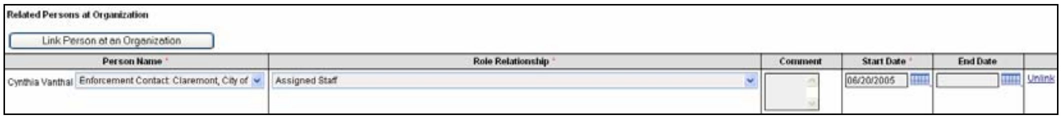


Figure 9.19 Linking a Person at an Organization

Table 9.3 Related Persons at Organization Table

Field Name	*Description*
Current Party (role at Organization)	Displays the name of the Party (Person or Organization) as defined on the General Information tab. This is *not* the Party that was just selected using the *Party Search* page. **If the current Party is a Person, a drop-down menu is included in the Current Party field listing all of the Organizations to which this Person has already been linked and his or her role within the Organization. Select the appropriate Organization/role from the drop-down menu if necessary.**
Role/Relationship	Select the role/relationship between the Current Party and the Party selected via the *Party Search* page from the drop-down menu.
Person Name (role at Organization)	Displays the name of the Party selected via the Party Search page and a drop-down menu of all relationships that this person has at their linked Organizations. Select the appropriate role from the drop-down menu.

Select the appropriate values within the *Current Party*, *Role/Relationship*, and *Person Name* columns. Enter the date the relationship became effective in the *Start Date* field.

Optionally, enter comments in the *Comments* field and an end date for the relationship.

The "Unlink" hyperlink removes the link to the Person but does not delete the record for that Person.

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

9.2.4 Related Places Tab

The Related Places tab allows you to link the Violation to Places (Figure 9.20). The Related Places tab will be pre-populated with a list of Places linked to the Regulatory Measure associated with the Violation (including all Facilities, Monitoring Locations, and Discharge Points). The relationship types default to “undefined.”

When the Related Places tab is viewed, the default is for only the active relationships to be displayed (relationships with a Start Date with today’s date or earlier and an end date of a date later than today’s date). If you wish to see inactive relationships instead, select the box next to the “Save” button at the top of the tab with the label “Show Inactive Relationships”. If you wish to see only the discharge points, select the box next to the item labeled “Show Only Discharge Points”.

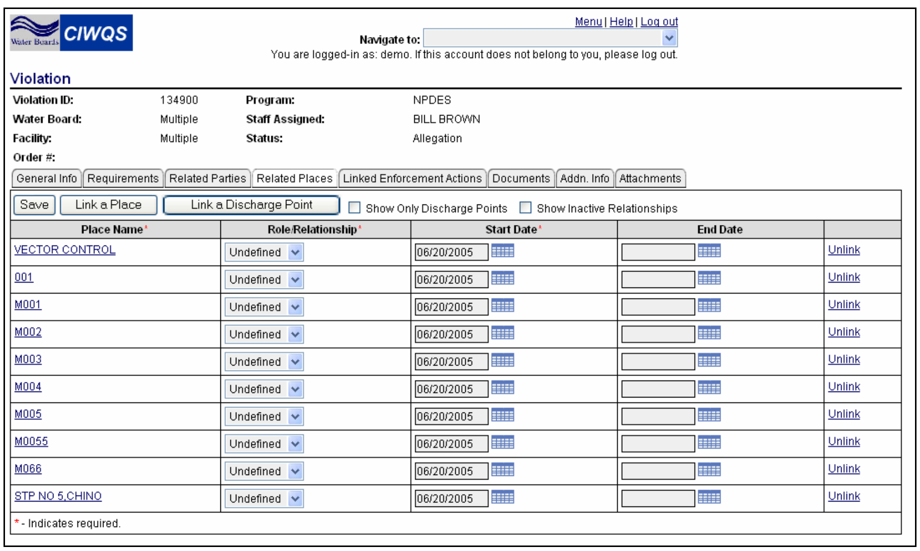


Figure 9.20 Related Places Tab

Click the “Link a Place” button to launch the *Place Search* page. Enter the appropriate search criteria and click the “Search” button.

Click the “Cancel” button at any time to return to the Related Places tab without linking a Place to the Violation.

When you have found the Organization you wish to link, click the “link” hyperlink at the end of the corresponding row. This creates a new row in the Related Places table (as in Figure 9.20).

To link a Discharge Point, click the “Link a Discharge Point” button; this limits the Place Search to only find Places of type “Discharge Point” that match the search criteria.

Additional information about the relationship with the linked Place can be captured in the table fields. The *Role/Relationship* and *Start Date* fields are required for all linked Places.

Choosing a role/relationship from the drop-down list box establishes the relationship between the current Party and the linked Place. The start date indicates the date the relationship became (becomes) effective. The *Start Date* field auto-populates with today's date when a new Place is linked to the Violation. This date can be changed, as required.

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

9.2.5 Linked Enforcement Actions Tab

The Linked Enforcement Actions tab allows you to link Violations to Enforcement Actions (Figure 9.21). Enforcement Actions are a type of Regulatory Measure. When you open the Linked Enforcement Actions tab, you see all Enforcement Actions related to the Facility that has incurred the Violation.

Enforcement Actions are associated with a Violation based on linked Places. All Enforcement Actions for the Places related to the Violation are displayed on this tab.

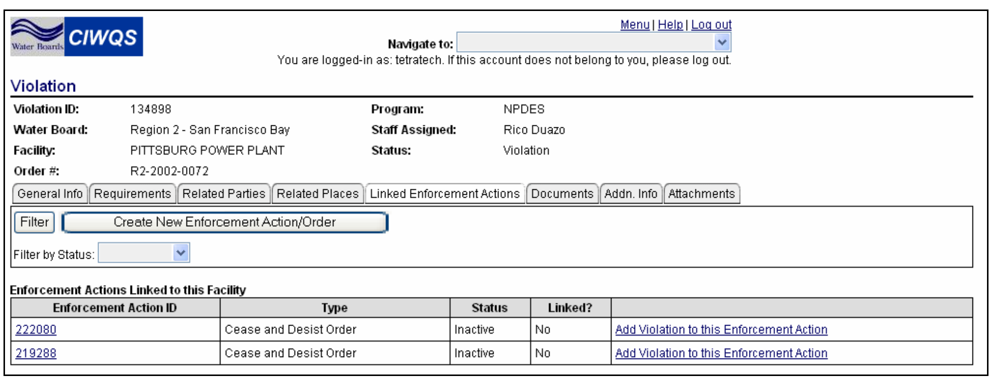


Figure 9.21 Linked Enforcement Actions Tab

See Chapter 12 for more information about Enforcement Actions.

The *Filter by Status* field can be used to display only those Enforcement Actions that have a particular Status. Once you have selected a Status from the *Filter by Status* drop-down menu, click the "Filter" button to refresh the table.

To link the Violation to the Enforcement Action, click the "Add Violation to this Enforcement Action" hyperlink. Enforcement Actions that have been linked to the Violation through this Module or the *Regulatory Measures* Module show "Yes" in the *Linked?* field.

9.2.6 Documents Tab

The Documents tab allows you to identify external documents (in hard copy format) that are related to a Violation (Figure 9.22). For example, files located in your office may be related to the Regulatory Measure but are unavailable as electronic documents. This tab provides a way to indicate available, related Documents that cannot be uploaded using the Attachments tab.

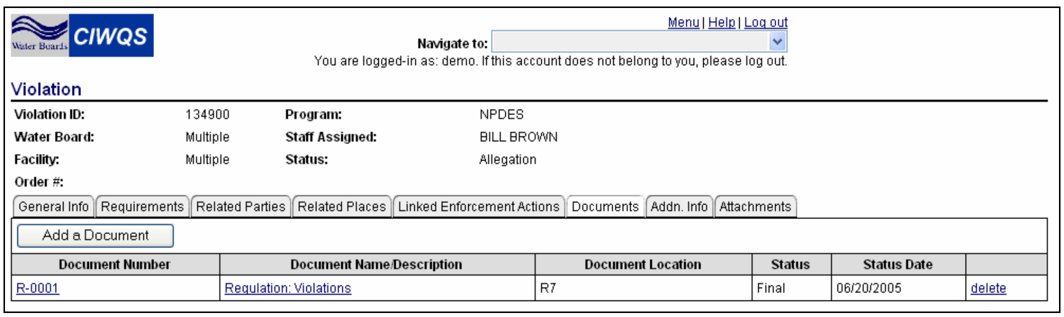


Figure 9.22 Document Tab

Documents that have already been linked will be listed in the table at the bottom of the page.

To associate a document with the Violation, click the "Add a Document" button. This launches the *Add Document* page where you can fill in fields required to create a new record for a linked document (Figure 9.23). Table 9.4 provides the description of each field on the *Add Document* page.

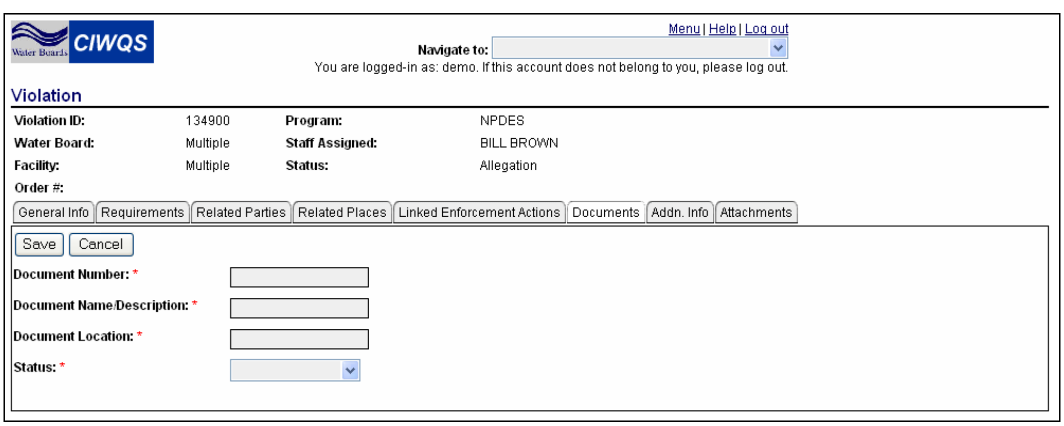


Figure 9.23 Add Document Page

Table 9.4 Document Fields

Field	Description
Document Number	Enter a reference number for the Document. As a free-entry field, any numbering system can be used. Typically, this would be the file number.
Document Name/Description	Provide a description of the Document or the Document title.
Document Location	Enter where the Document is located.
Status	Indicate the Status of the Document (e.g., under review, approved).

When you have entered or updated new information on the *Add Document* page be sure to click the "Save" button at the top of the tab to avoid loss of data.

Click on the document number or document name/description hyperlinks to open the *Add Document* page and edit the document record.

9.2.7 Additional Information Tab

The Additional Information tab is designed to capture any relevant information that the other tabs do not address. Additional information is recorded by documenting various attributes that apply to a particular Violation type.

As this page is used in several of the CIWQS Modules, it has been formatted to accept a wide range of data and information (Figure 9.24). The attributes that can be specified for a given Violation are listed in the Attribute table.

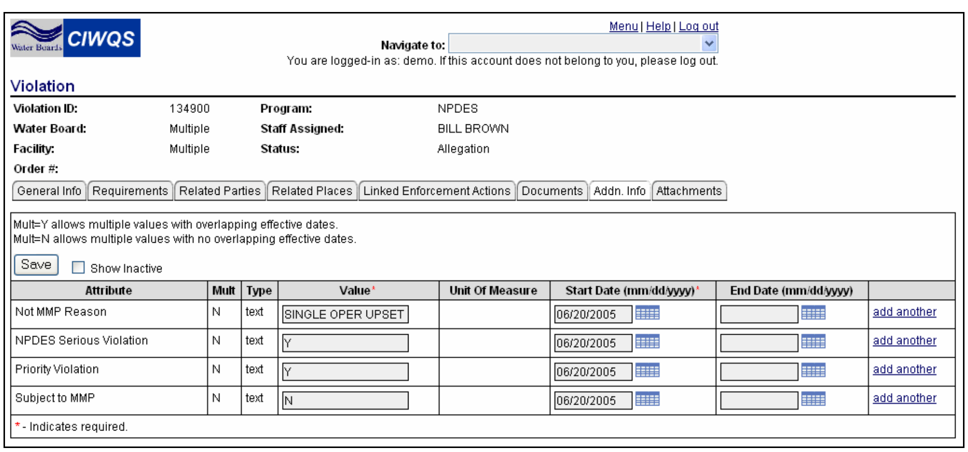


Figure 9.24 Additional Information Tab

When the Additional Information tab is viewed, the default is for only the active attributes to be displayed (relationships with a start date with today's date or earlier and an end date later than today's date). If you wish to see the inactive attributes instead, select the box next to the "Save" button at the top of the tab with the label "Show Inactive".

Contact the CIWQS Administrator if you wish to have an additional Violation attribute added to the Additional Information tab.

All attributes allow multiple values to be entered by clicking the "add another" hyperlink at the end of the row. Only Attributes with a value of "Y" in the *Mult* field allow entries with overlapping start and end dates.

The fields of the Attribute table are described in Table 9.5.

Table 9.5 Attribute Table Fields

Field Name	*Description*
Attribute	Displays an attribute that can be recorded for the Regulatory Measure. Required attributes are prefixed with an asterisk (*). This indicates that you are required to enter values for the *Value* and *Start Date* fields.
Value	Enter or select the value associated with the attribute. Depending on the attribute, this field may be displayed as a text field or as a drop-down menu. If the field is a text field, no data validation takes place.
Start Date	Enter the date the attribute was first used/was first true about the Regulatory Measure/was first measured/was fist reported/etc.
End Date	Enter the date the attribute was last used/was last true about the Facility/etc.

STOP

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

9.2.8 Attachments Tab

The Attachments tab allows you to attach any file (e.g., word processing, graphics, photo, spreadsheet, etc.) relevant to the Violation (Figure 9.25).

When attachments are associated with a Violation, a list shows up at the bottom of the page, providing details on each attachment.

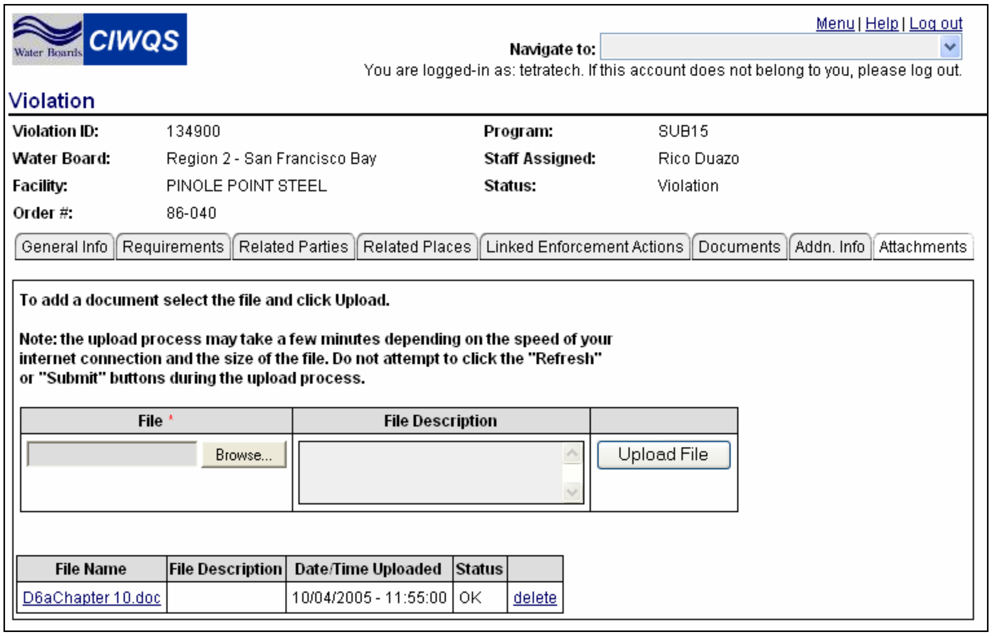


Figure 9.25 Attachments Tab

To upload a new file, select the "Browse" button. A new page opens where you can select the file you want to upload (Figure 9.26).

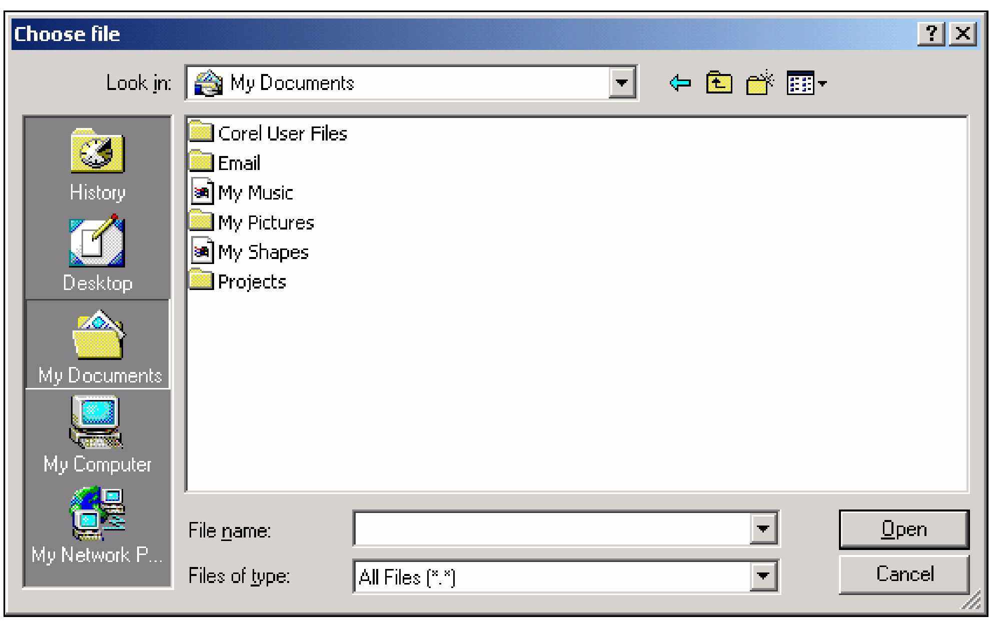


Figure 9.26 Browsing for an Attachment

Once you have located the appropriate file, select the file and click the "Open" button. The Choose File window closes, and the name and file path of the selected file appears in the text field next to the "Browse" button.

Enter a description of the file in the *File Description* field. Click the "Upload File" button. The new Attachment will show up in the table at the bottom of the Attachment page (as in Figure 9.24)

☞ **Upon retrieval, the list of files will be sorted by file name. A particular file name can only be used once per record.**

Attachments can be removed by clicking the "delete" hyperlink at the end of each row in the List of Attachments. Attachments can be viewed by clicking the file name hyperlink.

The *Status* field shows the value "OK" if the file passed the CIWQS virus scanner. The field reads "Unavailable" if the file does not pass.

☞ **When you enter new information on the Attachments tab, changes will be saved automatically.**

10
Inspections Module

This chapter addresses the following topics:

- An introduction to the *Inspections* Module
- Searching for an existing Inspection
- Creating a new Inspection

10.1 Introduction to the Inspections Module

The *Create/Maintain Inspections* Module allows you to search for performed Inspections and to create new planned Inspections. Inspections are activities that are typically performed as the result of a Requirement, such as a Regulatory Measure (Order), as required by EPA, or as part of a State or Regional Water Quality Board Activity.

There are two types of Inspections: scheduled and performed. Inspections can also be scheduled from within the *Regulatory Measures* Module.

See Chapter 5 for more information on Regulatory Measures.

The *Create/Maintain Inspections* Module can be accessed through the CIWQS Main Menu or by using the Navigation drop-down menu found at the top of each page.

10.1.1 Searching for an Inspection

Selecting the *Create/Maintain Inspections* Module will bring you to the *Inspections Search* page (Figure 10.1) where you can create a new Inspection or search for an existing Inspection.

To search for an existing Inspection, input criteria into the search fields and click the "Search" button. Click the "Create an Unplanned Performed Inspection" button to open the Inspection Editor and create a new record.

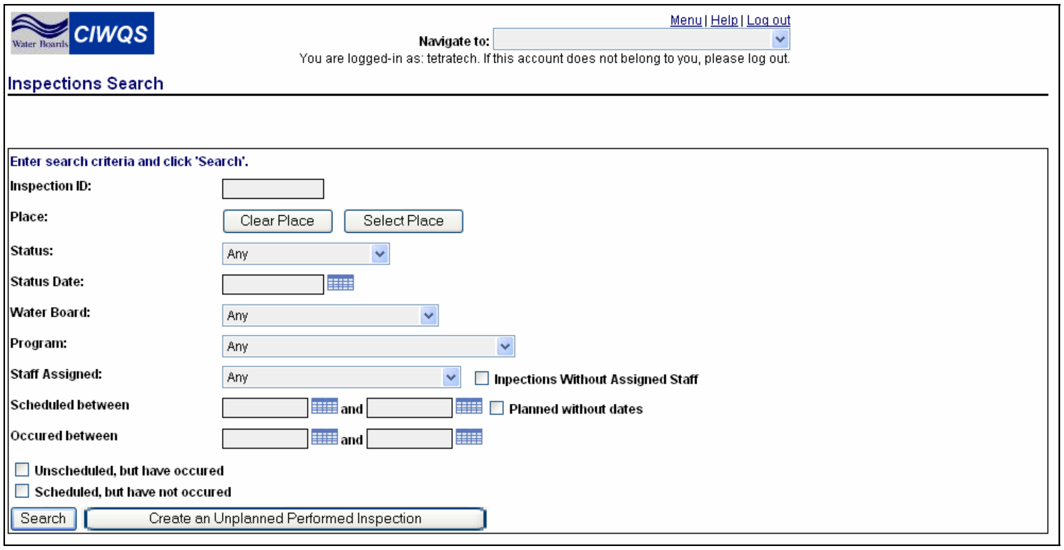


Figure 10.1 Inspection Search Page

Table 10.1 describes the search criteria fields and how they can be used to search for related Inspections.

Place

To search for Inspections related to a particular Place, click the “Select Place” button. This opens the Place Search page, where you can search for the appropriate Place using the search criteria fields.

See Chapter 3 for more information on searching for Places.

When you have found the Place related to the Inspection you wish to find, click the “Select” hyperlink at the end of the corresponding row in the Place search results table. This returns you to the Inspection Search page with the name of the Place displayed in the Place field. Click the “Clear Place” button to remove the selected Place from the search criteria.

Using the CIWQS Search Engine

The CIWQS Inspection search engine is based on an AND search. This means that it will look for places that match ALL of your search criteria. For example, you can select Water Board “1” from the drop-down menu and enter “5/11/2001” and “6/1/2001” in the *Scheduled between* fields and the system will search for all Inspection records that satisfy both criteria. This search will not produce the record for Water Board “3” or an Inspection scheduled between “4/21/1999” and “5/11/2001” since neither record satisfies both search requirements.

Table 10.1 Inspection Search Fields

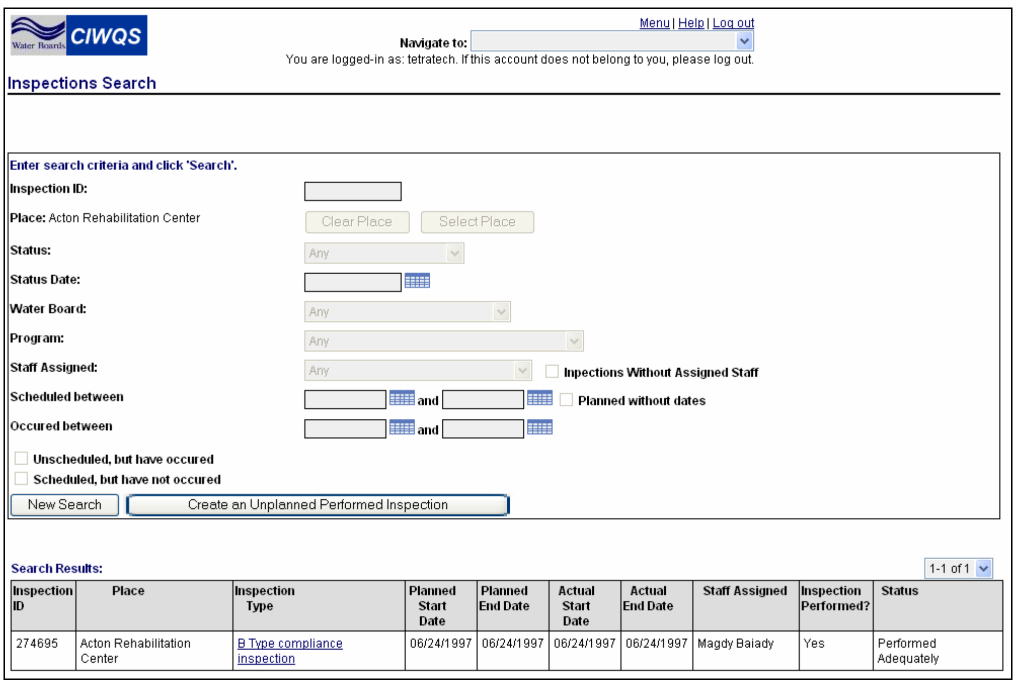
Field Name	Description
Inspection ID	Input the ID number for the Inspection.
Place Name	Displays the name of the selected Place when one is selected by clicking the “Select Place” button (see below).
Status	Select the status of the Inspection (e.g., Scheduled, Performed, Cancelled).
Status Date	Locates Inspections with a particular Status and status date when used in combination with Status. If a status date is specified, historic statuses can be searched. Without a date, the Status must be the current one.
Water Board	Locates inspections related to facilities regulated by the selected Water Board (including State). If the selected Water Board has sub-regions, a sub-region can be selected.
Program	Used to limit the Inspection to those in a specific program.
Staff Assigned	Select the name of the staff member assigned to the Inspection (not the staff member assigned to a related task).
Inspections without Assigned Staff	Selecting this checkbox retrieves only those Inspections without any Parties as assigned (or equivalent). The *Staff Assigned* drop-down menu is cleared if this box is selected.
Scheduled between	These fields are used to locate Inspections that have planned dates with the start date and end date between (inclusive) the dates entered here. Both the start and end dates of the planned Inspection must be within the date range set.
Occurred between	These fields are used to locate Inspections that have actual dates with the start date and end date between (inclusive) the dates entered here. Both the start and end dates of the Inspection must be within the date range set.
Planned without dates	This checkbox is used to locate Inspections that have records without any planned or actual dates. Selecting this checkbox clears the *Scheduled between* and *Occurred between* fields.
Unscheduled, but have occurred	This field is used to clear the *Scheduled Between* fields and to locate Inspections that have no planned dates, but do have actual dates.
Scheduled, but have not occurred	This field is used to clear the *Occurred Between* fields and to locate inspections that have no actual dates, but do have planned dates.

To search for an Inspection related to a particular Place, click the "Select Place" button. This opens the *Place Search* page, where you can search for the appropriate Place using the search criteria fields.

See Chapter 3 for more information on searching for Places.

When you have found the Place related to the Inspection you wish to find, click the "select" hyperlink at the end of the corresponding row in the Place Search results table. This returns you to the *Inspection Search* page with the name of the Place displayed in the Place field (as in Figure 10.2). Click the "Clear Place" button to remove the selected Place from the search criteria.

Enter the appropriate search criteria and click the "Search" button. A table will appear below the search box showing the first 100 Inspection records that matched ALL of the search terms you entered (Figure 10.2).



Inspection ID	Place	Inspection Type	Planned Start Date	Planned End Date	Actual Start Date	Actual End Date	Staff Assigned	Inspection Performed?	Status
274695	Acton Rehabilitation Center	B Type compliance inspection	06/24/1997	06/24/1997	06/24/1997	06/24/1997	Magdy Baiady	Yes	Performed Adequately

Figure 10.2 Results of a Violation Search

Table 10.2 details the information that is displayed in the Results table.

If the Inspection record you were searching for appears in the Results table, you can access its record by clicking the Inspection Type hyperlink. If the Inspection of interest does not appear, click the "New Search" button to reactivate and clear the search criteria fields.

If you have trouble finding an existing Inspection, try using fewer search criteria. This will broaden your search.

Table 10.2 Results Table

Field Name	Description
Inspection ID	Shows the Inspection ID
Place	Shows the name of the Place for the Inspection.
Inspection Type	Shows the Inspection type. Clicking on the Inspection Type opens the Inspection for viewing/editing.
Planned Start Date	Shows the planned/suggested start date (if any).
Planned End Date	Shows the planned/suggested end date (if any).
Actual Start Date	Shows the actual start date (if any).
Actual End Date	Shows the actual end date (if any).
Staff Assigned	Indicates the staff member currently assigned to the Inspection.
Inspection Performed?	Indicates whether the Inspection has been performed.
Status	Shows the status of the Inspection.

10.2 The Inspections Editor

The Inspections Editor allows you to either enter data for a new Inspection or to modify the record for an existing Inspection. This page can be accessed by clicking the "Create an Unplanned Performed Inspection" button on the *Inspection Search* page or by clicking the hyperlink in the Inspection Type field in the results table when searching for an existing Inspection.

There are six tabs in the Inspection Editor, and each tab captures related sets of information about an Inspection.

- Inspection Entry
- Related Parties Tab
- Alleged Inspection Violations
- Documents Tab
- Additional Information Tab
- Attachments Tab

While individual tabs show different information, each has a common page header. The header shows the Inspection ID, status, Inspection type, staff assignment, and Facility for reference.

As information is saved within the Inspection Editor, the header information automatically refreshes to display updated information.

10.2.1 Inspection Entry Tab

The Inspection Entry tab is the first page you see when you open a record for an existing Inspection or create a new Inspection record. The Inspection Entry tab captures basic information about the Inspection including the Inspection location (i.e., Place), Inspection type, status and dates of Inspection, linked Regulatory Measures, and other Inspections related to the Facility (Figure 10.3).

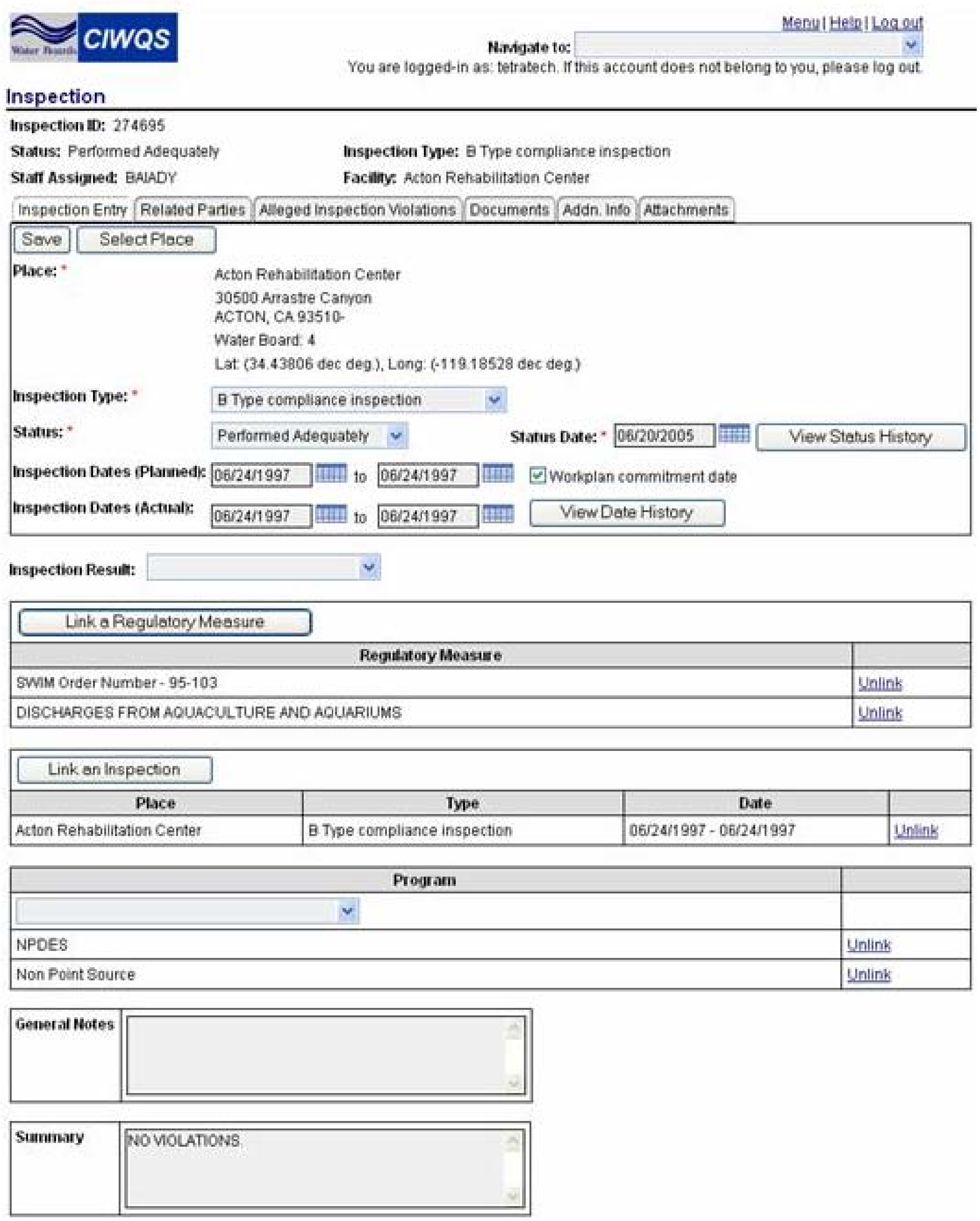


Figure 10.3 Inspection Entry Tab

When you are creating a new Inspection, the Inspection Entry tab will be the only tab available for data entry until all required fields are filled in and the record has been saved. Saving the record for the first time activates the remaining tabs.

The Place, Inspection Type, Status and Status Date fields are all required before an Inspection record can be saved.

Required Fields
Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

Inspection Location

The first piece of information required to save a new Inspection is the Inspection Location (i.e., Place).

Click the "Select Place" button to launch the *Place Search* page. Enter the appropriate search criteria and click the "Search" button.

When you have found the Place you wish to link to the Inspection, click the "Select" hyperlink at the end of the corresponding row in the results table. This returns you to the Inspection Entry tab with the Place information displayed as read-only text in the *Place* field (Figure 10.4).

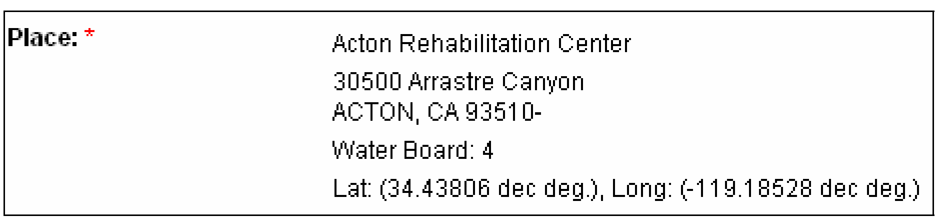


Figure 10.4 Inspection Location

The Place field displays information about the Facility including:

- Facility Name
- Physical Address
- Latitude/Longitude
- Associated Regional Water Board responsible for regulating the Place

Click the "Select Place" button again to change the Inspection location.

Inspection Type, Status, and Dates

The Inspection type, status, and dates are the next pieces of information to be captured for the Inspection (Figure 10.5).

Figure 10.5 Inspection Type, Status, and Dates

Select the appropriate Inspection type from the drop-down menu. Select the status of the Inspection from the *Status* drop-down menu (e.g., active, cancelled, scheduled, performed successfully) and enter the date that the status became (becomes) effective in the *Status Date* field.

Optionally, you may enter the date of a planned Inspection (Figure 10.6). If no dates are entered into the *Inspection Dates (Planned)* fields, the Inspection is assumed to be unplanned. Selecting the *Workplan Commitment Date* box indicates that the planned Inspection has been committed via a Workplan.

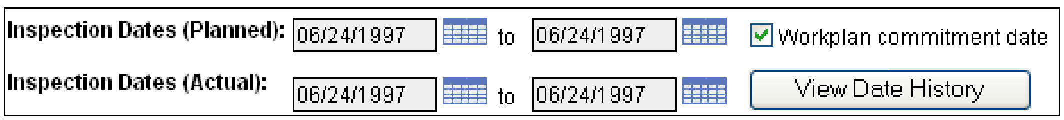


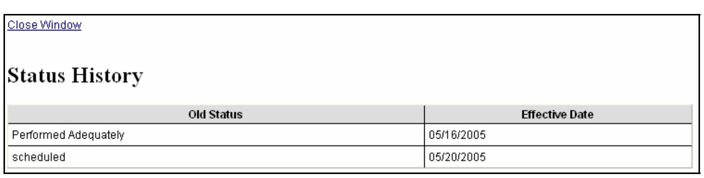
Figure 10.6 Inspection Date Fields

Enter the appropriate dates in the *Inspection Dates (Actual)* fields once an Inspection has been performed.

Once the status and status date information has been recorded, click the "Save" button to save the Inspection. You will now have access to the remaining tabs of the Inspection Editor and the "View Status History" and "View Date History" buttons will be activated.

View Status History

Each time a record is saved with a new Status, the CIWQS system saves the previous Status and Status Date. Click the "View Status History" button to open a new window that displays a history of changes made to the status of the Inspection (Figure 10.7).


Close Window

Status History

Old Status	Effective Date
Performed Adequately	05/16/2005
scheduled	05/20/2005

Figure 10.7 Status History

See Chapter 1 for more information about pop-ups in CIWQS.

View Date History

If either the Planned or Actual Inspection Dates are changed, a Date History will be created. Click the “View Date History” button to launch a new window to show the Start and End Dates of both proposed Inspections and Inspections that have already occurred (Figure 10.8).

Close Window

Date History

Date	Start/Finish	A(Actual)/P(Planned)
05/16/2000	Start	A

Figure 10.8 Date History

Inspection Outcome

To enter the outcome of the Inspection, select an Inspection result from the drop-down menu (Figure 10.9). Results categories include Additional Data Required, Follow-up Inspection Needed, No Further Action, and Violation.

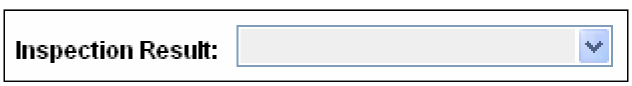


Figure 10.9 Inspection Results Rating

Link to Regulatory Measure, Inspection, and Program

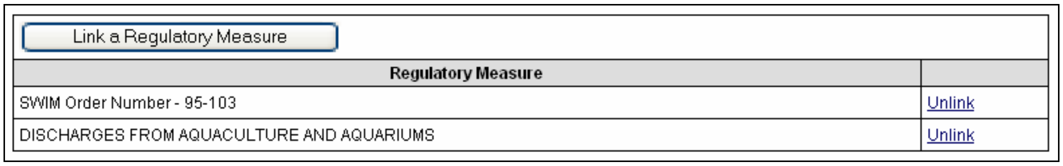
An Inspection may also be associated with a Regulatory Measure (e.g., Order), with another Inspection or with a Program.

To link a Regulatory Measure to the Inspection, click the “Link a Regulatory Measure” button. This launches the *Regulatory Measure Search* page. Enter the appropriate search criteria and click the “Search” button.

See Chapter 5 for more information on the *Regulatory Measure Search* page.

When you have found the Regulatory Measure you wish to link, click the “Select” hyperlink in the appropriate row. This links the Regulatory

Measure and returns you to the *Inspection Entry* page where the Regulatory Measure will be displayed (Figure 10.10).

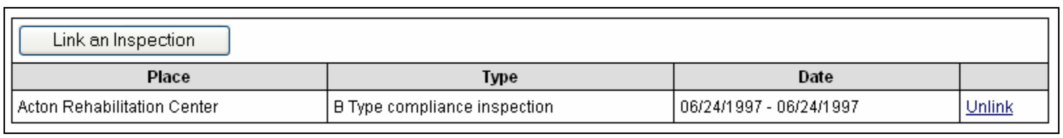

Link a Regulatory Measure

Regulatory Measure	
SWIM Order Number - 95-103	Unlink
DISCHARGES FROM AQUACULTURE AND AQUARIUMS	Unlink

Figure 10.10 Linking to Regulatory Measures and Inspections

Click the “Save” button to save the new link. Click the “Unlink” hyperlink to disassociate the Regulatory Measure from the Inspection.

To link an Inspection to the current record, click the “Link an Inspection” button. This launches the *Inspection Search* page (see section 10.1.1 above). Enter the appropriate search criteria and click the “Search” button. Click the “Select” hyperlink to associate the Inspection with the current record and return to the Inspection Entry page. The linked inspection will be displayed in the table (Figure 10.11).


Link an Inspection

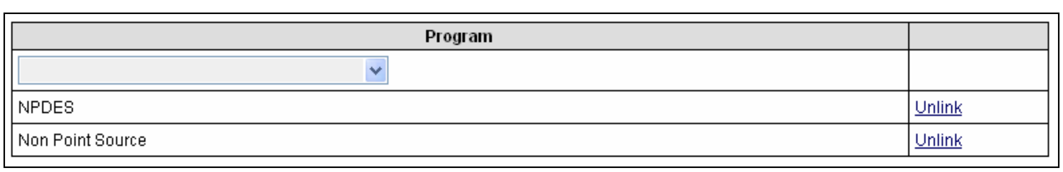
Place	Type	Date	
Acton Rehabilitation Center	B Type compliance inspection	06/24/1997 - 06/24/1997	Unlink

Figure 10.11 Linking an Inspection to the Current Record

Once an Inspection has been linked to the current Inspection, you will be able to view the Location (i.e., Place), Type, and Date of that linked Inspection in a table.

Click the “Save” button to save the new link. Click the “Unlink” hyperlink to disassociate the Inspection from the current record.

You can also designate a Program under which the current Inspection is being performed. Select the appropriate Program from the drop-down menu and click the “Save” button. The Program you selected will be displayed in the table (Figure 10.12).



Program	
NPDES	Unlink
Non Point Source	Unlink

Figure 10.12 Related Programs Table

Click the “Unlink” hyperlink to disassociate the Program from the current record.

General Notes and Summary

You can enter general notes and a summary for an Inspection into the two text fields at the bottom of the Inspection Entry tab (Figure 10.13). The *General Notes* field captures any general information regarding the Inspection that is not captured elsewhere. Use the *Summary* field to enter a summary of the Inspection.

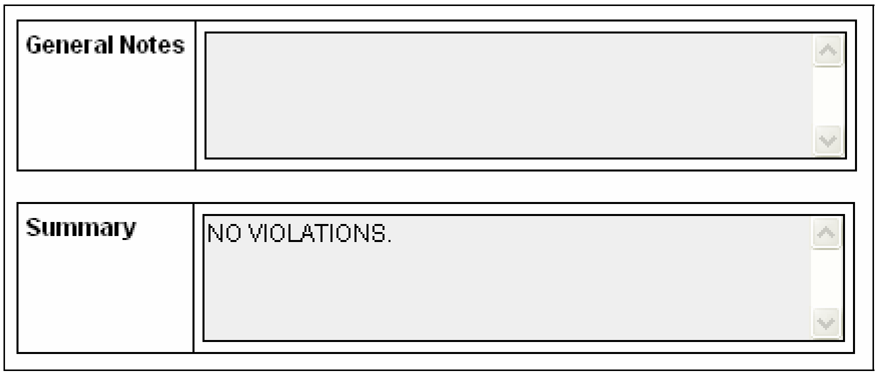


Figure 10.13 General Notes and Summary Fields

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

10.2.2 Related Parties Tab

The Related Parties tab displays information on the People who participated in the Inspection (Figure 10.14). Examples of Related Parties include Facility representatives, witnesses/observers, and EPA representatives.

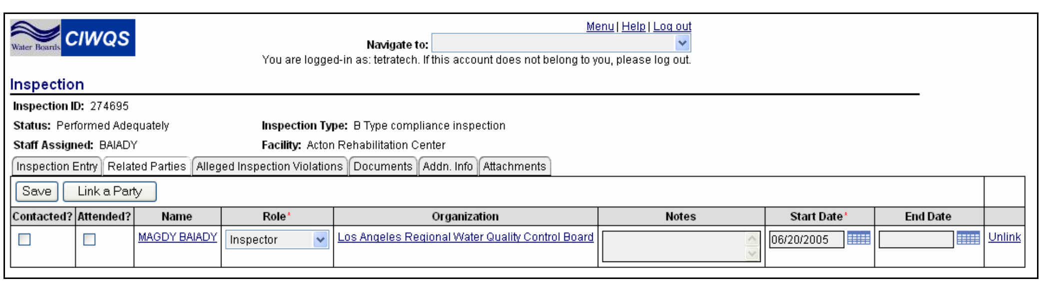


Figure 10.14 Related Parties Tab

To link a Party to the Inspection, click the "Link a Party" button. This launches the Party Search page with the *Party Type* field set to "Person". Enter relevant criteria and click the "Search" button.

Each Party must be pre-defined in the *Create/Maintain Parties* Module before it can be linked to an Inspection.

Click the "Cancel" button at any time to return to the Related Parties tab without linking a Person to the Inspection.

When you have found the Person you wish to link, click the "Select" hyperlink at the end of the corresponding row. This will create a new row in the Related Parties Tab.

See Chapter 4 for more information on the *Party Search* page.

The table of Related Parties linked to an Inspection provides information about the Inspection. If a Party was contacted prior to the Inspection, select the *Contacted* checkbox. Select the *Attended* checkbox if the Party attended the Inspection. Some Parties may have participated in the Inspection but did not actually attend.

Select the appropriate role (e.g., facility contact, project manager, permit writer, investigating) that the Party played in the Inspection from the *Role* drop-down menu. The Organization column displays the parent Organization for the selected Party. If there is no specific parent Organization or if there are multiple parent Organizations, none will be displayed in this field. This field is read-only.

The start date indicates when a Person became associated with the Inspection, and the end date indicates when a Person was no longer involved with the Inspection.

If you have any additional information about a Party or its role in the Inspection, enter text into the *Notes* field. For example, if the Party was interviewed, you can enter a summary of the interview here.

When you have entered or updated new information on the Related Parties tab, be sure to click the "Save" button at the top of the tab. Your data will be lost if you do not save the new information.

10.2.3 Alleged Inspection Violations Tab

The Alleged Inspection Violations tab allows you to link potential Violations discovered during the Inspection to the current record (Figure 10.15). This page is read-only. No changes can be made to a Violation from the Alleged Inspection Violations tab.

To link a Violation to an Inspection, click the “Link a Violation” button. This launches the *Violation Search* page. Enter relevant information in the search criteria fields and click the “Search” button. Once you have located the appropriate Violation you can link it to the Inspection by clicking the “Link” hyperlink in the appropriate row.

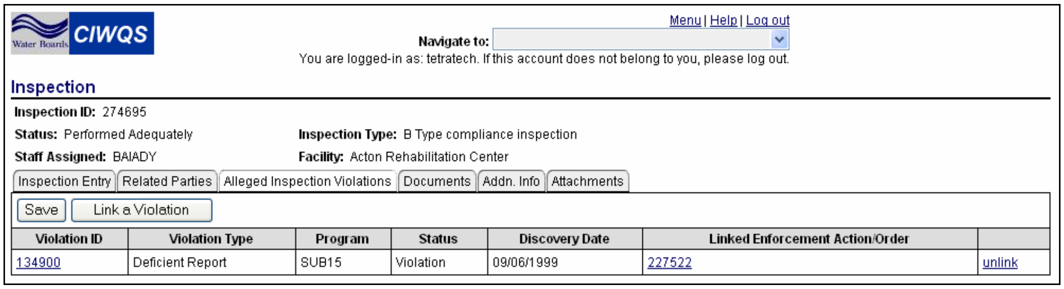


Figure 10.15 Alleged Inspection Violations Tab

Each Violation must be pre-defined in the *Create/Maintain Violations* Module before it can be linked to an Inspection. See Chapter 9 for more information.

Once a Violation has been linked to a Facility, the Alleged Inspection Violations tab displays information about the type of Violation, the related Program, and the Linked Enforcement Action/Order.

Click the Violation ID hyperlink to open the Violation record in the Violation Editor. Click the Linked Enforcement Action/Order hyperlinks to open the Regulatory Measure Editor.

Click the “Unlink” hyperlink to disassociate the Violation from the Inspection without deleting the record for that Violation.

When you have updated new information on the Alleged Inspection Violations tab, be sure to click the “Save” button at the top of the tab to avoid loss of data.

10.2.4 Documents Tab

The Documents tab allows you to identify external documents (in hard copy format) that are related to an Inspection (Figure 10.16). For example, files located in your office may be related to an Inspection but are unavailable as electronic documents. This tab provides a way to indicate available, related Documents that cannot be uploaded using the Attachments tab.

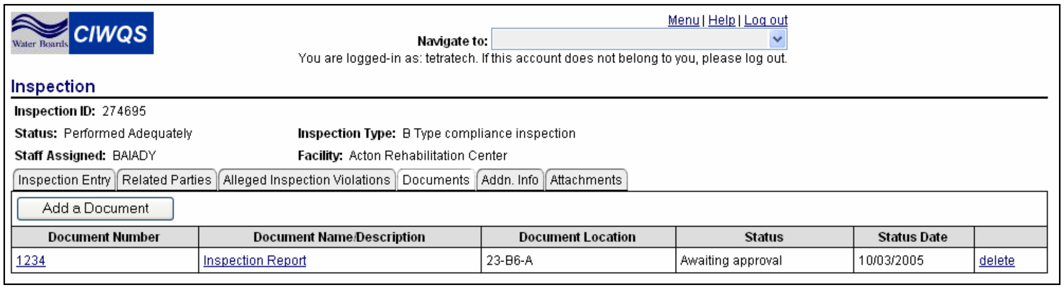


Figure 10.16 Documents Tab

Documents that have already been linked to the Regulatory Measure are listed in the table at the bottom of the page.

To associate a document with an Inspection, click the "Add a Document" button. This launches a page where you can fill in fields required to create a new record for a linked document (Figure 10.17). Table 10.3 provides a description of each field on the *Add Document* page.

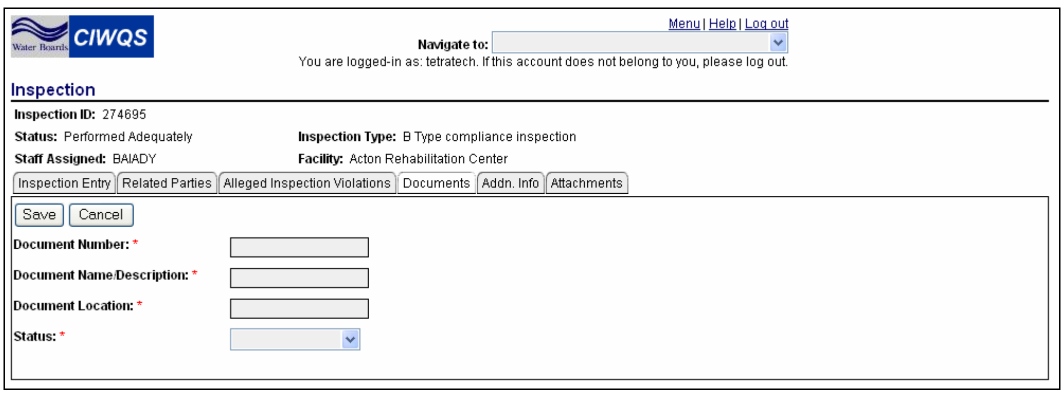


Figure 10.17 Add Document Page

Table 10.3 Add Document Fields

Field	*Description*
Document Number	Enter a reference number for the Document. As a free-entry field, any numbering system can be used. Typically, this would be the file number.
Document Name/ Description	Provide a description of the Document or the Document title.
Document Location	Enter where the Document is located.
Status	Indicate the Status of the Document (e.g., under review, approved).

Click the "Save" button to save the information and return to the Documents tab. The added document will be displayed in the table.

Click the document number or document name/description hyperlinks to open the Add Document page and edit the document record.

Click the “delete” hyperlink to delete the document record from the table.

When you have entered or updated new information on the *Add Document* page, be sure to click the “Save” button at the top of the tab to avoid loss of data.

10.2.5 Additional Information Tab

The Additional Information tab is designed to capture any relevant information that the other tabs do not address. Additional information is recorded by documenting various attributes that apply to a particular Inspection type.

As this page is used in several of the CIWQS Modules, it has been formatted to accept a wide range of data and information (Figure 10.18). The attributes that can be specified for a given Inspection will be listed in the attribute table.

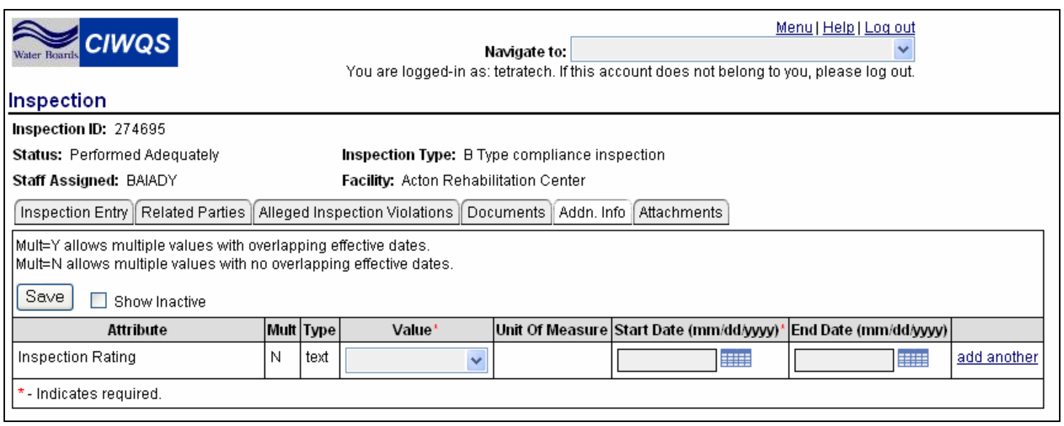


Figure 10.18 Additional Information Tab

When the Additional Information tab is viewed, the default is for only the active attributes to be displayed (relationships with a Start Date with today’s date or earlier and an End Date later than today’s date). If you wish to see the inactive attributes instead, select the box next to the “Save” button at the top of the tab with the label “Show Inactive”.

Contact the CIWQS Administrator if you wish to have an additional Inspection attribute added to the Additional Information tab.

All attributes allow multiple values to be entered by clicking the "add another" hyperlink at the end of the row. Only Attributes with a value of "Y" in the *Mult* field allow entries with overlapping start and end dates.

The editable fields of the Attribute Table are described in Table 9.5.

Table 10.5 Attribute Table Fields

Field Name	*Description*
Attribute	Displays an attribute that can be recorded for the Regulatory Measure. Required attributes are prefixed with an asterisk (*). This indicates that you are required to enter values for the *Value* and *Start Date* fields.
Value	Enter or select the value associated with the attribute. Depending on the attribute, this field may be displayed as a text field or as a drop-down menu. If the field is a text field, no data validation takes place.
Start Date	Enter the date the attribute was first used/was first true about the Regulatory Measure/was first measured/was fist reported/etc.
End Date	Enter the date the attribute was last used/was last true about the Facility/etc.

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

10.2.6 Attachments Tab

The Attachments tab allows you to attach any relevant file (e.g., word processing, graphics, photo, spreadsheet, etc.) to the Inspection (Figure 10.19). When attachments are associated with an Inspection, a list shows up at the bottom of the page, providing details on each attachment.

To upload a new file, select the "Browse" button. A the Choose File window opens and you can select the file you want to upload (Figure 10.20).

Once you have located the appropriate file, select the file and click the "Open" button. The Choose File window closes, and the name and file path of the selected file appears in the text field next to the "Browse" button. Enter a description of the file in the *File Description* field. Click the "Upload File" button. The new Attachment will show up in the table at the bottom of the Attachment page (as in Figure 10.19).

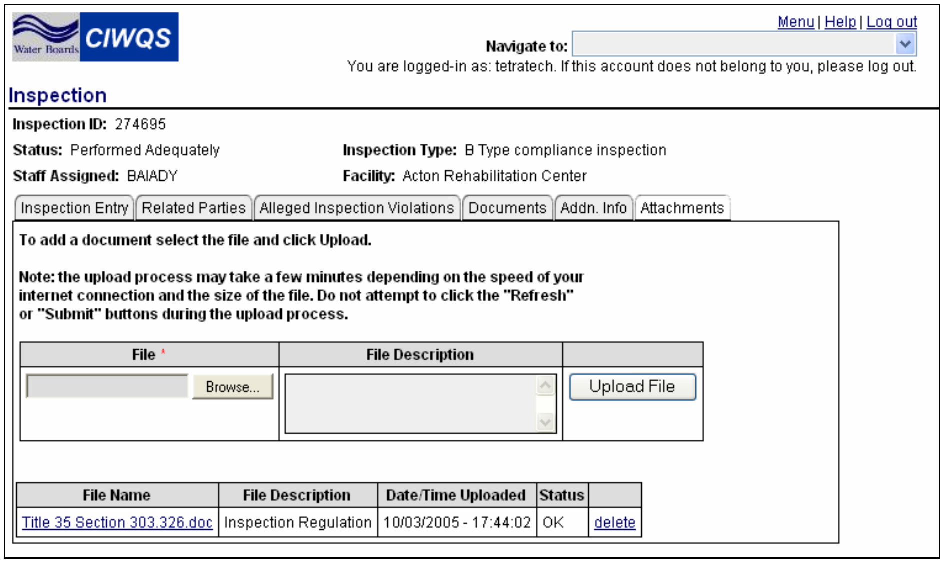


Figure 10.19 Attachments Tab

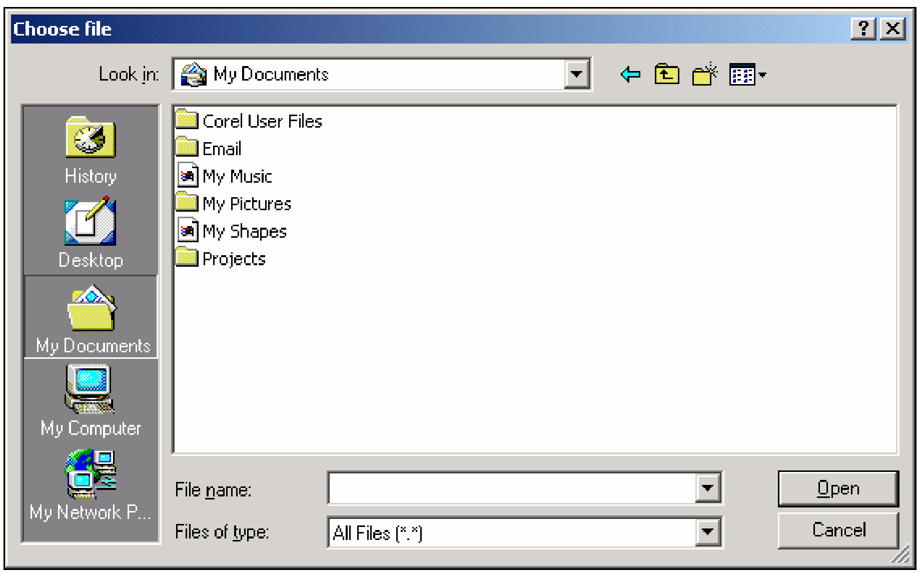


Figure 10.20 Browsing for an Attachment

Upon retrieval, the list of files will be sorted by file name. A particular file name can only be used once per record.

Attachments can be removed by clicking the "Delete" hyperlink at the end of each row in the List of Attachments. Attachments can be viewed by clicking the file name hyperlink.

The *Status* field shows the value "OK" if the file passed the CIWQS virus scanner. The field reads "Unavailable" if the file does not pass.

STOP

When you have entered new information on the Attachments tab, changes will be saved automatically.

11
Invoices Module

This chapter addresses the following topics:

- An introduction to the Invoices Module
- Searching an existing Invoice
- Creating a new Invoice

11.1 Introduction to the Invoices Module

The *Create/Maintain Invoices* Module tracks the preparation of Invoices, such as those for liabilities in Enforcement actions. 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.

11.2 Searching for an Invoice

Selecting the "Create/Maintain Invoices" hyperlink from the CIWQS Main Menu brings you to the *Invoice Search* page (Figure 11.1) where you can create a new Invoice, search for an existing Invoice, or record payments for issued Invoices.

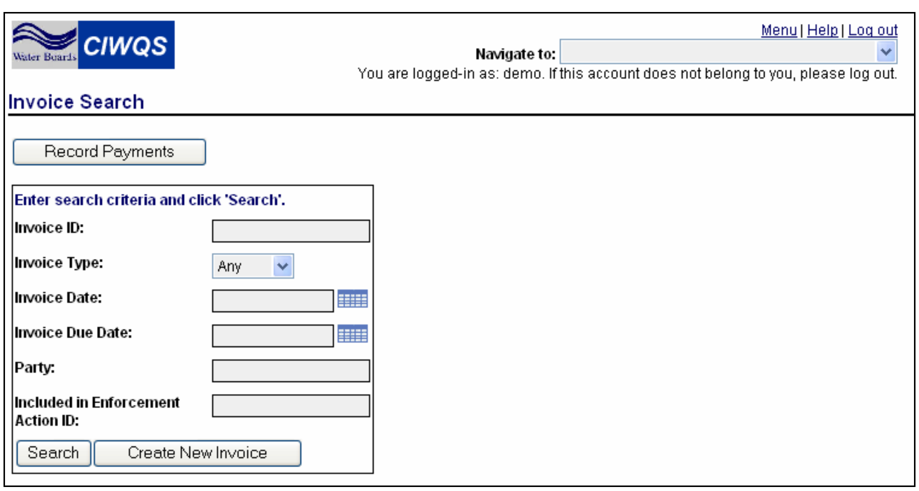


Figure 11.1 Invoice Search Page

Table 11.1 describes the search fields on the *Invoice Search* page.

Table 11.1 Invoices Search Fields

Field Name	*Description*
Invoice ID	Used to search for a specific Invoice ID.
Invoice Type	Select an Invoice type from the drop-down menu (e.g., liability).
Invoice Date	Enter the date an Invoice was created. Alternatively, click on the calendar icon () to open a calendar window to select a date.
Invoice Due Date	Enter the date the Invoice is due. Alternatively, click on the calendar icon () to open a calendar window to select a date.
Party	Enter the name of the Billing Party for the Invoice.
Included in Enforcement Action ID	Enter the system ID number of the related Enforcement Action.

To search for an existing Invoice, input criteria into the search fields and click the “Search” button. Click the “Create New Invoice” button to create a new record for an Invoice.

Using the CIWQS Search Engine

The CIWQS Invoice search engine is based on an AND search. This means that it will look for places that match ALL of your search criteria. For example, you can enter “Acme” in the Party field and “Liability” in the Invoice Type field and the system will search for all Invoices for Parties with “Acme” in their name. It will not find Liability Inspections for other Parties or Invoices of other types for “Acme” Parties.

Enter the appropriate search criteria and click the “Search” button. A table appears below the search box showing the first 100 Invoice records that matched ALL of the search terms you entered (Figure 11.2). Table 11.2 details what information will be displayed in the Results table.

If the Invoice record you were searching for appears in the Results table, you can access its record by clicking the Invoice Type hyperlink. If the Invoice of interest does not appear, click the “New Search” button to refresh the page and clear the search criteria fields.

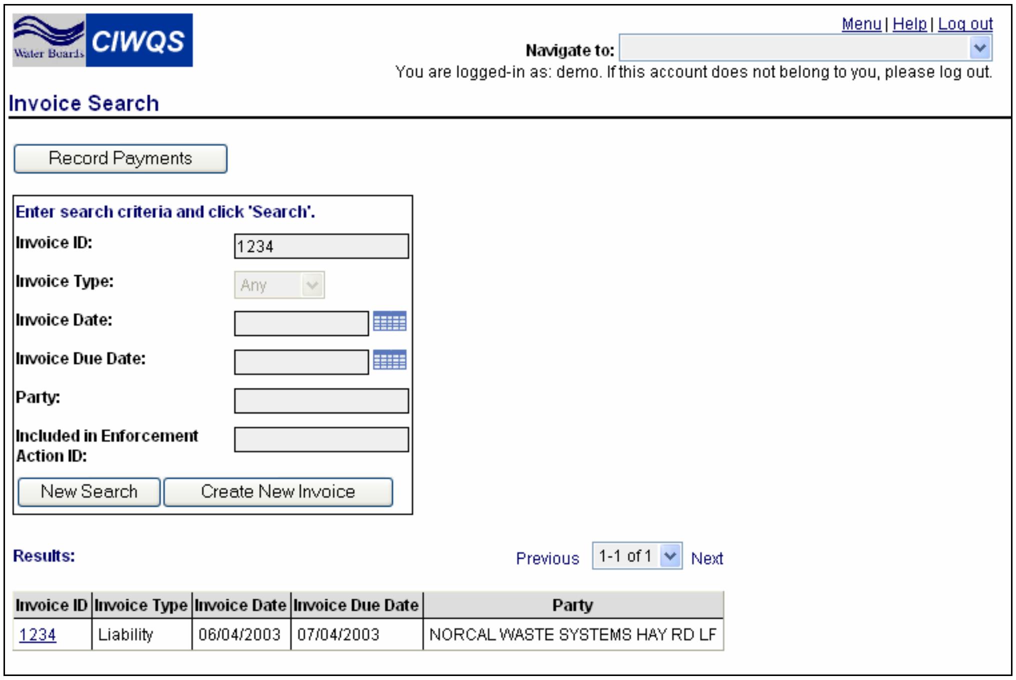


Figure 11.2 Results of an Invoice Search

Table 11.2 Results Table

Field Name	*Description*
Invoice ID	Displays the Invoice ID. Clicking the hyperlink opens the Invoice details.
Invoice Type	Displays the Invoice type.
Invoice Date	Displays the Invoice date.
Invoice Due Date	Shows the Invoice due date.
Party	Shows the Party responsible for payment of the Invoice.

If you have trouble finding an existing Invoice, try using fewer search criteria. This will broaden your search.

11.3 The Invoice Entry Page

The *Invoice Entry* page allows you to either enter data for a new Invoice or to modify the record for an existing Invoice. This page can be accessed by clicking the “Create New Invoice” button on the *Invoice Search* page or by searching for an existing Invoice and clicking the Invoice ID hyperlink in the results table.

The *Invoice Entry* page captures basic information about an Invoice including the Invoice Type, Inspection Type, Date of Invoice, and Due

Date, Linked Assessments, Payments, and Billing Information (Figure 11.3).

When you create a new Invoice, the CIWQS system automatically generates an Invoice ID.

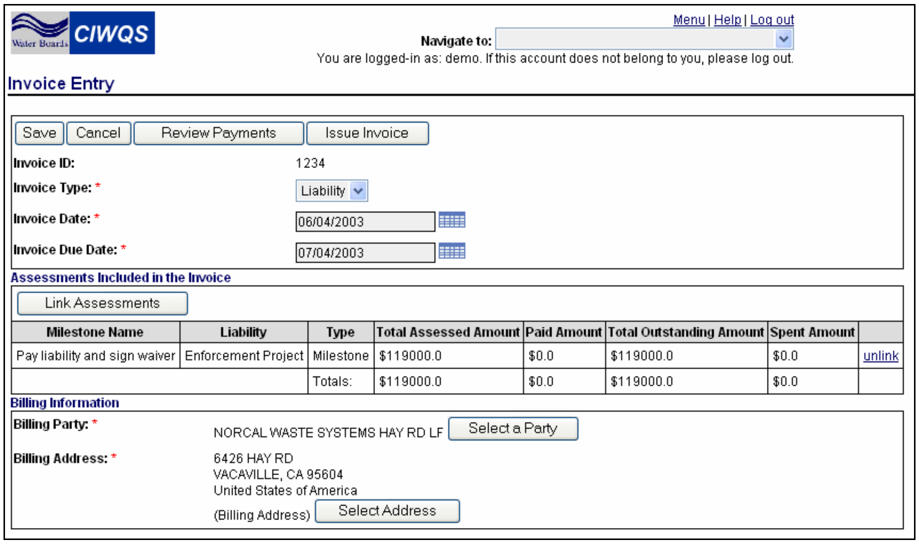


Figure 11.3 Invoice Entry Page

A new record cannot be saved until all required fields have been filled out. The Invoice type, date, due date, billing Party, and billing address are required before an Invoice record can be saved.

Required Fields

Required fields within CIWQS are indicated by a red asterisk (*). If you do not fill in a required field, an error message will be displayed when you try to save the record.

In some instances, however, indicated fields are only required if you enter data into one field out of a group of several. For example, entering data into the *Street Direction* field on the General Information tab will require you to then fill out information for the indicated Address fields. These fields are not required if you refrain from entering data into any of the fields.

11.3.1 Invoice Type and Dates

The first piece of information required for a new Invoice is the Invoice type. Select the appropriate Invoice type from the drop-down menu. Next, select the date of the Invoice and the date that the Invoice is due.

The ( ) symbol next to each date field will open a calendar from which you can select a date that will automatically be entered into the field.

Billing Information

Once the Invoice type and dates have been established, you must enter the appropriate billing information. This involves selecting the Party that will be billed and a billing address for that Party.

Click the "Select A Party" button to launch the *Party Search* page. The Party type field will be set to "Organization". Enter the appropriate search criteria and click the "Search" button.

Click the "Cancel" button at any time to return to the *Invoice Entry* page without linking an Organization to the Invoice.

See Chapter 4 for more information on searching for Parties.

When you have found the Party to be billed for the Invoice, click the "Select" hyperlink to link the Organization and return to the *Invoice Entry* page. The Organization name is displayed as read-only text in the *Billing Party* field.

Click the "Select Address" button to launch a window that shows the addresses available for this Party (Figure 11.4). Select a billing address for the Organization and click the "Select" button. The address is displayed as read-only text in the *Billing Address* field (Figure 11.5).

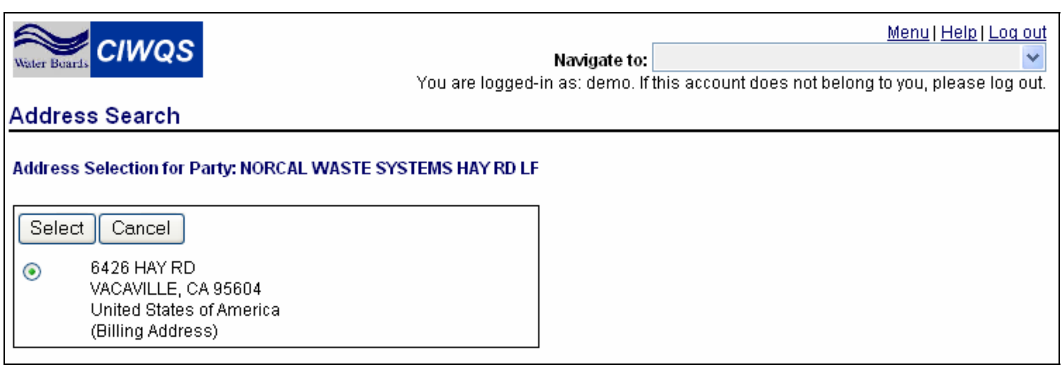


Figure 11.4 Billing Information

Click the "Cancel" button to return to the Invoice Entry page without selecting an address for the Organization.

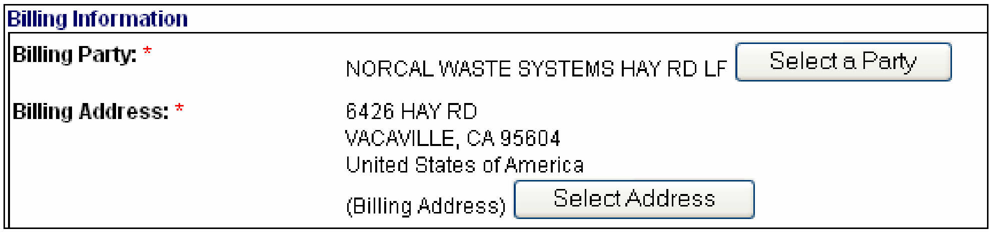


Figure 11.5 Billing Information

When you have updated or entered new information in the Invoice type, dates, and billing information sections be sure to click the "Save" button at the top of the tab to avoid loss of data.

Once the Invoice has been saved, the "Review Payments", "Issue Invoice" and "Link Assessment" buttons are activated.

11.3.2 Linking Assessments Included in the Invoice

Once you have saved a new Invoice, you may optionally link an Assessment to the Invoice. An Assessment represents a penalty imposed by an Enforcement Action (a type of Regulatory Measure). To link an Assessment to the Invoice, select the "Link Assessment" button on the *Invoice Entry* page. Clicking this button launches an *Assessment Search* page (Figure 11.6).

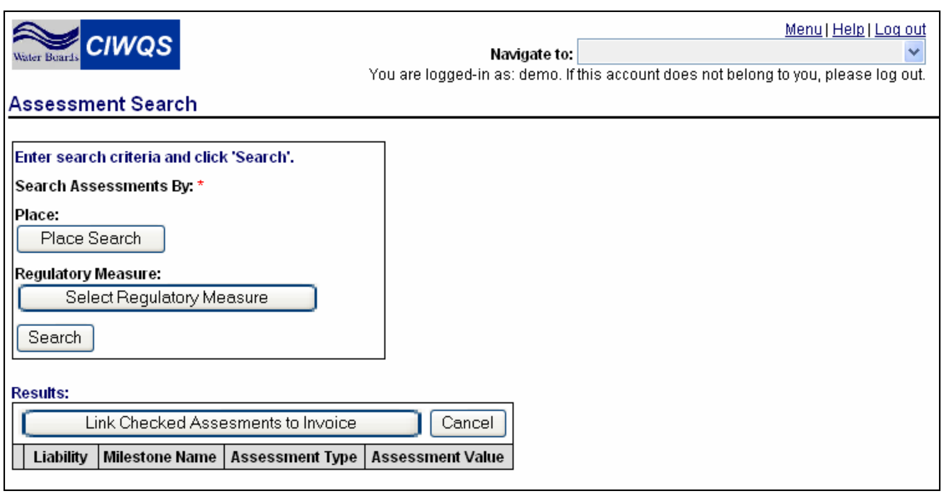


Figure 11.6 Assessment Search Page

See Chapter 12 for more information on Enforcement Actions.

You can search for an Assessment either by associated Place or Regulatory Measure. One or the other must be selected to search for an Assessment.

To search for a Place, click the “Place Search” button. This launches the *Place Search* page. Enter appropriate criteria on the *Place Search* page and click the “Search” button. Click the “select” hyperlink in the Place results table to select a Place. The name of the Place is displayed on the *Assessment Search* page.

See Chapter 3 for more information on searching for Places.

To search for a Regulatory Measure, click the “Select Regulatory Measure” button. This launches the *Regulatory Measure Search* page. Enter appropriate criteria on the *Regulatory Measure Search* page and click the “Search” button. Click the “select” hyperlink in the Regulatory Measure results table to select a Regulatory Measure. The name of the Regulatory Measure is displayed on the *Assessment Search* page.

See Chapter 5 for more information on searching for Regulatory Measures.

To clear the Place or Regulatory Measure, click either the “Place Search” or “Select Regulatory Measure” button and then click the “Cancel” button on the resulting search pages.

Once you have selected either a Place or Regulatory Measure with which to search for an Assessment, click the “Search” button. All Assessments related to the selected Place or Regulatory Measure are displayed in the results table (Figure 11.7).

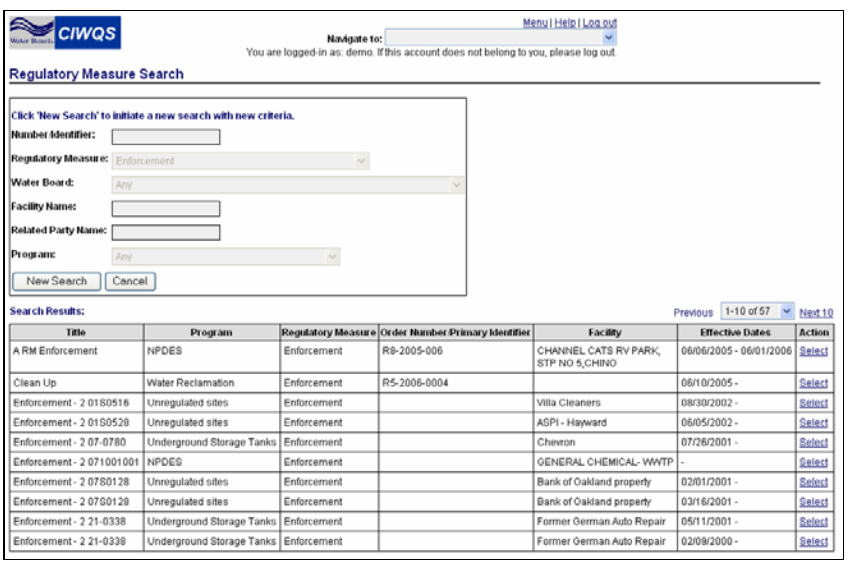


Figure 11.7 Assessment Search Results

Click the “Cancel” button to return to the *Invoice Entry* page without linking an Assessment.

Assessments that have already been linked to an Invoice will no longer show up in the Assessment Search Results table. An Assessment can only be linked to one Invoice.

Click the "select" hyperlink to link an Assessment to the Invoice and return to the *Invoice Entry* page.

The linked Assessment will be displayed in the "Assessments Included in the Invoice" section of the *Invoice Entry* page (Figure 11.8). Additional information about the Assessment will be displayed as read-only text in the table. Assessment information can only be changed through its related Enforcement Action (through the *Regulatory Measures* Module).

Assessments Included in the Invoice

Link Assessments

Milestone Name	Liability	Type	Total Assessed Amount	Paid Amount	Total Outstanding Amount	Spent Amount	
Pay liability and sign waiver	Enforcement Project	Milestone	$119000.0	$0.0	$119000.0	$0.0	unlink
		Totals:	$119000.0	$0.0	$119000.0	$0.0	

Figure 11.8 Assessments Included in the Invoice Section

Click the "unlink" hyperlink to remove the Assessment from the Invoice without deleting the record for that Assessment.

When you have entered or updated new information on the *Invoice Entry* page, be sure to click the "Save" button at the top of the page to avoid loss of data.

11.3.3 Issuing Invoices

To send an Invoice to the Billing Party, click the "Issue Invoice" button at the top of the *Invoice Entry* page. You will be presented with the message: "Are you sure you want to issue the invoice? You cannot make changes after this!"

Click "OK" to continue and issue the Invoice. Click the "Cancel" button to end the operation and return to the *Invoice Entry* page without issuing the Invoice. After an Invoice has been issued, the "Issue Invoice" button disappears until information for a new Invoice has been added.

11.3.4 Reviewing Payments

From the *Invoice Entry* page, you can review payments that have been made against an Invoice and reverse any payment. Click the "Review

Payments" button on the top of the Invoice Entry page to view the *Payment Review* page (Figure 11.9).

The *Payment Review* page shows a table of information related to payments made for a specific Invoice. Types of information contained in the table include the name of the liability, the amount due and amount of payments made, and information about the Party who made the payment. The fields on the *Payment Review* page are read-only. No data entry occurs on this page.

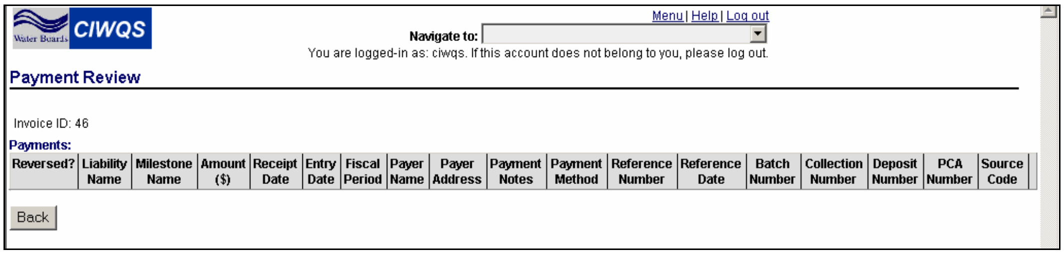


Figure 11.9 Payment Review Page

Click the "Back" button to return to the *Invoice Entry* page.

11.4 Recording Payments

The *Invoice* Module also allows for the recording of payments against Invoices. From the *Invoice Search* page, you can record payments against milestones or into the unallocated "fund". Click the "Record Payments" button to launch the *Payments* page (Figure 11.10).

At the top of the page choose either the "Payment" or "From Unallocated" radio button. The "Payment" radio button indicates that a new payment has been received. The "From Unallocated" radio button indicates that a previously unallocated payment is now being allocated (see details of unallocated payments below).

To link a Payer with the Payment, click the "Select a Party" button, which launches the *Party Search* page. Search for the appropriate Party, and then click the Select hyperlink on the Party results table to link the Party to the Payment. Once you have selected a Party, the *Payer Address* field is auto-populated with the billing address of the Payer.

The entry date, fiscal period, total payment amount, payer name, payer address, payment method, reference number, and reference date are required before an Invoice record can be saved.

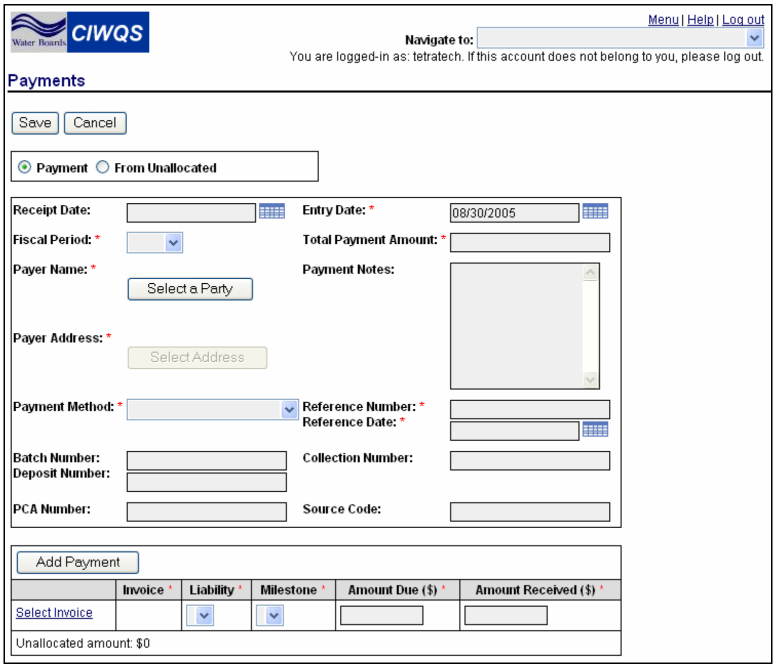


Figure 11.10 Payments Page

Table 11.3 lists the fields on the *Payments* page and describes each one.

Table 11.3 Payments Fields

Field Name	*Description*
Receipt Date	Enter the date the payment was received.
Entry Date	Auto-populates with today's date but can be changed, as needed, to reflect the date the payment was entered.
Fiscal Period	Select the fiscal period from the drop-down menu.
Total Payment Amount	Indicate the amount of the payment (dollar field).
Payer Name	Use the "Select a Party" button to search for and select a Payer (Party) for the payment (see below).
Payer Address	Use the "Select Address" button to select the appropriate address for the Payer (see below).
Payment Notes	Enter any notes attached to or about the payment.
Payment Method	Select the payment method from the drop-down menu (check, credit card, etc.).
Reference Number	Enter the payment reference number (e.g., check number).
Reference Date	Enter the date the payment was sent.
Batch Number	Enter the payment batch number.
Deposit Number	Enter the payment deposit number.
Collection Number	Enter the payment collection number.
PCA Number	Enter the payment PCA number.
Source Code	Enter the source code for the payment.

If there is more than one address saved in the selected Party's record, the "Select Address" button will be turned on. Click the button if you would like to change to an alternate address saved for the Party.

Adding Payments

At the bottom of the *Payments* page, you can link an Invoice to the Payment (Figure 11.11). Click the "Select Invoice" hyperlink in the table to launch the *Invoice Search* page.

Add Payment

	Invoice *	Liability *	Milestone *	Amount Due ($) *	Amount Received ($) *
Select Invoice					
Unallocated amount: $0					

Figure 11.11 Add Payment Section

When you have located the relevant Invoice using the search criteria fields (as described above), click the "Select" hyperlink in the appropriate row to link the Invoice to the payment and return to the *Payments* page.

Click the "Cancel" button to return to the *Payments* page without linking an Invoice.

Only one milestone can be selected from an invoice at a time. In order to link multiple milestones, click the "Select Invoice" hyperlink and add another row to the table. Select the appropriate milestone and indicate the amount of payment.

The Invoice will be listed in the Add Payments table (Figure 11.12). Select a liability and milestone from the drop-down menus and enter the amount due and the amount received in the appropriate fields.

Add Payment

	Invoice *	Liability *	Milestone *	Amount Due ($) *	Amount Received ($) *
Select Invoice	1234	Enforcement Project	Pay liability and sign waiver	119000.0	1200.00
Unallocated amount: $0					

Figure 11.12 Linking an Invoice to the Payment

When you have entered or updated new information on the *Payments* page, be sure to click the "Save" button at the top of the page to avoid loss of data.

12
The Enforcement Tab

This chapter addresses the following topics:

- An introduction to Enforcement Actions
- Creating new projects and liabilities

12.1 Introduction to Enforcement Actions

Enforcement Actions are a type of Regulatory Measure created and maintained through the *Regulatory Measures* Module. An Enforcement Action (or Order, or other Enforcement type such as Notice of Violation) is created in response to some acknowledged and confirmed Violation. When a Regulatory Measure is defined with an Enforcement Action type, the Enforcement Action tab is made available (described below).

The *Create/Maintain Regulatory Measures* Module can be accessed from the CIWQS Main Menu or from the Navigation drop-down menu found at the top of each page.

This chapter focuses on maintaining Enforcement actions using the Enforcement tab in the Regulatory Measures Editor.

See Chapter 5 for more information on Regulatory Measures.

12.2 Creating an Enforcement Action

To make a new an Enforcement Action, create a Regulatory Measure with Enforcement (or equivalent) as its type from the Regulatory Measure drop-down menu on the General Information tab (Figure 12.1).

Once you have entered all required information on the General Information tab, click the "Save" button. The Enforcement tab appears as the second tab at the top of the page. Select the Enforcement tab to enter details about the Enforcement Action (Figure 12.2).

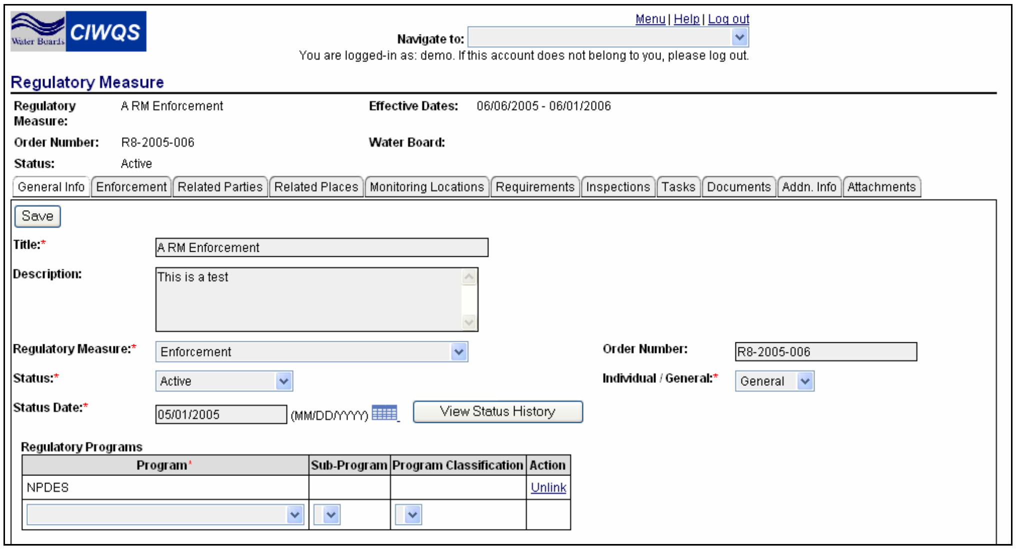


Figure 12.1 Regulatory Measure Type Field

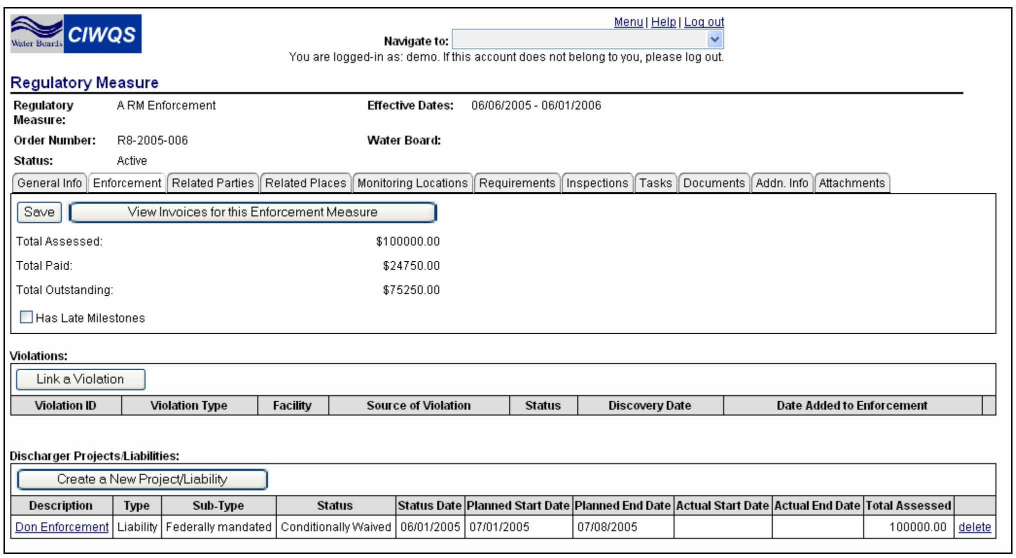


Figure 12.2 Enforcement Tab

The Enforcement Tab is divided into three sections:

- Viewing Invoices for the Enforcement Action
- Linking to Violations
- Discharger Projects/Liabilities

For Enforcement Actions, a Violation triggers the addition of a Project/Liability. If there is an associated Liability (e.g., monetary compensation), one or more Invoices are created in relation to the Violation.

12.2.1 Invoices for the Enforcement Action

The first section of the Enforcement tab shows the Invoices linked to the Enforcement Action (Figure 12.3).

The fields in this section display summary information about the payments that are associated with the Enforcement Action. The first row displays the total amount assessed (due) across all projects. The second row displays the total amount paid to date. The third row displays the total still due. The last item in this section is a checkbox indicating whether a project has a late milestone.

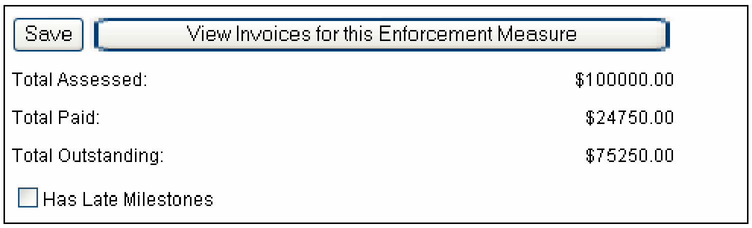


Figure 12.3 Invoices for the Enforcement Measure

If there are Liabilities related to an Enforcement Action, one or more Invoices will be created. Once they are linked to the Enforcement Action (via the *Create/Maintain Invoices* Module), they will be visible on the Enforcement tab.

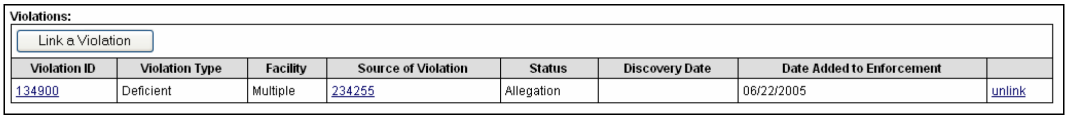
The "View Invoices for this Enforcement Measure" button allows you to view all Invoices that reference the Enforcement Action and add the Enforcement Regulatory Measure to an Invoice. Not all assessments need to be added to a specific Invoice and multiple Invoices are allowed per Enforcement Action. In addition, assessments from multiple Enforcement Regulatory Measures can be combined on the same Invoice.

Clicking the button launches the *Invoices Search* page with information from the current Enforcement Action loaded into the search fields to initiate a search.

The search returns all Invoices related to the Enforcement Action and each can be viewed individually by clicking the hyperlink in the *Invoice ID* field.

12.2.2 Linking to Violations

The second part of the Enforcement tab contains information about related Violations (Figure 12.4.)


Violations:

Link a Violation

Violation ID	Violation Type	Facility	Source of Violation	Status	Discovery Date	Date Added to Enforcement	
134900	Deficient	Multiple	234255	Allegation		06/22/2005	unlink

Figure 12.4 Linked Violations

To link a Violation to the Enforcement select the "Link a Violation" button on the Enforcement tab. Clicking this button launches the *Violation Search* page. Enter relevant criteria into the search fields and click the "Search" button.

Click the "Cancel" button at any time to return to the Enforcement tab without linking a Violation.

When you have found the Violation you wish to link, click the "Select" hyperlink. This brings you back to the Enforcement tab with the Violation added to the Violation table.

See Chapter 9 for more information on searching for Violations.

When you have linked a new Violation to an Enforcement Action, click the "Save" button to save the Violation to the Enforcement Action. This will activate the Violation ID and "unlink" hyperlinks.

When a Violation is linked to an Enforcement Action, you are able to view the type of Violation, the Facility, the source and status of the Violation, and relevant dates. The source of the Violation indicates which Regulatory Measure resulted in the need for the Violation. Clicking the hyperlink in the source column launches the Regulatory Measure Editor and shows the associated Regulatory Measure. The status column shows the status of the related Violation. This column will not be populated if the action does not warrant enforcement (e.g., no associated "alleged" Violations).

There is no limit to the number of Violations that can be linked to an Enforcement Action.

12.2.3 Discharger Projects/Liabilities

The third section of the Enforcement tab contains information about Discharger Projects/Liabilities (Figure 12.5). In this section, you can see all Projects and Liabilities that have been associated with the Enforcement Action, or you may create a new Project or Liability.

All Projects and Liabilities that have been linked to the Enforcement action appear in the table when the Enforcement Tab is opened. This table provides you with a description of the Project or Liability, indicates the type (i.e., Project or Liability) and sub-type, the status of the Project or Liability, the date that the status was last changed, and the planned and actual start and end dates of the Project. In addition, you can view the total amount assessed for the Project or Liability.

To view the full details for a Project or Liability listed in the table, click the hyperlink in the Description column.

Discharger Projects/Liabilities:

Create a New Project/Liability

Description	Type	Sub-Type	Status	Status Date	Planned Start Date	Planned End Date	Actual Start Date	Actual End Date	Total Assessed	
Don Enforcement	Liability	Federally mandated	Conditionally Waived	06/01/2005	07/01/2005	07/08/2005			100000.00	delete

Figure 12.5 Discharger Projects/Liabilities

Click the "delete" hyperlink to delete the record of the Project or Liability.

12.2.4 Creating New Projects and Liabilities

To create a New Project or Liability, click the "Create a New Project/Liability" button. This launches the *Add Project/Liability* page (Figure 12.6).

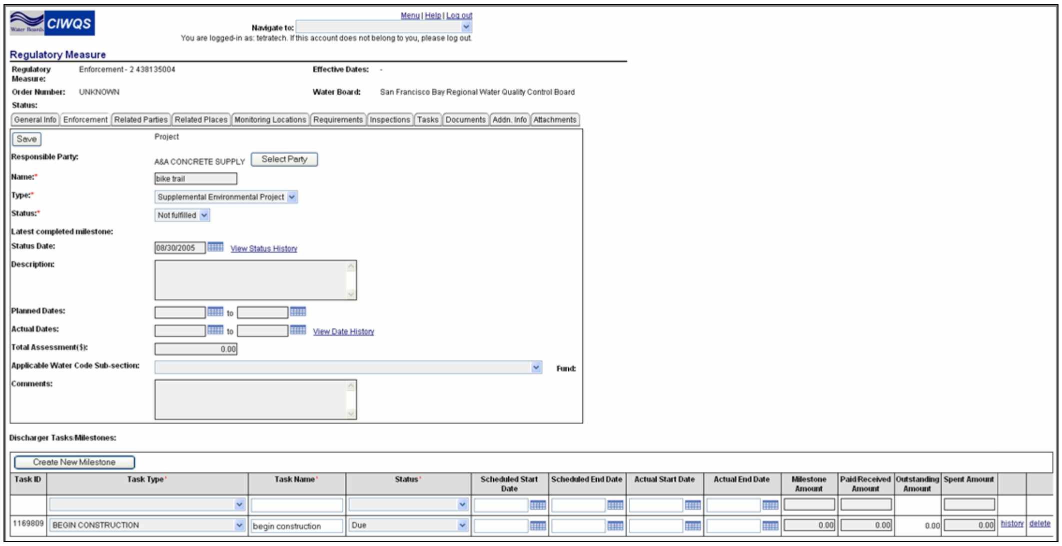


Figure 12.6 Add Project/Liability Page

First, select the appropriate radio button to indicate whether the Enforcement Action requires a Project (e.g., remediation action) or Liability (i.e., monetary compensation).

Next, select the Party responsible for fulfilling the terms of the Project or Liability. To select the Responsible Party, click the “Select Party” button to launch the *Party Search* page. Enter relevant criteria into the search fields and click the “Search” button. From the results table, click the “Select” hyperlink to link the Party to the Project or Liability.

For more information on the *Party Search* page, see Chapter 4.

Enter a name for the Project or Liability, and its current status (e.g., is developing, fulfilled, conditionally waived). The *Last Completed Milestone* field displays the name of the milestone with the most recent end date (read-only field).

Enter a status date (i.e., date of last Status change). A narrative description of the Project or Liability is also a required field.

For Projects, you may enter the dates of the planned and actual beginning and end of the Project. For Liabilities, you can only enter the Planned end for payments.

You may also enter the total amount assessed for the Project or Liability. This number is manually entered and is not validated to ensure that it equals the total of the assessed amounts in the tasks (milestones) table.

Select the applicable water code sub-Section from the drop-down menu. The system automatically populates the *Fund* field with the appropriate value. Finally, enter additional text about the Project or Liability in the *Comments* field.

Discharger Tasks/Milestones

The bottom of the Project/Liability page provides a table of Milestones that have been associated with the Project or Liability (Figure 12.7). Summary information about each Project and Milestone is displayed in the table, including the type of task, the status of each Milestone, relevant dates, and monetary values assessed.

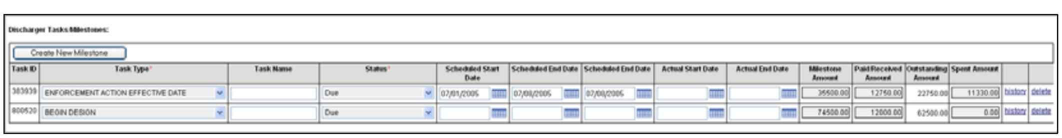


Figure 12.7 Milestones

To create a new milestone, select the "Create New Milestone" button. The page refreshes, and a new row appears in the Discharger Tasks/Milestones table. Select the task type from the drop-down menu and enter a brief description of the task in the *Task Name* field. Enter the scheduled start and end dates, and the actual start and end dates, if they are known. You may also enter the amount of money due for the Milestone, as well as the amount paid and received to date. The *Outstanding Amount* field displays how much is still owed for the Milestone.

You may enter any additional comments about the Milestone into the *Comments* field. To see a history of the status change, click the "history" hyperlink.

The status of each Milestone must be set individually. When the received amount is less than the assessed amount (due amount >$0), set the Status to "Incomplete". When the received amount equals the assessed amount, set the status to "Complete". This can be changed by the user, if needed.

When you have entered or updated new information on the *Project/Liability* page, be sure to click the "Save" button at the top of the page. Your data will be lost if you do not save the new information.

After you have saved new Tasks, click the Enforcement Tab at the top of the page to return you to the main page for the Enforcement Action. A record of all Projects and Liabilities associated with an Enforcement Measure will be listed in the Discharger Projects/Liabilities table at the bottom of the page.

CIWQS Water Board User's Guide

Part V

Geo Waterbody System (GeoWBS)

13
Introduction to the Geo Waterbody System (GeoWBS)

This chapter addresses the following topics:

- An introduction to the GeoWBS components
- Types of information used by the GeoWBS
- Waterbody features represented in the GeoWBS
- Workflow between the GeoWBS components

13.1 Introduction: The GeoWBS components

The Geo Waterbody System (GeoWBS) portion of the California Integrated Water Quality System (CIWQS) project focuses on the maintenance of the list of California public waters, their spatial representations as GIS features, enables the long-term management of water quality information related to those waters, and provides the tools needed for efficient, multi-program access to this data.

This functionality is met by the three GeoWBS components:

- The GeoWBS Desktop Editor
- The GeoWBS Online Editor
- The GeoWBS Navigator

The Desktop Editor is an ESRI ArcGIS-based application that allows for the editing and management of geospatial water body features and their basic attributes. It also provides the most robust reporting platform of all of the GeoWBS components. The Desktop Editor is the only component that will not be available via the CIWQS online interface. Instead, it will be available as an add-on to the ESRI ArcMap software.

The Online Editor is a web application used to capture the results of surface water quality assessment activities. This component is based on the Fact Sheet Database (FAC) – a system created to manage evidence used to describe and report on the condition of California's surface waters. The Online Editor has basic reporting and output functions relevant to surface water quality assessment.

The GeoWBS Navigator will be accessible to the largest number of Users and will provide an interactive map interface designed to allow geospatial data viewing, querying and extraction. The Navigator, like the Online Editor, is accessed through the CIWQS Main Menu.

The Desktop Editor and Online Editor work together to produce assessment reports that fulfill EPA and California requirements. The GeoWBS Navigator operates as an independent application that allows Users to browse geographical information to create customized maps of waterbodies and related features within the state of California.

13.2 Types of Information within GeoWBS

GeoWBS stores information in a variety of different ways. This section explains how information is categorized and represented in the GeoWBS Desktop and Online Editors.

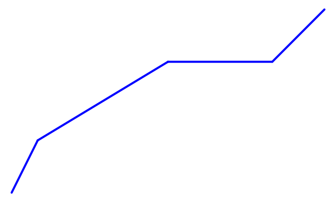
For more information on how data is stored in the GeoWBS Navigator, see Section 14.3.2.

13.2.1 Spatial and Attribute Data

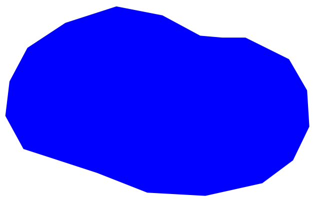
The GeoWBS Online and Desktop Editors share a set of information related to the waterbodies of California. This information is made up of both **spatial** and **attribute** data. Spatial data is used to represent geographical features (i.e. lakes and rivers) while attribute data is tied to these features to give them meaning (i.e. assessment information).

13.2.2 Representation of Spatial Data

Spatial data is stored in two forms – **linear** and **polygonal**. Linear features are those that can be represented by a line or a set of lines. Rivers and streams are examples of linear features. Polygonal features are those that are represented by multi-sided shapes, such as lakes and ponds.



Linear Feature
(streams, coastlines)



Polygonal Feature
(lakes, ponds)

13.2.3 GeoWBS Waterbody Features

Assemblages of linear and polygonal features represent three types of waterbody information. This information falls into three feature categories:

- Waterbody Hydrography
- Delineations of Assessment Units
- Representations of Monitoring Areas

Each type of information is related to a specific set of attribute data and is assigned a unique identifier. The identifier is determined by the feature category and enables the feature to be tracked within the system.

Hydrography

The GeoWBS is designed to represent and provide an assessment tool for the hydrography of California. In other words, the Desktop and Online Editors map and report on the water features of California. In this version of GeoWBS and CIWQS, California's hydrography is represented by the 1:100,000 scale National Hydrography Dataset (NHD).

The National Hydrography Dataset (NHD) is a geographic database that interconnects and uniquely identifies the reaches (stream segments) and waterbodies (lakes and ponds) of the nation's surface water drainage system. The NHD provides a common language for communication regarding waterbodies and related information. It is made meaningful by the attribute data associated with it – such as associated beneficial uses or impairment status.

For more information on the National Hydrography Dataset, visit the USGS Web site at http://nhd.usgs.gov/.

Representation of waterbody features within the GeoWBS begins with the features established for the National Hydrography Dataset. The unique database-level identifier assigned to each feature is called the COMID. Linear features also have a unique identifier called a Reach Code, which is partially derived from the 8-digit hydrologic unit code (HUC).

Waterbody information is then georeferenced (linked to) these NHD waterbodies to represent the Assessment Units and Monitoring Areas studied and regulated by EPA and the California Water Boards.

Georeferencing

Georeferencing refers to the process of assigning map coordinates to geospatial images and geographic features. In the GeoWBS, georeferencing refers to the process of associating linear and polygonal Assessment Units and Monitoring Areas to co-registered (geographically corresponding) NHD waterbodies.

For more information on georeferencing, visit EPA's Web site at http://www.epa.gov/owow/monitoring/georef/.

Assessment Units

Assessment Units (AUs) represent those waters that should be considered for assessment in a given assessment cycle and will identify contiguous regions where the same water quality objectives (WQOs) and beneficial uses apply. Each Assessment Unit is assigned a unique Assessment Unit ID (AUID).

The following rules/features apply to Assessment Units:

- Assessment Units can be represented as either linear or polygonal features
- Linear Assessment Units will be georeferenced to one or more NHD reaches with linear referencing (linear georeferencing; see example below)
- Assessment Units can span one or more NHD reach segments or parts of segments
- Assessment Units cannot overlap
- Assessment Units should have the same beneficial uses across the entire unit

Monitoring Areas

Monitoring Areas (MAs) exist within Assessment Units and describe the spatial extent of regions that have been assessed. MAs can be associated with one or more impairments or attainments. Each Monitoring Area is assigned a unique Monitoring Area ID (MAID).

The following rules/features apply to Monitoring Areas:

- Monitoring areas can be represented as either linear or polygonal features
- Linear Monitoring Areas will be georeferenced to one or more NHD reaches with linear referencing (linear georeferencing; see example below)
- Monitoring Areas can span one or more NHD reach segments or parts of segments
- Monitoring Areas within an Assessment Unit can overlap
- Each Monitoring Area must exist entirely within an Assessment Unit

Figure 13.1 gives a visual representation of the rules governing the interaction of the three feature types (for linear features). The diagram shows three NHD segments (NHD-1 NHD-2, and NHD-3), an Assessment Unit (AU-1) and three Monitoring Areas (MA-1, MA-2, and MA-3):

- The NHD segments do not overlap
- The Assessment Units can span all or part of an NHD segment (AU-1 spans part of NHD-1, all of NHD-2 and part of NHD-3)
- The Monitoring Units can overlap within an Assessment Unit but must be entirely contained within an Assessment Unit

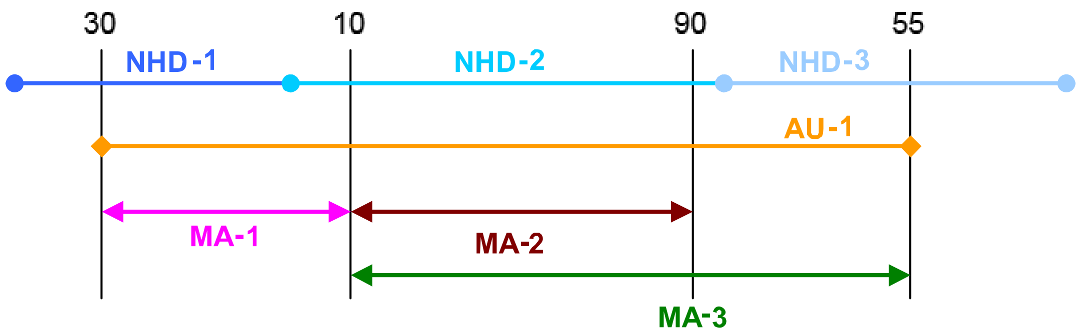


Figure 13.1 Linear Referencing Conceptual Diagram. Position is recorded as a percentage along the NHD segments.

Table 13.1 presents a comparison of the NHD, Assessment Unit, and Monitoring Area characteristics.

Table 13.1 Comparison of Waterbody Features

Characteristic	NHD Feature	Assessment Unit	Monitoring Area
Unique Identifier	Hydrologic Unit Code (HUC)	AUID	MAID
Can they overlap?	No	No	Yes
Spatial relationships	N/A	One Assessment Unit can contain multiple monitoring areas	A Monitoring Area must be completely contained within a single Assessment Unit.
Beneficial uses	N/A	Beneficial uses are assigned at the Assessment Unit level and must be consistent across the Assessment Unit	Inherit the beneficial uses of the Assessment Unit
Impairments	N/A	N/A	One Monitoring Area can have multiple impairments. One impairment can be associated with multiple sources.
Attainment status	N/A	N/A	Stored for each use of a Monitoring Area.

13.3 Workflow between GeoWBS Components

Although the components of GeoWBS may actually be used simultaneously after they are implemented, each component relies on information from another before it can perform its function. The diagram below presents the general flow of information between the Desktop Editor and the Online Editor (Figure 13.2).

Each step represented in the workflow is described in further detail below.

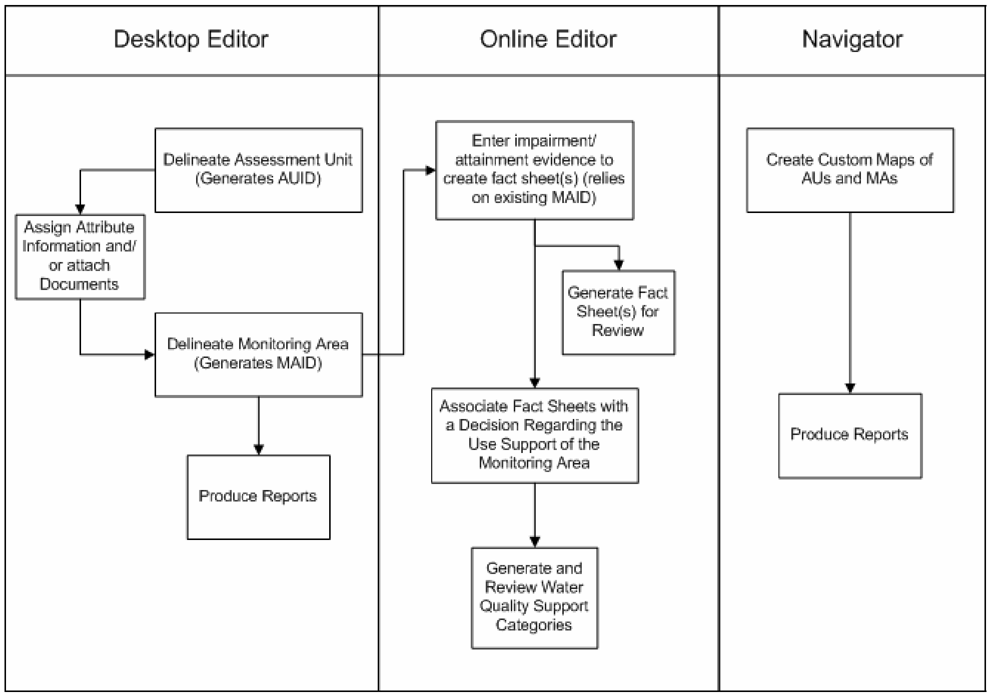


Figure 13.2 Generalized GeoWBS Workflow

13.3.1 Desktop Editor

Within the Desktop Editor, it is possible to:

- Delineate Assessment Units
- Assign Attribute Information and/or attach documents to Assessment Units
- Delineate Monitoring Areas
- Produce Reports

Delineating Assessment Unit

The first step that needs to be completed is the delineation of an Assessment Unit. Delineating Assessment Units generates unique identifiers that will be used for all subsequent steps (AUIDs). An Assessment Unit must be defined before a Monitoring Area can be defined. Once an Assessment Unit has been created, new Monitoring Areas may be created within the Assessment Unit.

Assign Attribute Information and/or Attach Documents

Once an Assessment Unit has been defined, attribute data can be attached to it such as Name, Type, Location Description, Size and Associated Water Board from within the Desktop Editor.

Delineating Monitoring Area

Once an AU has been defined, Monitoring Areas within that AU can be delineated and saved. Delineating Monitoring Areas generates a unique identifier (MAID).

Produce Reports

The Desktop Editor allows for the production of a full range of reports that can be used to fulfill reporting requirements for both EPA and California. Reports draw from the data input to both the Desktop and Online Editors.

13.3.2 Online Editor

Within the Online Editor, it is possible to:

- Enter impairment/attainment evidence to create fact sheet(s)
- Generate fact sheets for review
- Associate fact sheets with a decision regarding the use support of the Monitoring Area
- Generate and review water quality support categories

Enter Impairment/Attainment Evidence

Once a Monitoring Area has been created, attribute and impairment information can be linked to it via the Online Editor interface. The Online Editor allows you to evaluate Monitoring Areas against their associated water quality standards by documenting the results of assessments.

Generate Fact Sheets for Review

The primary reporting vehicle for the Online Editor are fact sheets, which document impairment/attainment evidence for the Monitoring Areas stored within the system.

Associate Fact Sheets with a Decision

Once a fact sheet (or set of fact sheets) has been created, it can be used as evidence to support a decision on the waterbodies' status.

Generate and Review Water Quality Support Categories

The purpose of the Online Editor is to collect support for decisions on the 305(b) status of California's waterbodies. The status will be reported as part of the Decision function of the Online Editor and can be reviewed for consistency and accuracy.

13.3.3 GeoWBS Navigator

Within the GeoWBS Navigator, it is possible to:

- Create custom maps of AUs and MAs
- Produce reports

Create Custom Maps

The interactive map feature of the Navigator allows you to create maps of the waterbodies of California and related impairment information. These maps can be printed to document a variety of geographical features including AUs, MAs, monitoring locations and political boundaries.

Produce Reports

The Navigator is equipped with several reporting vehicles that document TMDL activity near permit facilities, the location of proposed grant projects, a map of impairments based on pollutants and a map of impairments based on the source of pollution.

14
GeoWBS Navigator

This chapter addresses the following topics:

- Introduction to the Navigator and its features
- The Map Wizard page
- Working with maps on the Main Map page
- Additional features of the Main Map page

14.1 Introduction

The GeoWBS Navigator provides a tool to selectively map and print reports of waterbodies (and other geographical features) in California. Unlike the Online and Desktop Editor components of GeoWBS, the Navigator does not provide a method for data entry. Its main functions are viewing information and printing reports. The Navigator is accessed through the *Map It!* Module found on the CIWQS Main Menu (Figure 14.1).

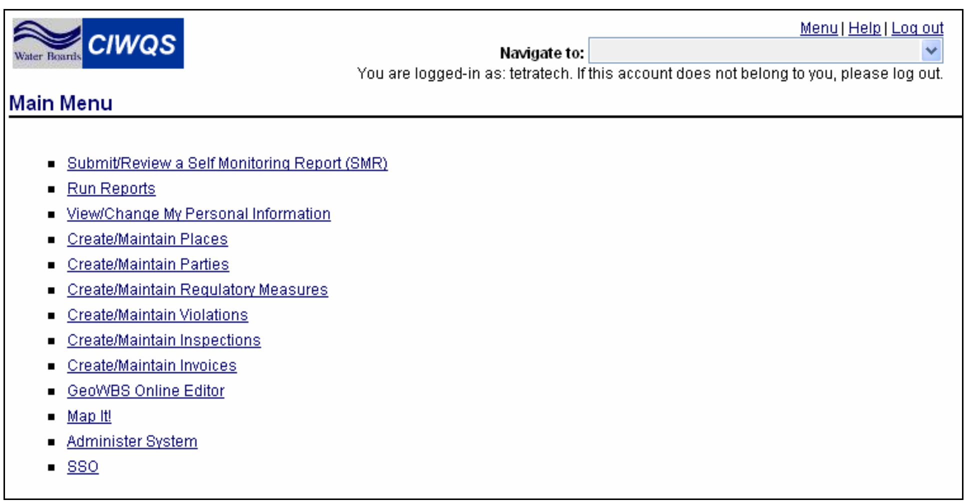


Figure 14.1 CIWQS Main Menu

Pop-up Windows in the GeoWBS Navigator

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.

The first page you see will be the *Map Wizard* page, where you will select the areas and layers of interest for your map (see section 14.2). This information is then transferred to the *Main Map* page where you can work with the data to create a map that meets your needs (see section 14.3).

GeoWBS Features

The GeoWBS Navigator uses some features that are common to the Environmental Systems Research Institute (ESRI) suite of GIS-mapping programs (e.g., ArcView, ArcGIS, ArcMap, etc.). These features include:

- The use of layers (called "themes" in the ESRI programs) to display information; and
- The use of distinct toolbar buttons and features.

In addition, the GeoWBS Navigator has a selection of other features to aid the map creation process.

It is not necessary to know any GIS to use the GeoWBS Navigator. GIS users may have an advantage in that some of the tools will look familiar.

14.2 The Map Wizard Page

The *Map Wizard* is the first page you see after clicking on the "Map It!" hyperlink on the CIWQS Main Menu. The purpose of this page is to let you select an area of interest (the area that will be the focus of the *Main*

Map page) and to select which layers you wish to view on the *Main Map* page.
The *Map Wizard* page is divided into five frames (Figure 14.2). The four external frames walk you through the process of selecting an area of interest and the desired map layers. The fifth frame shows a map of California. This map will display the selected areas of interest.

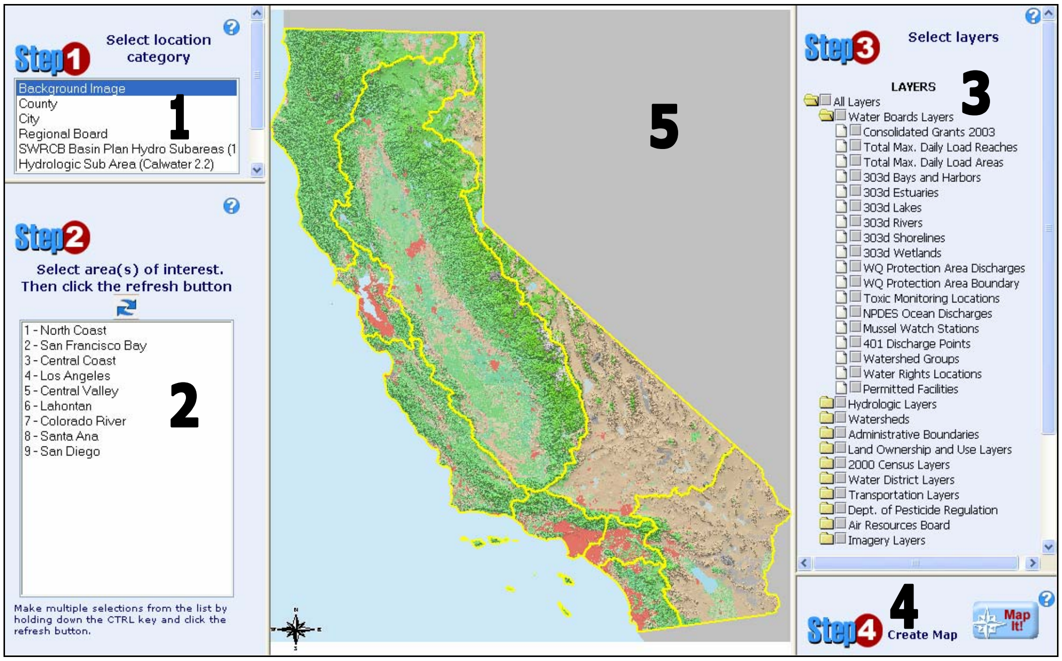


Figure 14.2 Five Frames of the Map Wizard Page

14.2.1 Step 1: Select location category

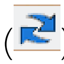
To select an area of interest using the step-by-step method, begin in frame 1. The default map view is the “Background Image”. Selecting “County”, “City”, “Regional Board”, “Basin Plan Hydro Subareas-1:500K”, or “Watersheds (calwater221-HAS)” from the menu causes the map to refresh to show the location category you selected.

Only the County and Regional Board maps display corresponding feature names on the map. Cities, Basin Plan Hydro Subareas, and Watersheds will not be labeled.

Only one location category can be selected at a time. It is not possible to make multiple selections in Step 1.

14.2.2 Step 2: Select area of interest

The second frame (Step 2) allows you to select a particular entity from the location category you selected in Step 1. If you select "County" as the location category, for example, all counties within California will be listed in the menu in the second frame. Use this Step to target specific areas for your map study. Multiple areas can be selected by holding down the CTRL key (or the "apple" key on a Mac) and clicking on additional areas.

Once you have made your selection(s), click the refresh button () to refresh the map to show your selected area(s) of interest.

Alternatively, you can use the cursor to select the area of interest by clicking on the map and dragging a box around an area. This method selects all of the areas that fall wholly or partially within the box drawn with the cursor.

Clear Selection Button

When areas in frame 5 are highlighted by making selections from frame 2 or from using the pointer tool to select areas directly within frame 5, the map frame refreshes. The targeted areas are outlined in red and a "clear selection" button appears in the upper right-hand corner of the map frame (Figure 14.3).

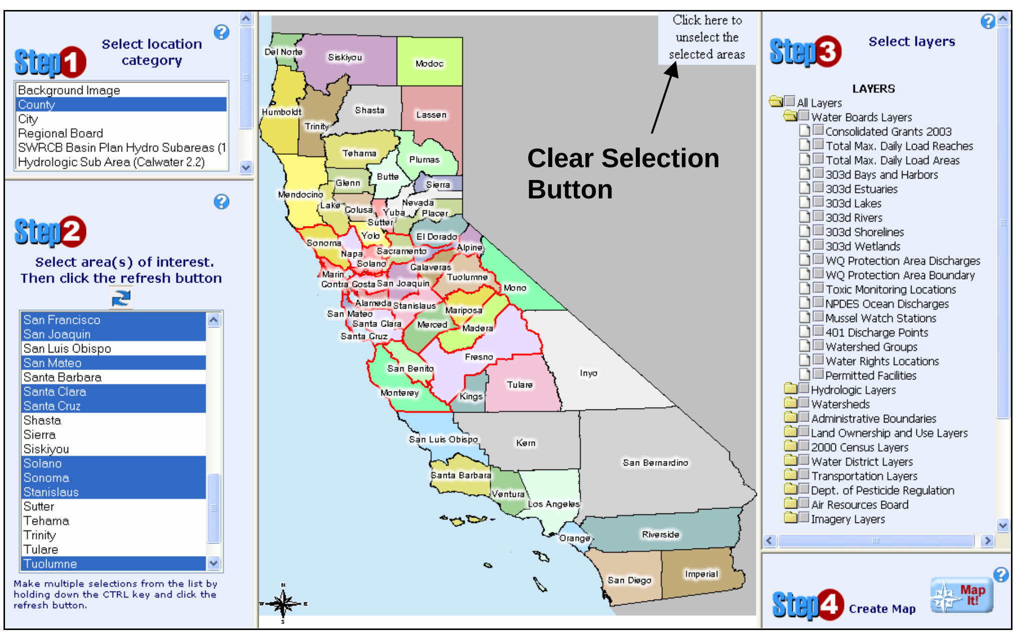


Figure 14.3 Map Wizard Showing Highlighted Areas and "Clear Selection" Button

Click the "clear selection" button to de-select all areas of interest and refresh the map.

14.2.3 Step 3: Select layers

Once the area(s) of interest have been selected, you can move to frame 3 (Step 3) to select which layers you wish to have available on the *Main Map* page.

Layers are shown in a tree view, or hierarchy, with folder icons ( ) representing groups of layers and pages ( ) representing individual layers. The gray boxes ( ) next to each layer or folder indicate whether the layer or group of layers has been selected. There are three ways to select layers:

1. Click the selection box next to an individual layer.
2. Click the selection box next to a layer group to select all layers within that group.
3. Click the selection box next to the “All layers” folder. This selects all available layers.

When an individual layer is selected or an entire group (folder) is selected, the corresponding gray box shows a dark checkmark ( ). If a layer is selected within a group (e.g., the “Streams” layer in the “Hydrologic Layers” group), the selection box for the group shows a half-tone checkmark ( ), indicating that some, but not all, layers within a group have been selected. If a group is selected, all layers within the group are selected and show dark checkmarks in their boxes ( ).

The “Help” section at the bottom of frame 3 lists the various layer icons and their meanings (Figure 14.4).

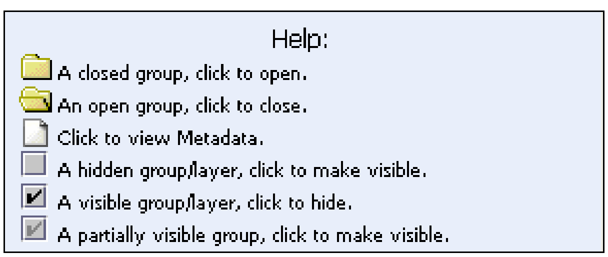


Figure 14.4 Layers Help Section

Click on the open folder icon ( ) to close a layer group. Click on the closed folder ( ) to open the group.

Click on the page icon ( ) to view metadata information for a particular layer in a new window (Figure 14.5). Metadata provides you with additional information about what the layer represents.

Figure 14.5 Metadata Window for the Streets Layer

14.2.4 Step 4: Create Map

When you have finished selecting your areas of interest and the layers you wish to include on your map, move to frame 4 (Step 4) and click the "Create Map" button. The GeoWBS Navigator compiles your selections and displays a customized map on the *Main Map* page.

Click the () icon in any frame of the *Map Wizard* to view information about a particular step.

14.3 Main Map Page

The *Main Map* page contains multiple tools and features that manipulate the areas and layers you selected using the *Map Wizard*. You will be able to extract attribute data from the layers, print reports, and print map images from this page.

14.3.1 Features of the Main Map Page

The features of the *Main Map* page are shown in Figure 14.6. These include the following:

Action Tabs – Represents functions of the Navigator that allow you to print, extract or view map data

Toolbar – Contains the tools, buttons and functions for working with maps in the Map Frame

Action Frame – Shows the available layers and a "Help" section for identifying characteristics of these layers

Map Frame – Provides a view of the visible layers as they have been manipulated using the controls on the toolbar. This feature also acts as a “Print Preview” window for the map that will be captured by the “Print” tab. The “N”, “S”, “E”, and “W” bars on the outside edge of the frame pans the map in the selected direction

Scale Indicator – Indicates the current scale of the map frame

Links – Provides links back to the *Map Wizard* page and to the GeoWBS Online Editor

Current Tool Indicator – Shows which toolbar feature is currently in use

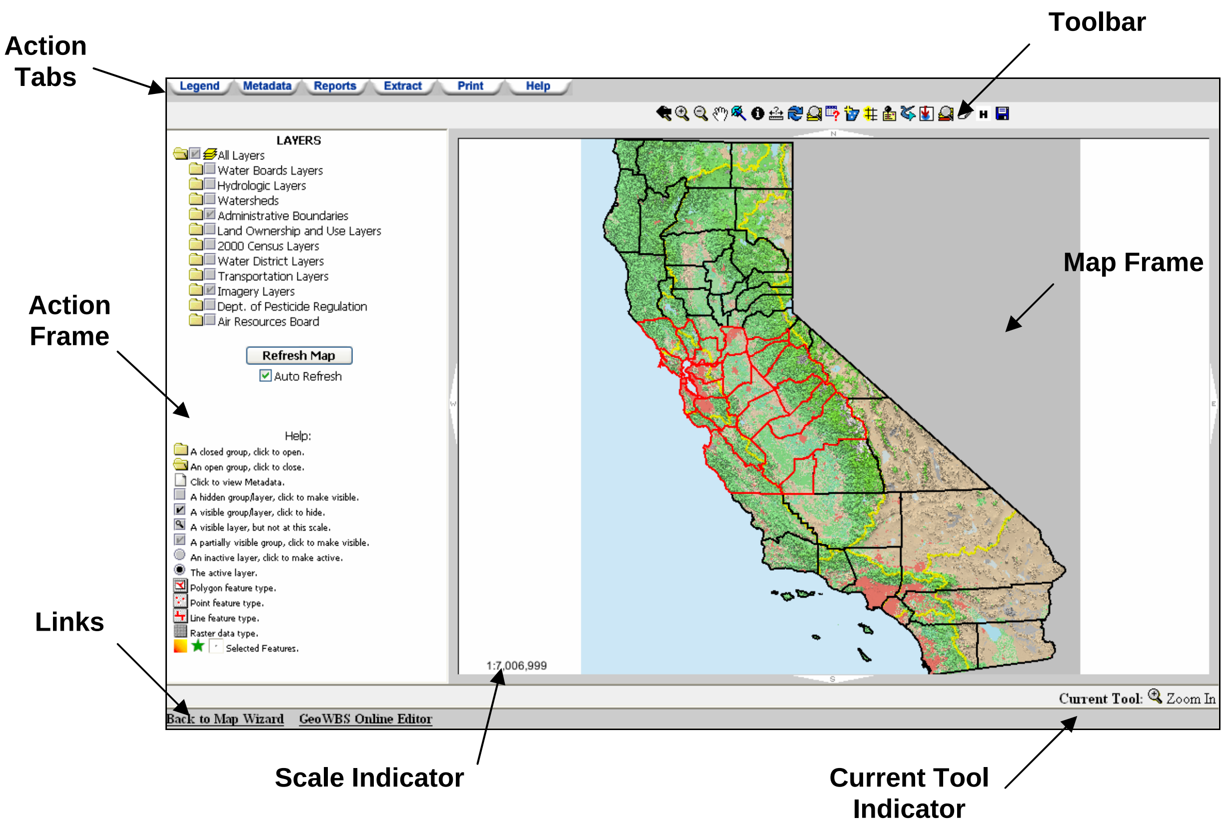


Figure 14.6 Features of the Main Map Page

The Action tabs and their functions are described in Table 14.1.

The Layers Tab

The Layers tab (the default view when a map is first created) is the main vehicle for working with the data contained in the map layers. Within this tab you can work with the Action Frame, the Toolbar and the Map Frame.

The Layers tab and its features are described in further detail below.

Table 14.1 Action Tabs

Tab Name	*Description*
Layers/Legend	Clicking on the “Layers” tab from the Layers view refreshes the Action frame to show the map legend – the symbols and colors used to identify the map layers which are currently visible – and changes the tab name to “Legend”. Clicking on this tab again changes the label back to “Layers” and refreshes the Action frame to show the list of Layers, as before.
Metadata	When this tab is selected, a new window opens showing a list of all available layers with hyperlinks to the metadata for each. Metadata for a particular layer can be accessed by clicking the “View Metadata” hyperlink within this window. Medatada provides information about each layer.
Reports	When the Reports tab is selected, a new window opens showing the list of reports that can be generated.
Extract	When the Extract tab is selected, a new window opens and you are presented with the option to download all the visible feature layers in the current map as shapefiles. Clicking the “Click here” hyperlink triggers the system to create a compressed (*.zip) file containing attribute data for the visible feature layers in the current map extent and presents it for download. You will be asked whether you would like to open the file directly or save it to your computer.
Print	When the Print tab is selected, the Map Printing Configuration Panel window opens showing the various print options. This tab allows you to print the active map view shown in the Map Frame.
Help	The Help tab opens a new window displaying sections of this manual to provide further information about a topic.

14.3.2 The Action Frame

The Action frame shows a list of all available layers (those you selected in Step 3 of the *Map Wizard*) and allows you to display or hide layers in the map view. Figure 14.7 shows the Action Frame with some of the layer groups open () and some of them closed (). The folder icons work the same way in the action frame as they do in frame 3 of the *Map Wizard* page.

The list of layers includes the same icons and checkboxes seen on the *Map Wizard* page along with a few additional symbols that indicate which layer is currently active and how the data for that layer will be represented.

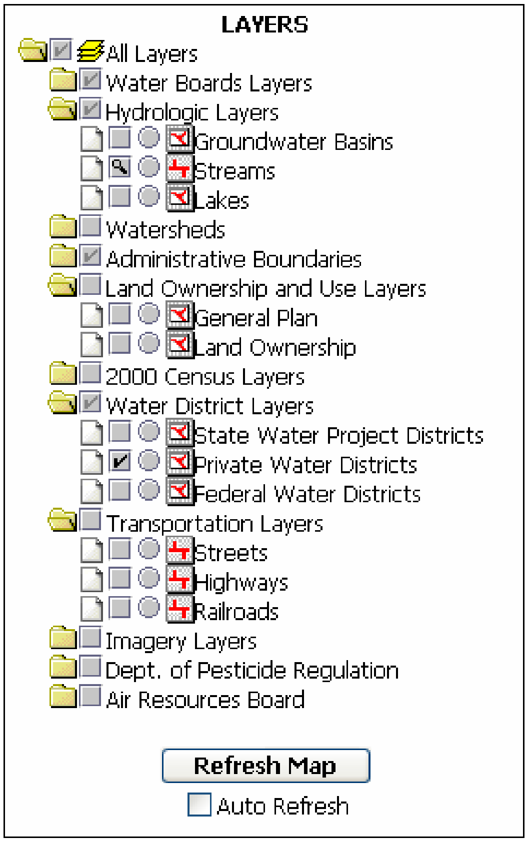


Figure 14.7 Action Frame

The Action Frame contains a Help section (Figure 14.8), which lists the layer icons available in the Action Frame and describes each one.

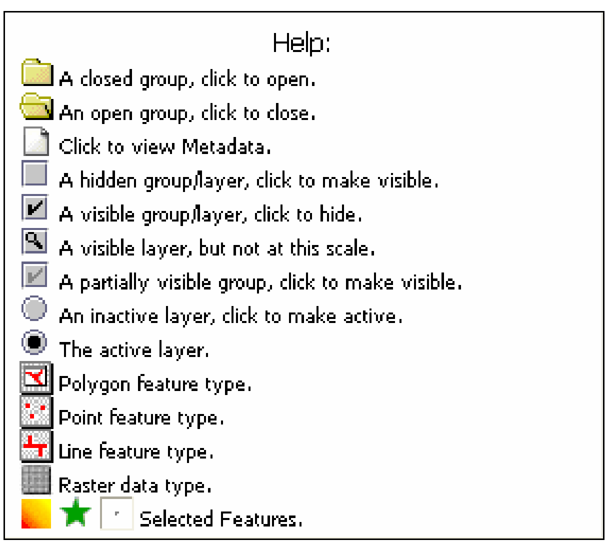


Figure 14.8 Help Section on the Main Map Page

Also within the Action Frame are the "Refresh Map" button and the "Auto Refresh" checkbox (Figure 14.7). When the Auto Refresh checkbox is selected (☑), the map automatically refreshes every time you click on one of the layers to turn it on or off (visible or not visible) or to make it the active layer. When the checkbox is cleared (☐), you can choose when the map will refresh by clicking the "Refresh Map" button.

Layers

The maps created in the GeoWBS Navigator are made up of layers of information.

Each layer contains two types of data:

- Spatial data: coordinates and locations that describe the map itself
- Attribute data: information related to the features on the map, such as city names and stream lengths

Attribute data are stored in a database that is referenced to the features found on the map layers. This information can be extracted using the various mapping tools found on the *Main Map* page. Spatial data are stored as physical locations on a map – either as points, lines or polygons (features that have area, such as counties or lakes). The data contained in each layer is identified by a distinct symbol.

Layers are composed of sets of similar information. For example, city locations and their related information (name, population, etc.) compose one layer ("Cities") while National Hydrography Dataset (NHD) streams make up another ("Streams"). In this way, it is possible to view specific pieces of information by controlling what layers are displayed on your map.

Layers available for use in the GeoWBS Navigator are displayed in nested form – similar to the way files are displayed in your e-mail program or in the file manager for your computer. Related layers are grouped into folders (e.g. "Streams" and "Lakes" are located in the "Hydrologic Layers" folder).

Layers can be added to or removed from the map view to customize your map.

Active and Inactive Layers

While using the tools available on the *Main Map* page of the GeoWBS Navigator, you will only be able to work with one layer at a time. The layer you work with is referred to as the **active** layer. An active layer is one that has the focus of the Navigator. Active status is indicated by a filled in circle next to the layers' name (). Inactive layers will have an empty circle (). Only one layer can be active at a time. To activate a layer, click in the circle next to its name or click on the name of the layer (Figure 14.9).

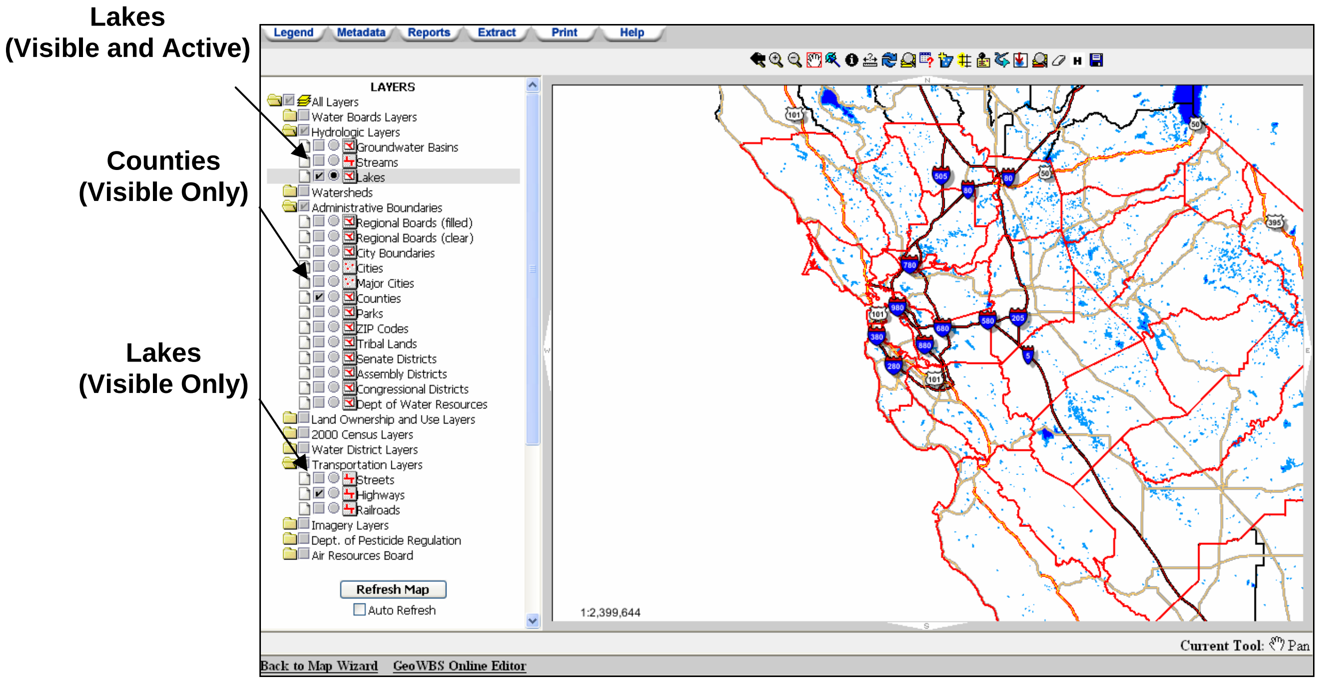


Figure 14.9 Active, Inactive, and Visible Layers on the Main Map Page

It is important to note which layer is active before attempting to manipulate the maps within the Navigator. The toolbar features will only work on the active layer. By default, the location category selected in Step 1 of the *Map Wizard* page will be designated as the active layer when your map is first created.

The Image Menu

If a small toolbar (menu) appears when you hold your mouse over the map frame, your browser has the Image Toolbar enabled. To turn off this feature, go to the Tools option on the main toolbar of your Web browser and select "Internet Options" (for Internet Explorer). Click the Advanced tab, scroll down to the Multimedia section and clear the Enable Image Toolbar checkbox. You will need to restart your browser for the change to take effect.

14.3.3 The Map Toolbar

The Map Toolbar contains the controls used to manipulate the size and shape of the map and the active layers (Figure 14.10).

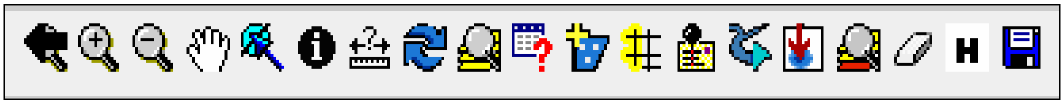


Figure 14.10 Map Toolbar

Each control can be placed into one of three categories:

- Button –Produces an immediate, visible change to the map view when clicked.
- Tool – Manipulates the map view or extracts information from the active layer. The tool remains selected until you choose a different one. The Current Tool Indicator shows which tool is currently in use.
- Function – Opens up a new window that allows you to make connections between different pieces of information or to delve more deeply into the underlying data.

Buttons

 Return to Previous Extent – Redraws the map at the previous map extent. Click this button to go back to where you were before you zoomed or panned.

 Refresh Map – Refreshes and reloads the map with new selected information. Try clicking this button if an error is displayed in the map frame as a troubleshooting strategy.

 Zoom to Full Extent – Zooms to the full spatial extent of all of the themes (layers) in the map view. Selecting this button usually causes the map to zoom out and show the entire state of California.

 Zoom to Selected Features – Zooms to the spatial extent of the selected features in the active theme. After you have selected particular features in a theme, click this button to zoom in on the area covered by the features you have selected.

<u>Zoom to Active Layer</u> – Zoom to the spatial extent of the active theme in your view. The themes in a view often have different spatial extents. Some themes may represent features located all over the map, while others may represent features found in particular areas on the map. With this button you can easily zoom in on the area covered by a particular theme that interests you. Before you click this button, make sure that the layer of interest is selected as the active layer (that it has a filled-in circle next to its name ()).

<u>Clear Selection</u> – De-selects the highlighted areas from the map view.

<u>Hotlink</u> – Opens a view of the map in a new window.

Tools

<u>Zoom in tool</u> – To zoom in centered on a particular location on the map, click that position once with this tool. To zoom in to a particular area, click and drag a box over the area with this tool. Zooming in will show additional details on the map. Zooming in too far, however, will show little or no detail once you pass a certain scale.

<u>Zoom out tool</u> – To zoom out centered on a particular location on the map, click that position once with this tool. To zoom out to a particular area, click and drag a box over the area with this tool. As with the zoom in tool, zooming out too far will show little or no detail once you pass a certain scale.

<u>Pan tool</u> – Lets you pan (reposition) the view in the Map Frame by dragging the display in any direction with the mouse. To pan, click this tool, move the cursor anywhere over the view, click and hold down the mouse button, and drag in any direction. Release the mouse button to leave the view in the selected position.

<u>Select Features tool</u> – Use this tool to select features from the active layer on the map. This can be done either by clicking an individual feature (point, line or polygon) or by clicking and dragging a box around a set of features. Features that fall partly or wholly inside the box you define are selected. To select more than one feature, hold down the SHIFT key when you use the tool. Selected features can be acted upon using the Function controls.

Identify tool – Use this tool to get information about features from the active layer on the map. When you click on a feature with this tool (or click and drag a box around a group of features), a window opens showing the attributes of that feature (e.g. a city or a stream reach). The attributes displayed depends on the characteristics of the type of feature you select. Clicking on the number in front of one of the selected features shown in the new window selects that feature on the map view.

Functions

Measure tool – This function allows you to calculate the distance between two or more points on the map.

Query Builder –You can use this tool to locate particular features of the active layer. The search works by creating search strings to locate features based on their attribute data.

Select by Theme – Use this function to select map features (from a non-active layer) that fall within or on selected features of the active layer (theme).

Buffer Tool – Creates a shaded “buffer” zone around selected features at a specified distance. Use a selection tool to select a feature or multiple features of interest. Next, select the buffer tool. The buffer tool can target a non-active layer to find features within a certain distance of selected feature(s) on the active layer.

Street Address Matching Tool – Allows you to search the “Streets” layer for a street address.

Stream Network Navigation – Used to find National Hydrography Dataset (NHD) stream reaches upstream or downstream from a selected reach.

Save Screen – Used to save the layer selection and map extent of the current view. Only one screen can be saved at a time.

To find out what a button, tool, or menu choice does while using the Navigator, move the cursor over it but do not select it. A brief description will appear at the mouse tip.

14.3.4 Selecting Features in the Map View

It is often necessary to select map features before the various tools or functions can act upon them. Features can be selected by clicking on a single feature (e.g., a county or a stream reach) or by clicking and dragging a box around a group of features. All features that fall partly or wholly within the box will be selected.

Only features from the active layer can be selected.

How to select features:

1. Select a layer from the Action Frame, make sure it is visible (grey box has a dark checkmark ()), and click the open circle () to make it active (if it is not active already).
2. Use the Zoom in, Zoom out, or Pan tool(s) to navigate to the area of the map in which you wish to make a selection.
3. Click on the Select Features tool () on the toolbar.
4. Click on or click and drag a box around the feature(s) you wish to select.

Figure 14.11 shows the selection from the “Lake” layer by the ‘click and drag’ method of feature selection. The layers shown below are the same as those in Figure 14.9.

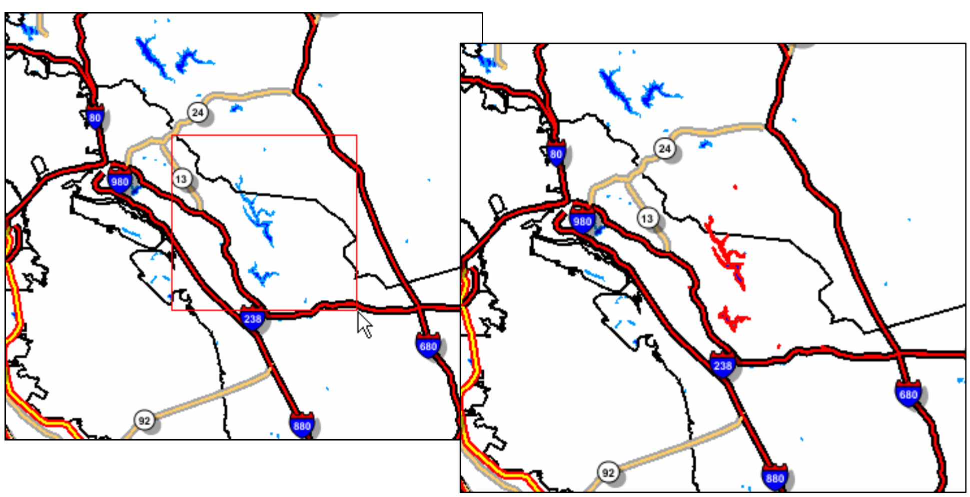


Figure 14.11 Map Frame Showing Feature Selection (left) and the Resulting Selection (right) for the Lakes layer.

Selected features stay selected even if a new layer is activated. They will remain selected until features on another layer are selected or until you click anywhere outside of the selected features.

14.4 A Closer Look at the Map Functions

Section 14.3.3 gave a brief overview of the function tools on the map toolbar. The sections below cover each tool individually in greater detail.

14.4.1 Measure Tool

The measure tool can be used to measure the distance between two or more points on the map. Click the measure tool control to open the Measure tool frame in the upper corner of the map frame. Select the appropriate units from the Measure Units drop-down menu.

Select the starting point by clicking on the map. Next, click a second point on the map. Click additional points on the map as desired.

The Measure tool frame displays the total distance measured and the distance between the last two selected points (Figure 14.12).

Click the "Start Over" button to clear all selected points and the fields in the Measure tool frame.

Click either the zoom in or zoom out tool to exit the Measure tool function.

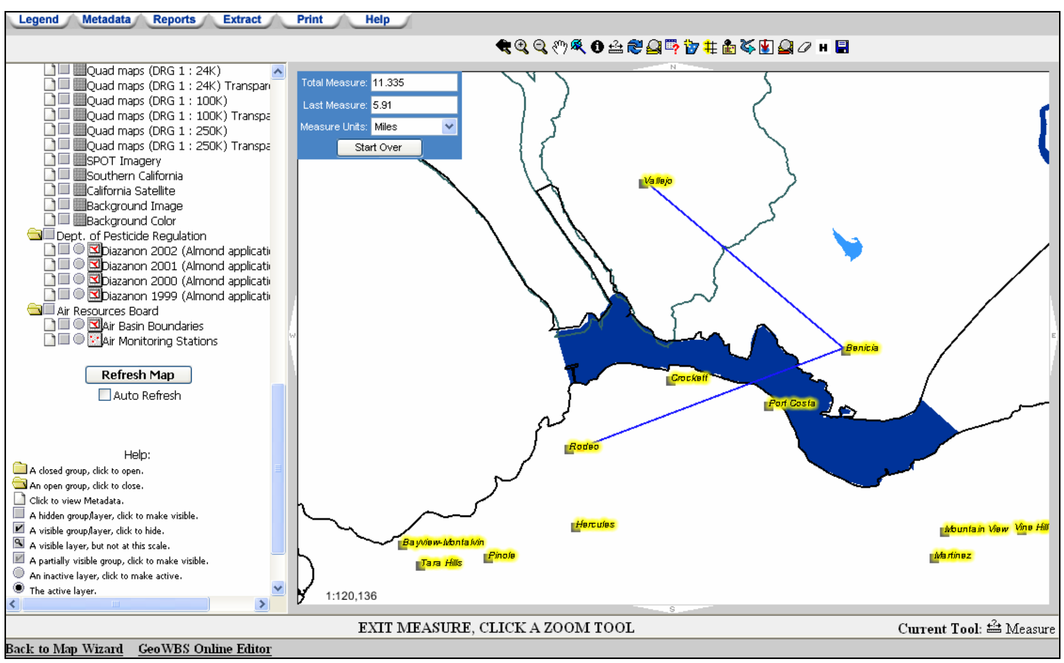


Figure 14.12 Measure Tool Function

14.4.2 Query Builder

Clicking on the Query control opens the "Query Builder Panel" in a new window (Figure 14.13). As with the rest of the Map Functions, the Query Builder only works with the active layer. The Query Builder Panel is used to create search terms to identify a feature or set of features from the active layer using attribute data.

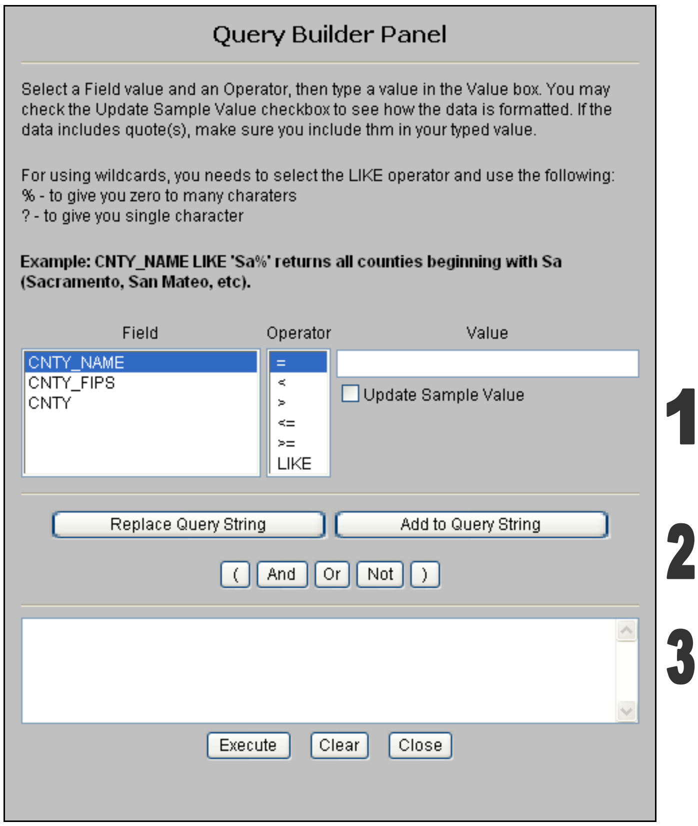


Figure 14.13 Query Builder Panel

The Query Builder Panel is divided into three sections, each with an associated function.

In the first section, a search string is constructed using the *Field*, *Operator* and *Value* fields. To create a search string:

1. Select a field from the *Field* drop-down menu (e.g., "CNTY_NAME"). All fields available for a given layer will be displayed in the drop-down menu.
2. Select an operator from the *Operator* dropdown menu (e.g., "="). Table 14.2 describes the operators and their functions.
3. Type an appropriate value into the *Value* field (e.g., "Los Angeles"). To see a list of all available options for the field you

have selected, select the "Update Sample Value" checkbox below the *Value* field. From here, you can select a value from the resulting drop-down menu (Figure14.14). Examples of search strings are shown below.

Table 14.2 Query Operators

Operator	*Description*
=	"equal to"
<	"less than"
>	"greater than"
<=	"less than or equal to"
>=	"greater than or equal to"
LIKE	Used in conjunction with a Field name, it will find a part of a string. Use "%" or "?" as wildcards to stand in place of the missing characters. "%" represents any character from zero to many ("Fen", or "lancast" or "bath"). "?" represents any single character ("r"). **The LIKE search is case sensitive.**

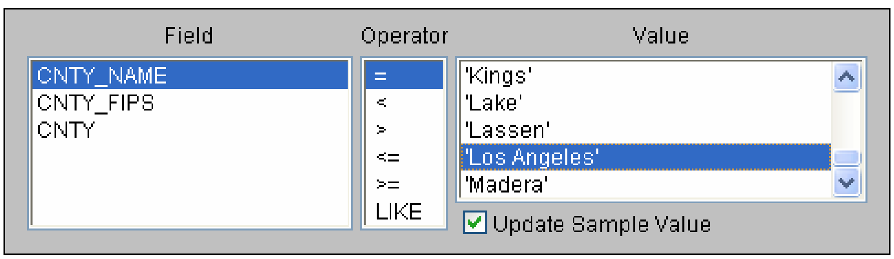


Figure 14.14 Selecting the "Update Sample Value" Checkbox

The second section of the Query Builder Panel allows you to add your search string to the query and combine it with additional search strings. To add the current search string to the query (the combination of values displayed in the first section), click the "Add to Query String" button. The search string will appear in the query builder box in the third section of the Query Builder Panel (Figure 14.15).

If there is already a search string present in the query builder box, the "Add to Query String" button will add a new string to the existing string. Clicking the "Replace Query String" button will replace the search string(s) already present with the new search string.

The "(", "And", "Or", "Not", and ")" buttons below the Add and Replace buttons allow you to combine search strings to further refine your search term. The "And", "Or", and "Not" buttons act as Boolean operators. The parenthesis separate search strings and direct the order of the search.

Click the “Clear” button to clear the search terms in the Query Builder box. To initiate the query, click the “Execute” button. Click the “Close” button to close the window without executing the search.

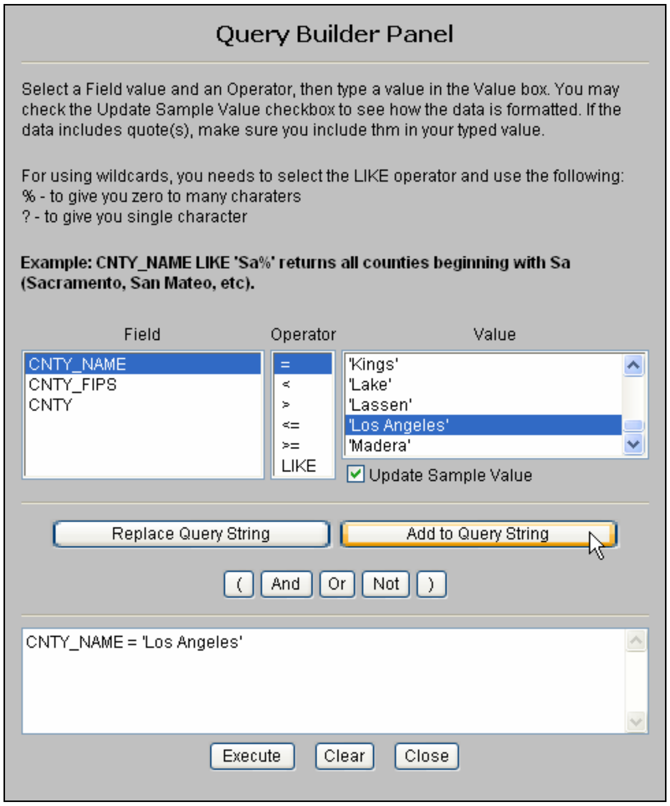


Figure 14.15 Adding a Search String to the Query Builder Box

The Query function will only search for what is shown in the query builder box. An error appears if you click the “Execute” button and nothing has been added to the query builder box.

Query Syntax: Examples

Examples of query syntax:

AREANAME = ‘Brismoor’

Query builder will search for features in the active layer that have an AREANAME equal to ‘Brismoor’.

Searching the National Hydrography Dataset Lakes layer for:

NAME LIKE ‘Be%’

Will find ‘Beaver Creek’ but not ‘Carberry Creek’

Figure 14.16 shows the results of a query for “WBNAME = ‘Suisun Marsh Wetlands’” with “303d Wetlands” as the active layer.

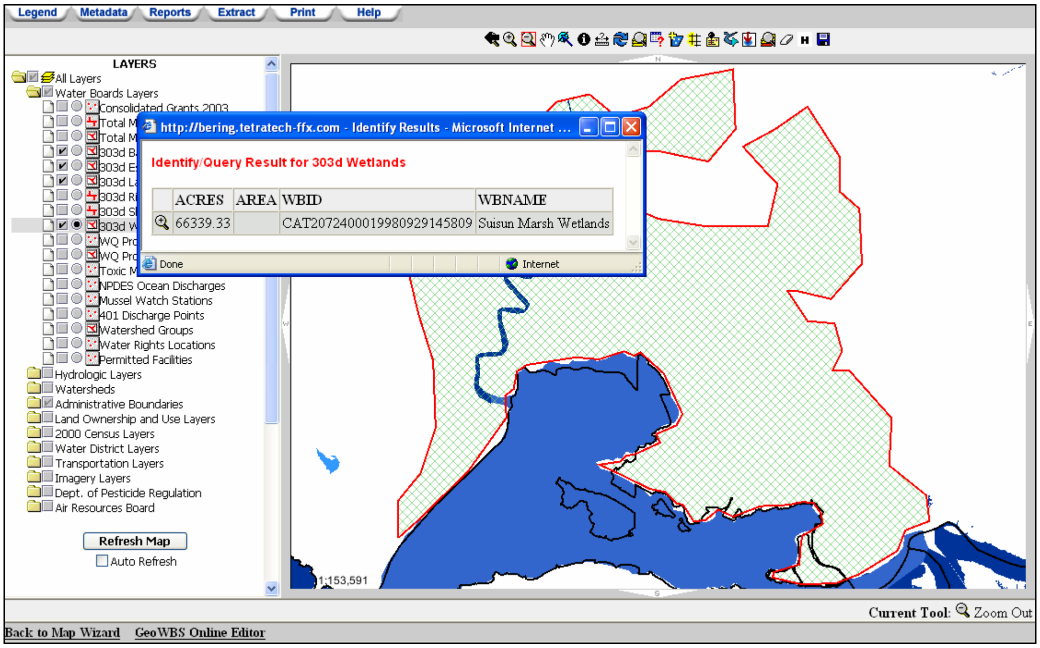


Figure 14.16 Query Results for 303d Wetland

When a query is executed, the underlying data for the features that match the query will be displayed in a new window and the features will be highlighted (selected) in the map frame. Click the magnifying glass in the first column next to the feature of interest to zoom in on that feature within the map frame.

14.4.3 Select by Theme

The Select by Theme function finds map features from inactive layers that are on or in a selected area from the active layer. To use the Select by Theme function, follow these steps:

1. Activate the reference layer (e.g., “Mussel Watch Stations”) if it is not already activated
2. Use the select tool () and click or click and drag a box around the relevant features on the active layer
3. Click the “Select by Theme” control (). The Select by Theme window opens (Figure 14.17)
4. Select the target layer from the list box (e.g., “Counties”). All layers available in the Layers frame except for the active layer appear in the list

5. Click the "Select by Theme" button to activate the selection or the "Close" button to terminate the search

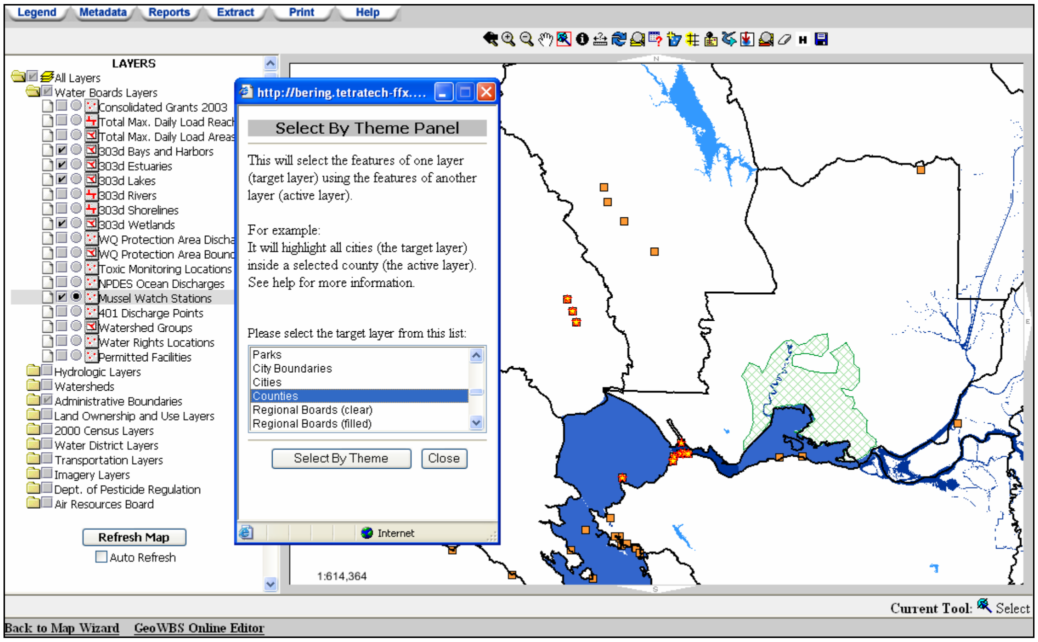


Figure 14.17 Select By Theme Panel

The map highlights (selects) the target layer where it intersects with the selected features from the active layer. A new window opens showing a list of all selected features (Figure 14.18). Click the magnifying glass in the first column next to the feature of interest to zoom in on that feature within the map frame.

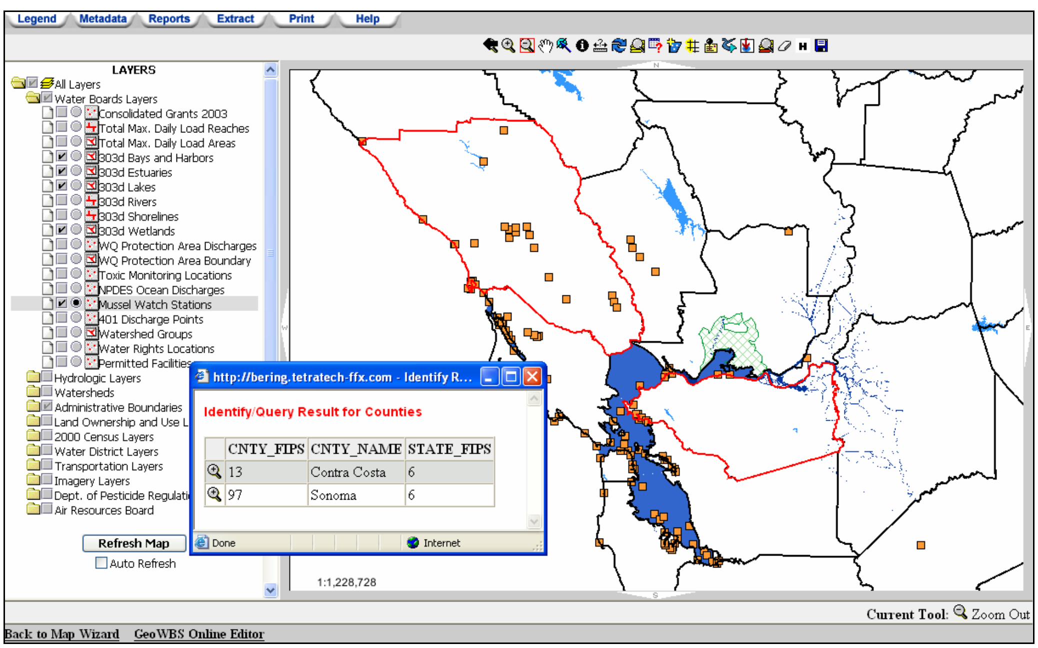


Figure 14.18 Results of Select By Theme

14.4.4 Buffer Tool

The Buffer Tool can be used to create a variable sized shaded area around a selected feature or features in the active layer. To use the Buffer Tool:

1. Select the map layer to be buffered as the active layer (should have a filled in circle ( ) next to its name in the Action Frame)
2. Click the "Select" tool and click or click and drag a box around the relevant features on the active layer to highlight them
3. Click on the Buffer Tool control ( ). The Create Buffer Panel will open in a new window (Figure 14.19)

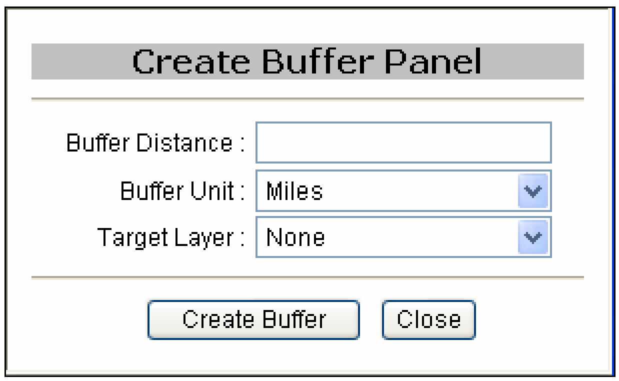


Figure 14.19 Create Buffer Panel

4. Within the Create Buffer Panel, select the "Buffer Distance" (how far around the object the shaded buffer will be drawn), the "Buffer Unit" (unit of measure used for determining the buffer distance), and the "Target Layer" (if any)
5. Click the "Create Buffer" button to create the buffer or the "Close" button to end the operation

The map refreshes to show a shaded area around the features selected in the active layer. If a Target Theme was selected, the features in the Target Theme, or layer, that fall within the buffer zone around the selected features will be highlighted.

Figure 14.20 shows a buffer that was created around the search results from the Query Builder (with a search for Suisun Marsh Wetlands). A 5 mile buffer was found around the selected feature with 303d Lakes selected as the target theme. Lake Herman was identified as a feature that fell within this buffer. A new window opened to show the attribute data for the selected features of the target theme (Figure 14.21).

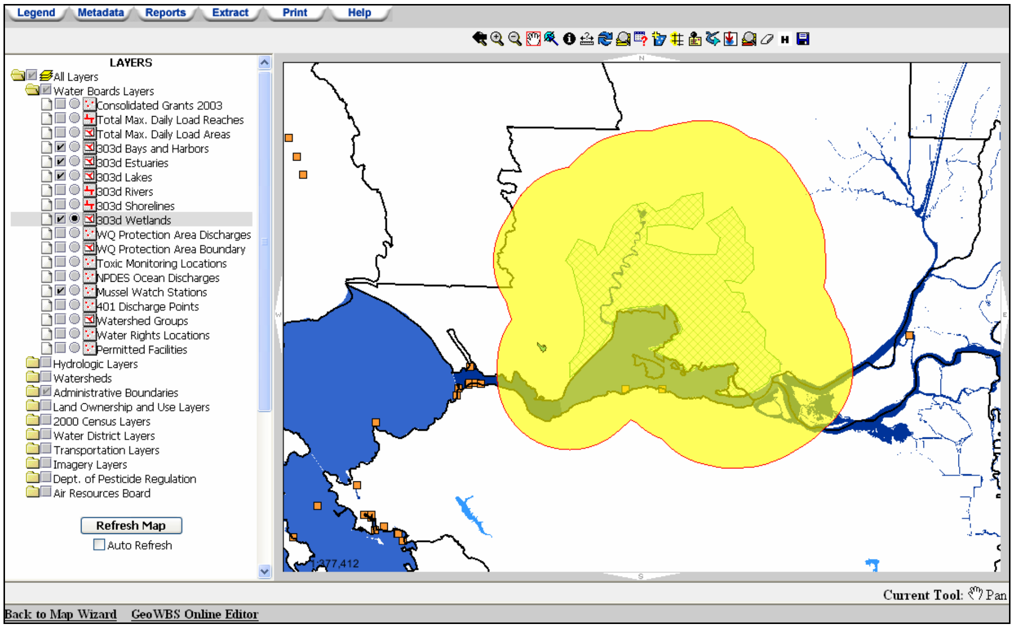
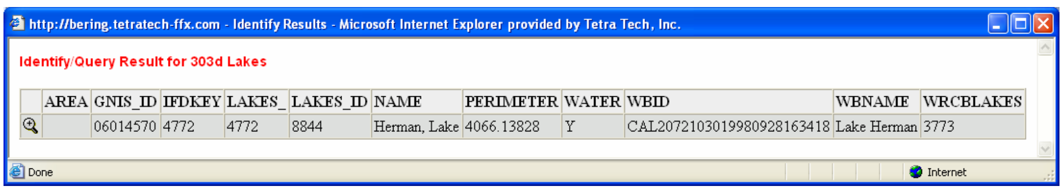


Figure 14.20 5 Mile Buffer Around Sisun Marsh Wetlands



	AREA	GNIS_ID	IFDKEY	LAKES_	LAKES_ID	NAME	PERIMETER	WATER	WBID	WBNAME	WRCBLAKES
		06014570	4772	4772	8844	Herman, Lake	4066.13828	Y	CAL2072103019980928163418	Lake Herman	3773

Figure 14.21 Attribute Data From the Selected Features of the Targeted Layer

Click the magnifying glass in the first column next to the feature of interest to zoom in on that feature within the map frame.

14.4.5 Street Address Matching Tool

This tool allows you to find an address on the “Streets” Layer.

Before you attempt to use the street address matching tool, be sure to zoom in to the correct extent. The checkbox next to the “Streets” layer should have a dark checkmark in it () (not a magnifying glass ()).

To find a street address using the Street Address Matching Tool:

1. Make “Streets” visible and make it the active layer if it is not already (should have a filled in circle () next to its name in the Action Frame)

2. Click on the Street Address Matching Tool (). The Street Address Matching Panel will open in a new window (Figure 14.22)

3. Type in the street address information using the three fields in the Panel. All searches must include a street address and street name as well as a ZIP code. Cross Street information is optional but will allow for more robust searches
4. Click the “Locate Address” button to search for the street address or click the “Close” button to end the operation

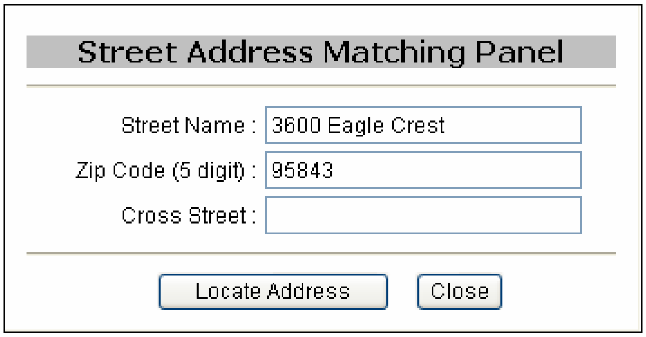


Figure 14.22 Street Address Matching Panel

5. Street Address information appears in a new window and the address is highlighted with a star on the map (Figure 14.23).

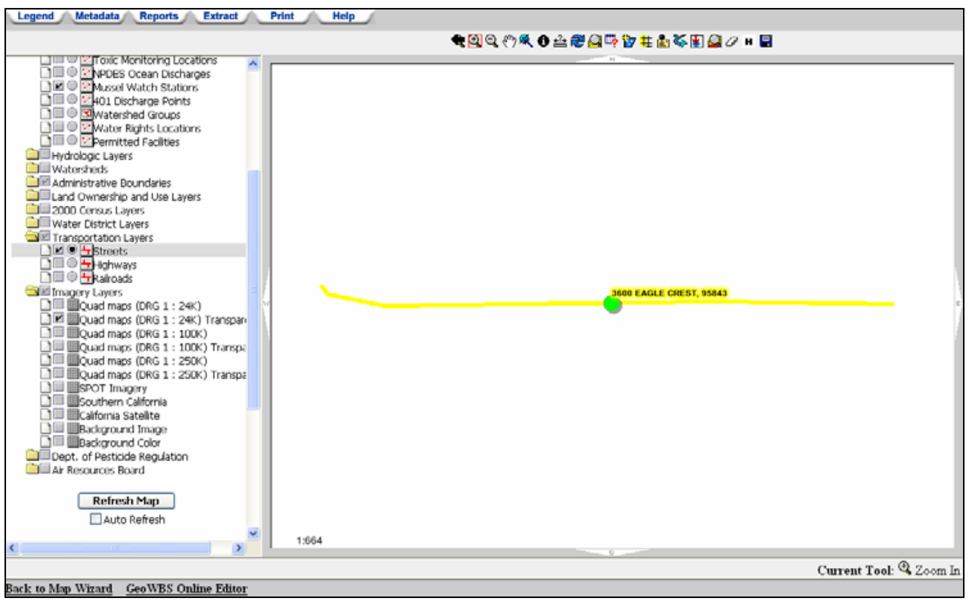


Figure 14.23 Street Address Matching Results

14.4.6 Stream Network Navigation

This tool allows you to search for stream reaches both upstream and downstream of a selected reach. To use the Stream Network Navigation tool:

1. Make the "National Hydrography Dataset Streams" layer visible and the active layer (should have a filled in circle ( ) next to its name in the Action Frame).
2. Select a stream using the "Select Features" tool (Figure 14.24).

The Stream Network Navigation tool will only work on one stream reach at a time. Be sure to only select one stream reach with the selection tool.

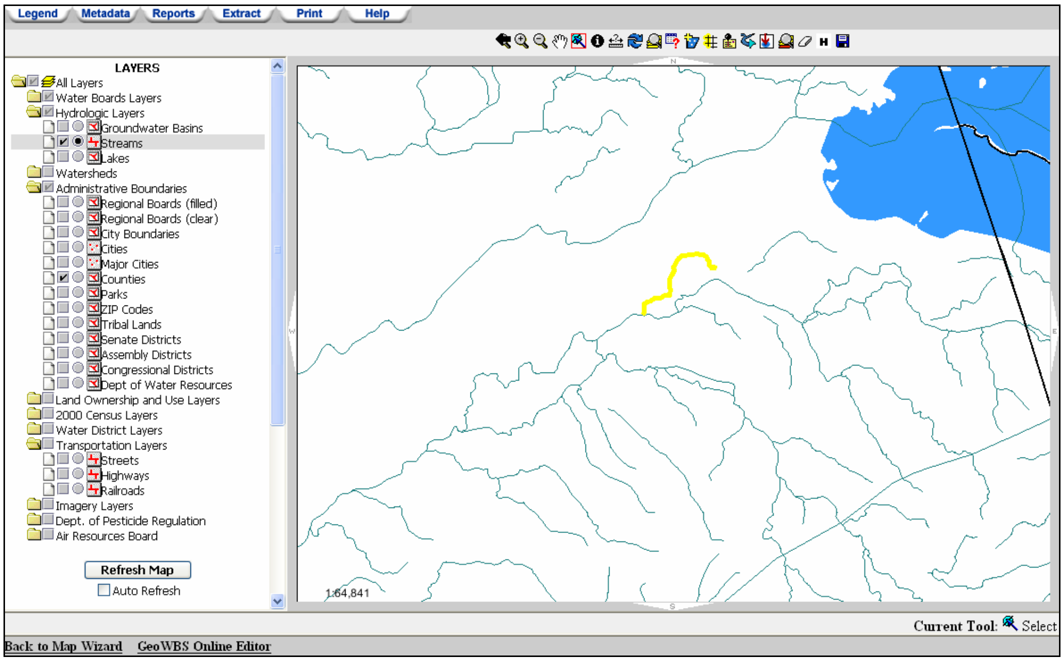


Figure 14.24 Select a Stream Reach

3. Click the Stream Network Navigation control on the toolbar ( ). The Stream Network Navigation Panel opens in a new window (Figure 14.25).

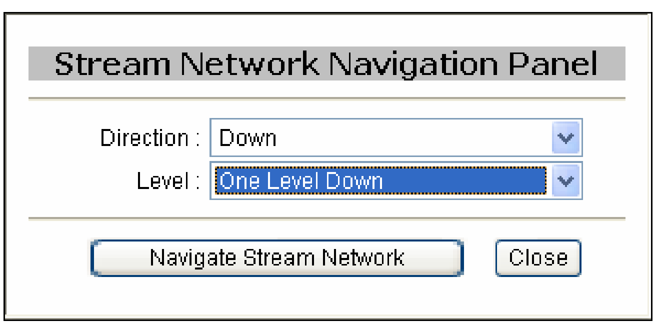


Figure 14.25 Stream Network Navigation Panel

4. Select the "Direction" and "Level" from the drop-down menu.

5. Click the “Navigate Stream Network” button to execute the action or click the “Close” button to close the window to cancel the action.

The stream reach in the direction and at the level you selected will be highlighted on the screen (Figure 14.26). A new window opens to show a list of the stream reaches that satisfy the search criteria. Clicking on the stream identifiers in the results window selects the stream reaches in the Map frame.

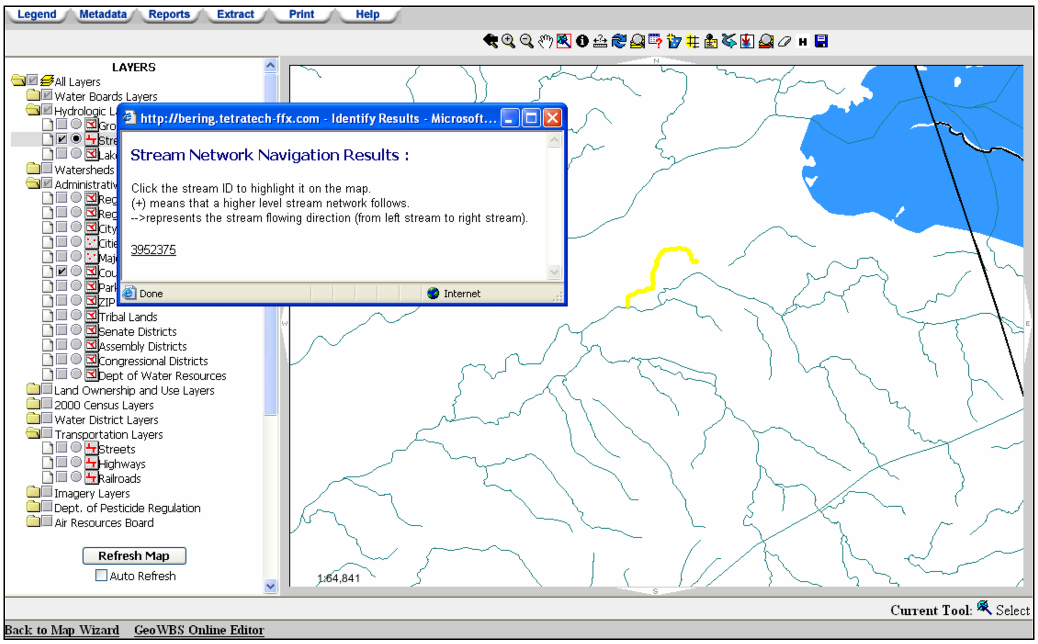


Figure 14.26 Stream Network Navigation Search Results

14.4.7 Save Screen Function

Click the Save Screen icon ( ) to open the Save or Retrieve Map Properties window (Figure 14.27).

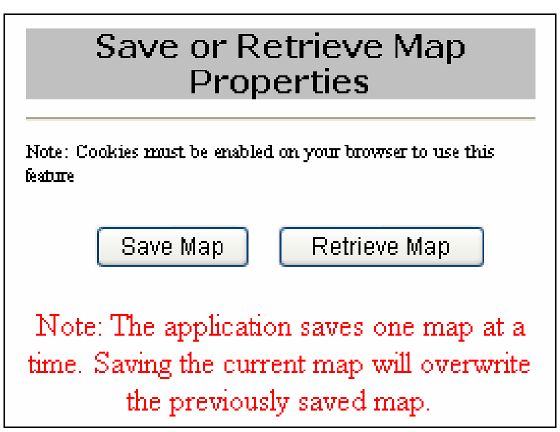


Figure 14.27 Save or Retrieve Map Properties Window

This tool allows you to save the current layer settings and map extent and retrieve it at a later time. To use this tool, click the "Save Map" button to save the current map properties. As you continue to change and edit the map view, you can return to the saved map extent and layer settings by opening the Save Screen feature again and clicking the "Retrieve Map" button.

Only one map extent can be saved at a time. The map extent is only accessible through the Save Screen function - no image file will be saved to your computer.

In order for Save Screen function to work, you must have cookies enabled on your Web browser.

Using one or a combination of the features described above allows for the creation of customized maps. The following sections cover the additional Action Tabs and how they can be used to gain a deeper understanding of the information available through the GeoWBS Navigator.

14.5 Beyond the Layers Tab

When you have customized the map to suit your needs, the tabs along the top of the page allow you to move beyond the page view. Each tab (aside from the Layers tab, which you have been working with thus far) opens a new window with additional tools to obtain or print data relating to your customized map.

14.5.1 Legend Tab

Clicking the Legend tab refreshes the Action frame to show the symbols used for the current visible layers shown on your map (Figure 14.28).

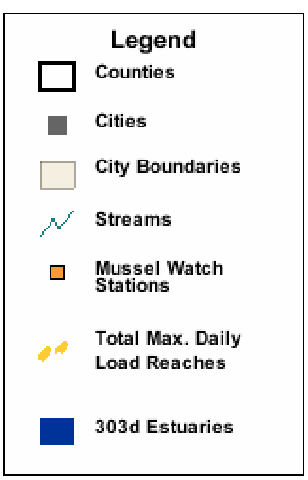


Figure 14.28 Map Legend for the 303(d) Layers

14.5.2 Metadata Tab

Clicking the Metadata Tab opens a new window that lists all of the available map layers (Figure 14.29).

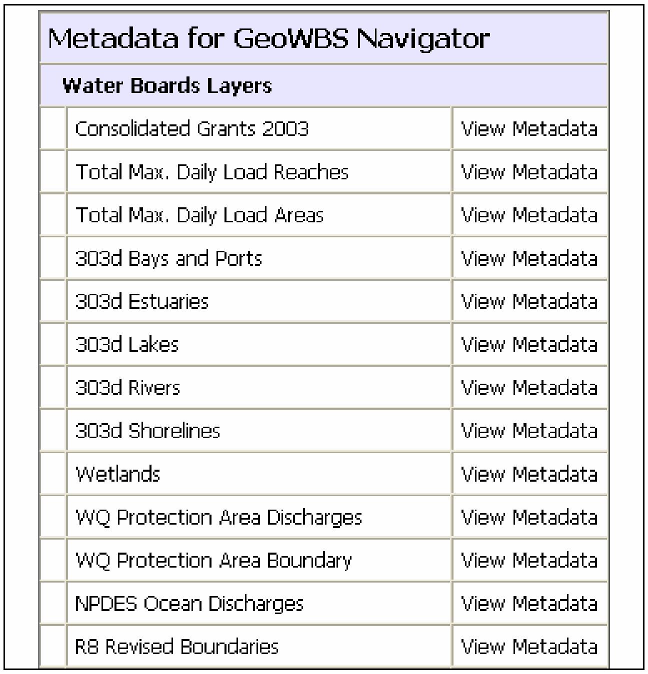


Figure 14.29 Metadata Window

Next to each layer is a "View Metadata" link. Clicking on the link opens a new window showing the metadata for that layer (Figure 14.30). Metadata is "data about data" and describes the information contained in the selected layer.

Figure 14.30 Metadata for the Streets Layer

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

Metadata can also be accessed for a particular layer by clicking the ( ) icon next to a layer within the Action frame.

14.5.3 Reports Tab

GeoWBS Navigator has several pre-defined reports. Clicking on the Reports Tab opens a new window where these Report options are displayed as hyperlinks (Figure 14.31).

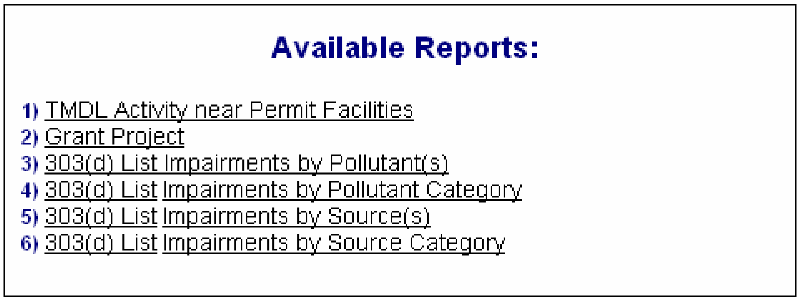


Figure 14.31 Available Reports Window

The six available reports are described below.

TMDL Activity near Permit Facilities Report

The "TMDL Activity near Permit Facilities" report requires the input of latitude and longitude coordinates. Any latitude and longitude coordinates within the state of California can be used. The values are matched to a watershed. A table is generated that lists the related water board, watershed, and waterbodies with TMDL activities (along with their listed pollutants). The Main Map page refreshes to show permit facilities within the selected watershed and the waterbodies with TMDL activities are highlighted.

The first page of the "TMDL Activity near Permit Facilities" report prompts you to input latitude and longitude coordinates for a permit facility (Figure 14.32). Click the "Go Back" button at any time to return to the list of available reports.

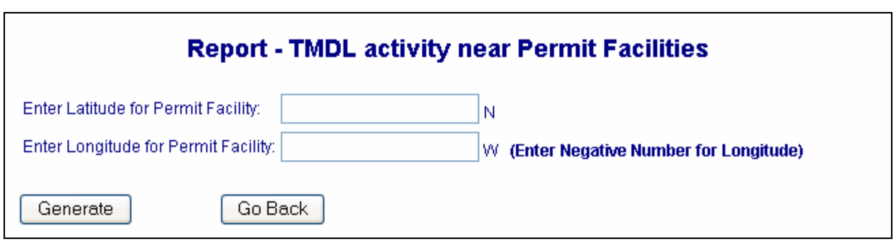
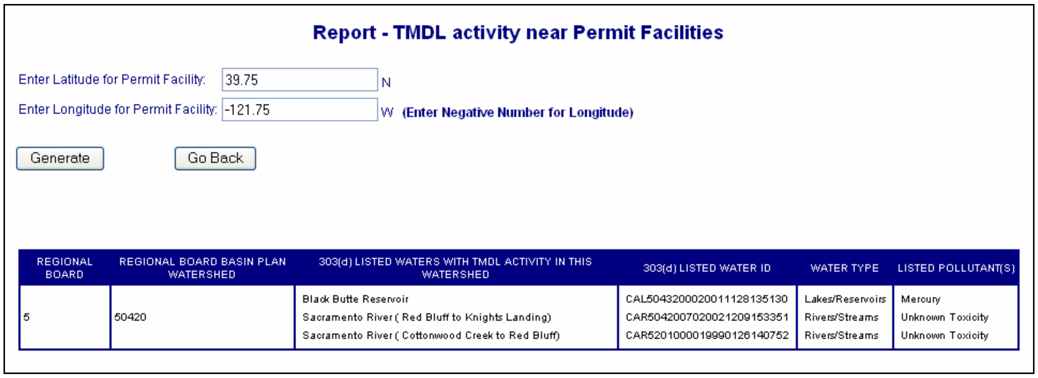


Figure 14.32 Input Latitude and Longitude Coordinates

Input coordinates that mark the permit facility of interest or coordinates that fall within the associated watershed and then click the "Generate" button to initiate the Report builder. Inputting the coordinates (39.75; -121.75) generates the following output (Figure 14.33).

When inputting latitude and longitude the minus (-) sign must be entered manually. The GeoWBS Navigator will not assume a negative number.



Report - TMDL activity near Permit Facilities

Enter Latitude for Permit Facility: 39.75 N

Enter Longitude for Permit Facility: -121.75 W (Enter Negative Number for Longitude)

Generate Go Back

REGIONAL BOARD	REGIONAL BOARD BASIN PLAN WATERSHED	303(d) LISTED WATERS WITH TMDL ACTIVITY IN THIS WATERSHED	303(d) LISTED WATER ID	WATER TYPE	LISTED POLLUTANT(S)
5	50420	Black Butte Reservoir	CAL5043200020011128135130	Lakes/Reservoirs	Mercury
		Sacramento River (Red Bluff to Knights Landing)	CAR5042007020021209153351	Rivers/Streams	Unknown Toxicity
		Sacramento River (Cottonwood Creek to Red Bluff)	CAR5201000019990126140752	Rivers/Streams	Unknown Toxicity

Figure 14.33 Report Output

The *Main Map* page refreshes to show the permit facilities listed in the tables and the associated 303(d) listed waterbodies (Figure 14.34). The point indicated by the latitude and longitude coordinates will be highlighted with a cross symbol ( ).

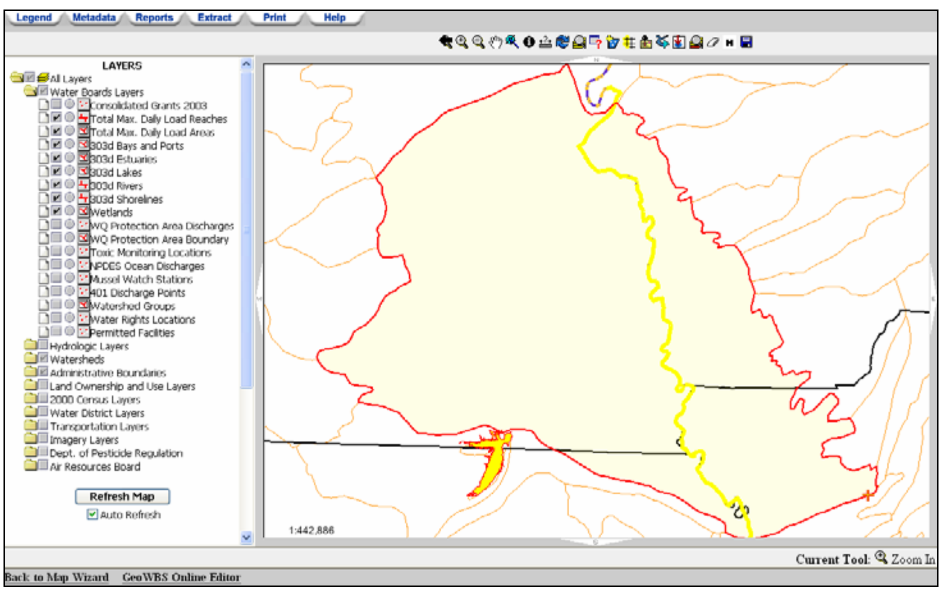


Figure 14.34 Main Map Page Display

Enter a new set of latitude and longitude coordinates to generate a new report.

Grant Project Report

The “Grant Project” report also requires the input of latitude and longitude coordinates as well as a buffer distance. This report matches the coordinates to a watershed. A table is generated that lists the grant projects and 303(d) listed waters in the watershed of the proposed or existing grant project (as indicated by the latitude and longitude coordinates) as well as a table that indicates which grant projects fall within the selected buffer distance. The *Main Map* page refreshes to show all 303d listed waterbodies within the watershed as well as the existing grant projects within a specified radius (buffer distance).

To create a "Grant Project" report, click on the link within the Available Reports window (Figure 14.35). Enter latitude and longitude coordinates for the proposed grant project or associated watershed. The number entered into the third field will create a buffer around the point specified by the coordinates and existing grant projects within that buffer will be highlighted. Click the "Go Back" button at any time to return to the list of available reports.

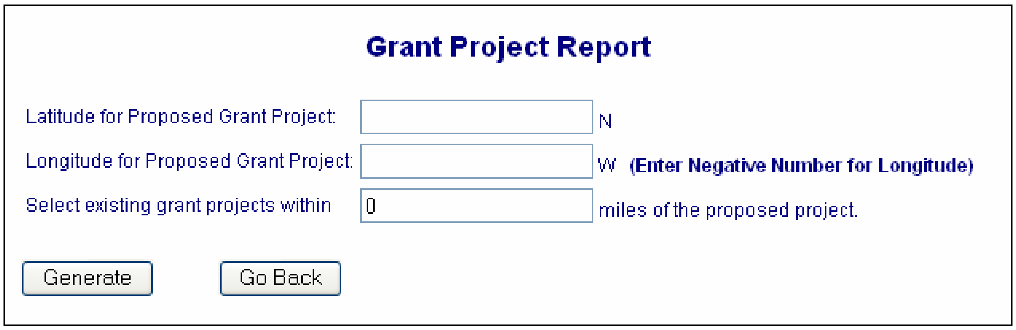
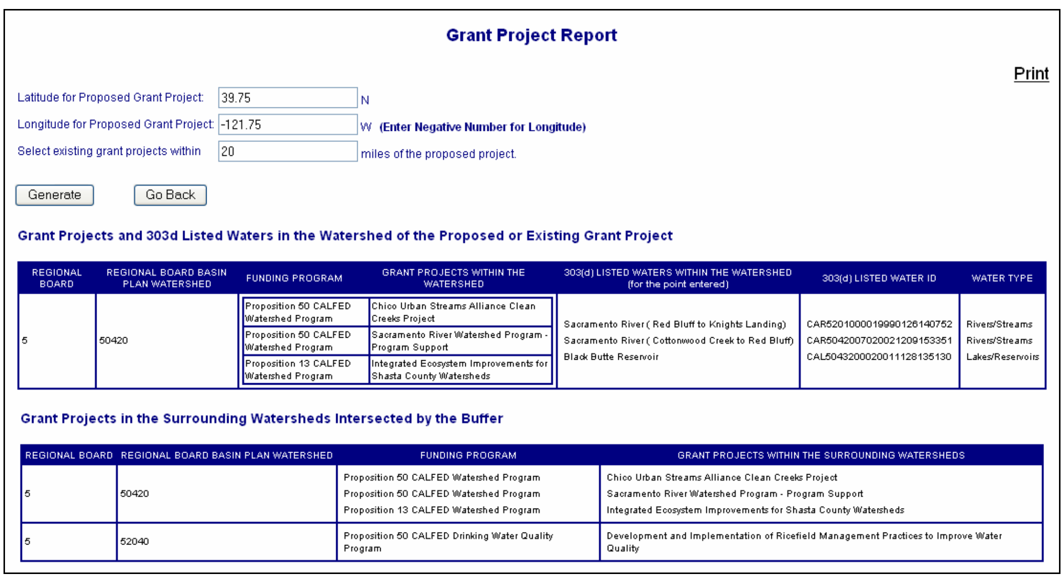


Figure 14.35 Input Values for the Report

The input of the coordinates (39.75) and (-121.75) with a buffer of 20 miles produces the following output (Figure 14.36).



REGIONAL BOARD	REGIONAL BOARD BASIN PLAN WATERSHED	FUNDING PROGRAM	GRANT PROJECTS WITHIN THE WATERSHED	303(d) LISTED WATERS WITHIN THE WATERSHED (for the point entered)	303(d) LISTED WATER ID	WATER TYPE
5	50420	Proposition 50 CALFED Watershed Program Proposition 50 CALFED Watershed Program Proposition 13 CALFED Watershed Program	Chico Urban Streams Alliance Clean Creeks Project Sacramento River Watershed Program - Program Support Integrated Ecosystem Improvements for Shasta County Watersheds	Sacramento River (Red Bluff to Knights Landing) Sacramento River (Cottonwood Creek to Red Bluff) Black Butte Reservoir	CAR5201000019990126140752 CAR5042007020021209153351 CAL5043200020011128135130	Rivers/Streams Rivers/Streams Lakes/Reservoirs

REGIONAL BOARD	REGIONAL BOARD BASIN PLAN WATERSHED	FUNDING PROGRAM	GRANT PROJECTS WITHIN THE SURROUNDING WATERSHEDS
5	50420	Proposition 50 CALFED Watershed Program Proposition 50 CALFED Watershed Program Proposition 13 CALFED Watershed Program	Chico Urban Streams Alliance Clean Creeks Project Sacramento River Watershed Program - Program Support Integrated Ecosystem Improvements for Shasta County Watersheds
5	52040	Proposition 50 CALFED Drinking Water Quality Program	Development and Implementation of Ricefield Management Practices to Improve Water Quality

Figure 14.36 Report Output

Click the “Print” hyperlink in the upper right-hand corner to print the table.

The *Main Map* page refreshes to show the grant projects located within and around the selected watershed and associated 303(d) listed waterbodies (Figure 14.37). Grant projects that fall within the specified buffer distance are highlighted with yellow stars (). The point indicated by the latitude and longitude coordinates will be highlighted with a cross symbol ().

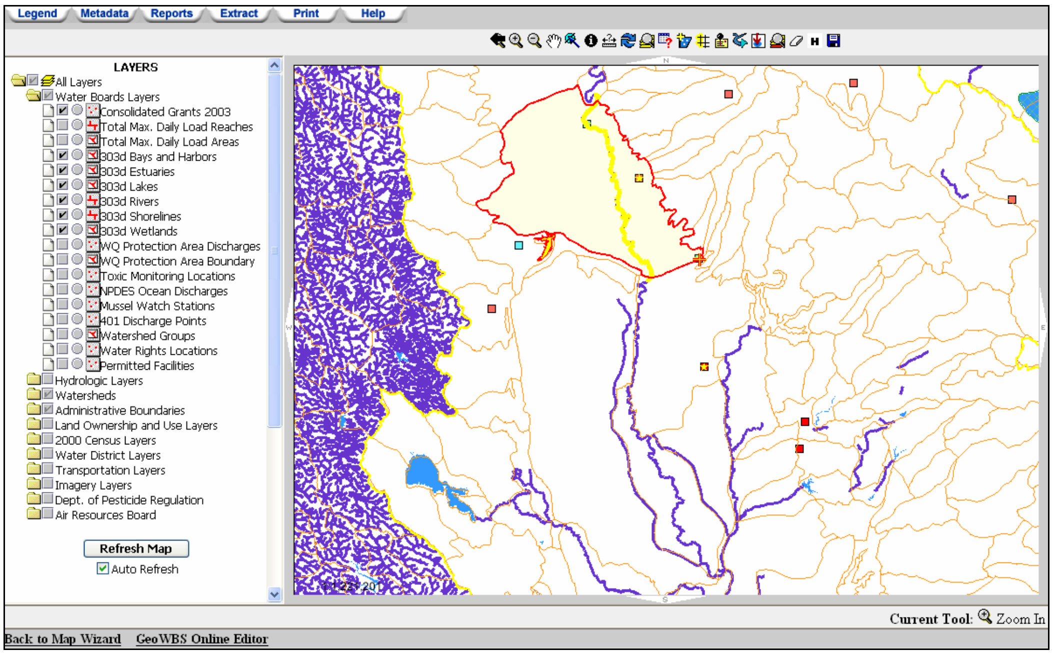


Figure 14.37 Main Map Page Display

Enter a new set of coordinates and a new buffer radius to generate a new report.

303(d) List Impairments by Pollutant(s) Report

The “303(d) List Impairments by Pollutant(s) Report” generates a map of 303d listed waterbodies impaired for a particular pollutant. This information can be displayed for the entire state or a selected Regional Board. Types of waterbodies (or all) can be selected and one or many pollutants can be selected. A table is generated that shows the 303(d) listed waterbodies for the selected state or Region that have been listed for the selected waterbody type and pollutants.

To create a “303(d) List Impairments by Pollutant(s) Report”, click the appropriate link within the Available Reports window (Figure 14.38).

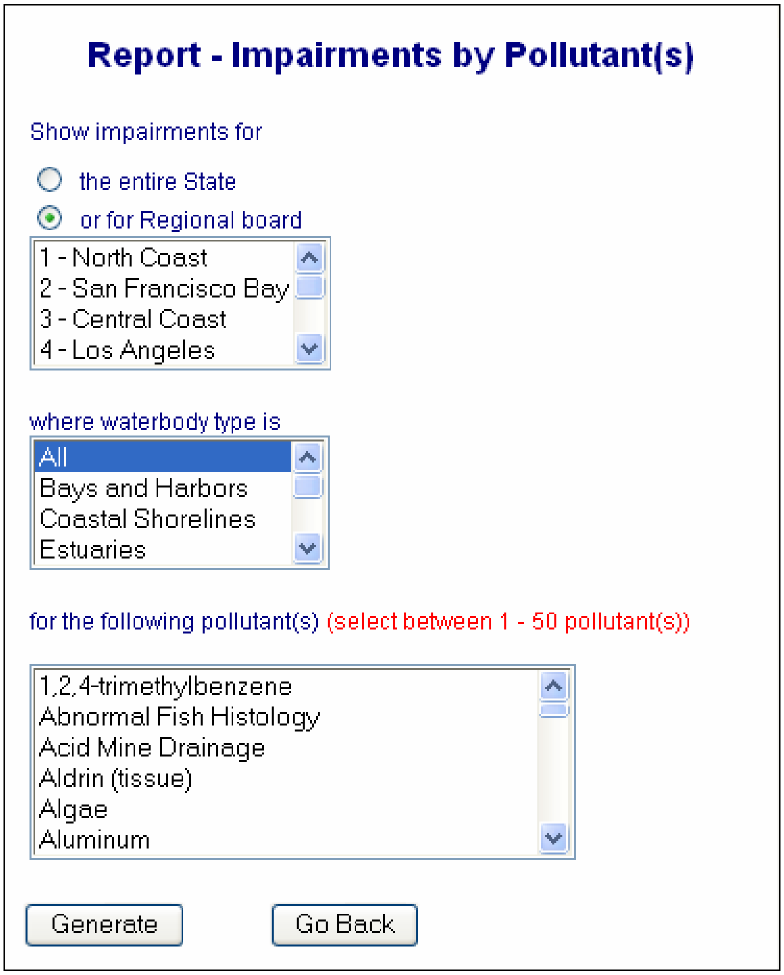


Figure 14.38 Search Criteria

There are three steps required before a report can be created:

1. Click the appropriate radio button to select whether you would like to generate a report for the entire state or of a single Regional board. If you select Regional Board, use the menu to select which Regional Board you would like to view
2. Select the waterbody type you would like to see using the menu. The default is “All”
3. Select one or more pollutants to display on the map. Choose multiple values by holding down the “Ctrl” key (apple key on a Mac) while making your selections

When you have finished making your selections click the “Generate” button.

The selection of Regional Board 1, Rivers/Streams and Temperature produces the following output (Figure 14.39):

2002 CA 303(d) LISTED WATERS
By Pollutants: Temperature

Region: 1 - North Coast
Water Type: Rivers/Streams
Total unique waterbodies shown: 36
Date: Dec 30, 2005

Regional Board	WB ID	303(d) Listed Water	WB Type	Pollutant	Pollutant Category	Source	Estimated Size	Size Unit	TMDL Priority	TMDL Completion
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Drainage/Filling Of Wetlands	225	Miles	Low	
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Erosion/Siltation	225	Miles	Low	
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Habitat Modification	225	Miles	Low	
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Nonpoint Source	225	Miles	Low	
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Removal of Riparian Vegetation	225	Miles	Low	
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Temperature	Miscellaneous	Streambank Modification/Destabilization	225	Miles	Low	
1	CAR1111103219980709182643	Eel River Delta, Eel River HU, Lower Eel River HA	Rivers/Streams	Temperature	Miscellaneous	Nonpoint Source	426	Miles	Medium	
1	CAR1111103219980709182643	Eel River Delta, Eel River HU, Lower Eel River HA	Rivers/Streams	Temperature	Miscellaneous	Removal of Riparian Vegetation	426	Miles	Medium	
1	CAR1117104419980710113432	Eel River, Middle Fork, Eel River HU, Middle Fork HA	Rivers/Streams	Temperature	Miscellaneous	Nonpoint Source	1071	Miles	Medium	
1	CAR1117104419980710113432	Eel River, Middle Fork, Eel River HU, Middle Fork HA	Rivers/Streams	Temperature	Miscellaneous	Removal of Riparian Vegetation	1071	Miles	Medium	

Figure 14.39 Report Output

Click the "Print" hyperlink in the upper right-hand corner (scroll to top of page to find the "Print" hyperlink) to print the generated report.

The *Main Map* page refreshes to show the 303(d) listed waterbodies in the selected Region (or the entire state) listed for the selected pollutant(s) (Figure 14.40).

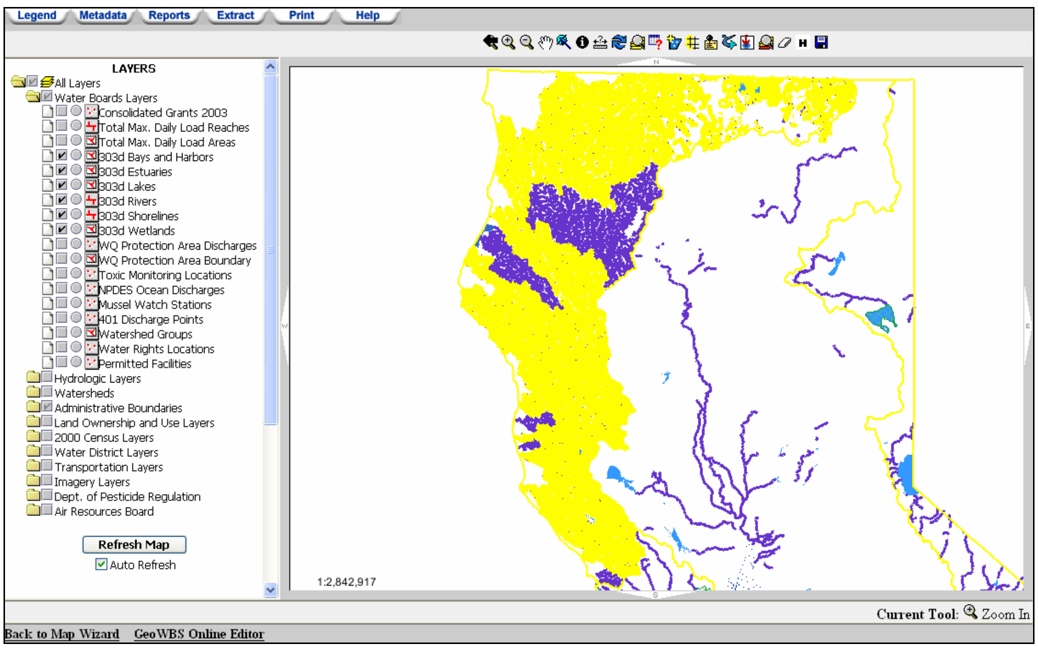


Figure 14.40 Main Map Page Display

Click the "Go Back" button at any time to return to the list of available reports.

Enter a new set of values to generate a new report.

303(d) List Impairments by Pollutant Category Report

The "303(d) List Impairments by Pollutant Category Report" generates a map of 303d listed waterbodies impaired for a particular pollutant category, in a similar way to the Impairments by Pollutant Report. This information can be displayed for the entire state or a selected Regional Board. Types of waterbodies (or all) can be selected and one or many pollutant categories can be selected. A table is generated that shows the 303(d) listed waterbodies for the selected state or Region that have been listed for the selected waterbody type and pollutant category.

To create a "303(d) List Impairments by Pollutant Report", click the appropriate link within the Available Reports window (Figure 14.41).

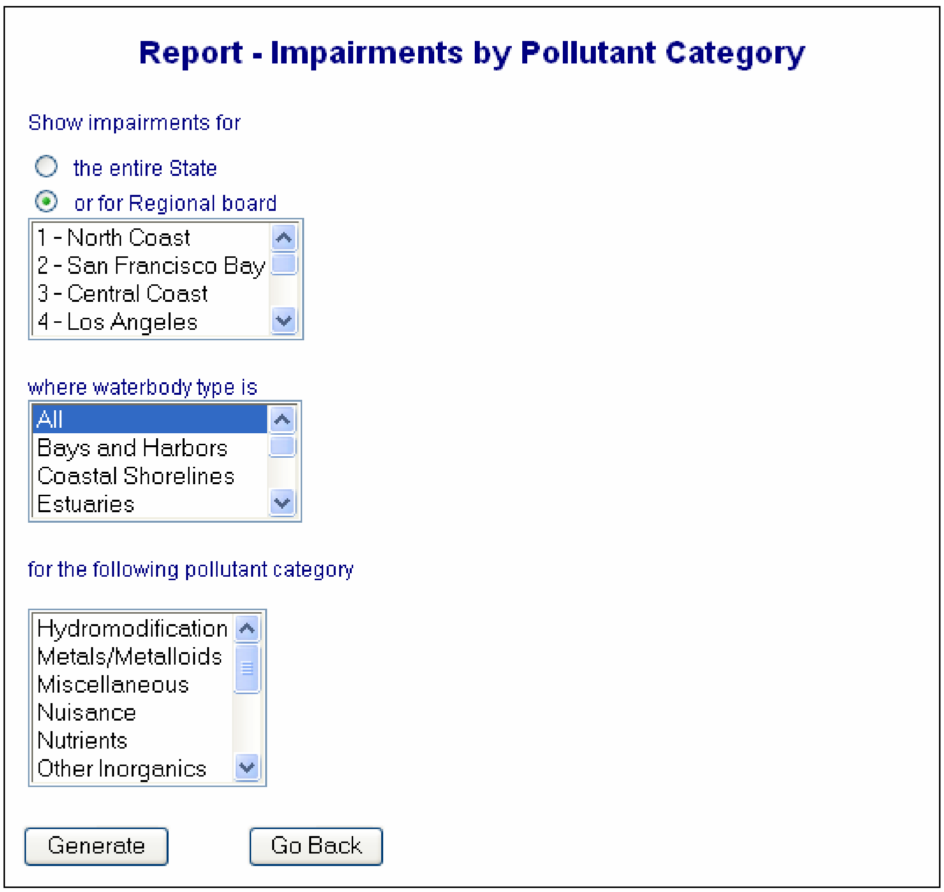


Figure 14.41 Search Criteria

There are three steps required before a report can be created:

1. Click the appropriate radio button to select whether you would like to generate a report for the entire state or of a single Regional board. If you select Regional Board, use the menu to select which Regional Board you would like to view

2. Select the waterbody type you would like to see using the menu. The default is "All"
3. Select one or more pollutant categories to display on the map. Choose multiple values by holding down the "Ctrl" key (apple key on a Mac) while making your selections

When you have finished making your selections click the "Generate" button.

The selection of Regional Board 1, Rivers/Streams and Sediment produces the following output (Figure 14.42).

2002 CA 303(d) LISTED WATERS
By Pollutant Category: Sediment

Region: 1 - North Coast
Water Type: Rivers/Streams
Total unique waterbodies shown: 37
Date: Dec 30, 2005

Regional Board	WB ID	303(d) Listed Water	WB Type	Pollutant Category	Pollutant	Source	Estimated Size	Size Unit	TMDL Priority	TMDL Completion
1	CAR1134001319980708180108	Albion River, Mendocino Coast HU, Albion River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Logging Road Construction/Maintenance	77	Miles	High	2003
1	CAR1134001319980708180108	Albion River, Mendocino Coast HU, Albion River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Nonpoint Source	77	Miles	High	2003
1	CAR1134001319980708180108	Albion River, Mendocino Coast HU, Albion River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Silviculture	77	Miles	High	2003
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Disturbed Sites (Land Develop.)	225	Miles	High	2003
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Logging Road Construction/Maintenance	225	Miles	High	2003
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Nonpoint Source	225	Miles	High	2003
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Road Construction	225	Miles	High	2003
1	CAR1133004319980708174237	Big River, Mendocino Coast HU, Big River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Silviculture	225	Miles	High	2003
1	CAR1111103219980709182643	Eel River Delta, Eel River HU, Lower Eel River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Nonpoint Source	426	Miles	Medium	
1	CAR1111103219980709182643	Eel River Delta, Eel River HU, Lower Eel River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Range Grazing-Riparian and/or Upland	426	Miles	Medium	
1	CAR1111103219980709182643	Eel River Delta, Eel River HU, Lower Eel River HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Silviculture	426	Miles	Medium	
1	CAR1117104419980710113432	Eel River, Middle Fork, Eel River HU, Middle Fork HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Erosion/Siltation	1071	Miles	Medium	
1	CAR1114106119990601095147	Eel River, Middle Main Fork, Eel River HU, Middle Main HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Construction/Land Development	674	Miles	Medium	
1	CAR1114106119990601095147	Eel River, Middle Main Fork, Eel River HU, Middle Main HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Erosion/Siltation	674	Miles	Medium	
1	CAR1114106119990601095147	Eel River, Middle Main Fork, Eel River HU, Middle Main HA	Rivers/Streams	Sediment	Sedimentation/Siltation	Habitat Modification	674	Miles	Medium	

Figure 14.42 Report Output

Click the "Print" hyperlink in the upper right-hand corner (scroll to top of page to find the "Print" hyperlink) to print the generated report.

Click the "Go Back" button at any time to return to the list of available reports.

The *Main Map* page refreshes to show the 303(d) listed waterbodies in the selected Region (or the entire state) listed for the selected pollutant categories (Figure 14.43).

Enter a new set of values to generate a new report.

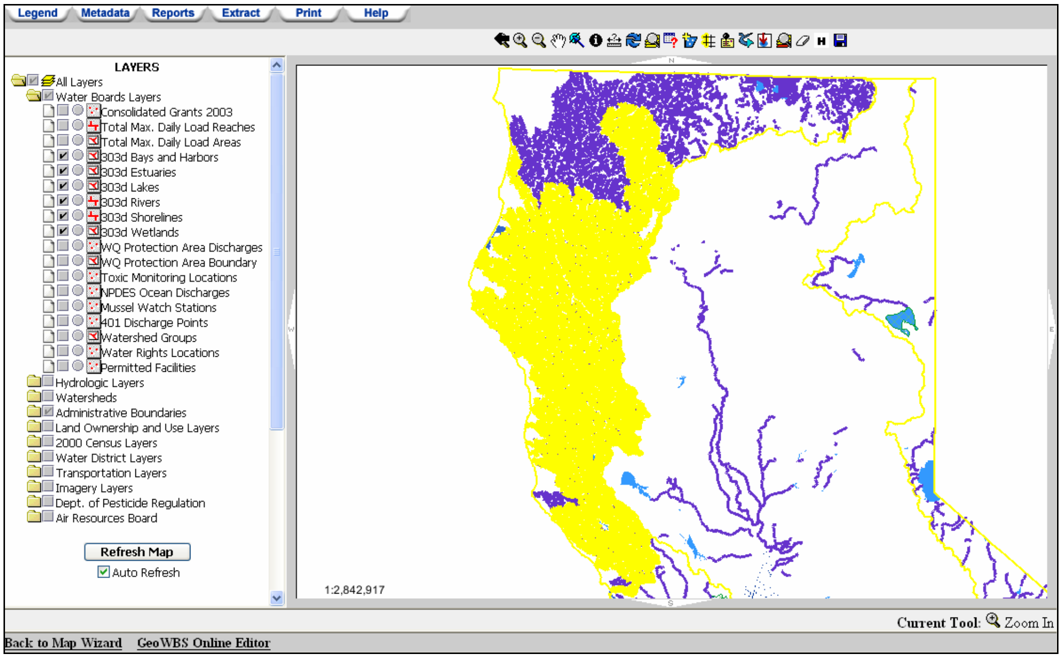


Figure 14.43 Main Map Page Display

303(d) List Impairments by Source(s) Report

The "303(d) List Impairments by Source(s) Report" generates a map of 303d listed waterbodies impaired by a particular pollutant source. This information can be displayed for the entire state or for a selected Regional Board. Types of waterbodies (or all) can be selected and one or many pollutant sources can be selected. A table is generated that shows the 303(d) listed waterbodies for the selected state or waterbody that have been listed for the selected waterbody type and pollutant source.

To create a "303(d) List Impairments by Source(s) Report", click the appropriate link within the Available Reports window (Figure 14.44).

There are three steps required before a map can be created:

1. Click the appropriate radio button to select whether you would like to see a map of the entire state or a map of a single Regional board. If you select Regional Board, use the dropdown menu to select which Regional Board you would like to view;
2. Select the waterbody type you would like to show using the dropdown menu. The default is "All"; and
3. In the last step, select one or more pollutant sources to display on the map. Choose multiple values by holding down the "Ctrl" key (apple key on a Mac) while making your selections.

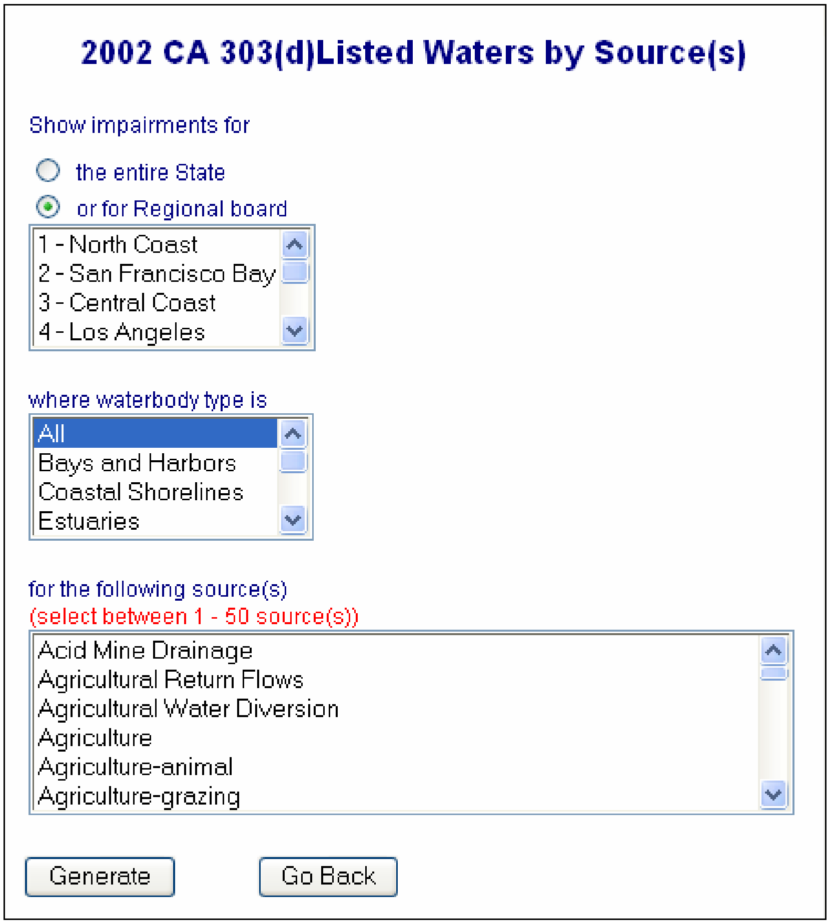
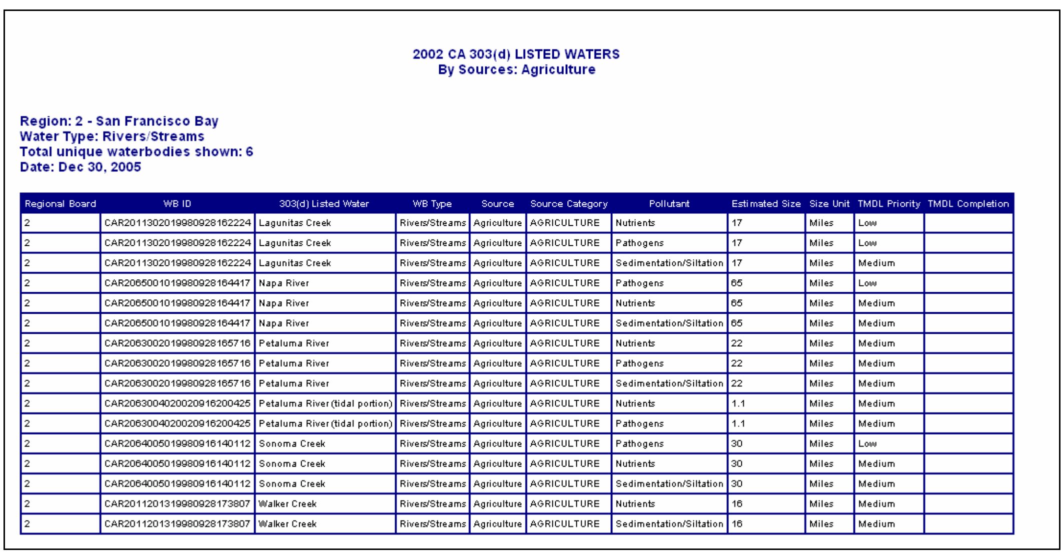


Figure 14.44 Search Criteria

When you have finished making your selections, click the "Generate" button. The selection of Regional Board 2, Rivers/Streams and Agriculture produces the following result (Figure 14.45).



2002 CA 303(d) LISTED WATERS
By Sources: Agriculture

Region: 2 - San Francisco Bay
Water Type: Rivers/Streams
Total unique waterbodies shown: 6
Date: Dec 30, 2005

Regional Board	WB ID	303(d) Listed Water	WB Type	Source	Source Category	Pollutant	Estimated Size	Size Unit	TMDL Priority	TMDL Completion
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	17	Miles	Low	
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	Agriculture	AGRICULTURE	Pathogens	17	Miles	Low	
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	Agriculture	AGRICULTURE	Sedimentation/Siltation	17	Miles	Medium	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	Agriculture	AGRICULTURE	Pathogens	65	Miles	Low	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	65	Miles	Medium	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	Agriculture	AGRICULTURE	Sedimentation/Siltation	65	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	22	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	Agriculture	AGRICULTURE	Pathogens	22	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	Agriculture	AGRICULTURE	Sedimentation/Siltation	22	Miles	Medium	
2	CAR2063004020020916200425	Petaluma River (tidal portion)	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	1.1	Miles	Medium	
2	CAR2063004020020916200425	Petaluma River (tidal portion)	Rivers/Streams	Agriculture	AGRICULTURE	Pathogens	1.1	Miles	Medium	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	Agriculture	AGRICULTURE	Pathogens	30	Miles	Low	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	30	Miles	Medium	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	Agriculture	AGRICULTURE	Sedimentation/Siltation	30	Miles	Medium	
2	CAR2011201319980928173807	Walker Creek	Rivers/Streams	Agriculture	AGRICULTURE	Nutrients	16	Miles	Medium	
2	CAR2011201319980928173807	Walker Creek	Rivers/Streams	Agriculture	AGRICULTURE	Sedimentation/Siltation	16	Miles	Medium	

Figure 14.45 Report Output

Click the "Print" hyperlink in the upper right-hand corner (scroll to top of page to find the "Print" hyperlink) to print an image of the map and table.

Click the "Go Back" button to return to the list of available reports.

The *Main Map* page refreshes to show the 303(d) listed waterbodies in the selected Region (or the entire state) listed for the selected pollutant categories (Figure 14.46).

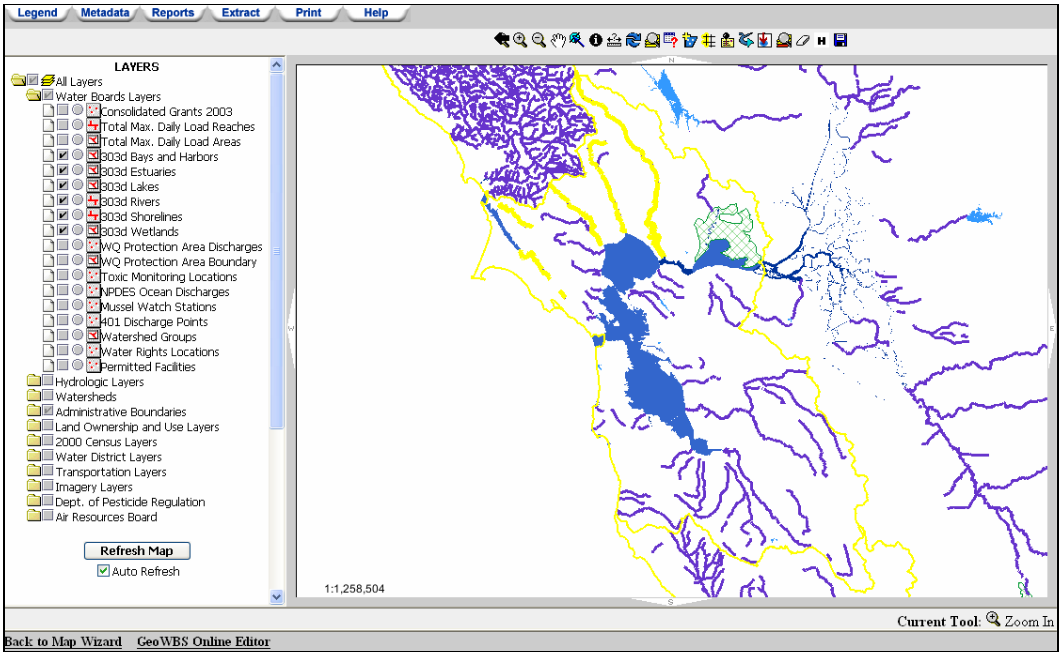


Figure 14.46 Main Map Page Display

Enter a new set of values to generate a new report.

303(d) List Impairments by Source Category Report

The "303(d) List Impairments by Source Category Report" generates a map of 303d listed waterbodies impaired by a particular pollutant source category. This information can be displayed for the entire state or for a selected Regional Board. Types of waterbodies (or all) can be selected and one or many pollutant sources can be selected. A table is generated that shows the 303(d) listed waterbodies for the selected state or waterbody that have been listed for the selected waterbody type and pollutant source category.

To create a "303(d) List Impairments by Source Category Report", click the appropriate link within the Available Reports window (Figure 14.47).

There are three steps required before a map can be created:

1. Click the appropriate radio button to select whether you would like to see a map of the entire state or a map of a single Regional board. If you select Regional Board, use the dropdown menu to select which Regional Board you would like to view;
2. Select the waterbody type you would like to show using the dropdown menu. The default is "All"; and
3. In the last step, select one or more pollutant source categories to display on the map. Choose multiple values by holding down the "Ctrl" key (apple key on a Mac) while making your selections.

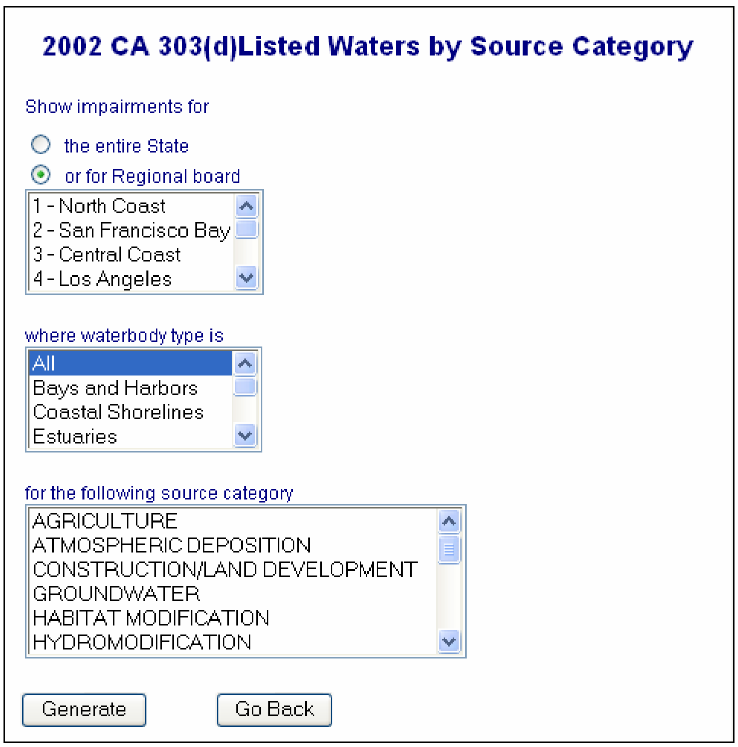


Figure 14.47 Search Criteria

When you have finished making your selections, click the "Generate" button. The selection of Regional Board 2, Rivers/Streams and Agriculture produces the following result (Figure 14.48).

Click the "Print" hyperlink in the upper right-hand corner (scroll to top of page to find the "Print" hyperlink) to print an image of the map and table.

Click the "Go Back" button to return to the list of available reports.

Enter a new set of values to generate a new report.

2002 CA 303(d) LISTED WATERS
By Source Category: AGRICULTURE

Region: 2 - San Francisco Bay
Water Type: Rivers/Streams
Total unique waterbodies shown: 6
Date: Dec 30, 2005

Regional Board	WB ID	303(d) Listed Water	WB Type	Source Category	Source	Pollutant	Estimated Size	Size Unit	TMDL Priority	TMDL Completion
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	17	Miles	Low	
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	AGRICULTURE	Agriculture	Pathogens	17	Miles	Low	
2	CAR2011302019980928162224	Lagunitas Creek	Rivers/Streams	AGRICULTURE	Agriculture	Sedimentation/Siltation	17	Miles	Medium	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	65	Miles	Medium	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	AGRICULTURE	Agriculture	Pathogens	65	Miles	Low	
2	CAR2065001019980928164417	Napa River	Rivers/Streams	AGRICULTURE	Agriculture	Sedimentation/Siltation	65	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	22	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	AGRICULTURE	Agriculture	Pathogens	22	Miles	Medium	
2	CAR2063002019980928165716	Petaluma River	Rivers/Streams	AGRICULTURE	Agriculture	Sedimentation/Siltation	22	Miles	Medium	
2	CAR2063004020020916200425	Petaluma River (tidal portion)	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	1.1	Miles	Medium	
2	CAR2063004020020916200425	Petaluma River (tidal portion)	Rivers/Streams	AGRICULTURE	Agriculture	Pathogens	1.1	Miles	Medium	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	30	Miles	Medium	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	AGRICULTURE	Agriculture	Pathogens	30	Miles	Low	
2	CAR2064005019980916140112	Sonoma Creek	Rivers/Streams	AGRICULTURE	Agriculture	Sedimentation/Siltation	30	Miles	Medium	
2	CAR2011201319980928173807	Walker Creek	Rivers/Streams	AGRICULTURE	Agriculture	Nutrients	16	Miles	Medium	
2	CAR2011201319980928173807	Walker Creek	Rivers/Streams	AGRICULTURE	Agriculture	Sedimentation/Siltation	16	Miles	Medium	

Figure 14.48 Report Output

The *Main Map* page refreshes to show the 303(d) listed waterbodies in the selected Region (or the entire state) listed for the selected pollutant categories (Figure 14.46).

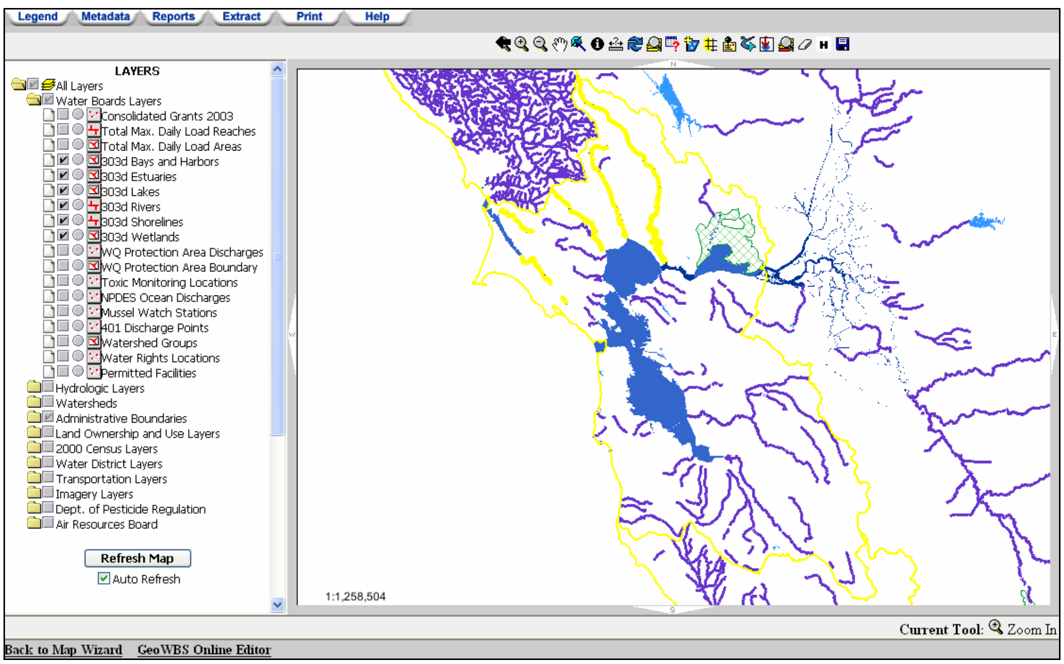


Figure 14.46 Main Map Page Display

14.5.4 Extract Tab

The Extract Tab creates a compressed file of the attribute data for the layers currently visible for the current map extent (with a file extension name of *.zip). Clicking on the Extract Tab opens a new window with the following message (Figure 14.47):

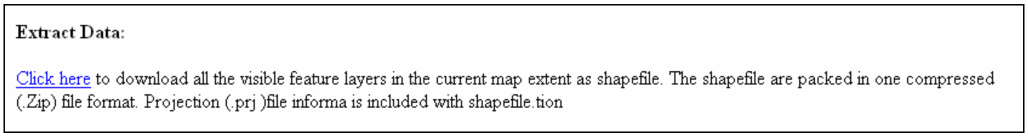


Figure 14.47 Extract Data Message

Clicking the "Click here" hyperlink triggers an alert informing you that the system is about to create a file that will be available for downloading to your personal computer (Figure 14.48).

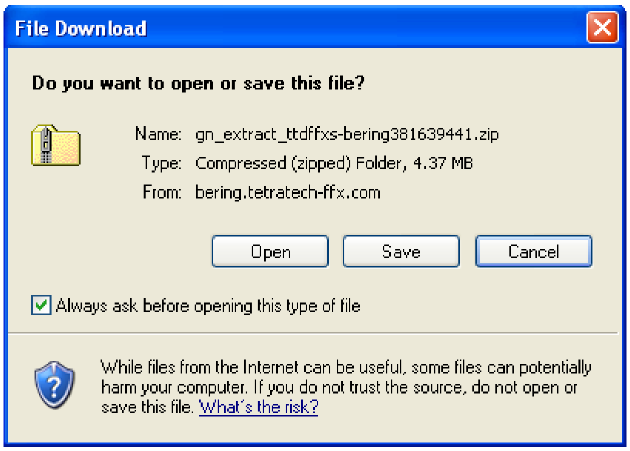


Figure 14.48 Extract Tab Alert

Clicking "Open" opens the file without saving it to your computer. Clicking "Save" saves the file to your computer (you will be prompted for a save location). Clicking "No" terminates the procedure and closes the alert window.

When the file is available for downloading, an alert sounds and you will be able to view the extracted data.

14.5.5 Print Tab

The Print feature of GeoWBS Navigator allows you to create a printed image of the current map view. Clicking on the Print Tab opens the Map Printing Configuration Panel (Figure 14.49) where you can customize the layout of the image and select additional features to include.

Before utilizing the GeoWBS Print feature, check the current Print Setup configuration on your Web browser.

To select a map feature to include on the printed map, select the box next to the feature name so that a check appears in the box (). The values displayed for each feature can be changed using the text fields and drop-down menu located next to each feature title. The features and corresponding value options are outlined in Table 14.3.

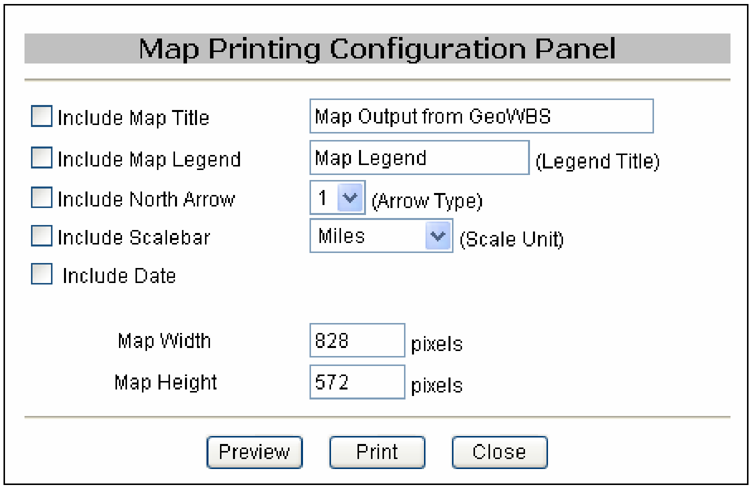


Figure 14.49 Map Printing Configuration Panel

The "Preview" button allows you to view an image of your map before printing.

You must preview your map image before printing.

Table 14.3 Optional Map Features

Feature	*Value Options*
Map Title	Enter a title for your map. This will appear at the top of the map image.
Map Legend	Enter a title for the map legend.
North Arrow	Indicate the arrow type for the North Arrow by selecting from the drop-down list box.
Scalebar	Select the appropriate scale from the drop-down menu.
Date	Will cause today's date to be displayed on the map.
Map Width	To change the default map width, enter a new value in the text field.
Map Height	To change the default map height, enter a new value in the text field.

Clicking the "Print" button prints the map using the current Page Setup configuration of your browser. The "Close" button closes the Map Printing Configuration Panel without creating an image.

14.5.6 Help Tab

The help tab contains a copy of this guide in PDF format.

15
GeoWBS Online Editor

This chapter addresses the following topics:

- An Introduction to the Online Editor
- How to create new and edit existing Fact Sheets
- How to create a Decision
- How to submit a Category Decision

15.1 Introduction to the GeoWBS Online Editor

The purpose of the GeoWBS Online Editor is to record assessment determinations resulting from the biennial surface water quality assessment process. The Online Editor will record details for all Assessment Units (AUs) and Monitoring Areas (MAs) in the state, which is required to support the needs of the EPA Integrated Reporting process, and will supplement and complete the information provided as part of the California Fact Sheet assessment process.

15.1.1 The Online Editor and The Fact Sheet Database

The 2004 California section 303(d) impaired water assessment resulted in the development of an online system to mange the vast amounts of evidence used to describe the condition of California surface waters, store the state's assessment determinations, and finally produce the evidence fact sheets that are required to be entered into state record for each water body. This Fact Sheet Database (FAC) allows many assessors working at numerous locations to compile their results into a single system for storage and reporting. While the tool was constructed to focus on the 303(d) assessment process, it has been adapted to provide data to the GeoWBS Online Editor and to also support the 305(b) integrated assessment and reporting process that EPA now requires.

15.1.2 Structure of the Online Editor

The Online Editor is designed to help you move from the development of Fact Sheets (with their associated Lines of Evidence), through the decision-making process, to the final submission of a Monitoring Area Category Decision. Assessment Units (AUs) and Monitoring Areas (MAs) that have been committed in the GeoWBS Desktop Editor are available for use in the GeoWBS Online Editor.

See Chapter 16 for more information on the GeoWBS Desktop Editor.

Figure 15.1 shows the general flow of information within the Online Editor.

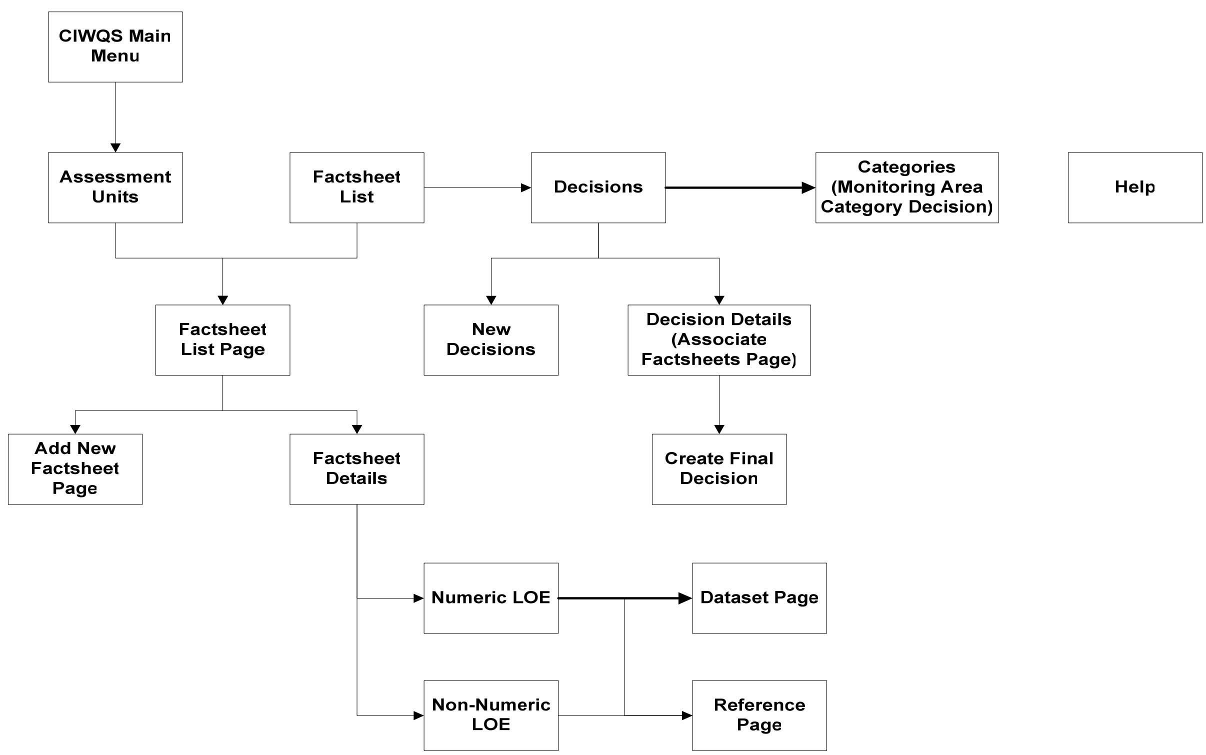


Figure 15.1 Structure of the GeoWBS Online Editor

For an overview of how data is created within the GeoWBS system, see Chapter 13.

From the CIWQS Main Menu, the first page you see is the *Assessment Units* page, where you can search all available Assessment Units (for the purpose of accessing the related Fact Sheets).

When you have found the appropriate record for an Assessment Unit, you can then view the list of Fact Sheets associated with that Assessment Unit (*Factsheet List* page) or create a new Fact Sheet (*Add New Factsheet* page).

Once a Monitoring Area, use, and pollutant have been associated with a Fact Sheet, it is possible to add Lines of Evidence (LOE) to the record (*Numeric LOE* and *Non-Numeric LOE* pages).

Once all Fact Sheets for a given Monitoring Area are assembled and completed, they can be associated with an impairment Decision. Decisions can be located by searching the *Decisions* page. From here, it is possible to view the Decision details (where Fact Sheets can be associated with the Decision). It is also possible to create a new Decision.

When the record for the Decision is complete, a final Decision can be created. Records of final Decisions are then assembled on the *Categories* page for the creation (and eventual submittal) of a Monitoring Assessment Category Decision.

15.2 The GeoWBS Online Editor

The GeoWBS Online Editor is accessed through the CIWQS Main Menu. If you have not already done so, log into CIWQS. Click on the *GeoWBS Online Editor* Module to open to the *Assessment Units* page (Figure 15.2).

If the GeoWBS Editor Module is not displayed as a hyperlink on the CIWQS Main Menu (shown in blue text and underlined), you do not have access to this Module. If you feel you should have access, contact your CIWQS System Administrator.

Figure 15.2 GeoWBS Online Editor Home Page

The *Assessment Units* page serves as a search page to find available Assessment Units and provides links to additional components of the Online Editor.

15.2.1 Searching for Assessment Units

To find an Assessment Unit, enter values into the three available search fields. These are described in Table 15.1.

Table 15.1 Assessment Unit Search Fields

Field Name	*Description*
Keyword	Type in a keyword to narrow the list of Assessment Units. The system searches for all Assessment Units that have the given keyword as part of the name. For example, type in "Canyon" to find "Canyon Creek Lakes" or "Point" to find Alder Creek, Mendocino Coast HU, Point Arena HA, Alder Creek HSA.
Listing Year	Select the year for which the assessment is being performed from the drop-down menu. The 305(b) and 303(d) lists are developed bi-annually, so the only possible listing years are 2000, 2002, and 2004.
Board	Select the Regional Board from the drop-down menu. The system searches for all Assessment Units located within the selected Board.

When you have finished entering search criteria, click the "Refresh Assessment Units" button to the right of the screen. The list of Assessment Units that meet your criteria will be displayed below the table header row (Figure 15.3). Table 15.2 describes the fields displayed for each resulting Assessment Unit.

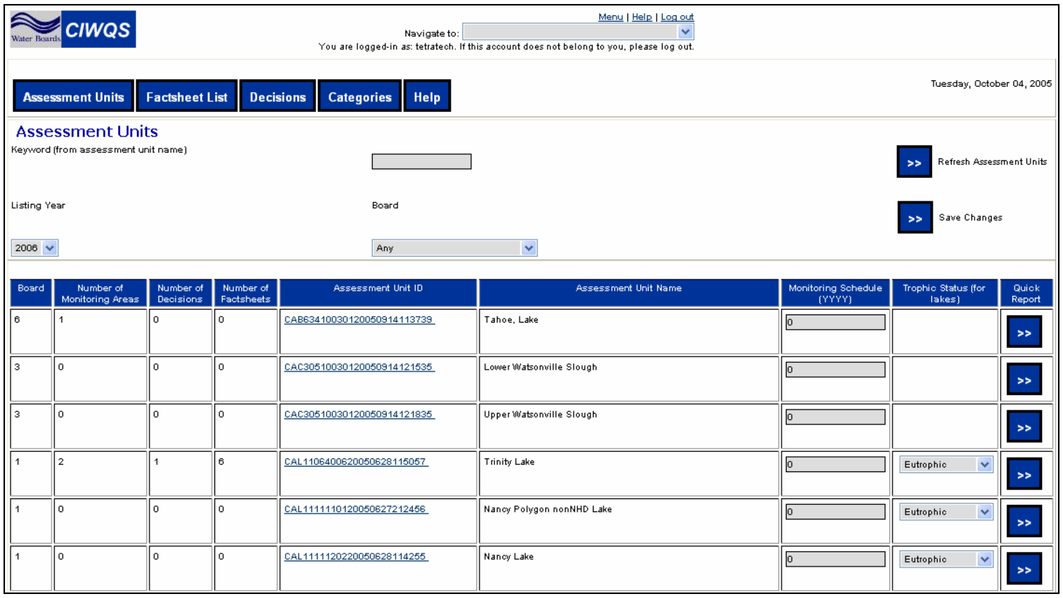


Figure 15.3 Results of an Assessment Unit Search

The *Monitoring Schedule* and lake *Trophic Status* fields are the only fields that allow data entry. These fields should be populated at the end of the assessment process (once a Category Decision has been made).

Once you have input data into the *Monitoring Schedule* and *Trophic Status* fields, click the "Save Changes" button to save the new data to the record for the Assessment Unit.

Clicking the Assessment Unit identifier hyperlink from the *Assessment Unit ID* field will open the *Fact Sheet List* Page. This page is described in detail in Section 15.3.1.

Table 15.2 Assessment Unit Results Table

Field Name	Description
Board	The number of the associated Water Board.
Number of Monitoring Areas	The number of Monitoring Areas defined within the Assessment Unit.
Number of Decisions	Shows the number of attainment/impairment decisions made for this Assessment Unit.
Number of Factsheets	Indicates the number of Fact Sheets associated with this Assessment Unit.
Assessment Unit ID	Displays the Assessment Unit ID as a hyperlink. Clicking on the link opens the Factsheet List page with all fact sheets for the Monitoring Areas associated with that Assessment Unit.
Assessment Unit Name	Displays the Assessment Unit Name.
Monitoring Schedule (YYYY)	Allows you to enter the year for which monitoring in this AU is next scheduled.
Trophic Status (for lakes)	If an AU has a waterbody type of lake, this drop-down menu appears. Choose the appropriate Trophic Status (Oligotrophic, Mesotrophic, Eutrophic, Not Determined) from the list.
Quick Report	Opens a new window with expanded images of all fact sheets related to the Assessment Unit.

15.3 Fact Sheets

The California method of conducting assessments using Fact Sheets allows assessors the discretion to create any number of Fact Sheets to describe the conditions on a Monitoring Area. A Fact Sheet represents a summary of discrete blocks or pieces of water quality data pertaining to a Monitoring Area. Each Fact Sheet may include many references to data such as quantitative analytical data (numeric) and qualitative (non-numeric) data such as newspaper reports. The Fact Sheet also includes information on the quality of the data. Each Fact Sheet refers to a single Monitoring Area, a single impairment, a single use, and a single source. A Fact Sheet from the FAC application can be printed as a document that serves as the State's evidence of water quality for that Monitoring Area (water body).

15.3.1 The Fact Sheet Page

Fact Sheets can be accessed by clicking the Assessment Unit identifier hyperlink from the *Assessment Unit ID* field on the *Assessment Units* page (described above). You can also get to individual Fact Sheets (and search for them) by clicking the "Factsheet List" button found at the top of every page of the *GeoWBS Online Editor* Module. The *Factsheet List* page also provides a way to create new Fact Sheets.

From the Assessment Units Page

If you get to the *Factsheet List* page via the *Assessment Units* page, all Fact Sheets available for the selected Assessment Unit will be displayed in the table (Figure 15.4).

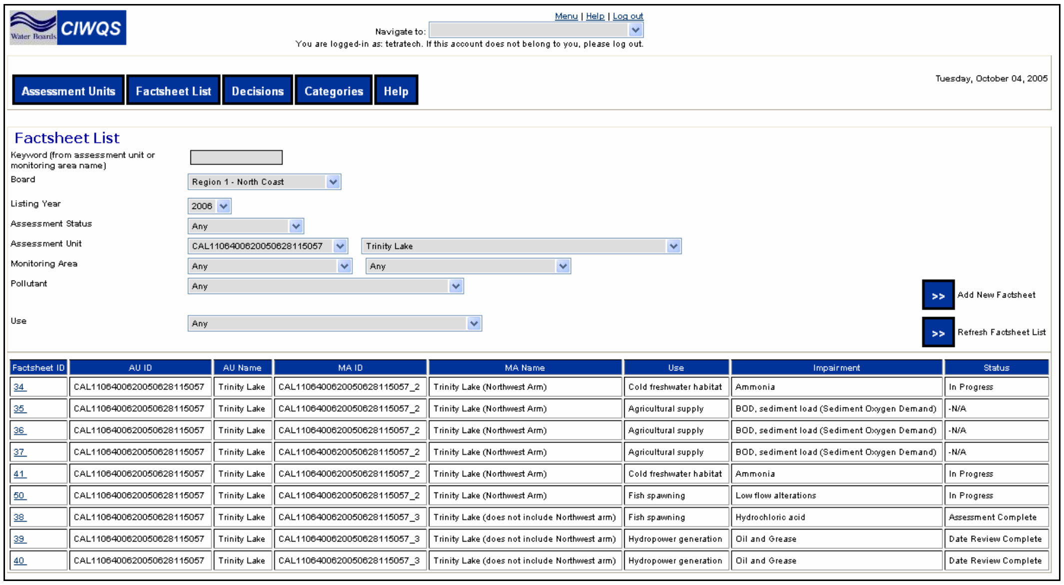


Figure 15.4 All Fact Sheets for a Selected Assessment Unit

From the "Factsheet List" button

If you get to the *Factsheet List* page by clicking the "Factsheet List" button, no Fact Sheets will be displayed in the table (Figure 15.5). You have the option of choosing (or entering) one or more search criteria in the fields to find the required Fact Sheet. Table 15.3 lists the search fields and describes each one.

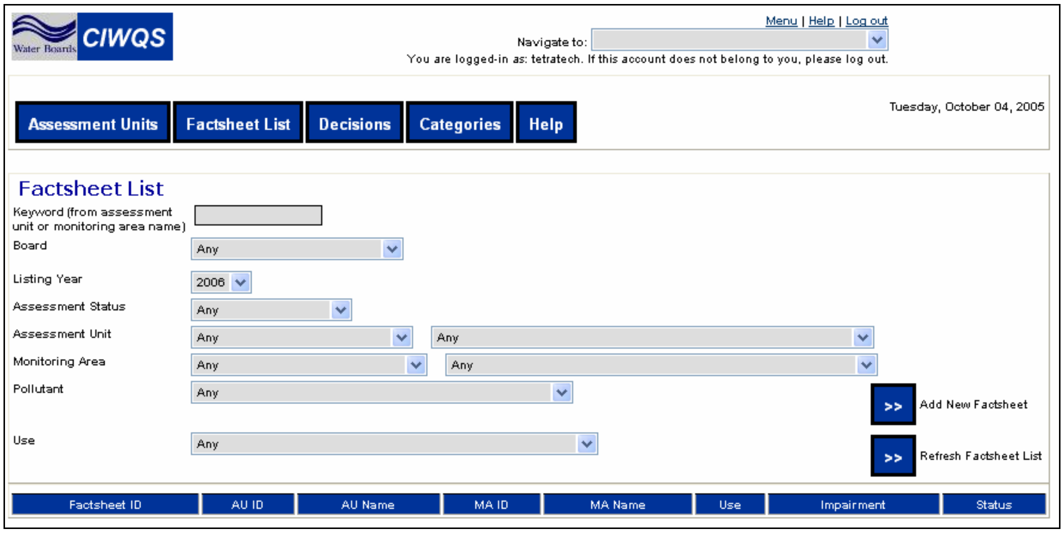


Figure 15.5 Fact Sheet List Page

Table 15.3 Fact Sheet Search Fields

Field Name	*Description*
Keyword	Type in a keyword to narrow the list of Fact Sheets. The system searches for all Fact Sheets that have the given keyword as part of the name.
Board	Select the Regional Board from the drop-down menu. The system searches for all Fact Sheets performed for MA's within the selected Board.
Listing Year	Select the year for which the assessment is being performed from the drop-down menu. The 305(b) and 303(d) lists are developed bi-annually, so the only possible Listing Years are 2000, 2002, 2004, and 2006.
Assessment Status	Select the appropriate Assessment Status from the drop-down menu.
Assessment Unit	Select the related Assessment Unit ID and Name from the drop-down menus.
Monitoring Area	Select the associated Monitoring Area ID and Name from the drop-down menus.
Pollutant	Select the related Pollutant from the drop-down menu.
Use	Select the related Use from the drop-down menu.

Click the "Refresh Factsheet List" button to update the table with the current search criteria (Figure 15.6).

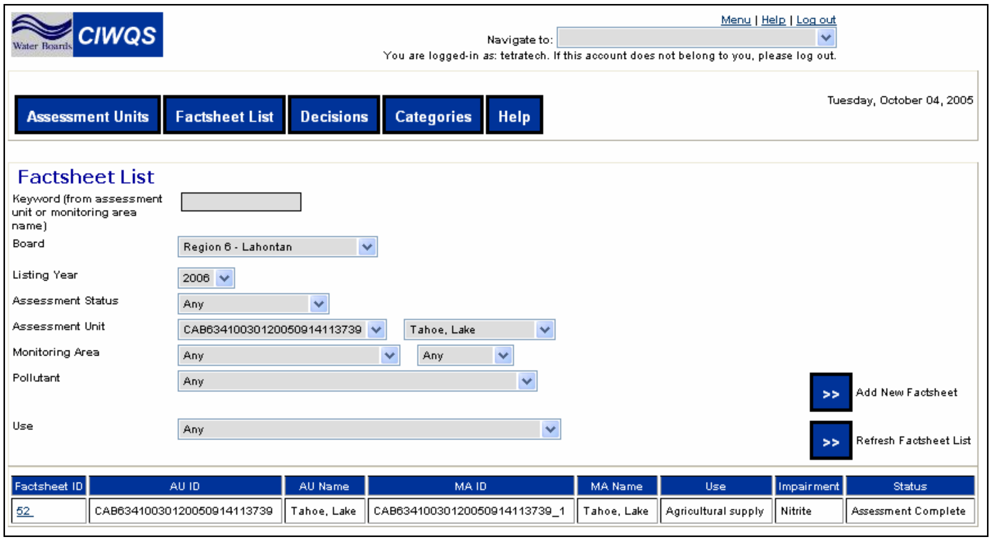


Figure 15.6 Factsheet List Page with Results

Accessing a Fact Sheet

To access an individual Fact Sheet, click the “Factsheet ID” hyperlink in the appropriate row. This will bring you to the *Factsheet Details* page (See Section 15.3.4 below).

15.3.2 Creating a New Fact Sheet

To add a new Fact Sheet, select a listing year, Monitoring Area ID (MAID), and Name from the search criteria fields and click the “Add New Factsheet” button. This opens the *Add New Factsheet* page (Figure 15.7).

At the top of the *Add New Factsheet* page, the AUID, AU name, MAID, MA name, waterbody type, and listing year are displayed as read-only fields. Table 15.4 lists the remaining fields and describes each one.

Table 15.4 Create New Fact Sheet Fields

Field Name	*Description*
Status	Select a status for the Fact Sheet from the drop-down menu.
Primary Beneficial Use	Select a primary beneficial use from the drop-down menu.
Secondary Beneficial Use	Select one or more secondary beneficial uses. Multiple selections can be made by holding down the CTRL key.
Pollutant Category	Select a pollutant category from the drop-down menu.
Pollutant Name	Select a pollutant name from the drop-down menu. This field will change based on the selection of pollutant category.
Pollutant Sources	Select one or more pollutant sources. Multiple selections can be made by holding down the CTRL key.

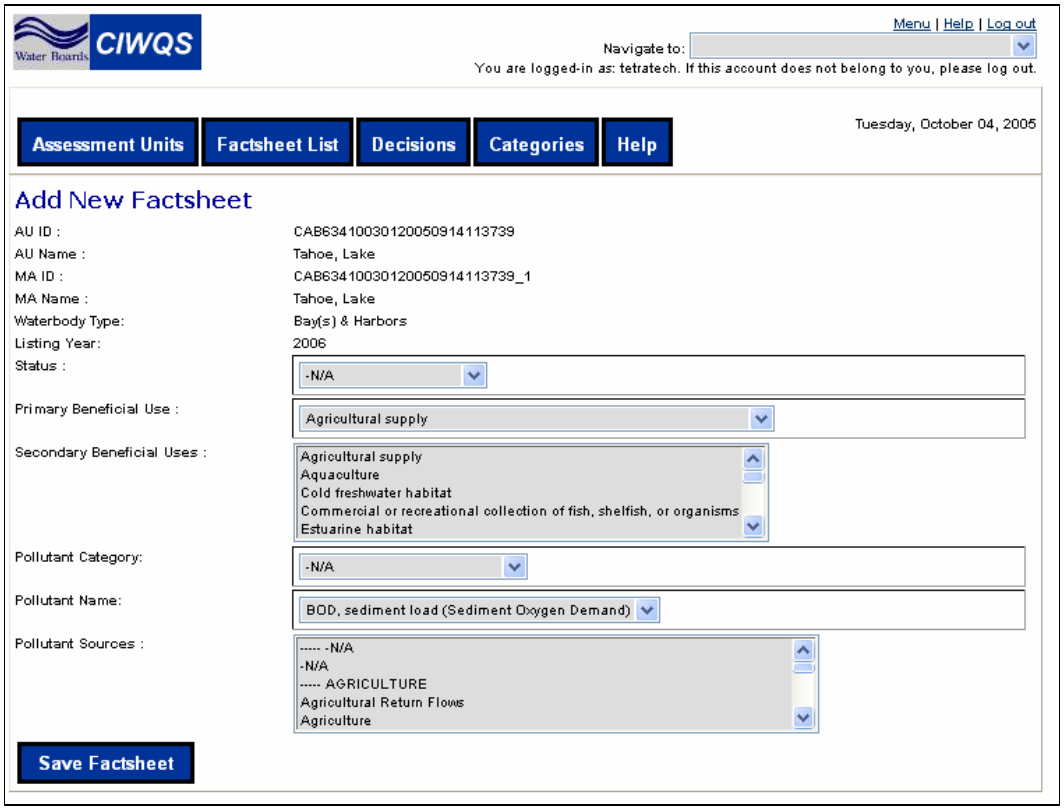


Figure 15.7 Add New Factsheet Page

Click the “Save Factsheet” button at the bottom of the page when you have finished entering data. This returns you to the *Factsheet List* page (as described above).

15.3.3 Fact Sheet Details

The *Factsheet Details* page can be accessed by clicking on the Factsheet ID hyperlink from the Fact Sheet results table of the *Factsheet List* page (Figure 15.8).

The *Factsheet Details* page contains all of the fields found on the *Add New Factsheet* page. This page also provides access to the screens that accept Numeric and Non-Numeric Lines of Evidence (LOE) to be stored and associated with the Fact Sheet.

If you change the information captured on the Fact Sheet, click the “Save Factsheet” button to save the new information.

To make a copy of the current fact sheet, click the “Save New (Copy)” button.

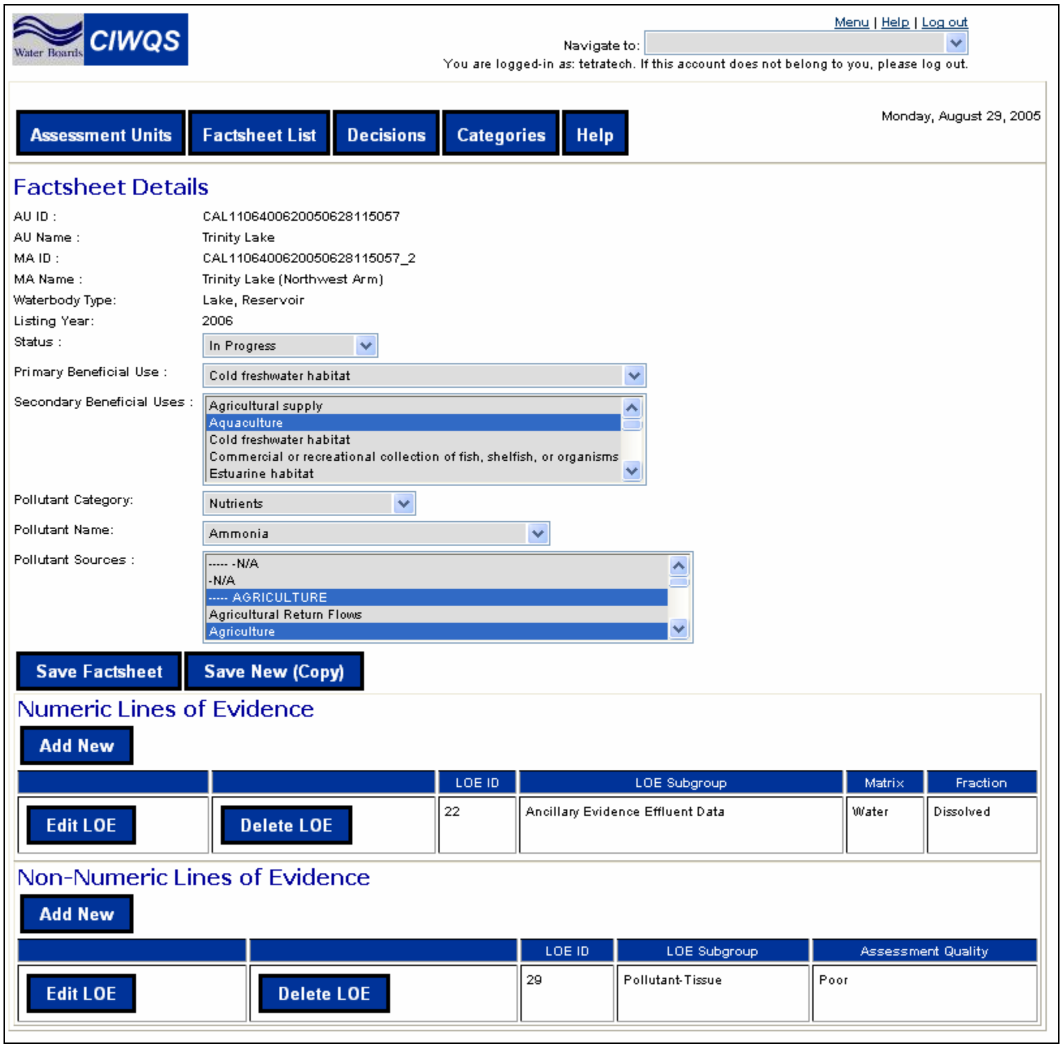


Figure 15.8 Factsheet Details Page

15.3.4 Lines of Evidence

The Lines of Evidence pages are used to input qualitative and quantitative information about a Monitoring Area that inform the water quality use and attainment Decisions. Each Fact Sheet may contain one or more Numeric Lines of Evidence and one or more Non-numeric Lines of Evidence.

Each Line of Evidence is assigned one assessment type, or subgroup. The assessment type generally describes the category of the data, or evidence being written about in the LOE (e.g., Pollutant-Sediment, Pollutant-Tissue).

Numeric Line of Evidence may also be associated with one or more reference documents, and/or one or more data sets. Non-Numeric Lines of Evidence may be associated with one or more reference documents.

Numeric Lines of Evidence

The *Numeric Lines of Evidence* page is shown in Figure 15.9.

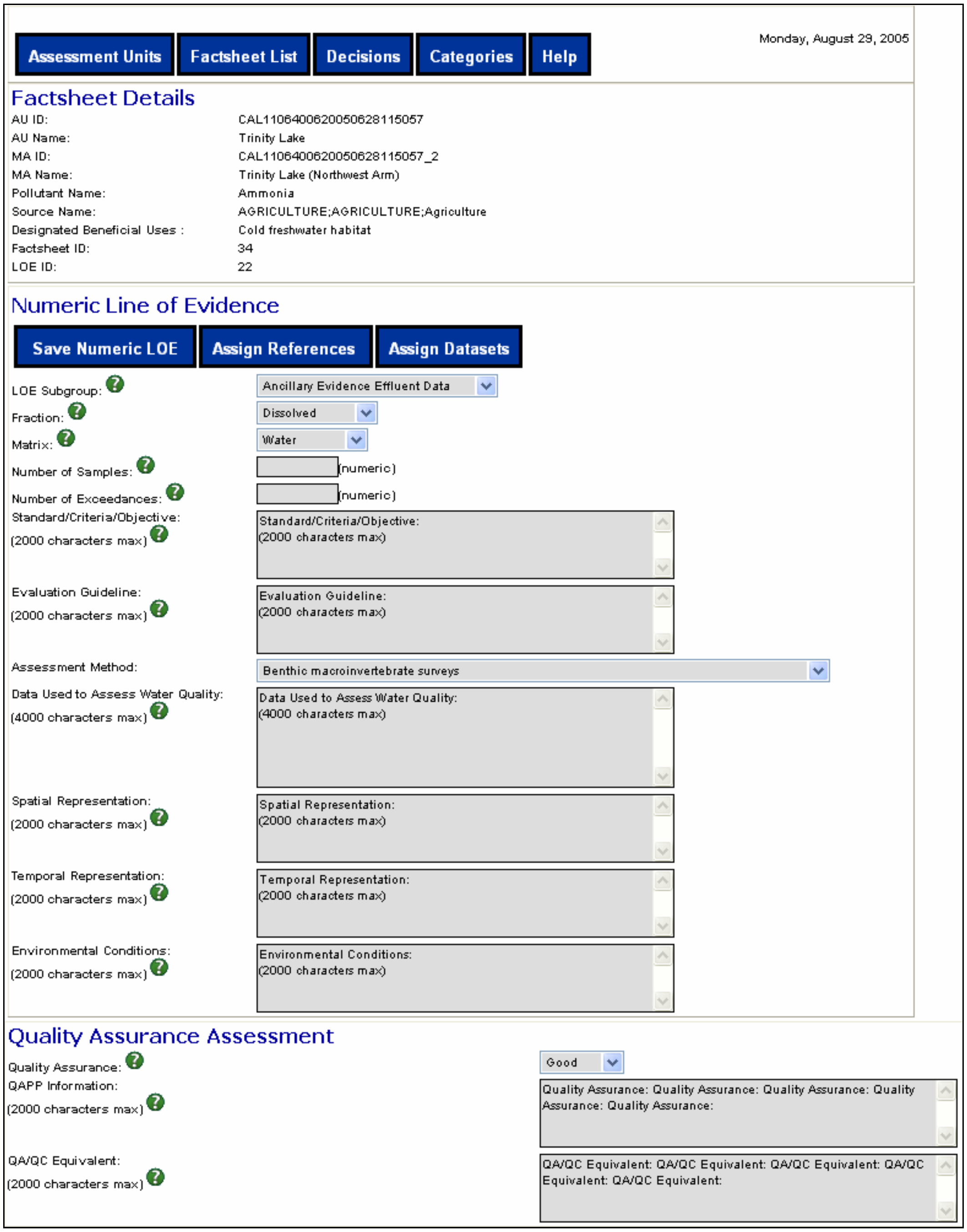


Figure 15.9 Numeric Lines of Evidence Page

At the top of the *Numeric LOE* page, the AUID, AU name, MAID, MA name, pollutant name, source name, beneficial uses, Fact Sheet ID and LOE ID are displayed as read-only fields. Table 15.5 lists the remaining fields and describes each one.

Table 15.5 Numeric LOE Fields

Field Name	Description
LOE Subgroup	Select an LOE subgroup from the drop-down menu.
Fraction	Select the fraction of chemicals found from the drop-down menu.
Matrix	Select the matrix type of the sample(s) from the drop-down menu.
Number of Samples	Enter the number of samples taken.
Number of Exceedences	Enter the number of exceedences recorded.
Standard/Criteria/Objective	Describe the standard/criteria/objective.
Evaluation Guideline	Describe the evaluation guideline(s).
Assessment Method	Select the assessment Method used from the drop-down menu.
Data Used to Assess Water Quality	Describe the data used to assess water quality.
Spatial Representation	Describe the spatial representation.
Temporal Representation	Describe the temporal representation.
Environmental Conditions	Describe the environmental conditions.
Quality Assurance	Select the level of quality assurance from the drop-down menu.
QAPP Information	Enter any QAPP information (as appropriate).
QA/QC Equivalent	Describe the QA/QC equivalent.

☞ **Hold your mouse over the ( ) icon next to any field name to view information about a particular field at the mouse tip.**

Click the "Save Numeric LOE" button to save the information you have entered and return to the *Factsheet* page. The new record appears in the Numeric Lines of Evidence table.

Click the "Edit LOE" button to return to the *Numeric Lines of Evidence* page. Click the "Delete LOE" button to delete the row from the table.

Non-Numeric Lines of Evidence

The *Non-numeric Line of Evidence* page is shown in Figure 15.10.

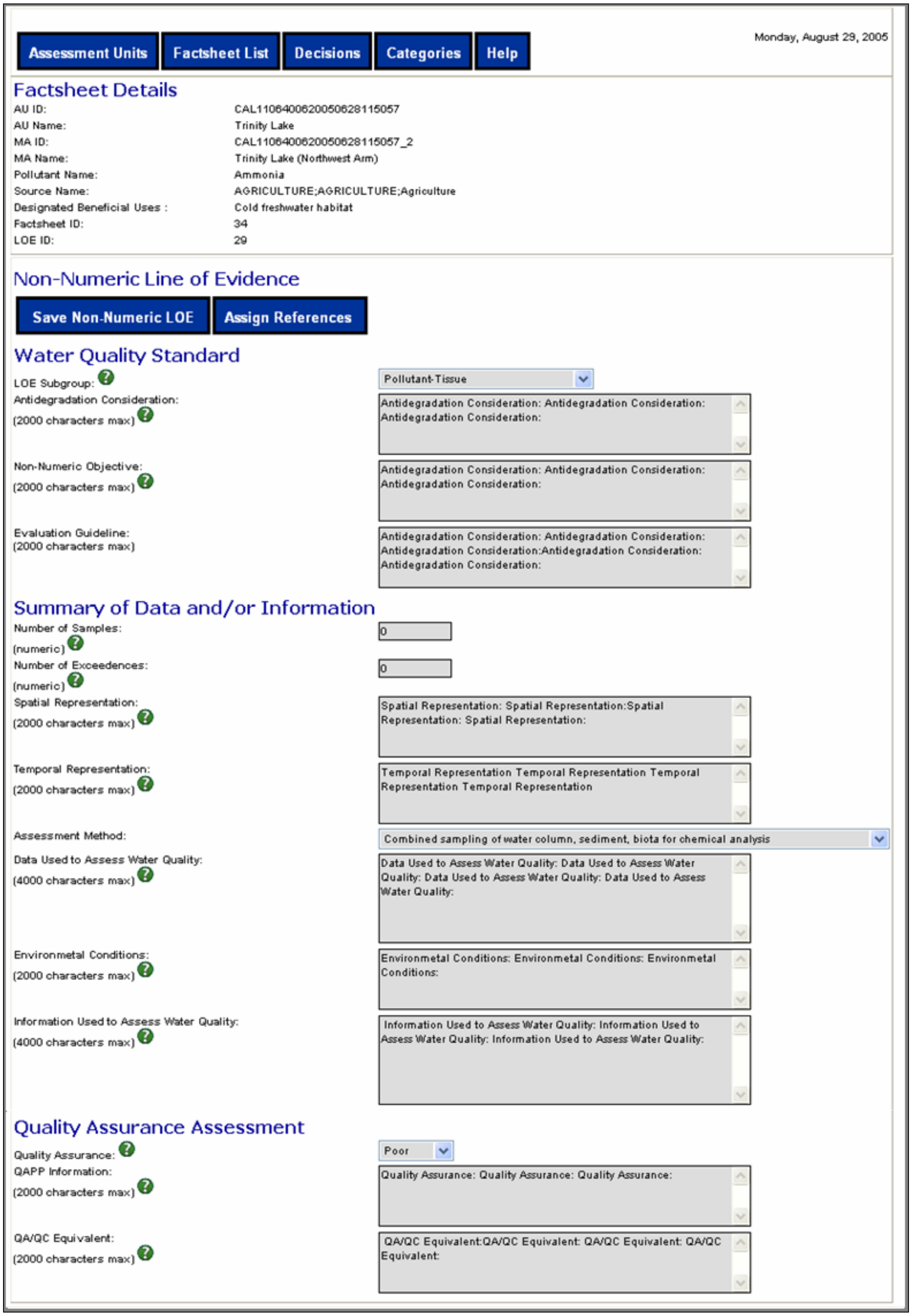


Figure 15.10 Non-numeric Lines of Evidence Page

At the top of the *Non-Numeric LOE* page, the AUID, AU name, MAID, MA name, pollutant name, source name, beneficial uses, Fact Sheet ID and LOE ID are displayed as read-only fields. Table 15.6 lists the remaining fields and describes each one.

Table 15.6 Non-Numeric LOE Fields

Field Name	Description
LOE Subgroup	Select an LOE subgroup from the drop-down menu.
Antidegradation Consideration	Enter any antidegradation considerations (if applicable).
Non-Numeric Objective	Copy objective, criterion or standard here as displayed by the system. If not available, enter objective from basin plan or alternative source.
Evaluation Guideline	Enter any evaluation guidelines (as appropriate).
Number of Samples	Enter the number of samples taken.
Number of Exceedences	Enter the number of exceedences recorded.
Spatial Representation	Describe the spatial representation.
Temporal Representation	Describe the temporal representation.
Assessment Method	Select the assessment Method used from the drop-down menu.
Data Used to Assess Water Quality	Describe the data used to assess water quality.
Environmental Conditions	Describe the environmental conditions.
Information Used to Assess Water Quality	Describe the information used to assess water quality.
Quality Assurance	Select the level of quality assurance from the drop-down menu.
QAPP Information	Enter any QAPP information (as appropriate).
QA/QC Equivalent	Describe the QA/QC equivalent.

Hold your mouse over the (?) icon next to any field name to view information about a particular field at the mouse tip.

Click the "Save Non-Numeric LOE" button to save the information you have entered and return to the *Factsheet Details* page. The new LOE record appears in the Non-Numeric LOE table.

Click the "Edit LOE" button to return to the *Non-Numeric Lines of Evidence* page. Click the "Delete LOE" button to delete the row from the table.

15.3.5 Assigning References

It is possible to assign references to both Numeric and Non-Numeric LOE. This can be done from the either the *Numeric LOE* or *Non-Numeric LOE* page (Figures 15.9 and 15.10).

From either *LOE* page, click the "Assign References" button to view the *Assign References* page (Figure 15.11).

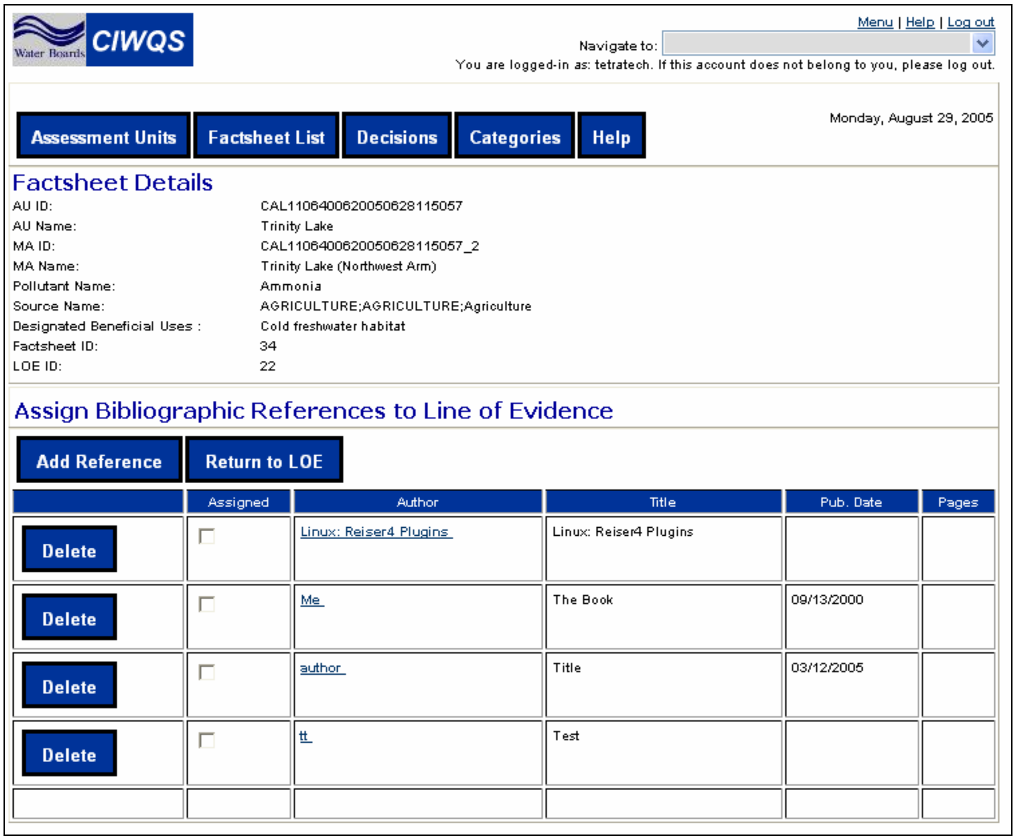


Figure 15.11 Assign References Page

At the top of the *Assign References* page, the AUID, AU name, MAID, MA name, pollutant name, source name, beneficial uses, Fact Sheet ID and LOE ID are displayed as read-only fields. Below this is a table showing all available references.

The references table lists the author's name, title, publication date and pages cited for each associated reference.

Select the checkbox in the *Assigned* field to associate the reference with the LOE.

Click the "Delete" button to delete the reference from the Online Editor.

Click the "Return to LOE" button to return to the *LOE* page.

Click the "Add Reference" button to open the *Reference* page (Figure 15.12).

Click the hyperlink in the *Author* field to view details of a particular reference on the *Reference* page.

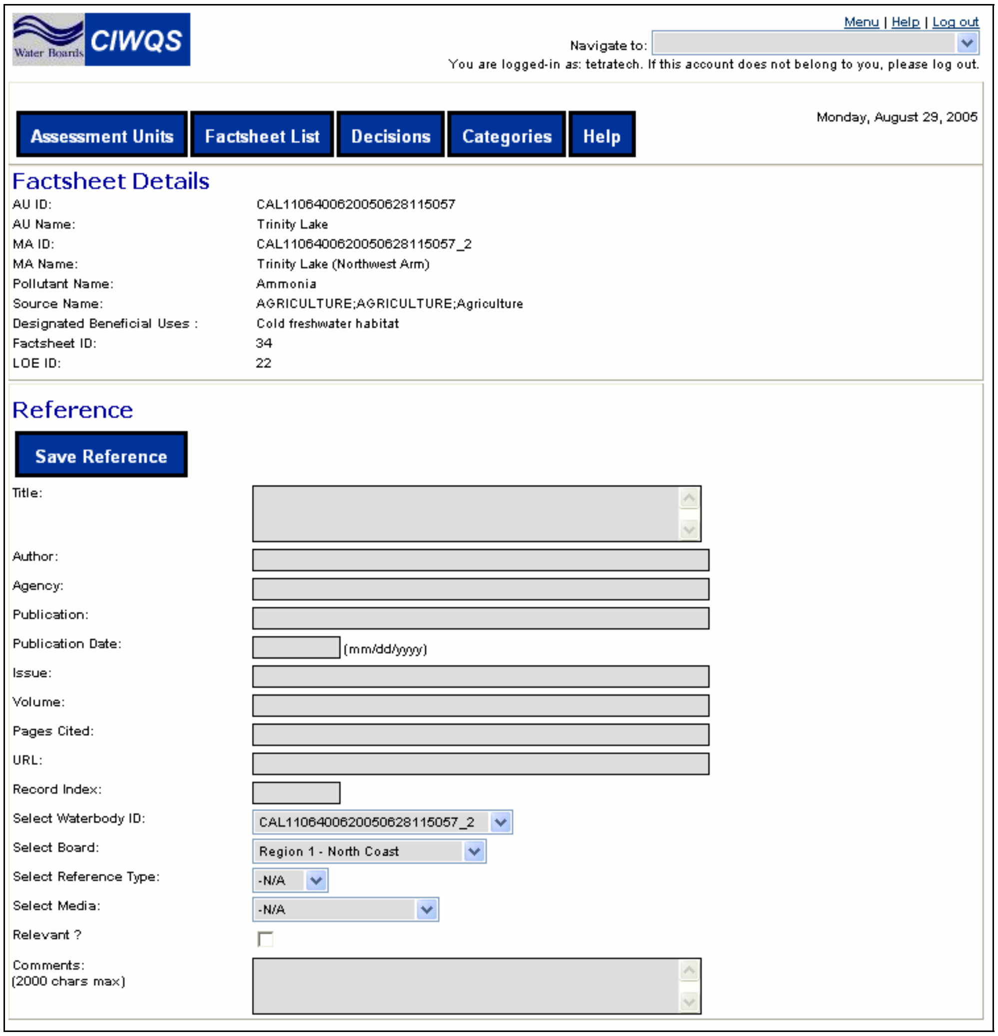


Figure 15.12 Reference Page

At the top of the *Reference* page, the AUID, AU name, MAID, MA name, pollutant name, source name, beneficial uses, Fact Sheet ID and LOE ID are displayed as read-only fields. Table 15.7 lists the remaining fields and describes each one.

Click the "Save Reference" button to save the information you have entered and return to the *Assign References* page. The new Reference record appears in the reference table.

Table 15.7 Reference Fields

Field Name	Description
Title	Enter the title of the reference.
Author	Enter the name of the author of the reference.
Agency	Enter the name of the agency associated with the reference.
Publication	Enter the name of the publication.
Publication Date	Enter the publication date in the form (mm/dd/yyyy).
Issue	Enter the issue number.
Volume	Enter the volume number.
Pages Cited	Enter the pages cited.
URL	Enter the URL of the reference.
Record Index	Enter the record index.
Select Waterbody ID	Select the associated waterbody ID from the drop-down menu.
Select Board	Select the associated Water Board from the drop-down menu.
Select Reference Type	Select the reference type from the drop-down menu.
Select Media	Select the media type from the drop-down menu.
Relevant?	Indicate whether the reference is relevant.
Comments	Enter comments as needed.

15.3.6 Assigning Datasets

Numeric LOEs can also be assigned to datasets. From the *Numeric LOE* page, click the "Assign Datasets" button to view the *Dataset Search* page (Figure 15.13).

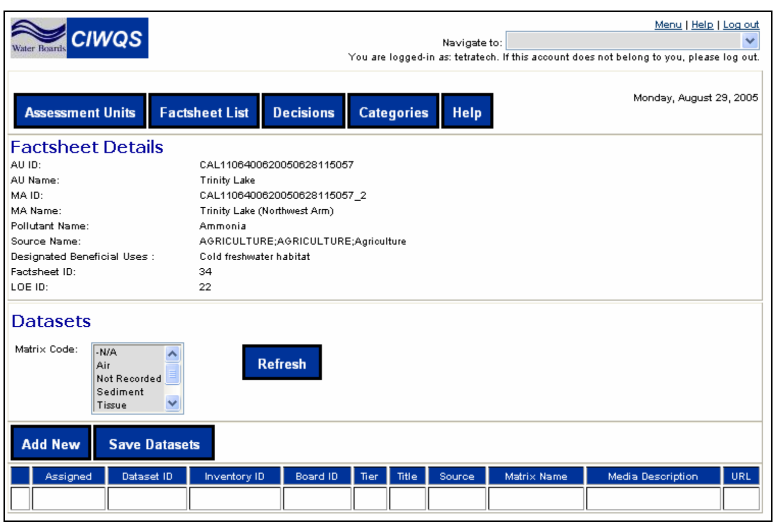


Figure 15.13 Dataset Search Page

Choose a matrix code from the drop-down menu and click the “Refresh” button to view all available datasets for that matrix code. The datasets will be displayed in the table (Figure 15.14).

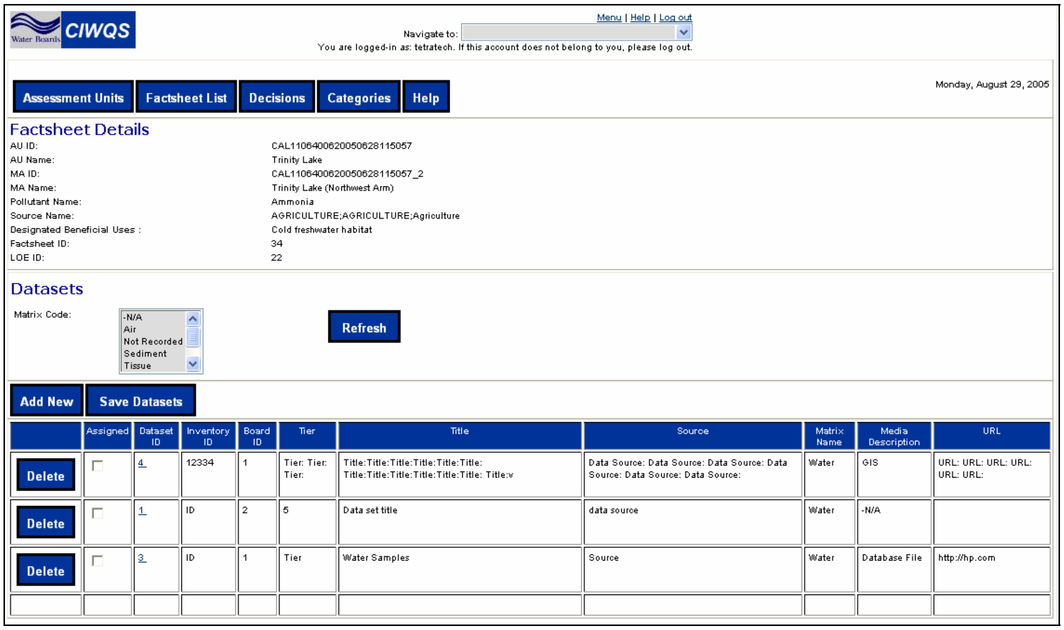


Figure 15.14 Sediment Datasets

The dataset table displays the dataset ID, inventory ID, board ID, tier, title, source, matrix name, media description and URL of the dataset.

Select the checkbox in the *Assigned* field to associate this dataset with the LOE.

Click the “Delete” button to delete the dataset from the Online Editor.

Click the “Add New” button to open the *Dataset* page (Figure 15.15).

Click the hyperlink in the *Dataset ID* field to view details of a particular dataset on the *Dataset* page.

At the top of the *Dataset* page, the AUID, AU name, MAID, MA name, pollutant name, source name, beneficial uses, Fact Sheet ID and LOE ID are displayed as read-only fields. Table 15.8 lists the remaining fields and describes each one.

Click the “Save Dataset” button to save the information you have entered and return to the *Dataset Search* page. The new dataset record appears in the dataset table.

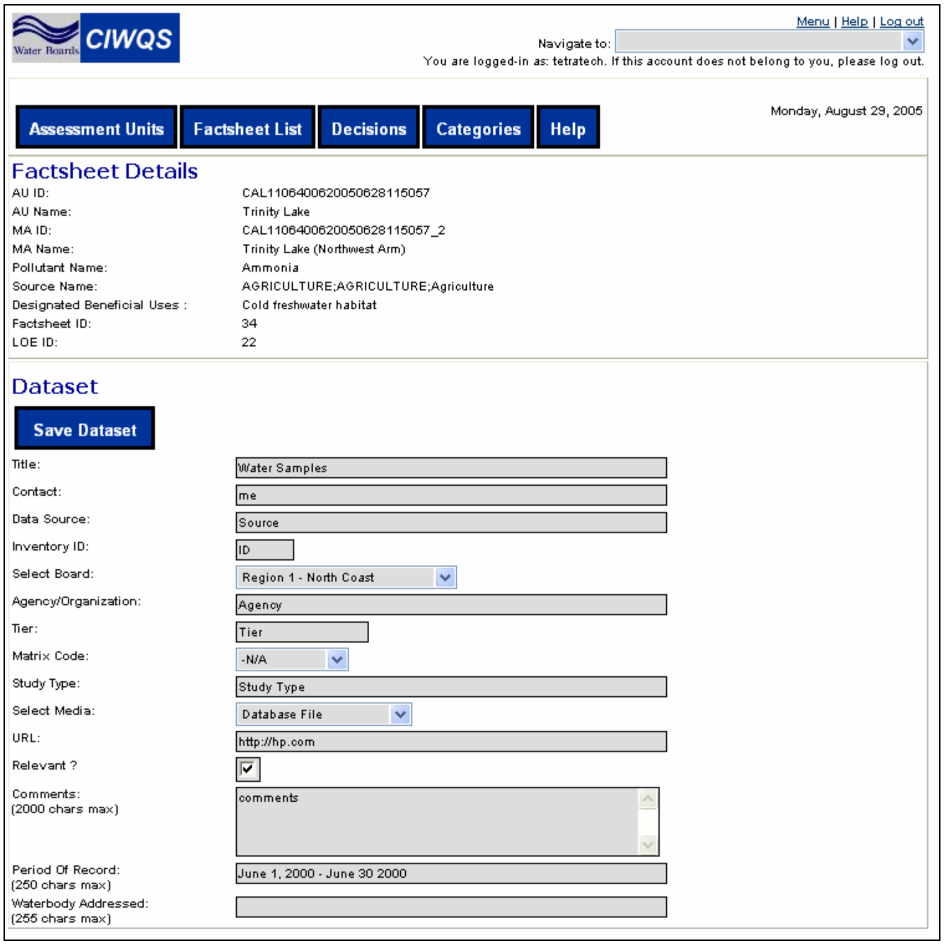


Figure 15.15 Dataset Page

Table 15.8 Dataset Fields

Field Name	*Description*
Title	Enter the title of the dataset.
Contact	Enter the name of the contact.
Data Source	Enter the source of the dataset.
Inventory ID	Enter the inventory ID.
Select Board	Select a Water Board from the drop-down menu.
Agency/Organization	Enter the name of the associated agency/organization.
Tier	Enter the dataset tier.
Matrix Code	Select a matrix code from the drop-down menu.
Study Type	Enter a brief description of the study type.
Select Media	Select a media type from the drop-down menu.
URL	Enter a URL for the study.
Relevant	Indicate whether the dataset is relevant.
Comments	Enter any comments, as necessary.
Period of Record	Indicate the period of record.
Waterbody Addressed	Enter a brief description of the waterbody addressed by the dataset.

15.4 The Decisions Module

The impairment determinations (attainment status) are recorded in a series of pages collectively known as the *Decision* Module. The *Decisions* page can be accessed by clicking the "Decisions" button at the top of any page of the Online Editor.

The first page of the *Decision* Module lists the existing Decisions and provides links to the page that allows a new Decision to be created (Figure 15.16). A Decision is the evaluation of the data in a Fact Sheet or group of associated Fact Sheets to determine whether a Monitoring Area meets its water quality objectives.

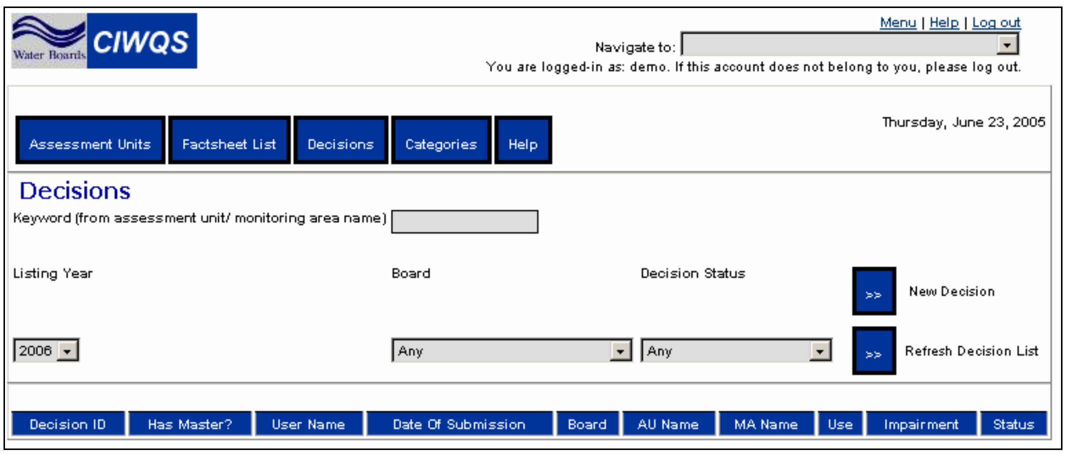


Figure 15.16 Decisions Page

Decisions are created when one or more Fact Sheets for an Assessment Unit and Monitoring Area are assigned to a particular impairment assessment.

Only Fact Sheets from the same Monitoring Area can be associated with a particular Decision.

A water quality assessor can associate Fact Sheets in any logical manner. Each decision, however, must have one master Fact Sheet. A master Fact Sheet determines the Monitoring Area (water body), impairment, use, and source that is assigned to the decision. Other Fact Sheets can be associated with the master Fact Sheet to provide supporting information for a Decision.

For example, associated Fact Sheets might relate to other uses, other sources, and other impairments. The system allows you to provide an explanation for why the additional Fact Sheets are associated with the Decision.

Use the fields at the top of the *Decisions* page to search for an existing Decision. Click the "Refresh Decision List" button to activate the search. The table will show all Decisions that matched your search criteria (Figure 15.17).

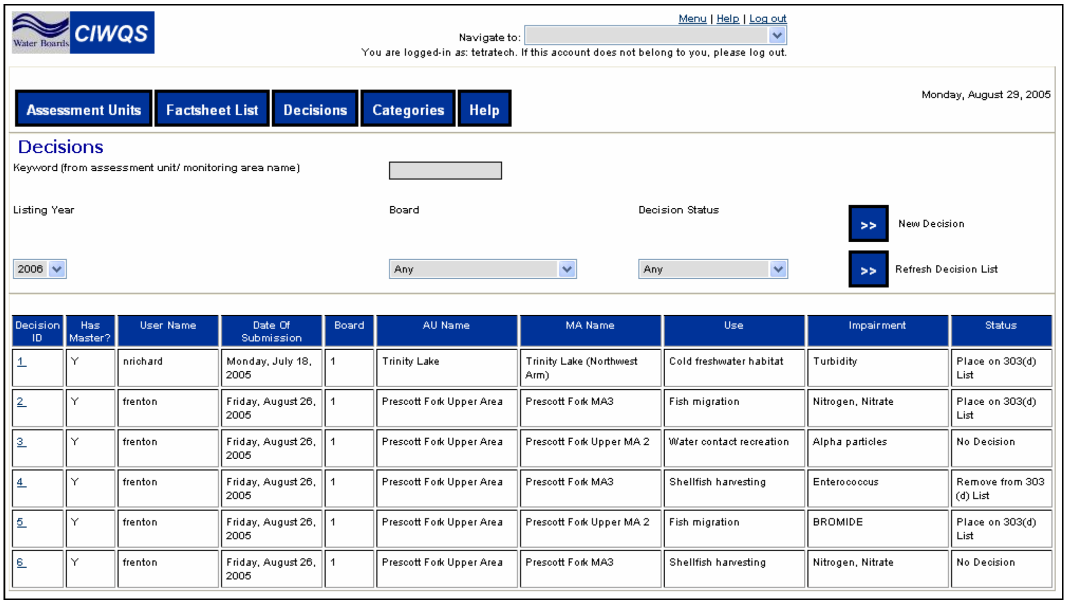


Figure 15.17 Decisions List with Results

From the *Decisions* page you can either create a new Decision by clicking the "New Decision" button, or you can view and edit the Fact Sheets associated with an existing Decision by clicking on the hyperlink in the *Decision ID* field.

Editing Decisions is discussed in section 15.4.2 below.

15.4.1 Adding a New Decision

Once Fact Sheets have been created for a Monitoring Area they may be grouped on the *Associate Fact Sheets* page to provide evidence for use-support decisions. Clicking on the "Add New Decision" button on the *Decisions* page brings you to the *Associate Fact Sheets* page (Figure 15.18).

The fields at the top of the page allow you to select a Regional Board, listing year, Assessment Unit ID and name, and Monitoring Area ID and name. When you have entered the appropriate data for the Monitoring Area that will be associated with the new Decision, click the "Show List" button. This causes the page to refresh and shows all Fact Sheets related to the Monitoring Area you selected (Figure 15.19).

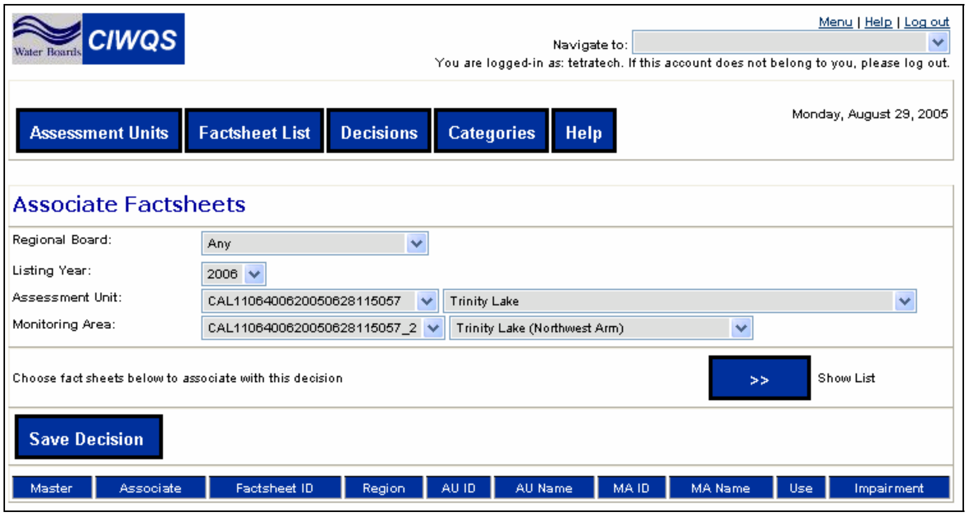


Figure 15.18 Associate Fact Sheet Page

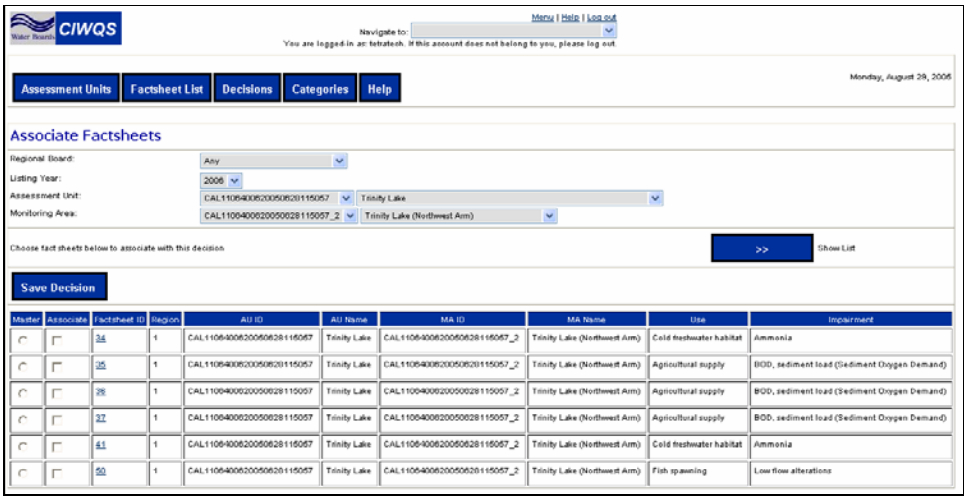


Figure 15.19 Related Fact Sheets

Click the hyperlink in the *Factsheet ID* field to open a new window showing the details of the selected Fact Sheet.

Use the *Master* field to select the master Fact Sheet. Select the checkbox in the *Associate* field to select additional Fact Sheets to associate with the decision.

When you have made your selections, click the "Save Decision" button to save.

15.4.2 Editing Existing Decisions

To edit an existing Fact Sheet, click on the hyperlink in the *Decision ID* field on the *Decisions* page (this takes you to the *Associate Factsheets* page).

Figure 15.20 shows the *Associate Factsheets* page. All Fact Sheets associated with the Decision are listed in the table.

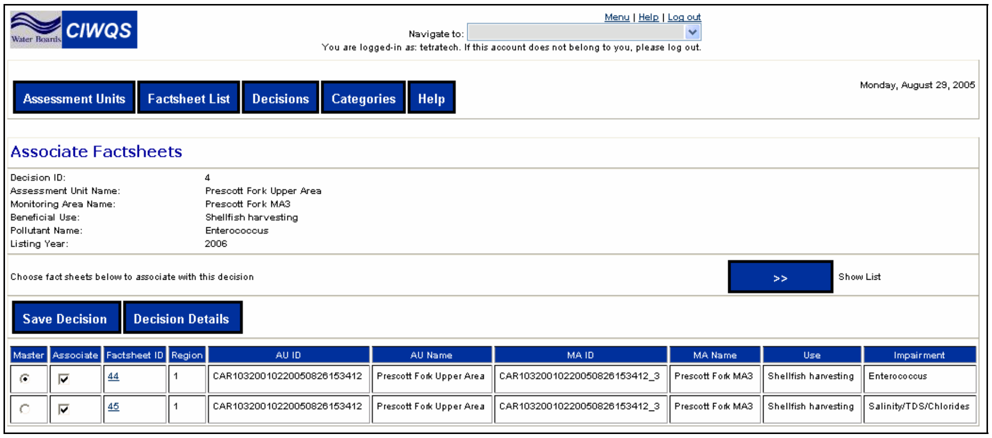


Figure 15.20 Associate Factsheets Page.

The table shows the Fact Sheet ID, the associated Region, the AUID, AU name, MAID, MA name, associated beneficial uses, and the impairment related to the Fact Sheet.

The radio button in the *Master* field indicates which Fact Sheet has been designated as the master Fact Sheet and the *Associate* field indicates that these Fact Sheets are associated with this Decision.

Select the checkbox in the *Associate* field to clear the check to disassociate a Fact Sheet from the Decision.

To add a Fact Sheet to the Decision, click the "Show List" button. This refreshes the table to show all Fact Sheets associated with the targeted Monitoring Area (Figure 15.21).

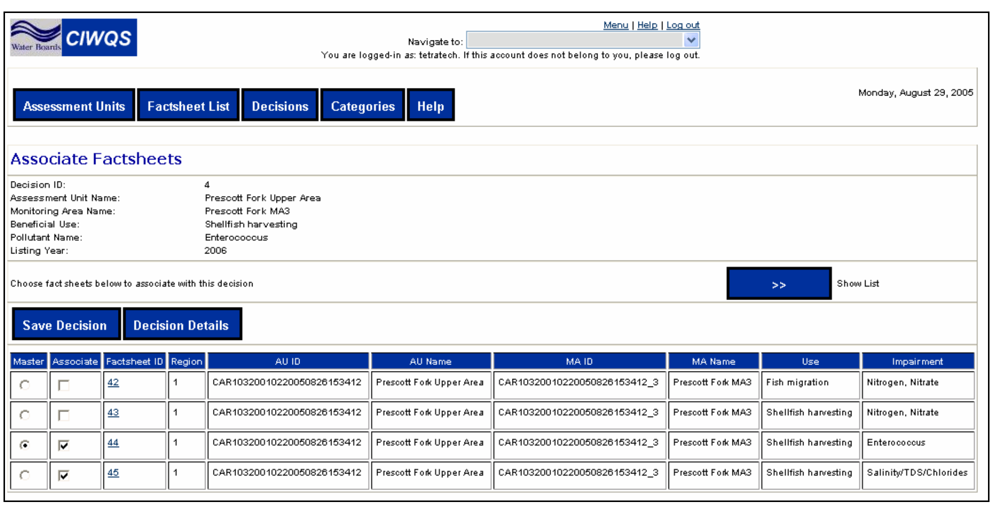


Figure 15.21 View All Fact Sheets

Use the checkboxes in the *Associate* field to assign additional Fact Sheets to the Decision. When you are finished, click the "Save Decision" button to save your changes.

15.4.3 Creating a Final Decision

Once you are ready to create a final Decision, click the "Decision Details" button on the *Associated Fact Sheets* page. This brings you to the *Create Final Decision* page (Figure 15.22).

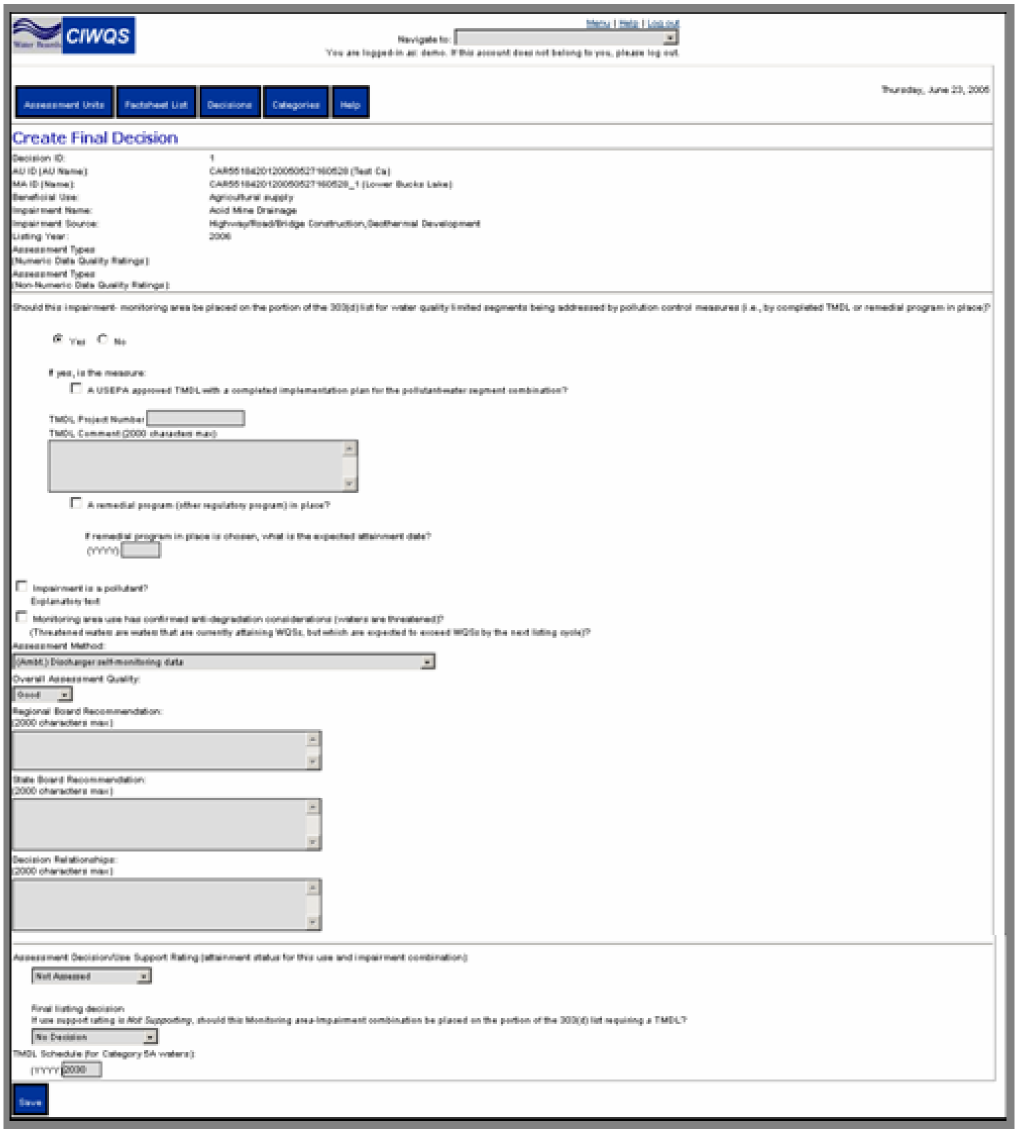


Figure 15.22 Create Final Decision Page

At the top of the *Create Final Decision* page, the Decision ID, AUID, AU name, MAID, MA name, associated beneficial use, impairment name, impairment source, listing year, assessment types (numeric) and assessment types (non-numeric) are displayed as read-only fields.

The remainder of the page contains fields that collect data used to help determine the 303(d) ruling for the related waterbody.

The first question asks whether the impairment-Monitoring Area should be placed on the portion of the 303(d) list for water quality limited segments being addressed by pollution measures; answer 'yes' or 'no' by clicking the radio buttons.

If the answer to the above question is "yes", indicate whether the pollution measure is a USEPA approved TMDL with a completed implementation plan by selecting the checkbox.

Enter the TMDL project number and indicate whether a remedial program is in place. If a remedial program in place is chosen, enter the expected attainment date in the field provided in the format (YYYY).

Next, indicate whether the impairment is a pollutant and whether the Monitoring Area use has confirmed anti-degradation considerations (by default, the checkboxes will be selected).

The next set of fields require that you select the overall assessment quality (from the drop-down menu), and enter a Regional Board recommendation, a State Board recommendation, and a description of the Decision relationships.

In the final group of fields, select an assessment Decision/use support rating for the impairment-Monitoring Area combination. For the final listing Decision, indicate whether the use impairment combination should be placed on the 303(d) list requiring a TMDL, a year for the TMDL schedule and additional comments (as necessary).

When you have finished entering information for the Final Decision, click the "Save" button at the bottom of the page.

15.5 Category Decisions

The *Categories* page (the *Monitoring Area Category Decision* page) is accessed by clicking the "Categories" button located in the header of every page within the Online Editor (Figure 15.23). The tables allow you to view the related decisions, the support ratings for the assessed beneficial uses, and the USEPA 305(b) category assignments for a given Monitoring Area.

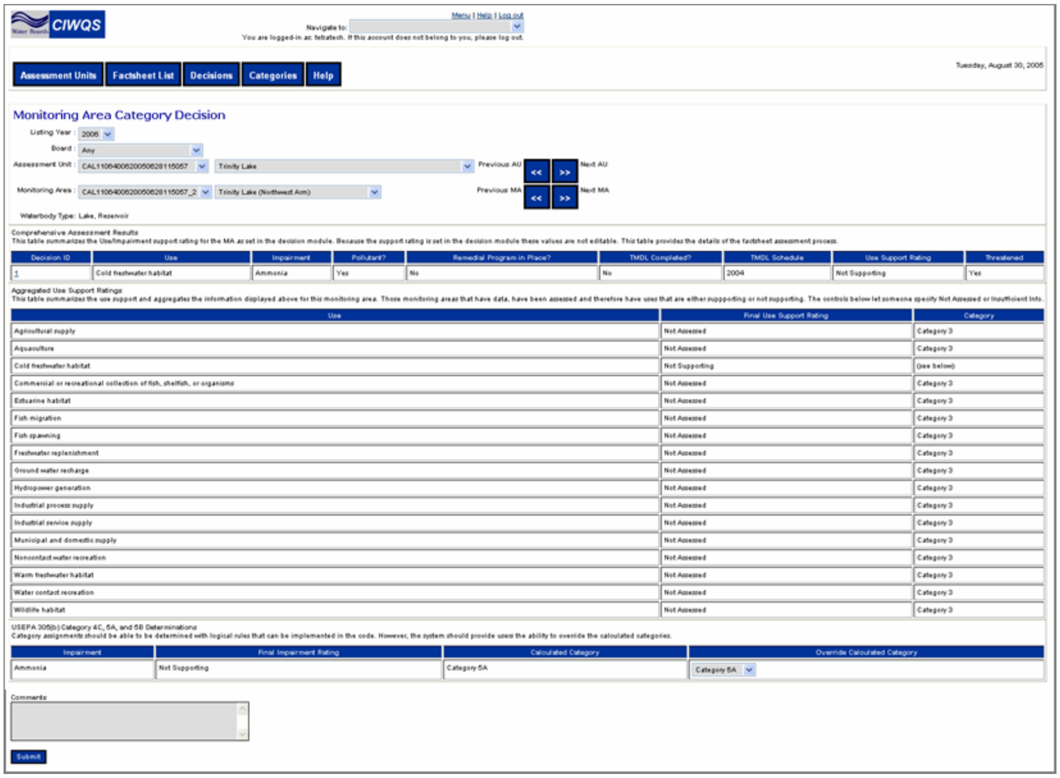


Figure 15.23 Search Results for a Category Decision

The fields at the top of the screen allow you to search for a specific Monitoring Area by selecting the year for which an assessment is being performed, the related Regional Board, the related Assessment Unit ID and, finally, the specific Monitoring Area ID.

The *Listing Year* and *Board* fields are used to filter the list of Assessment Units (AUs) available. The list of Monitoring Areas is filtered by the combination of *Listing Year*, *Board* and *AU* field values. The buttons located to the right of the *AU* and *MA* fields can be used to scroll through the list of available values as an alternative to selecting values from the drop-down menus.

For any given Monitoring Area, the Comprehensive Assessment Results, Aggregated Use Support Ratings and USEPA 305(b) Determinations tables display information that has been recorded using the GeoWBS Online Editor pages.

Comprehensive Assessment Results Table

This table lists all of the decisions that have been submitted for the Monitoring Area. The information contained within the table is input via the *Decisions* page and provides the details of the fact sheet assessment process. The values are read-only.

Aggregated Use Support Ratings Table

This table summarizes the final Use Support Ratings for the beneficial uses assigned to this Monitoring Area. The information is aggregated from the Comprehensive Assessment Results Table. To specify a Use Support Rating for a use if one has not already been determined (for which no decision exists) select a value from the *Final Use Support Rating* drop-down menu.

USEPA 305(b) Determinations Table

This table shows the Category assignments (305(b) 4C, 5A, and 5B) for each Impairment/Use pair shown in the Comprehensive Assessment Results Table. The system calculates the appropriate Category from a set of rigid logical rules. It is possible to override this calculated Category by selecting a new Category from the *Override Calculated Category* drop-down menu.

The Comments field allows you to input comments that will be applied to the 303(d) assignments.

STOP **When all changes to the Use Support Ratings and Categories have been made, click the "Submit" button to save all changes. This also generates the Summary sentence at the bottom of the page.**

16
GeoWBS Desktop Editor

This chapter addresses the following topics:

- Introduction to the Desktop Editor
- Toolbars and functions
- Creating Assessment Units and Monitoring Areas
- Uploading information to the CIWQS EDM

16.1 Introduction

The primary function of the GeoWBS Desktop Editor is to define Assessment Units and Monitoring Areas for the purpose of uploading the information to the CIWQS Online Editor. The Desktop Editor was developed as an extension for ArcMap, an ArcGIS application developed by ESRI. It allows for the editing and management of geospatial water body features and their basic attributes. The Desktop Editor provides the most robust reporting platform of all the GeoWBS components.

This chapter focuses on how to use the GeoWBS ArcMap extension to create Assessment Units and Monitoring Areas and upload the information to the CIWQS database It does not cover all aspects of ArcMap. For additional information on the features and tools of ArcMap, use the ArcMap "Help" menu or visit the ESRI Web site at http://www.esri.com/.

16.2 Getting Started

The Desktop Editor is the only GeoWBS component that is not available through the CIWQS online interface. It can be accessed using the MetaFrame Presentation Server Client found at http://citrix.tetratech-ffx.com/citrix/metaframe. MetaFrame establishes an intranet connection between your computer and the server that houses the GeoWBS application and data.

It is not necessary to have ArcGIS installed on your computer to access the Desktop Editor.

16.2.1 Opening the Desktop Editor

To run the Desktop Editor, open the MetaFrame site (using your internet browser) and log into the GeoWBS server. Accessing this site brings you to the MetaFrame login page (Figure 16.1).

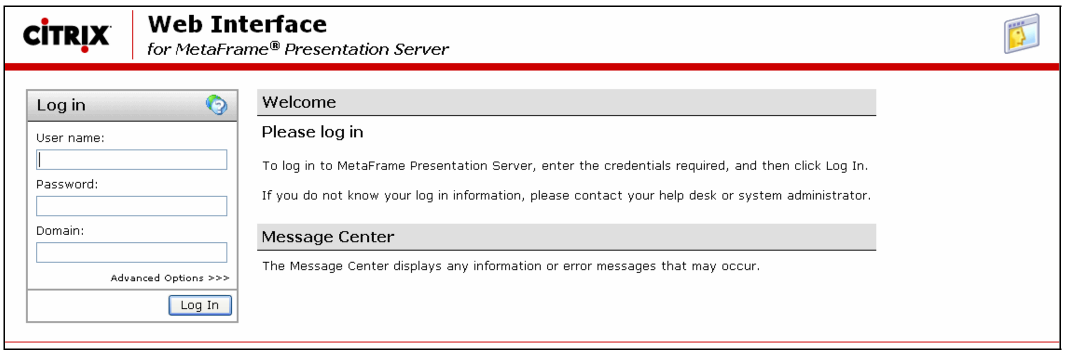


Figure 16.1 Login Page for the MetaFrame Presentation Server

To log in to the system, enter the appropriate username, password and domain information and click the “Log In” button.

Contact a System Administrator if you do not have login information or if you have difficulty accessing the system.

When you have successfully logged in, the page refreshes to show the MetaFrame Applications window (Figure 16.2).

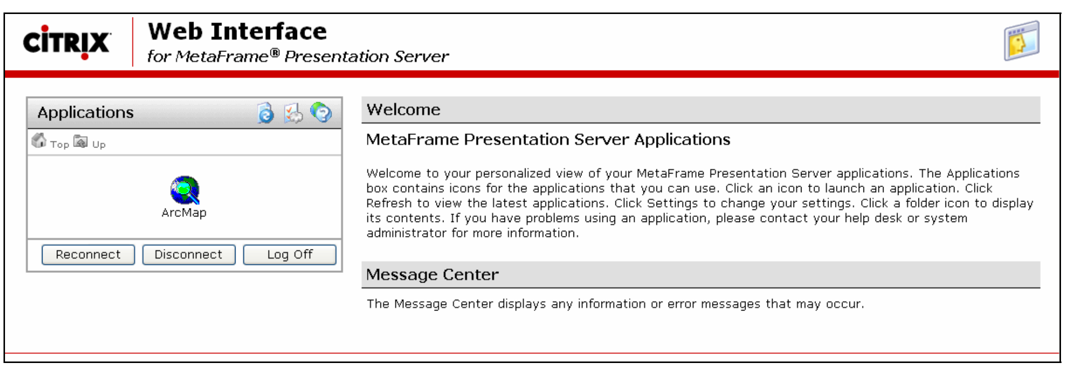


Figure 16.2 MetaFrame Applications Window

Error messages displayed on the MetaFrame Applications frame will not necessarily prevent you from accessing the

GeoWBS Desktop Editor. Contact a System Administrator if you have problems accessing the application.

The GeoWBS Desktop Editor can be accessed by clicking on the ArcMap icon within the Applications frame.

Your MetaFrame session will time out after a certain period of inactivity in the Desktop Editor. Simply click the "Reconnect" button to reestablish your connection.

When you are finished using the Desktop Editor, click the "Log Off" button at the bottom of the Applications frame to end the MetaFrame session.

Clicking the ArcMap icon (

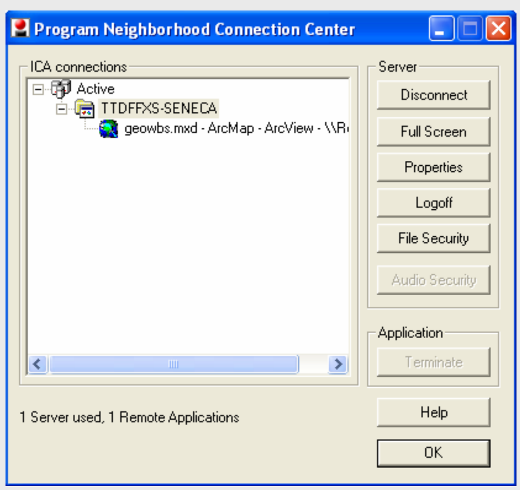
) establishes an ICA connection with the GeoWBS server and opens an instance of ArcMap within ArcGIS 9. Before ArcGIS will load, however, a dialogue window is presented that asks what access level you would like to grant the CITRIX server (Figure 16.3).

Figure 16.3 Citrix MetaFrame Connection and ArcGIS 9

For full access to all of the GeoWBS data, select the "Full Access" radio button and click "OK".

Citrix Independent Computing Architecture (ICA)

When you launch ArcMap through the MetaFrame application frame, a connection to the GeoWBS server is automatically established. Evidence of this connection is displayed in your start menu in the form of the ICA icon (). Clicking on this icon opens the Program Neighborhood Connection Center (see figure below). This window shows all open connections. If there are no connections shown in this window, you will be unable to access ArcMap.



ArcMap opens with the startup dialogue box (Figure 16.4). To open the file containing the GeoWBS data, click the *An existing map:* radio button and select the file that ends with "…\Desktop\geowbs.mxd".

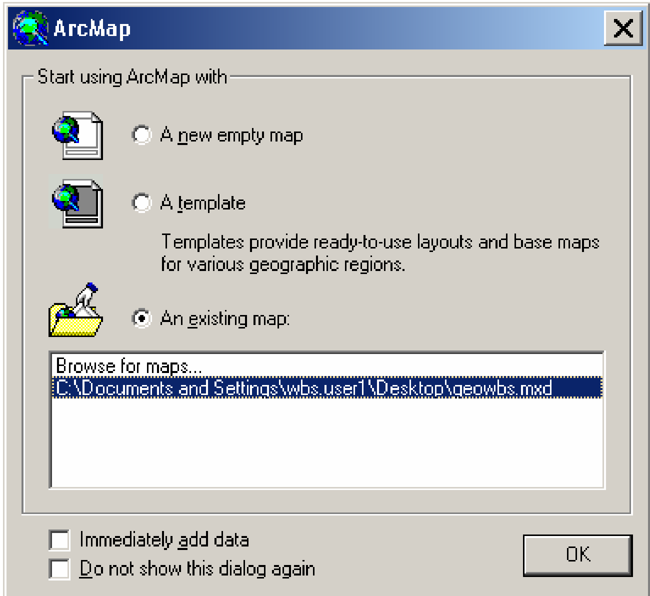


Figure 16.4 ArcMap Startup Dialogue Box

Click "OK" to open the file. The ArcMap project window is populated with the geowbs.mxd data (Figure 16.5).

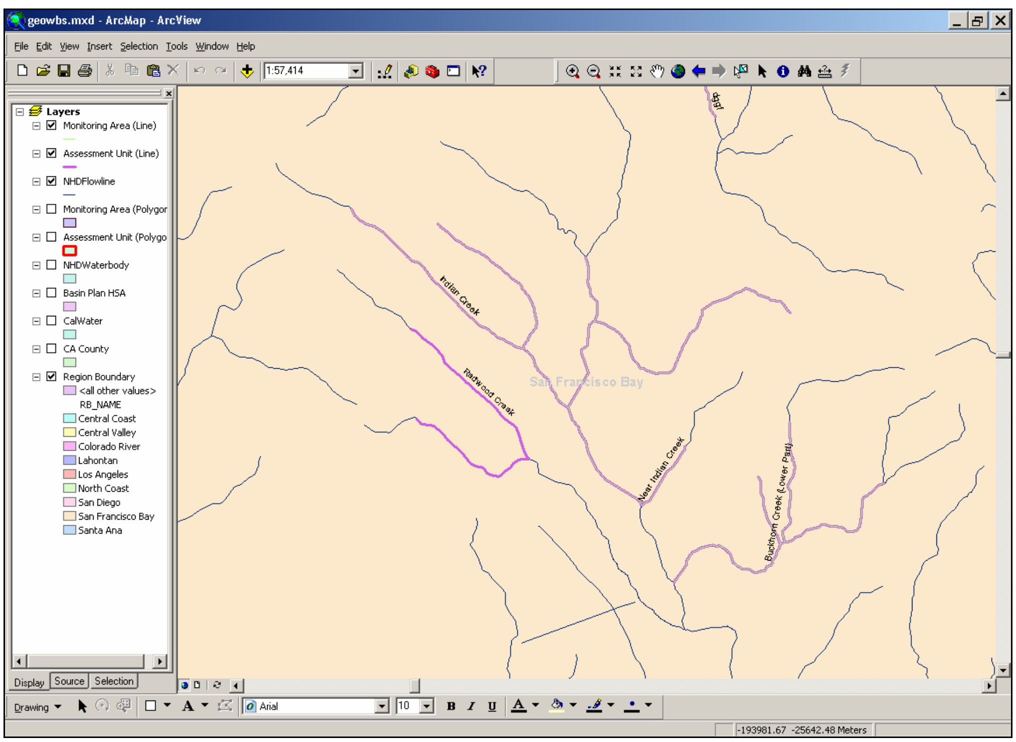


Figure 16.5 ArcMap Project Window Showing the geowbs.mxd Data File

The project window has four main components:

- Menus

- Toolbars
- Table of contents
- Map frame

The menus ("File", "View", "Tools", etc. at the top of the screen) provide access to the tools and features of ArcMap. Menu selections are described throughout this chapter as they apply to the topic under discussion.

ArcMap toolbars contain various controls that allow you to manipulate shape and attribute data. The GeoWBS toolbars contain additional tools for defining and establishing Assessment Units and Monitoring Areas.

The table of contents frame displays the data layers available for use in the Desktop Editor application. Layers are described in further detail below.

The map frame displays the map features, as selected. Here, Assessment Units and Monitoring Areas can be added, manipulated, and deleted using the GeoWBS toolbar options.

16.2.2 Layers

The maps displayed in the map frame are made up of layers of information.

Each layer contains two types of data:

- Spatial data: Information about the location and shape of, and relationships among, geographic features.
- Attribute data: information related to the features on the map, such as Assessment Unit IDs and stream lengths

Layers are composed of sets of similar information. For example, Assessment Units represented as lines on the map (rivers and streams) compose one layer while NHD waterbodies (lakes and ponds) make up another. In this way, it is possible to view specific pieces of information by controlling what layers are displayed on your map.

Layers available for use in ArcMap are displayed in the Table of Contents frame to the left of the map. Within this frame, all available layers are listed along with the symbol (or symbols) used to represent them within the map frame.

The checkboxes next to each layer are used to turn each layer "on" or "off" in the map frame. Layers that are currently available (visible in the map frame) have dark checkboxes next to them (☑) and layers that are not available (not visible in the map frame) have empty checkboxes (☐).

16.3 The ArcMap and GeoWBS Toolbars

As mentioned in the beginning of the chapter, the primary functions of the Desktop Editor are to create Assessment Units and Monitoring Areas and assign attribute data to these features. These tasks are carried out using the tools found on the ArcMap and GeoWBS toolbars.

Toolbars

All toolbars within ArcMap can be viewed as floating toolbars within the map frame, or they can be "docked" to the top, sides or bottom of the project window. To move a toolbar, click the blue bar at the top (if it is floating) or on the left side of the toolbar (if it is docked) and drag it to a new location. Only floating toolbars display the toolbar name at the top. Toolbars that are docked do not display the name of the toolbar.

16.3.1 ArcMap Toolbars

While the GeoWBS toolbars contain the majority of functions used in the creation of Assessment Units and Monitoring Areas, some of the tools found on the ArcMap toolbars are essential to carry out basic feature manipulation within the map frame.

There are two toolbars in particular that will be used regularly: the "Standard" (Figure 16.6) and the "Tools" toolbars (Figure 16.7).

Figure 16.6 Standard Toolbar

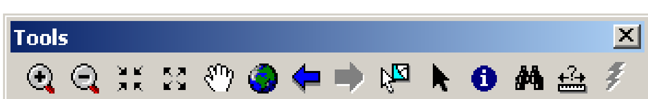


Figure 16.7 Tools Toolbar

Standard Toolbar

The Standard toolbar is typically found docked to the top of the project window. This toolbar contains many common tools such as "Create New

File", "Open File", "Save File", and "Print", along with some additional features specific to ArcMap. The tools that are most commonly used are described below.

Add Data – This control allows you to add another shape file to the project window.

Scale – This drop-down menu displays the current map scale. Selecting a value from the drop-down menu refreshes the map to the selected scale.

What's This? – Click on this control and then on other objects within the project window to open a help window with an explanation of the selected feature.

Tools Toolbar

The Tools Toolbar can also be found docked to the top of the project window. This toolbar contains many of the controls used to navigate around the map and to select features from the layers.

Zoom In – To zoom in centered on a particular location on the map, click that position once with this tool. To zoom in to a particular area on the map, click and drag a box over the area with this tool.

Zoom Out – To zoom out centered on a particular location on the map, click that position once with this tool. To zoom out to a particular area on the map, click and drag a box over the area with this tool.

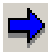
Fixed Zoom In – Zooms in on the center of the data on your map to 75% of the current scale.

Fixed Zoom Out – Zooms out on the center of the data on your map to 125% of the current scale.

Pan – This control allows you to pan the data in your map by dragging the display in any direction. Click on an area of the map with the left mouse button and drag the display to the desired location.

Full Extent – Zooms to the full spatial extent of all of the layers in the map view.

 Go Back to Previous Extent – Redraws the map at the previous map extent. Click this button to go back to where you were before you zoomed or panned.

 Go to Next Extent – Redraws the map at the next map extent in the sequence. Click this button to return to where you were before clicking the “Go Back to Previous Extent” control.

 Select Features – Use this tool to select features on the map. This can be done either by clicking an individual feature (point, line or polygon) or by clicking and dragging a box around a set of features. Features that fall partly or wholly inside the box you define are selected. To select more than one feature, hold down the SHIFT key when you use the tool.

 Select Elements – This tool lets you select, resize, and move:

- Map elements drawn on your map in layout view
- Graphic elements (such as lines and boxes) drawn on your data from or on the map layout
- Text elements drawn on your data frame or on your map layout

 Identify – Use this tool to get information about features on the map. When you click on a feature with this tool (or click and drag a box around a group of features), a window opens showing the attributes of that feature (e.g., a lake or a stream). The attributes displayed depend on the characteristics of the type of feature you select.

 Find – This control allows you to find specific features on the map using the attribute data of those features. Clicking this control opens the Find window where you can enter search criteria to find the targeted features.

 Measure – This control allows you to calculate the distance between two or more points on the map. To use this feature, click on the measure button on the Standard Toolbar. The cursor changes to a small ruler icon. Click on your starting point and then move the cursor to the end point. The distance measured is displayed in the status bar in the lower right corner of the window. You can drag the cursor to multiple locations, clicking to establish new points, or double-clicking to end the measure action.

 <u>Hyperlink</u> – This control allows you to open hyperlinks that have been associated with map features.

16.3.2 Activating the GeoWBS Extension

To use the GeoWBS toolbars, the GeoWBS Extension must first be activated within ArcMap. Open the “Tools” menu and click on the “Extensions…” option. This opens the Extensions window (Figure 16.8).

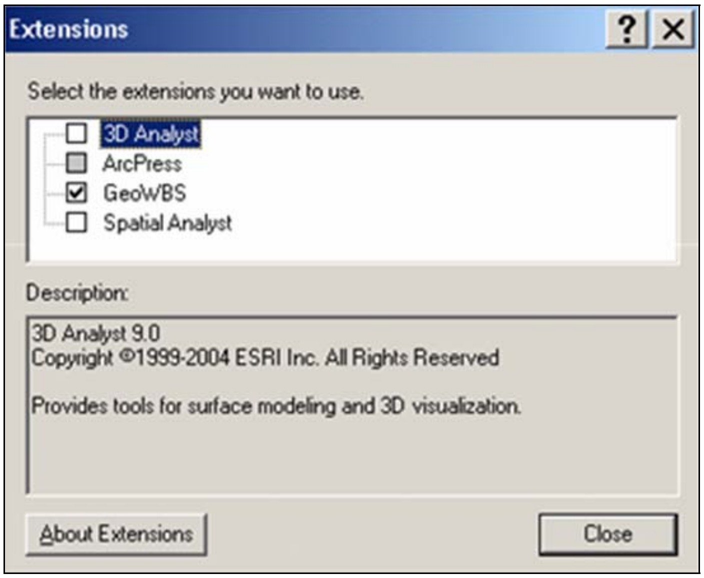


Figure 16.8 Extensions Window

Select the checkbox next to the GeoWBS option if it is clear. Then click the “Close” button to activate the change.

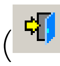
16.3.3 The GeoWBS Toolbar

You can now open and log into the GeoWBS toolbar. Open the “View” menu and click on the “Toolbars” option. This opens the list of all available ArcMap toolbars. Click on the “GeoWBS 1.0” toolbar option to open this toolbar in the project window (Figure 16.9).

Alternatively, right-click in the toolbar area at the top of the project window to display all available ArcMap toolbars and select the “GeoWBS 1.0” toolbar from the list.

Figure 16.9 GeoWBS Toolbar

The GeoWBS toolbar contains a set of tools and menus that can be used to create and maintain Assessment Units and Monitoring Areas. Initially, many of these features are unavailable. To access all utilities, you must first log in to the toolbar.

Click the log in control to the left of the toolbar (). This opens the GeoWBS login window. Enter your User name and password and click "OK" (Figure 16.10).

Once you have successfully logged in, a window opens showing your User Name, the numbers of the Water Boards to which you have access, the cycle year, working region, and a list of all Assessment Units and Monitoring areas within your jurisdiction (Figure 16.11). Click the "Close" button at the lower right to remove this window from the page.

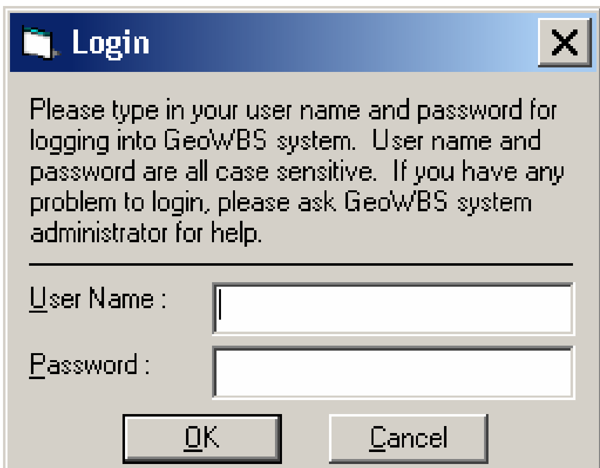


Figure 16.10 GeoWBS Login Window

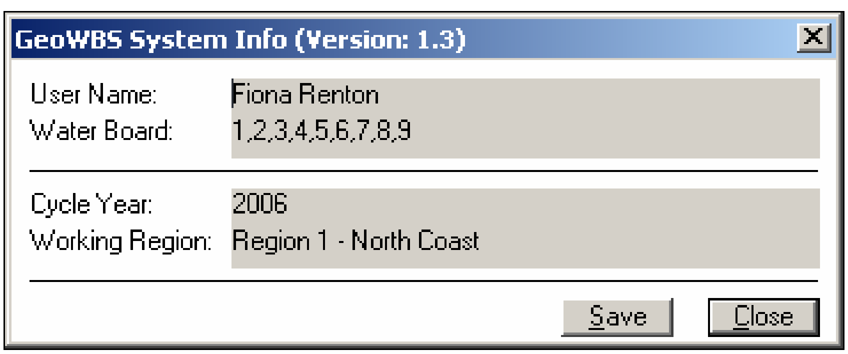
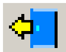


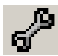
Figure 16.11 GeoWBS System Information Window.

If you have access to only a single working region, you are asked whether you wish to zoom to view the whole area of your region. Click "OK" to change the zoom or click "Cancel" to retain the current view. You now have access to all controls and menu items on the GeoWBS toolbar.

GeoWBS Toolbar Controls

 Log out – Replaces the "Log in" control. Click this icon to log out of the toolbar.

 Session Info – Opens the GeoWBS System Information Window (as shown in Figure 16.11).

 Setup – Opens the GeoWBS System Setup window (Figure 16.12). The System SetUp window allows you to change what information is displayed in the map and layer frames and how it is displayed.

Use the drop-down menus to change the cycle year and region. This limits which Assessment Units and Monitoring Areas are visible in the map frame.

Enter a number between 1 and 20 in the *Feature Select Threshold* field to control the sensitivity of select and snapping actions.

When using the Simple Select tool ( for line features or  for polygons), for example, a feature select threshold value of 1 means that the features very near (within 1 pixel of) the selection area will be selected; a value of 20 means that a more general area (within 20 pixels) will be selected.

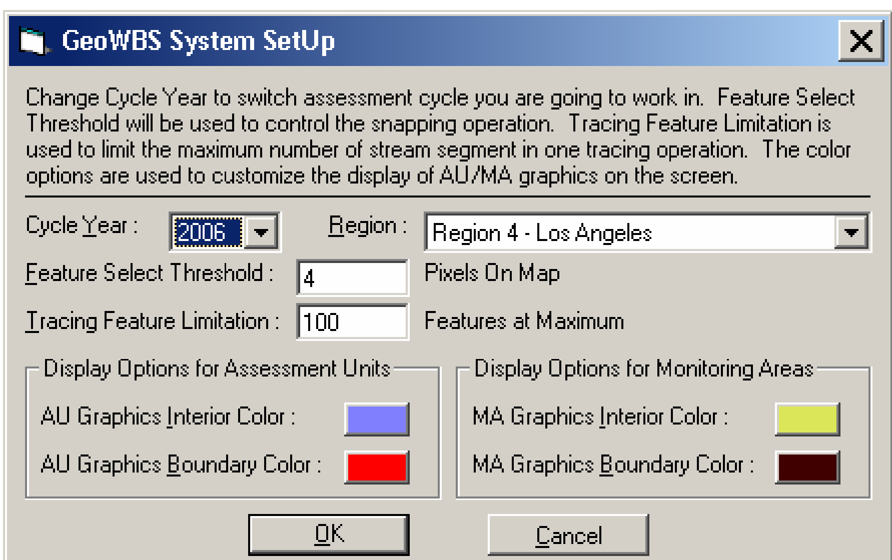


Figure 16.12 GeoWBS System SetUp Window

The feature select threshold is only used when a single click is made using the Simple Select tool, as when trying to select a single feature from among several features. The feature select

threshold is not used when a selection window is created by a click-and-drag selection using the Simple Select. In this case, only features that are within or intersect the selection window are added to the selection, not all the features within the threshold distance.

Enter a number in the *Tracing Feature Limitation* field to set the maximum number of features that can be selected using the trace tools (Trace Between, Trace Up, Trace Down). The tracing feature limitation value must be between 10 and 100.

Click the colored rectangles within the Display Options sections to change the display colors for Assessment Units and Monitoring Areas.

Line Editor – Opens the GeoWBS Line Editor Toolbar (described below).

Polygon Editor – Opens the GeoWBS Polygon Editor Toolbar (described below).

GeoWBS Toolbar Menus

In addition to the toolbar controls, there are four menus available on the GeoWBS toolbar.

Assessment Unit

The Assessment Unit menu contains options that allow you to create, update, search, assign beneficial uses to, or attach documents to an Assessment Unit (Figure 16.13). These features are described in section 16.5.1 below.

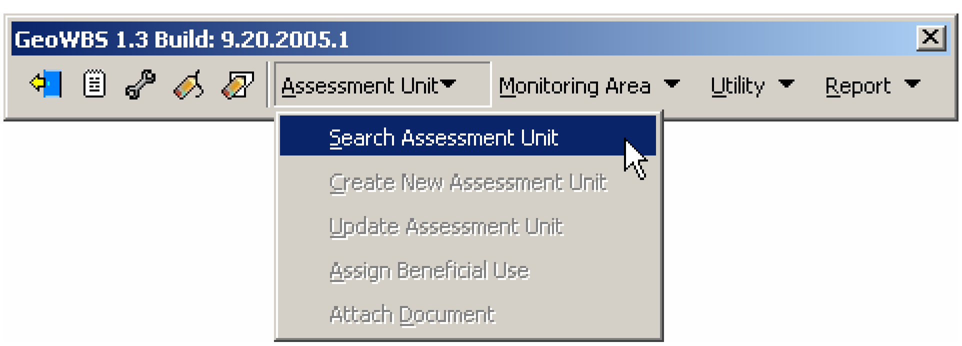


Figure 16.13 Assessment Unit Menu

Monitoring Area

The Monitoring Area menu contains options that allow you to create, update, search, or attach documents to a Monitoring Area (Figure 16.14). These features are described in section 16.5.2 below.

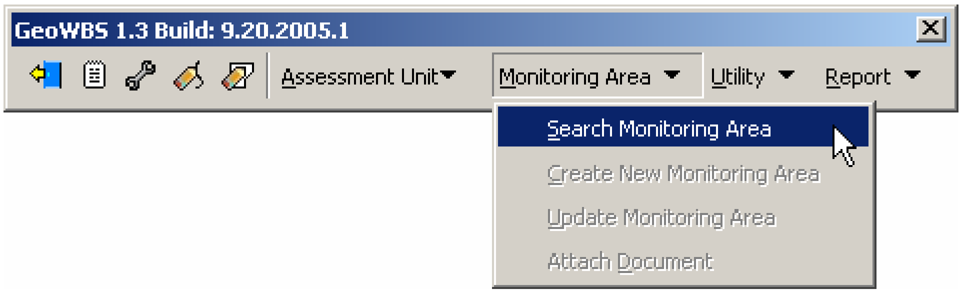


Figure 16.14 Monitoring Area Menu

Utility

The Utility menu provides access to the Layer Validation, Assessment Unit Confirmation, Monitoring Area Confirmation, Synchronization, Browse, Attach State Document, Mapping, and Cycle Migration features (Figure 16.15). The various utility options are discussed in section 16.5.3 below.

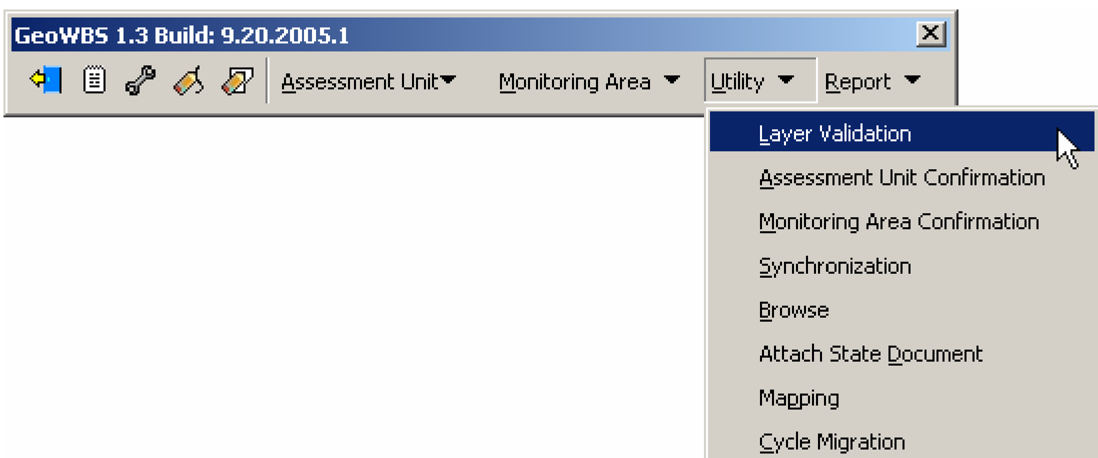


Figure 16.15 Utility Menu

Reports

The Reports menu allows you to create and print various reports to satisfy EPA and California State requirements (Figure 16.16). Report options available through the GeoWBS toolbar are discussed in section 16.5.4 below.

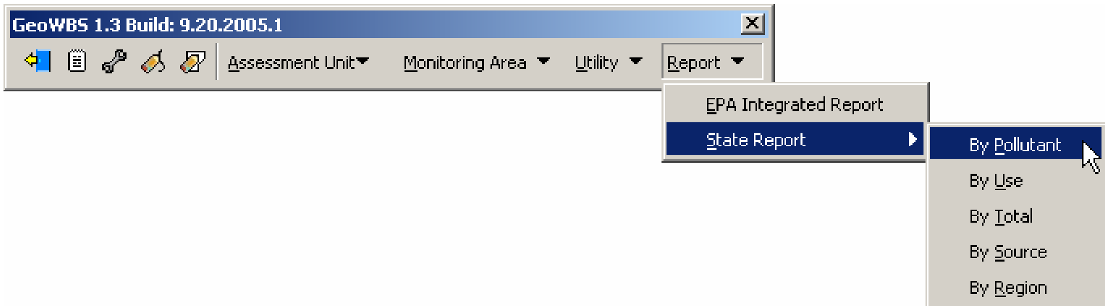


Figure 16.16 Reports Menu and State Report Submenu

16.3.4 The GeoWBS Line Editor Toolbar

The GeoWBS Line Editor toolbar is used to create both Assessment Units and Monitoring Areas that are linear features (Figure 16.17). Linear features are created by selecting particular sections of NHD rivers and streams from the "NHD Flowline" layer. These selections are then designated as either Assessment Units or Monitoring Areas.

To open the GeoWBS Line Editor toolbar, click the Line Editor control () on the GeoWBS toolbar or open the toolbar using the "View" menu at the top of the project window (as described above).

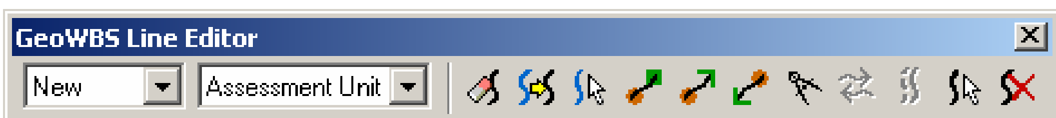


Figure 16.17 GeoWBS Line Editor Toolbar

The Line Editor toolbar contains two drop-down menus and a suite of tools used to manipulate line features within the map frame.

The first drop-down menu (
) allows you to set the operation used to create the feature. This is the *Set Op* drop-down menu. The *SetOp* menu options are described in detail below.

The second drop-down menu (
) determines whether the selection will be designated as an Assessment Unit or Monitoring Area or whether the current tool will select an Assessment Unit or Monitoring Area. This is the *Feature Selection* menu.

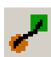
**Be sure to check the setting in the feature menu (
) before performing an action on a feature within the map frame.**

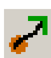
GeoWBS Line Editor Toolbar Controls

 Clear Line – Clears the GeoWBS selection set. This control has no effect on features selected using the ArcMap selection tool (on the Standard toolbar). Each selected feature must be cleared individually, both individual Monitoring Areas and Assessment Units.

 Convert Line – Converts features selected using the ArcMap selection tool into a GeoWBS selection set.

 Simple Select Line – Allows you to select line features. You will not be able to add to this set by holding down the SHIFT key and clicking on multiple stream reaches. It is only possible to add to the selection using the *SetOp* drop-down menu (the *SetOp* menu functions are described below).

 Trace Between Two Points – This control allows you to add or remove stream segments from a selection by selecting two points along an NHD reach. You must set snapping options to use this feature (see section 16.4.1).

 Trace Upstream – This control allows you to add or remove an upstream stream segment from the current selection. You must set snapping and tracing options to use this feature (see section 16.4.1).

 Trace Downstream – This control allows you to add or remove a downstream stream segment from the current selection. You must set snapping and tracing options to use this feature (see section 16.4.1).

 Measure – This control allows you to measure the distance between two locations along NHD stream reaches. You must set snapping options to use this feature (see section 16.4.1).

 Flip Linear AU to MA – This converts a selected Assessment Unit to a Monitoring Area.

 Offset – This control allows you to shift a Monitoring Area to the left or right of the underlying features (Assessment Unit, Monitoring Area, or NHD feature).

To use the Offset tool, first select the Monitoring Area you wish to shift. Then, click the offset control on the Line Editor toolbar. The Offset Linear

Entity window opens, prompting you to enter an offset distance (Figure 16.18). Enter a number into the *Offset* field and click "OK" to activate the change. The selected Monitoring Area will be displayed either to the left or right of the underlying Assessment Unit.

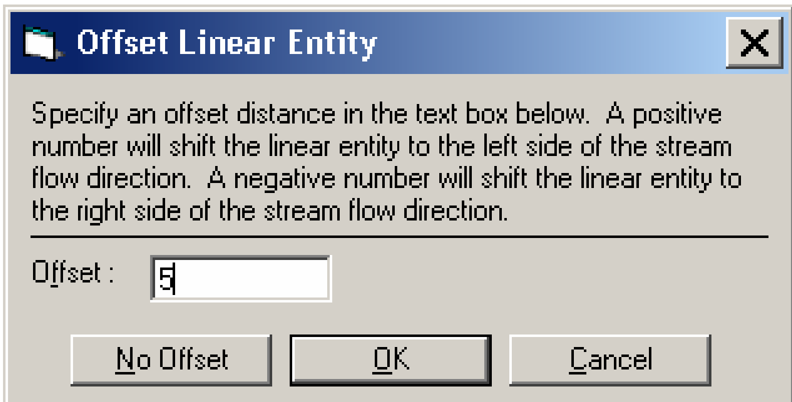


Figure 16.18 Offset Linear Entity Window

The number input in the *Offset* field assumes the units of the current map projection. If the map is displayed using meters, for example, and "5" is entered in the field, the Monitoring area will be offset from the underlying feature by 5 meters. The units of the current map projection are displayed in the status bar in the lower right corner of the window.

The Offset tool can only be used on one Monitoring Area at a time – each must be moved individually.

Each Monitoring Area must be returned to its original location manually, again using the Offset tool. Select the Monitoring Area (make sure Monitoring Area is selected in the feature selection drop-down menu), select the offset tool from the Line Editor Toolbar, and either clear the *Offset* field or set it to zero to restore the Monitoring Area to its original position.

Select Line Entity – Allows you to select an existing Assessment Unit or Monitoring Area (depending on which is selected in the feature selection drop-down menu).

Delete Line Entity – Allows you to delete an existing Assessment Unit or Monitoring Area. The feature does not need to be selected. You will be prompted to confirm the decision to delete the entity. Deleting an Assessment Unit or Monitoring Area deletes all information related to the feature but does not delete the NHD stream reach on which the feature was based.

16.3.5 The GeoWBS Polygon Editor Toolbar

The GeoWBS Polygon Editor toolbar is used to create both Assessment Units and Monitoring Areas that are designated as polygonal features (Figure 16.19). Polygonal features are created by selecting entire or partial areas of NHD lakes, ponds and coastlines from the "NHD Waterbody" layer. These selections are then designated as either Assessment Units or Monitoring Areas.

To open the GeoWBS Polygon Editor Toolbar, click the Polygon Editor control () on the GeoWBS toolbar or open the toolbar using the "Veiw" menu at the top of the project window (as described above).

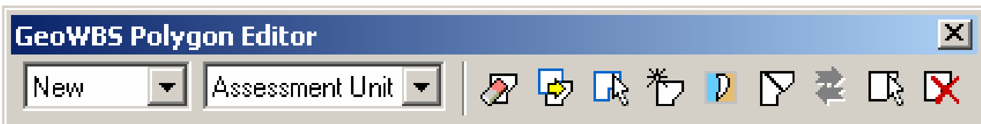


Figure 16.19 GeoWBS Polygon Editor Toolbar

The Polygon Editor toolbar contains two drop-down menus and a suite of tools used to manipulate polygon features within the map frame.

The first drop-down menu () allows you to set the operation used to create the feature. This is the *Set Op* drop-down menu. The *SetOp* menu options are described in detail below.

The second drop-down menu () determines whether the selection will be designated as an Assessment Unit or Monitoring Area or whether the current tool will select an Assessment Unit or Monitoring Area. This is the *Feature Selection* menu.

Be sure to check the setting in the feature menu () before performing an action on a feature within the map frame.

GeoWBS Polygon Editor Toolbar Controls

Clear Polygon – Clears the GeoWBS selection set. This control has no effect on features selected using the ArcMap selection tool.

Convert Polygon – Converts features selected using the ArcMap selection tool into a GeoWBS selection set.

 Simple Select Polygon – Allows you to select polygon features from the "NHD Waterbodies" layer. You will not be able to add to this set by holding down the SHIFT key and clicking on multiple waterbodies. It is only possible to add to the selection using the *SetOp* drop-down menu (the first one on the GeoWBS Line Editor toolbar).

 Draw Polygon – This control allows you to draw a polygon of any size and shape to designate as either an Assessment Unit or Monitoring Area. To draw a polygon, click the Draw Polygon control and click along the border of the polygon you wish to draw. This sets the first point. Set the next and any additional points by clicking the mouse around the perimeter of the polygon you wish to draw. Double-click to place the final point. You can now add or remove pieces from the polygon using the other Polygon Editor tool.

 Draw Coastal Polygon – This tool allows you to draw a polygon between a coastline and an intersecting stream. To use this tool:

1. Click and drag a box around the coastline and stream that you wish to have border the area using the "Select Features" tool (Figure 16.20)

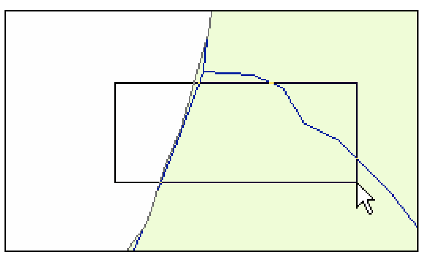


Figure 16.20 Selecting a Coastline and Bordering Stream

2. Select the "Draw Coastal Polygon" tool and draw a line that intersects the coastline and the stream, creating a polygon. Double-click to close the polygon (Figure 16.21)

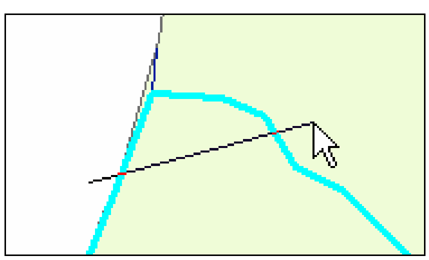


Figure 16.21 Creating a Polygon

3. The resulting polygon is created from the enclosed area (Figure 16.22)

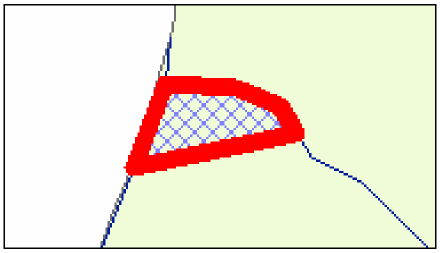


Figure 16.22 Resulting Polygon

 Split Polygon – This control is used to split an existing polygon graphic into two coincident polygons. The split is formed along a user-defined line. To use this tool:

1. Select a polygon feature (from the "NHDWaterbody" layer, for example) using the "Select Features" tool (Figure 16.23)

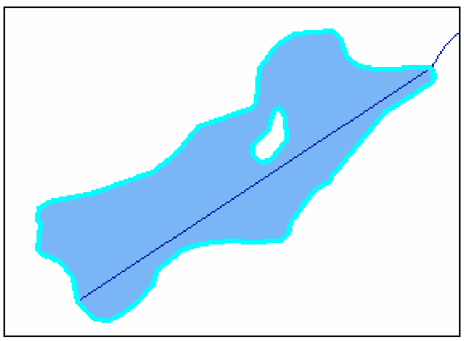


Figure 16.23 Select a Polygon Feature

2. Use the "Convert Polygon" tool to change the ArcMap selection to a GeoWBS selection (Figure 16.24)

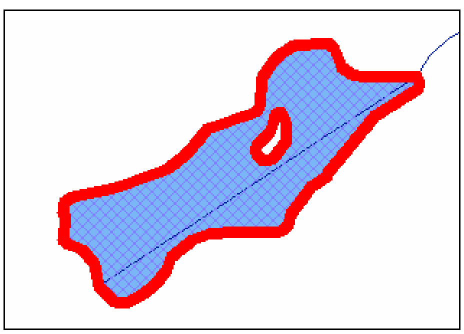


Figure 16.24 Convert the Polygon to a GeoWBS Selection

3. Select the "Split Polygon" tool and draw a line through the selected polygon by clicking the mouse button. Double click to end the line (Figure 16.25)

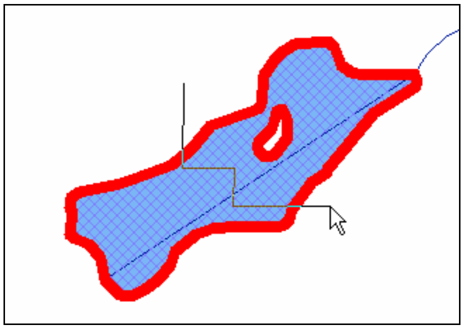


Figure 16.25 Draw a Line Using the Split Polygon Tool

4. The polygon will be divided into two pieces by the line drawn (Figure 16.26)

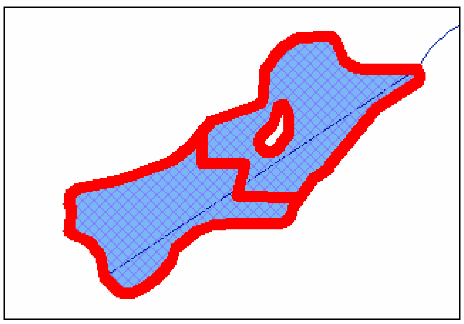
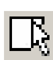


Figure 16.26 Resulting Polygons

 Flip Polygon AU to MA – Converts a selected Assessment Unit to a Monitoring Area.

 Select Polygon Entity – Allows you to select an existing Assessment Unit or Monitoring Area (depending on which is selected from the feature selection drop-down menu).

 Delete Polygon Entity – Allows you to delete an existing Assessment Unit or Monitoring Area. The feature does not need to be selected. You will be prompted to confirm the decision to delete the entity. Deleting an assessment Unit or Monitoring Area deletes all information related to the feature but does not delete the NHD waterbody on which the feature was based.

16.4 Creating Linear and Polygonal Features

As mentioned above, Assessment Units and Monitoring Areas can be created as either line or polygon features. This section describes how the tools of the Line and Polygon Editor toolbars can be used to select NHD streams, rivers, lakes, ponds and coastal regions to create new Assessment Units and Monitoring Areas.

See Chapter 13 for more information on how GeoWBS map features are represented.

Before you attempt to select or manipulate features in the map frame, make sure that the correct Selectable Layers have been set. To check this, open the "Selection" menu from the File toolbar (at the top of the window) and click "Set Selectable Layers". This opens a window showing a list of available layers. Be sure to select Assessment Unit, Monitoring Area, NHD flowline, and NHD waterbody at a minimum.

16.4.1 Snapping and Tracing Options

You must set snapping and/or tracing options when using the Trace Between, Trace Up and Trace Down tools on the Line Editor toolbar. When these tools are selected, clicking on a stream or river opens a window prompting you to either set snapping options (Figure 16.27) or snapping and tracing options (Figure 16.28).

When tracing, a circle denotes the upstream extent of the trace and a square denotes the downstream extent of the trace.

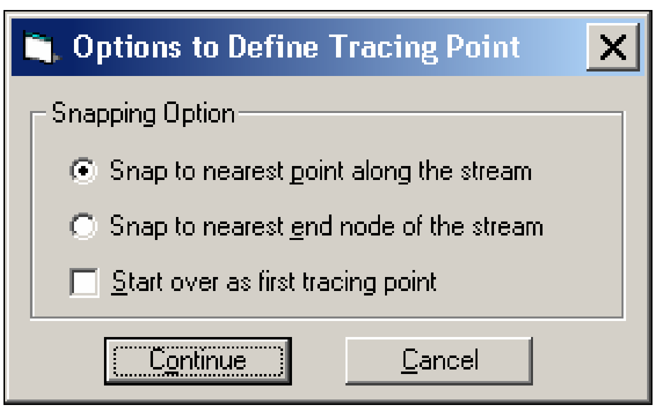


Figure 16.27 Setting Snapping Options

Setting a snapping option requires you to choose whether the point you select will be placed on the nearest point along the stream or whether the point will be placed at the nearest end node of the stream. If you have already placed a point, you will have the option of starting over by selecting the "Start over as first tracing point" checkbox. This clears your previous selection.

When using the Trace Up and Trace Down tools, you must set Snaping Options and Tracing Options. After placing the first tracing point, you will be automatically prompted to select one tracing option – either to continue the trace to the end of the main stream, or to trace to a specified distance up or down the stream.

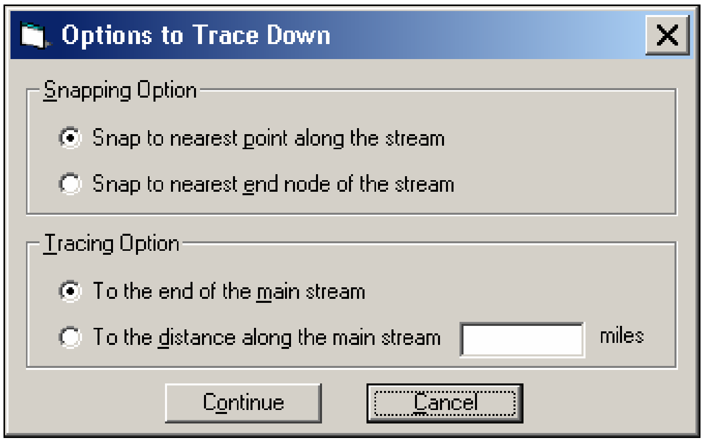


Figure 16.28 Setting Snapping and Tracing Options

The "To the distance along the main stream" function is always measured in miles.

16.4.2 Using the SetOp Menu

The Set Operation (SetOp) drop-down menu is used to create new and/or edit feature selections. The tools are used in the same way to create Assessment Unit and Monitoring Areas though the selections must conform to the rules set for each feature type.

See Chapter 13 for more information on the guidelines set for creating Assessment Units and Monitoring Areas.

There are five types of operations:

- New;
- Union;
- Intersect;
- Subtract; and
- XOR (exclusive or).

To use the options, first select either Assessment Unit or Monitoring Area from the *Feature Selection* drop-down menu (to the right of the *SetOp* menu). Next, select an operation from the *SetOp* menu. Then select either the Trace Between, Trace Up, or Trace Down tools to select features on the map. Using more than one operation allows you to build on existing selections to customize the boundaries of the targeted area.

The following sections give examples of how each of the five operations can be used to create an Assessment Unit.

New

The New operation will be the first one used when creating a new Assessment Unit.

To begin, be sure that "New" is the selected value in the *SetOp* menu and that you have selected "Assessment Unit" in the adjoining menu. Use the "Simple Select Line", "Trace Between", "Trace Up", or "Trace Down" tool to select an NHDFlowline feature on the map that you wish to include in your Assessment Unit (Figure 16.29). Be sure to select the correct snapping and tracing options if you use one of the latter three tools. The stream in Figure 16.28 was selected using the "Simple Select Line" tool.

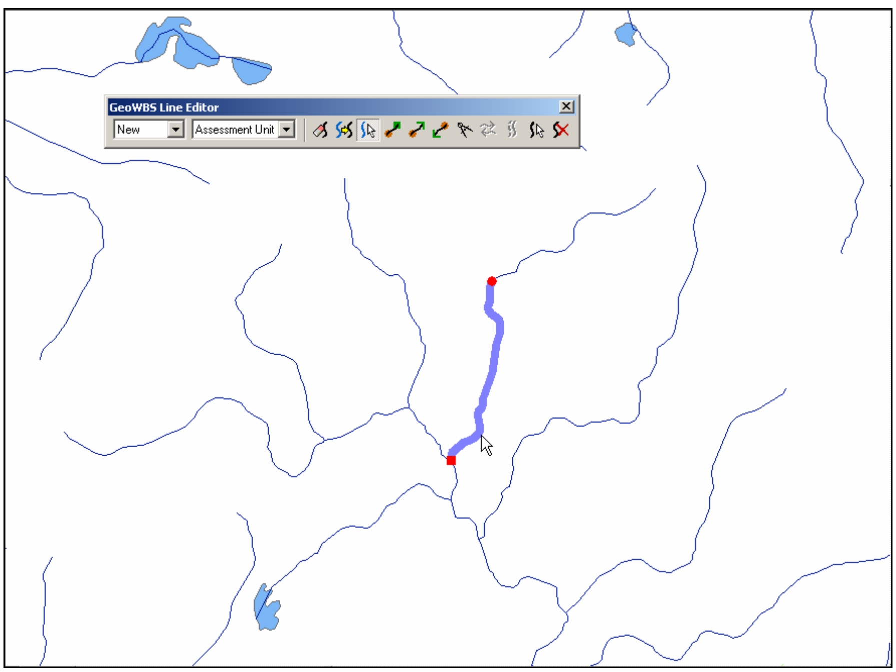


Figure 16.29 Creating a New Assessment Unit

At this time, you could save the selected stream as an Assessment Unit by selecting "Create Assessment Unit" from the Assessment Unit menu on the GeoWBS toolbar. Alternatively, you can use the other *SetOp* options to add or remove features to the selected area.

Clicking the map away from the selected feature clears the selection.

Union

The Union option allows you to add on to the current selection.

To use the Union option on the stream selection from the previous section, first change the *SetOp* value to "Union". Next, select one of the four selection tools from the Line Editor toolbar to select a stream (or a portion thereof) to add to the existing selection, extending the size of the Assessment Unit. Figure 16.30 shows the result of adding an upstream reach using the "Trace Between" tool.

The current selection now includes two stream sections. The second piece was created by snapping the selected point to the nearest point along the stream.

The open endpoints indicate that this stream selection only covers a part of a stream reach, not its entire length.

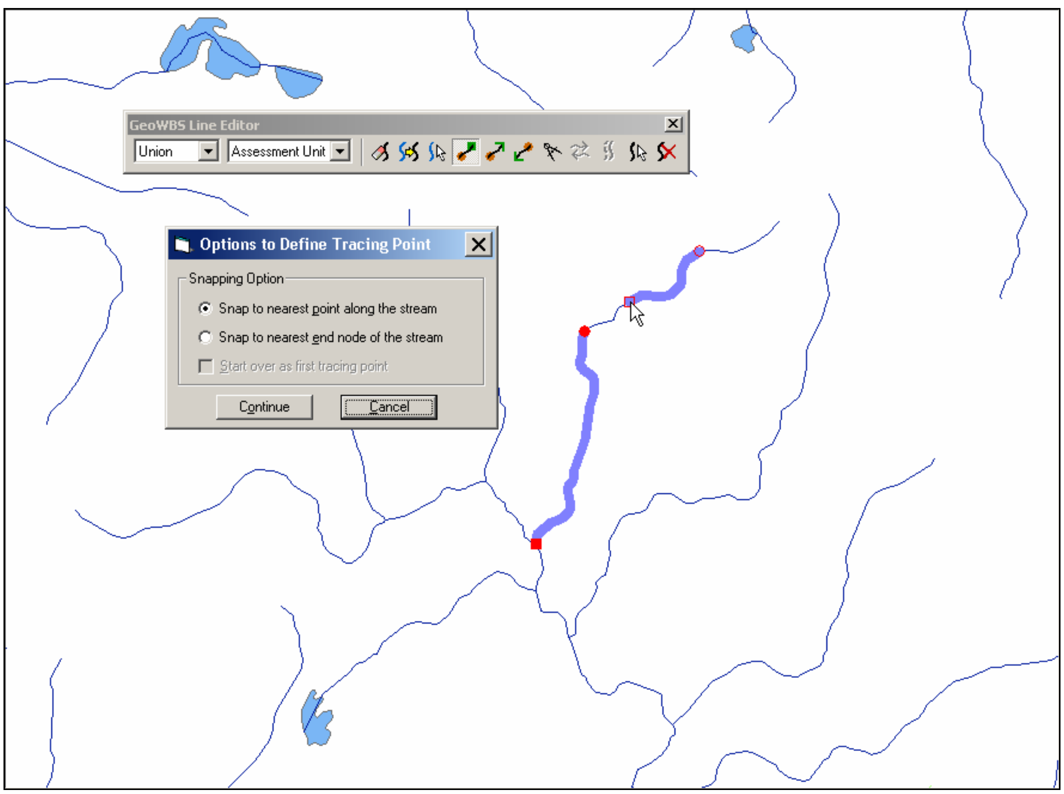


Figure 16.30 Using the Union Option and the Trace Between Tool to Add to an Existing Feature Selection

Intersect

The Intersect option creates a new selection that includes lines that are common to (intersect with) the existing selection and the line drawn while the Intersect option is selected. This operation cannot add any lines to the selection. It can be used to selectively remove areas from the selection.

To use the Intersect option on the stream selection from the previous section, first change the *SetOp* value to "Intersect". Next, select one of the four selection tools from the Line Editor toolbar to select a stream (or a portion thereof). Figure 16.31 shows the result of using the "Trace Up" tool. A point near the downstream end of the stream reach selected initially (using the "New" option) was selected and the tracing option was set to trace one mile up the stream.

The resulting selection shows the stream reaches that were common to both the original selection and the selection made with the "Trace Up" tool.

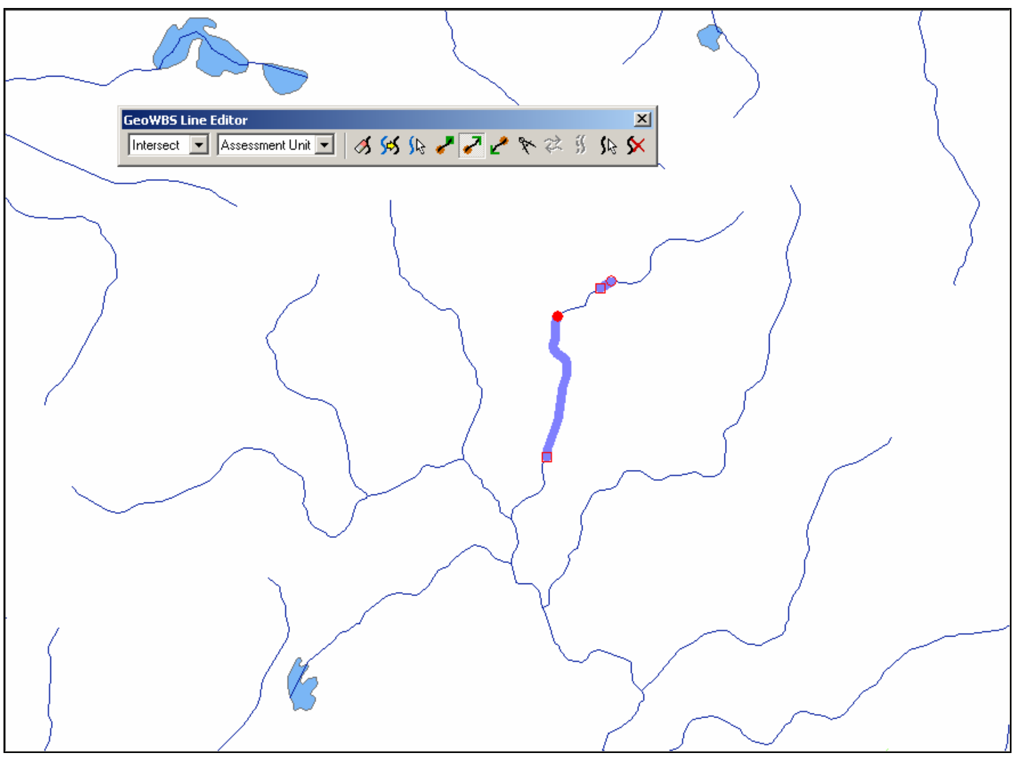


Figure 16.31 Altering a Selection With the Intersect Option

Subtract

The Subtract option removes any portion of a selection that is common to (intersects with) the existing selection and the line drawn while the Subtract option is selected.

To use the Subtract option on the stream selection from the previous section, first change the SetOp value to "Subtract". Next, select one of the four selection tools from the Line Editor toolbar to select a stream (or a portion thereof). Figure 16.32 shows the result of using the "Trace Down" tool. A point near the middle of the stream reach selected initially (using the "New" option) was selected and the tracing option was set to trace to the end of the main stream.

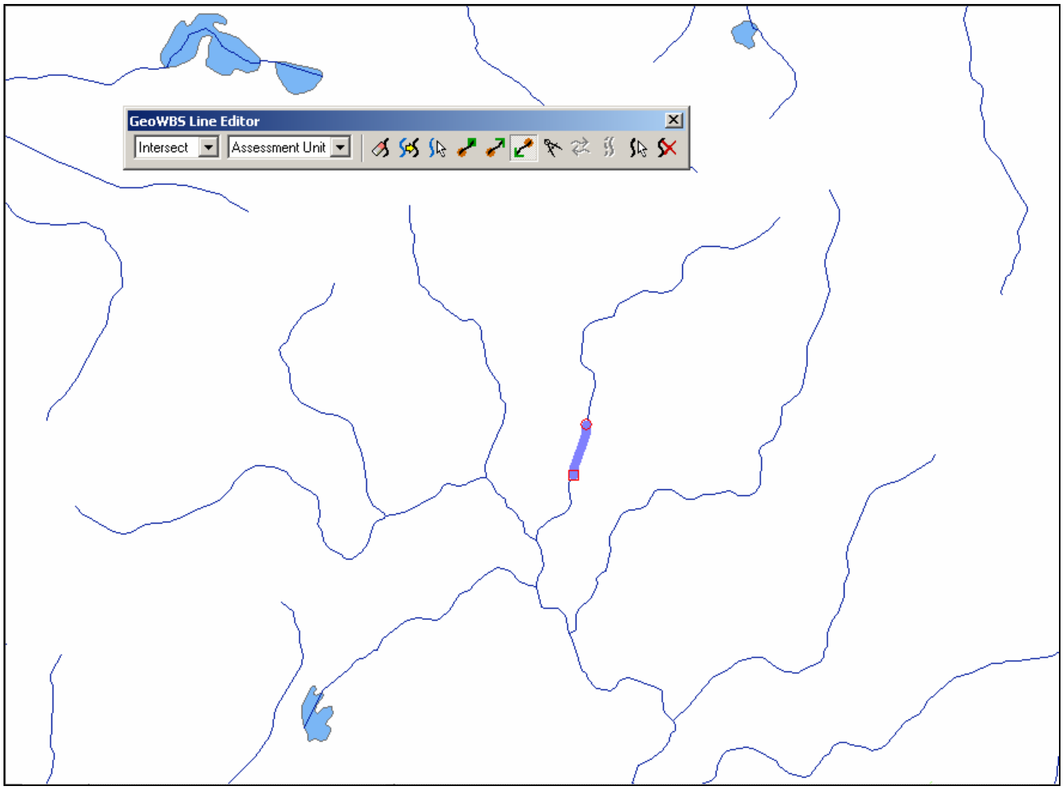


Figure 16.32 Altering a Selection With the Subtract Option

The resulting selection shows the stream reach that was common to both the original selection and the selection made with the "Trace Down" tool.

XOR

Known and read as "exclusive or", XOR results in a selection that includes areas that were not selected while the XOR option was in use. This would include any stream sections that were common to the reach selected that were not previously selected as well as any areas that fell outside of the selected reach.

For this example, a new selection was made using the New and Union options to describe three stream segments with unselected areas in between (Figure 16.33).

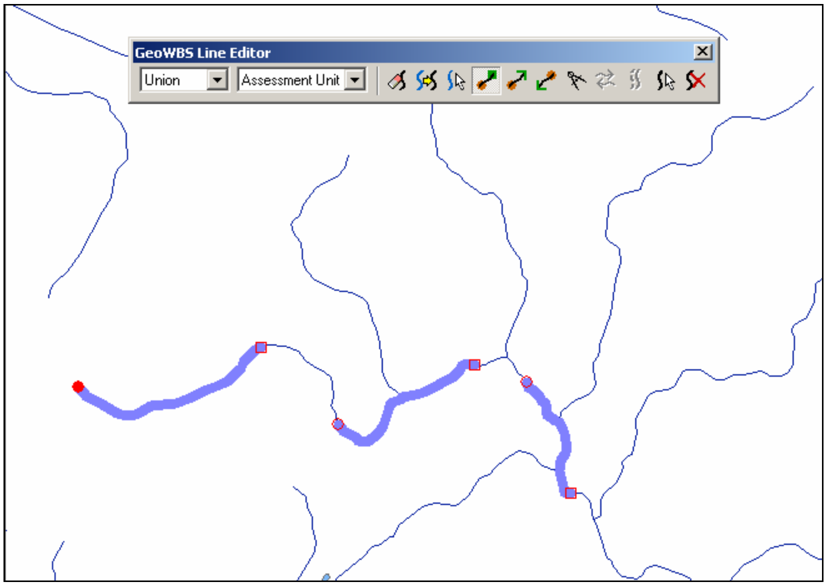


Figure 16.33 Stream Selection Before Using the XOR Option

To use the XOR option on the stream selection shown above, first change the SetOp value to "XOR". Next, select one of the four selection tools from the Line Editor toolbar to select a stream (or a portion thereof). Figure 16.34 shows the result of using the "Trace Between" tool to select a point in the middle of the left stream segment and a second point downstream of the stream segment to the far right.

The resulting selection is composed of the stream segments between the two points that were not previously selected as well as the portion of the left stream segment that fell outside of the selected points.

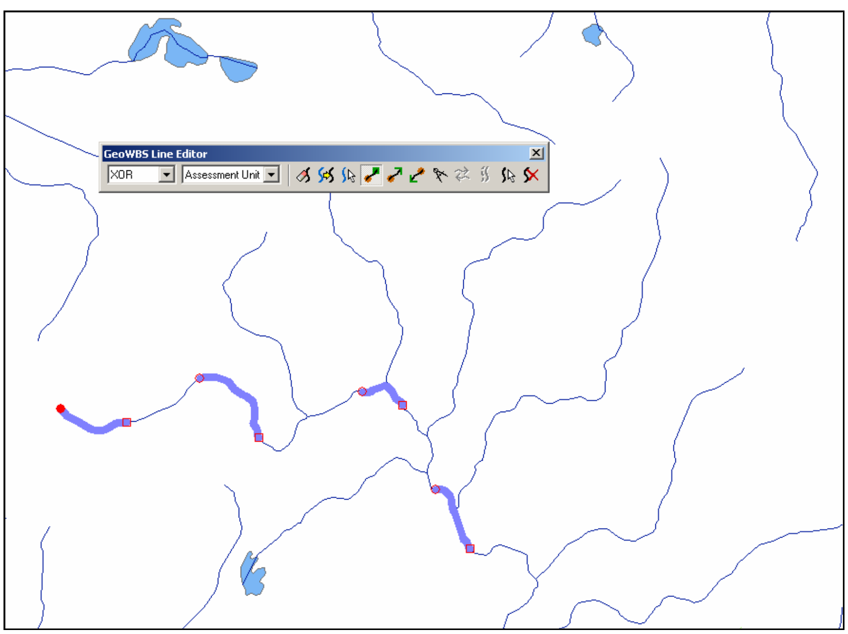


Figure 16.34 Stream Selection After Using the XOR Option

When you have selected the stream reaches for your Assessment Unit, open the Assessment Unit menu on the GeoWBS toolbar and click the "Create Assessment Unit" option. The process of creating new Assessment Units is discussed below.

16.4.3 Creating Polygonal Features

Follow the same steps outlined above to create and manipulate polygonal features using the SetOp tools on the Polygon Editor toolbar.

16.5 The GeoWBS Toolbar Menus

The GeoWBS Toolbar menus allow you to create and maintain Assessment Units and Monitoring Areas and perform various utilities and create several types of Reports. This section describes each of the four menus and the tasks that can be performed with each one.

16.5.1 The Assessment Unit Menu

Opening the Assessment Unit Menu (by clicking it with the mouse) shows that there are five menu options available:

- Search Assessment Unit;
- Create New Assessment Unit;
- Update Assessment Unit;
- Assign Beneficial Use; and
- Attach Document.

Search Assessment Unit

The Search Assessment Unit option allows you to search for an existing Assessment Unit by AU ID or AU Name. Clicking this option opens the Search Assessment Unit window (Figure 16.35).

Enter the appropriate search criteria into the fields at the top of the window and click the "Search" button.

Click the "Show All" button to display a list of all existing Assessment Units. Click the column headers ("AU ID", "AU Name" or "Shape Type") to sort the list by the column header.

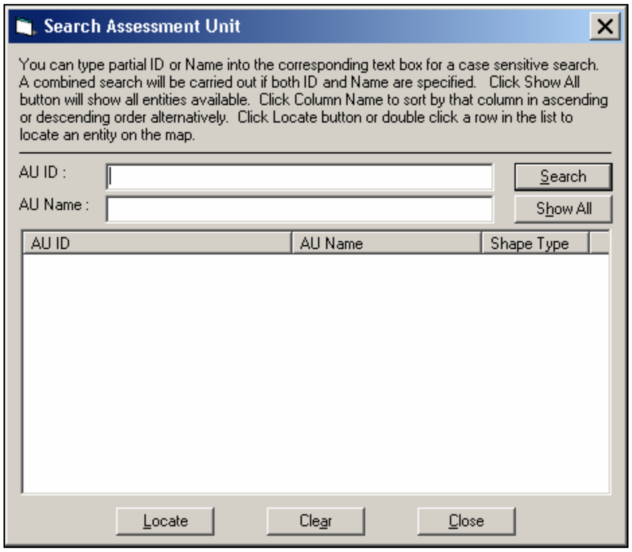


Figure 16.35 Search Assessment Unit Window

Click on an Assessment Unit and then click the "Locate" button to highlight and zoom to the selected Assessment Unit on the map. Click the "Clear" button to clear all Assessment Units from the window. Click the "Close" button to close the Search Assessment Unit window.

Create New Assessment Unit

The Create New Assessment Unit option is only available if a line or polygon feature is selected in the map frame. Clicking this option when a feature is selected assigns that feature an AU ID and creates a new Assessment Unit record.

You can only create new Assessment Units in a Region in which you have jurisdiction.

Clicking the option opens the Select Waterbody Type and ID window (Figure 16.36).

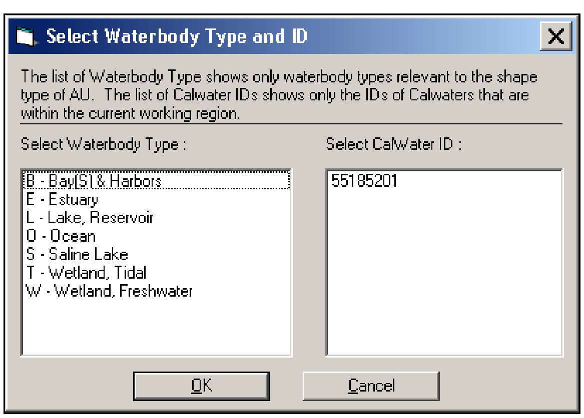


Figure 16.36 Select Waterbody Type and ID Window

Select the appropriate Waterbody Type and CalWater ID and click the "OK" button. This opens the Assessment Unit General Information window (Figure 16.37).

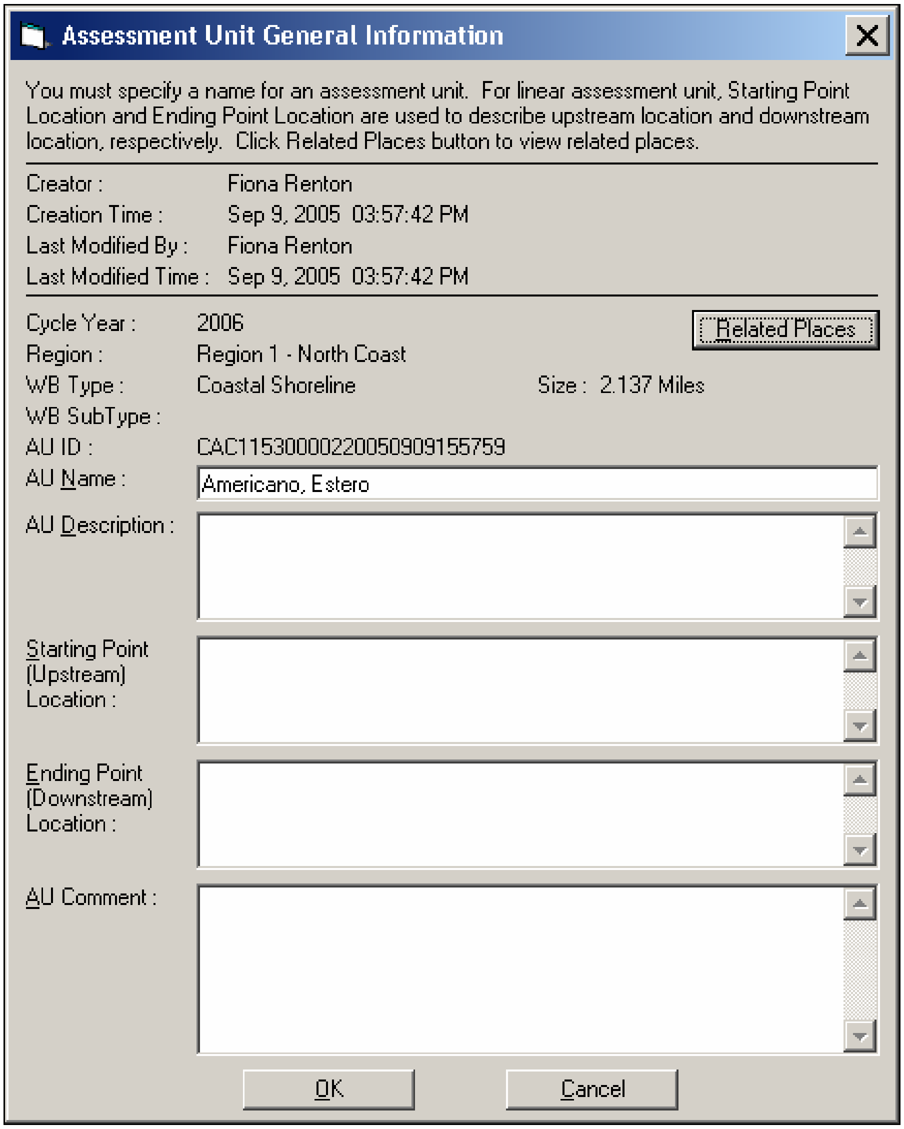


Figure 16.37 Assessment Unit General Information Window

Within this window, you are asked to enter an appropriate AU name, description, starting point (or polygon location), ending point. If you are crating a linear Assessment Unit, and you have the opportunity to add comments or select a related place using the "Related Places" button (Figure 16.38).

Within the Related Places window, use the Place Type drop-down menu to select a place. The table below refreshes to show all available option. Select a place by clicking on its name and click the "Close" button.

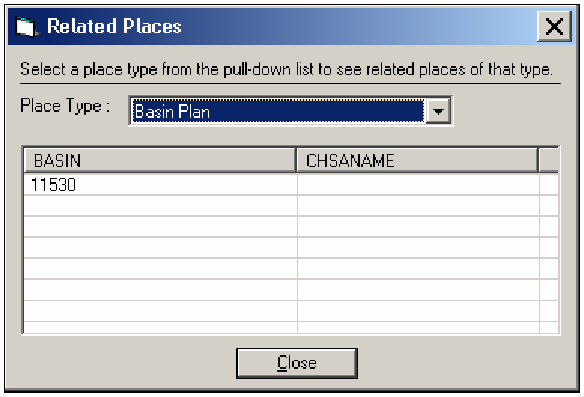


Figure 16.38 Related Places Window

When you have finished entering data in the General Information window click the "OK" button.

This opens the Assign Beneficial Uses window (Figure 16.39).

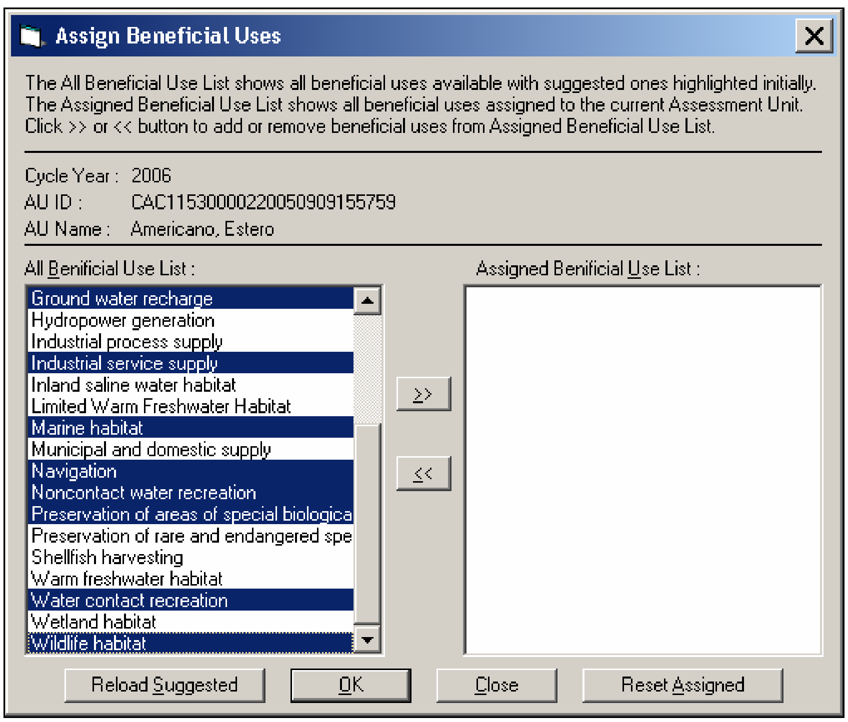


Figure 16.39 Assign Beneficial Uses Window

When the window first opens, all suggested beneficial uses are highlighted within the AU Beneficial Use list. Click the "Reload Suggested" button to regain that list at any time.

Select the appropriate beneficial uses and click the ">>" button to add the uses to the list (click and hold the SHIFT key while making selections from the list to add more than one beneficial use at a time).

Click the "Reset Assigned" button to clear the Assigned Beneficial Use list.

When you have finished making your selections, click the "OK" button to save your selections, or click the "Close" button to exit without assigning beneficial uses to the Assessment Unit.

Update Assessment Unit

Use the Update Assessment Unit menu option to update either the shape, attributes or both shape and attributes of a selected Assessment Unit. Clicking this option when an Assessment Unit is selected opens the Update Option window (Figure 16.40).

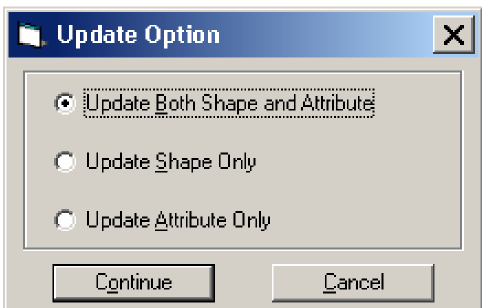


Figure 16.40 Update Option Window

Assign Beneficial Use

Use the Assign Beneficial Use menu option to add or change beneficial uses for a selected Assessment Unit. Clicking this option when an Assessment Unit is selected opens the Assign Beneficial Uses window (as shown in Figure 16.39 above). Add or change beneficial uses, as required, and click the "OK" button to save your changes.

Attach Document

Use the Attach Document menu option to attach documents as part of the attribute data of a selected Assessment Unit. Clicking this option when an Assessment Unit is selected opens the Attachment window (Figure 16.41).

Documents can only be attached to COMMITTED Assessment Units. Assessment Units are committed using the Utilities menu.

Click the "Attach File" button to search and find available files to add to the list. Select a file and click the "Remove File" button to remove a file from the list.

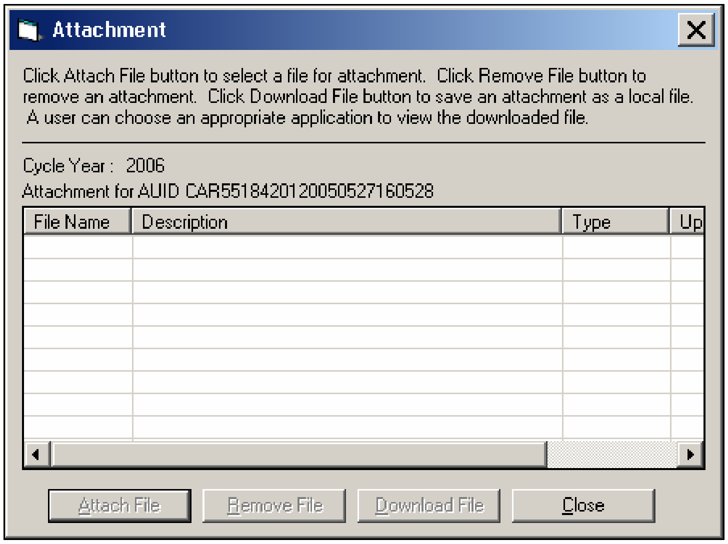


Figure 16.41 Attachment Window

Select a file in the Attachments window and click the "Download File" button to download the file to your computer.

Click the "Close" button to close the window.

16.5.2 Monitoring Area Menu

Opening the Monitoring Area Menu shows that there are four menu options available:

- Search Monitoring Area;
- Create New Monitoring Area;
- Update Monitoring Area; and
- Attach Document.

Search Monitoring Area

The Search Monitoring Area option allows you to search for an existing Monitoring Area by MAID or MA Name. Clicking this option opens the Search Monitoring Area window (Figure 16.42).

Enter the appropriate search criteria into the fields at the top of the window and click the "Search" button.

Click the "Show All" button to display a list of all existing Monitoring Areas. Click the column headers ("AU ID", "AU Name" or "Shape Type") to sort the list by the column header.

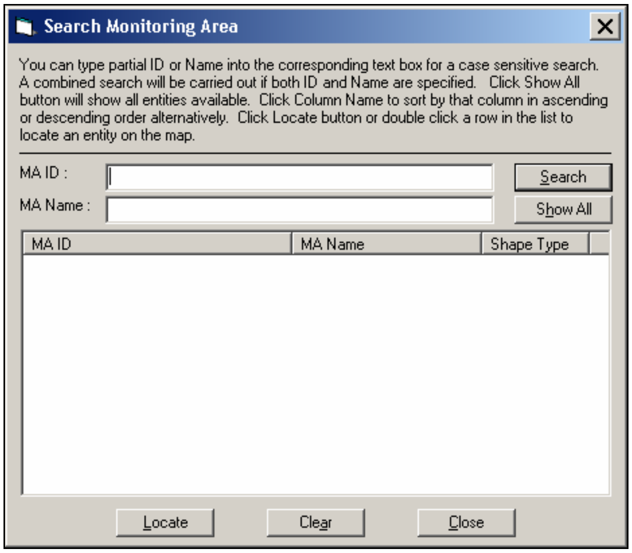


Figure 16.42 Search Monitoring Area Window

Click on a Monitoring Area and then click the "Locate" button to highlight and zoom to the selected Assessment Unit on the map.

Click the "Clear" button to clear all Monitoring Areas from the window. And, click the "Close" button to close the Search Monitoring Area window.

Create New Monitoring Area

The Create New Monitoring Area option is only available if a line or polygon feature is selected in the map frame. Clicking this option when a feature is selected assigns that feature an MAID and creates a new Monitoring Area record.

You can only create a new Monitoring Area within a Region in which you have jurisdiction.

This opens the Monitoring Area General Information window (Figure 16.43).

Within this window, you will be asked to enter an appropriate MA name, description, starting point (or polygon location), ending point. If you are crating a linear Monitoring Area, and you will have the opportunity to add comments or select a related place using the "Related Places" button (Figure 16.44).

Within the Related Places window, use the Place Type drop-down menu to select a place. The table below will refresh to show all available option. Select a place by clicking on its name and click the "Close" button.

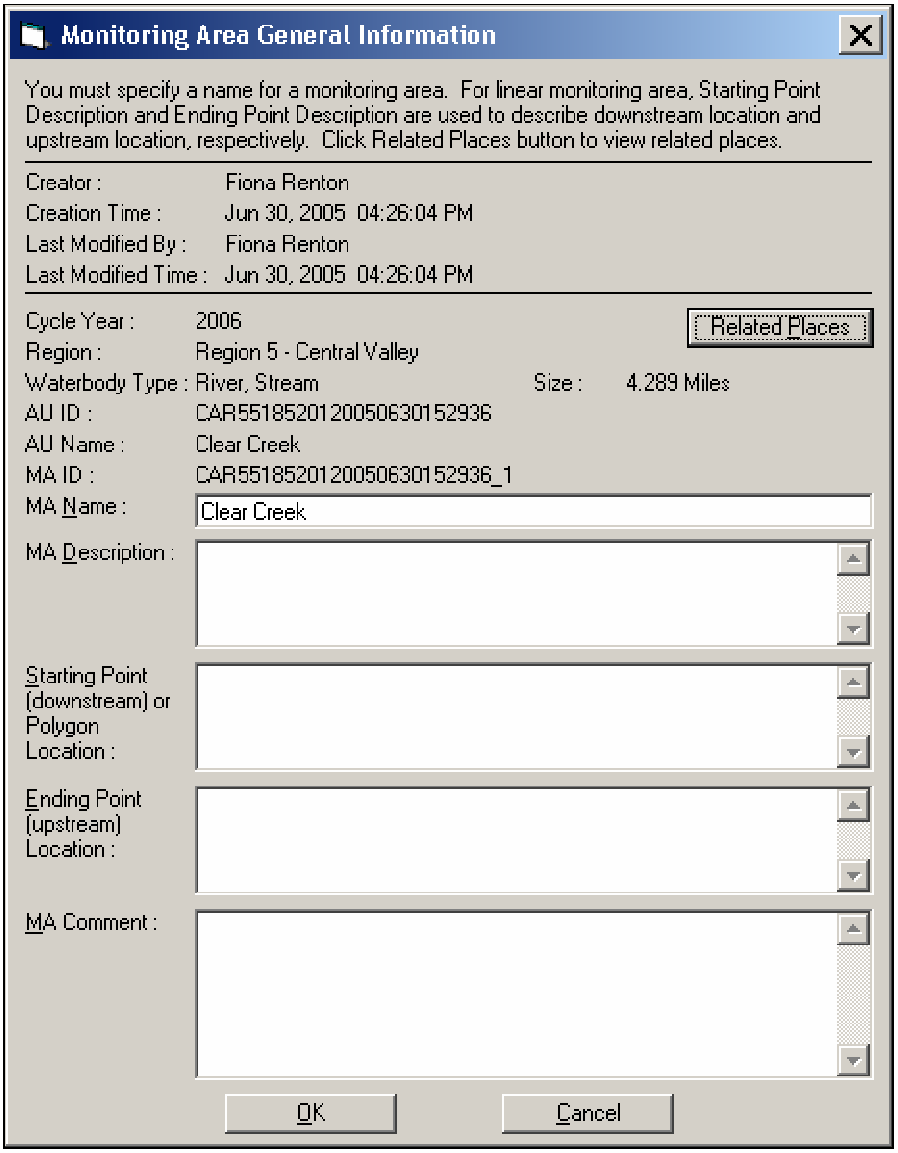


Figure 16.43 Monitoring Area General Information Window

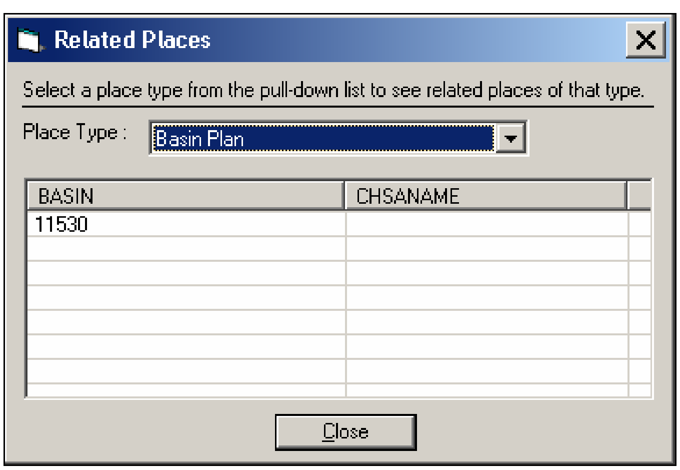


Figure 16.44 Related Places Window

Update Monitoring Area

Use the Update Monitoring Area menu option to update either the shape, attributes or both shape and attributes of a selected Monitoring Area. Clicking this option when a Monitoring Area is selected opens the Update Option window (Figure 16.45).

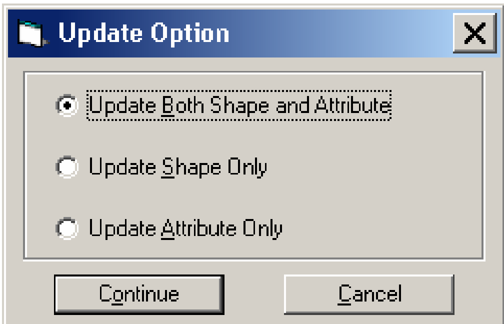


Figure 16.45 Update Option Window

Attach Document

Use the Attach Document menu option to attach documents as part of the attribute data of a selected Monitoring Area. Clicking this option when a Monitoring Area is selected opens the Attachment window (Figure 16.46).

Documents can only be attached to COMMITTED Monitoring Areas. Monitoring Areas are committed using the Utilities menu.

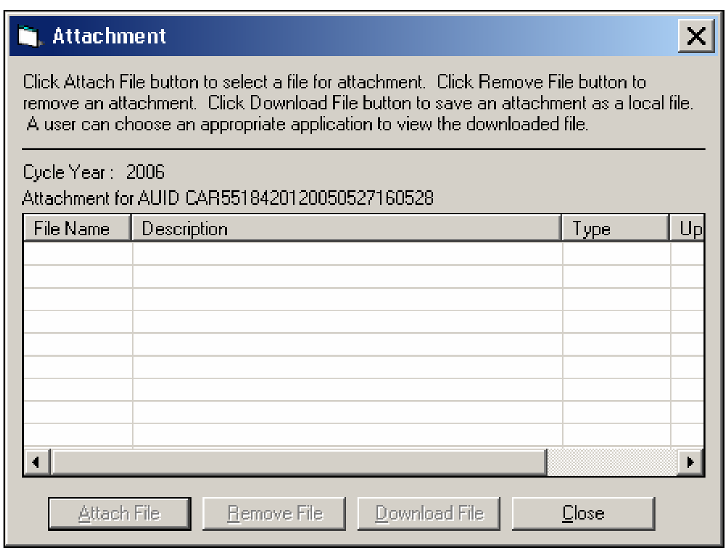


Figure 16.46 Attachment Window

Click the "Attach File" button to search and find available files to add to the list. Select a file and click the "Remove File" button to remove a file from the list.

Select a file in the Attachments window and click the "Download File" button to download the file to your computer.

Click the "Close" button to close the window.

16.5.3 Utility Menu

The primary purpose of the Utility menu is to allow you to confirm and commit the Assessment Unit and Monitoring Area information so that it can be transferred for use in the CIWQS Online Editor. Information about these features is used to track assessment and impairment data for the purposes of fulfilling California and EPA reporting requirements.

Opening the Utility Menu shows that there are eight menu options available:

- Layer Validation
- Assessment Unit Confirmation
- Monitoring Area Confirmation
- Synchronization
- Browse
- Attach State Document
- Mapping
- Cycle Migration

Create, Confirm, Commit

Each Assessment Unit and Monitoring Area must pass through three stages before its information can be used for reporting purposes: create, confirm, and commit.

CREATE

When the Assessment Unit or Monitoring Area menus are used to save a feature, AUs and MAs are **created**. These features have now been separated from the underlying NHD lakes, ponds, and streams and have associated attribute data.

Assessment Units and Monitoring Areas at this stage are editable in the Desktop Editor map frame. Both the spatial and attribute data can be changed by any User.

CONFIRM

When you have finished editing the spatial and attribute information for an Assessment Unit or Monitoring Area, it can then be confirmed.

Once a feature has been confirmed, it is no longer editable in the Desktop Editor.

Super Users can confirm and reopen both MAs and AUs. Regional Users can confirm and reopen MAs.

Assessment Units must be CONFIRMED before their Monitoring Areas can be CONFIRMED.

COMMIT

Once Assessment Units and Monitoring Areas have been confirmed, they can then be committed. Features are committed when the geodatabase and the Enterprise Data Model (EDM) are synchronized. Committed features are considered final and approved for production and cannot be edited in the Desktop Editor.

Assessment Units must be COMMITTED before their Monitoring Areas can be COMMITTED.

Super Users can commit both MAs and AUs. Regional Users can commit MAs (Figure 16.47).

Figure 16.47 Create, Confirm, and Commit

Layer Validation

Clicking Layer Validation on the Utility menu loads all feature layers necessary to display information required by the Desktop Editor and repairs any broken links to this data. The Dataset Validation Result window displays the results of this action (Figure 16.48).

Click the “Close” button to close the window.

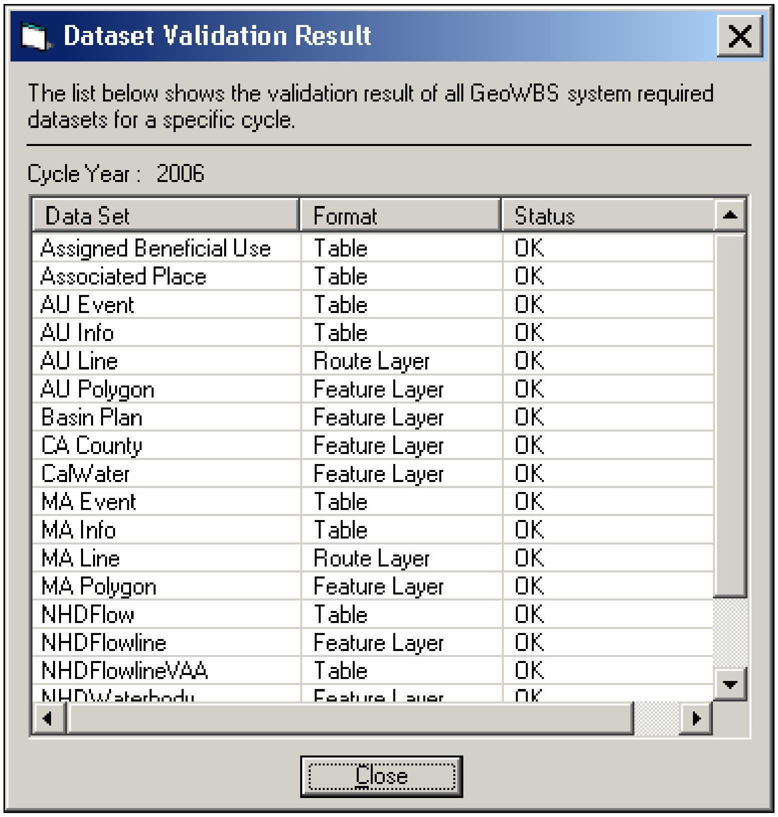


Figure 16.48 Dataset Validation Result Window

Assessment Unit Confirmation

Before Assessment Unit information can be shared with the CIWQS database, it must first be confirmed and then committed. Confirming an Assessment Unit can be done through this menu option. Committing an Assessment Unit is done through the Synchronization window.

Once an Assessment Unit has been confirmed it can no longer be modified or updated. It can, however, be reopened to allow updating and editing of attribute data. Once an Assessment Unit has been confirmed, it can then be committed. Committed Assessment Units cannot be reopened and can no longer be edited.

Clicking the Assessment Unit Confirmation menu option opens the Assessment Unit Confirmation window (Figure 16.49). This window displays all Assessment Units for the current cycle year and within the working region.

Click an Assessment Unit to select it. Click the “Confirm” button to confirm it (if it has not been already confirmed). Or, click the “Reopen” button to reopen the Assessment Unit for editing and updating.

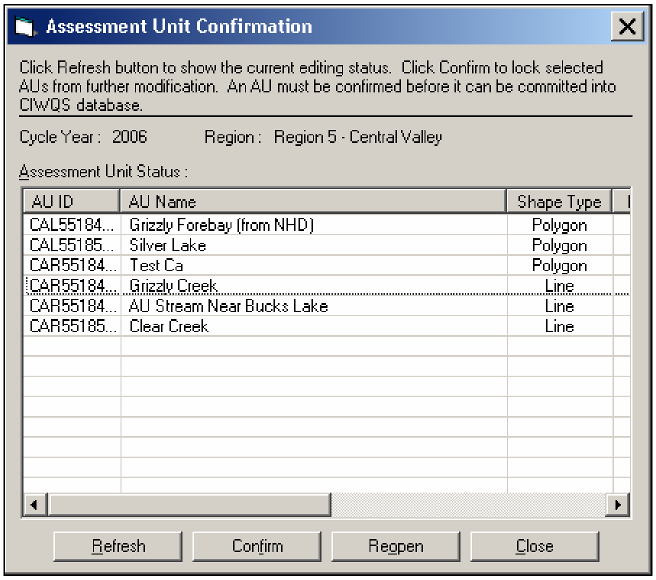


Figure 16.49 Assessment Unit Confirmation Window

Click the "Refresh" button to refresh the list and the "Close" button to close the window.

Monitoring Area Confirmation

Before Monitoring Area information can be shared with the CIWQS database, it must first be confirmed and then committed. Confirming a Monitoring Area can be done through this menu option. Committing a Monitoring Area is done through the Synchronization window.

Once a Monitoring Area has been confirmed it can no longer be modified or updated. It can, however, be reopened to allow updating and editing of attribute data. Once a Monitoring Area has been confirmed, it can then be committed. Committed Monitoring Areas cannot be reopened and can no longer be edited.

Clicking the Monitoring Area Confirmation menu option opens the Monitoring Area Confirmation window (Figure 16.50). This window displays all Monitoring Areas for the current cycle year and within the working region.

Click a Monitoring Area to select it. Click the "Confirm" button to confirm it (if it has not been already confirmed). Or, click the "Reopen" button to reopen the Monitoring Area for editing and updating.

Click the "Refresh" button to refresh the list and the "Close" button to close the window.

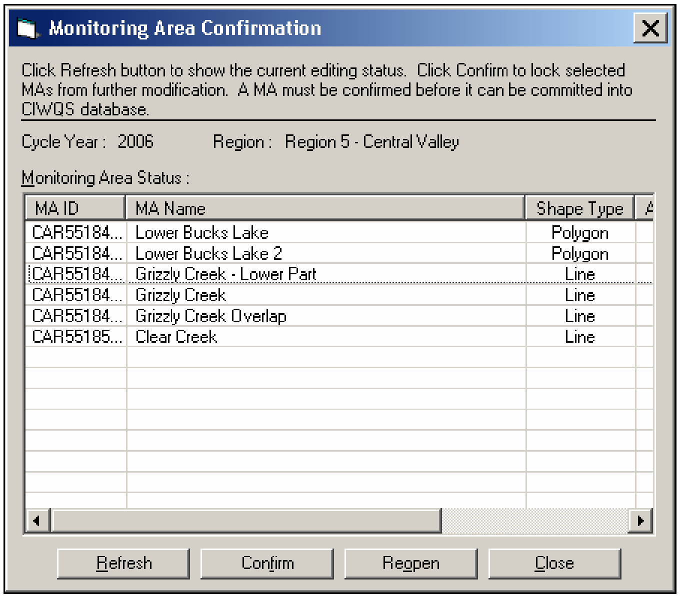


Figure 16.50 Monitoring Area Confirmation Window

Synchronization (Commit)

The Synchronization menu option allows you to commit Assessment Units and Monitoring Areas and to transfer their attribute data to the CIWQS database. The attribute data will then be available to use in the CIWQS Online Editor.

Clicking the Synchronization option opens the Synchronize Data Into CIWQS window (Figure 16.51).

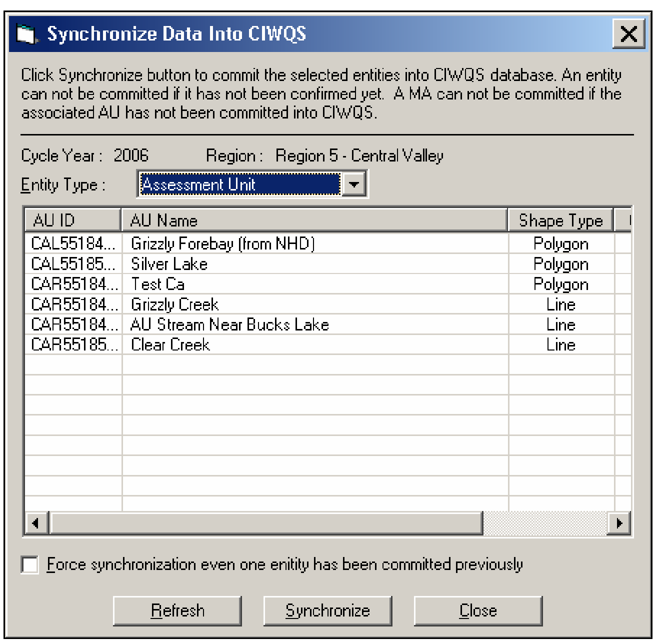


Figure 16.51 Synchronization Window

The fields at the top of the window show the current cycle year and working region and allow you to select an entity type (Assessment Unit or Monitoring Area). When you change the entity type, click the “Refresh” button to update the entity table.

Click the “Synchronize” button to commit the selected Assessment Units or Monitoring Areas and click the “Close” button to close the window.

Once you have committed an Assessment Unit or Monitoring Area, you can no longer edit or update its shape or attribute data.

Browse

The Browse menu option allows you to filter and view Assessment Unit and Monitoring Area information. Clicking this option opens the Browse window (Figure 16.52). Use the *Select Dataset* and *Select Column* fields to set search criteria and click the “Apply Filter” button. Alternatively, click the “Show All” button to display all available records.

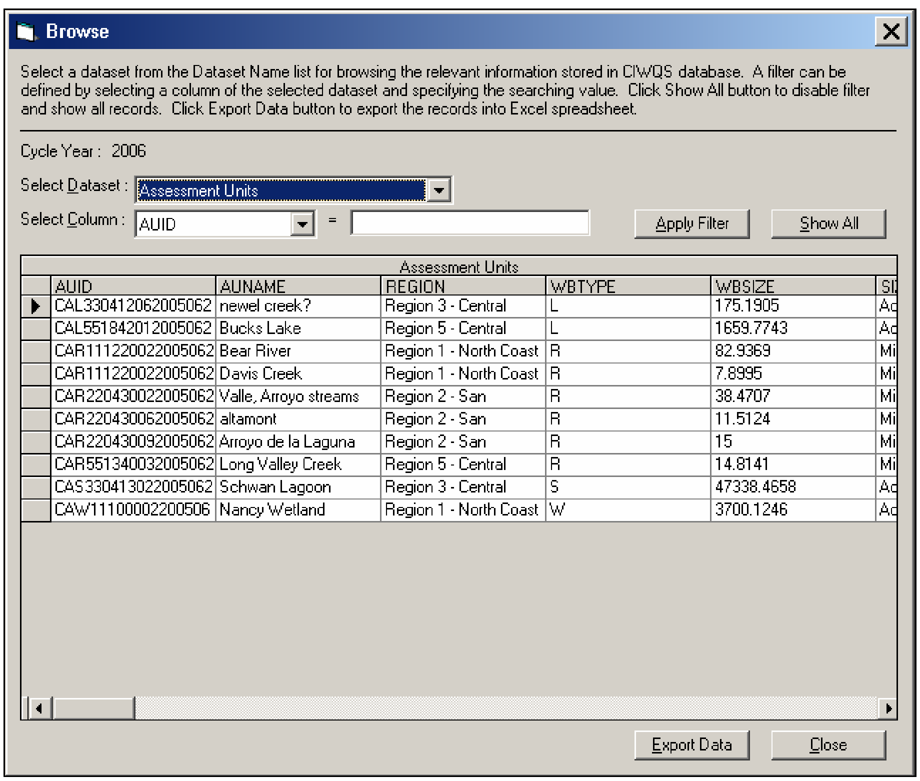


Figure 16.52 Browse Window

When you have filtered the list as needed, click the “Export Data” button to open an Excel spreadsheet with the resulting data (Figure 16.53).

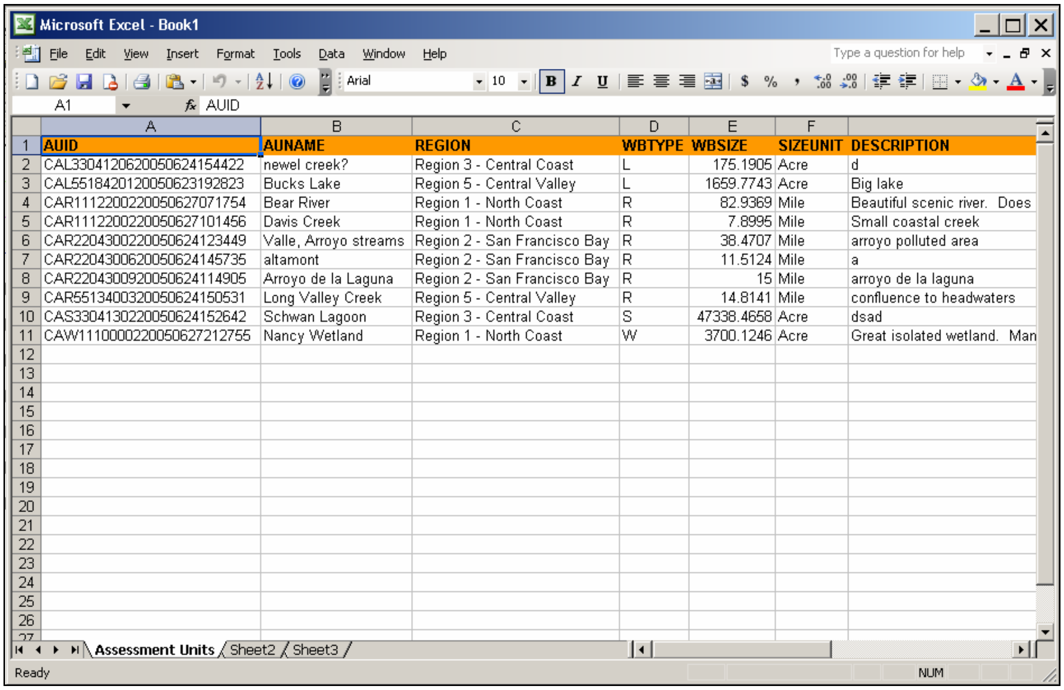


Figure 16.53 Exported Data

Attach State Document

The Attach State Document option allows you to associate a document with the GeoWBS dataset. Clicking this option opens the Attachment window (Figure 16.54).

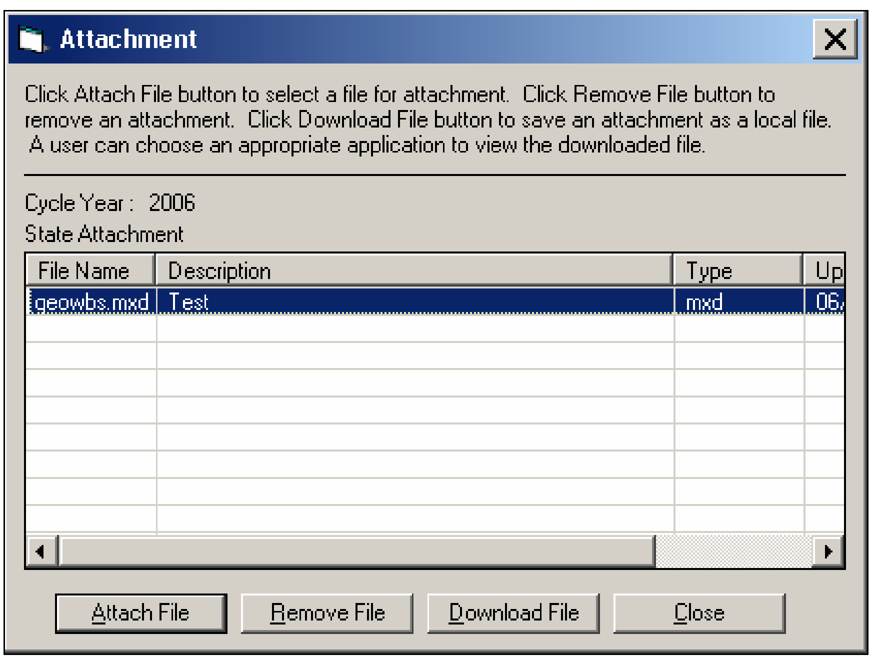


Figure 16.54 Attachment Window

Click the "Attach File" button to search and find available files to add to the list using the Upload File window (Figure 16.55). Type in a file location or click the "…" button to browse for a file.

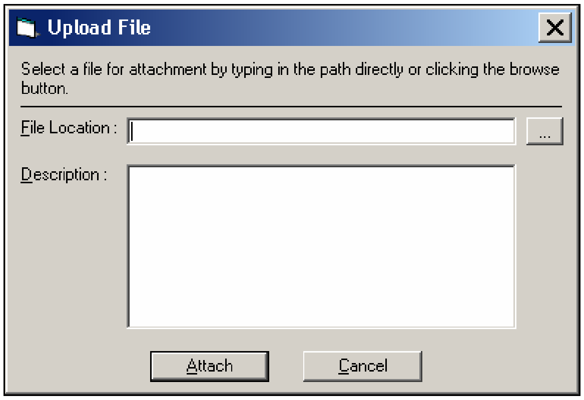


Figure 16.55 Upload File Window

Click the "Attach" button to upload the selected document.

Select a file in the Attachments window and click the "Remove File" button to remove a file from the list.

Select a file in the Attachments window and click the "Download File" button to download the file to your computer.

Click the "Close" button to close the window.

Mapping

The Mapping option allows you to set options for and create a map layout of the current map view. Clicking this button opens the Map Layout Configuration window (Figure 16.56).

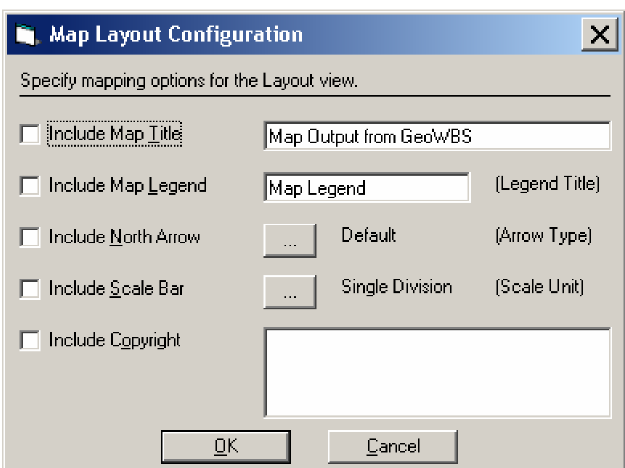


Figure 16.56 Map Layout Configuration Window

Cycle Migration

The Cycle Migration option allows you to import Assessment Unit and Monitoring Area information from previous cycles. Clicking on this option opens the Migrate Data From Previous Cycle window (Figure 16.57).

Select the desired cycle year and entity type from the drop-down menus and click the "Refresh" button.

When you have made your selections, click the "Migrate" button to populate the map with the shape and attribute data for the selected Assessment Units or Monitoring Areas.

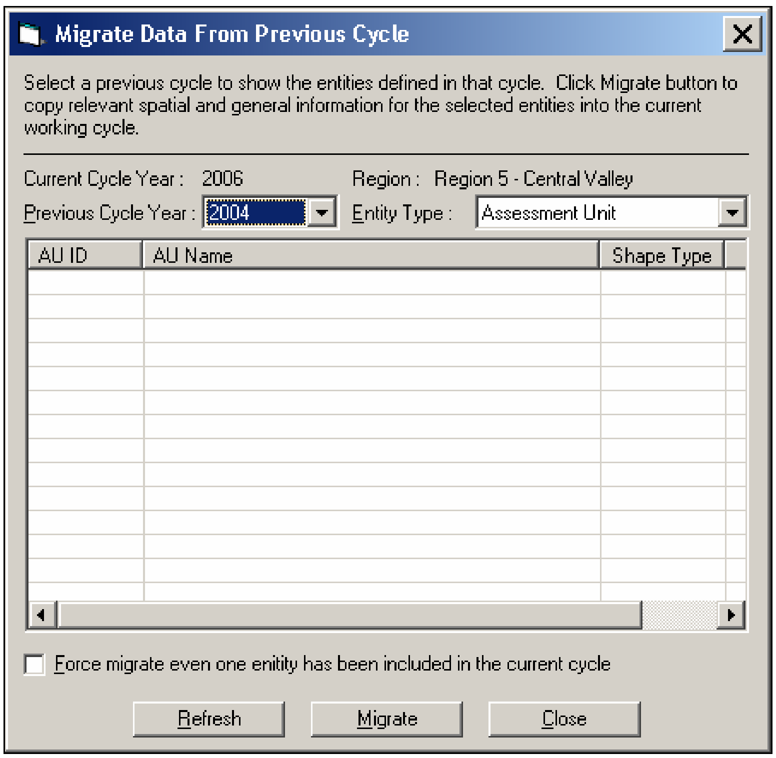


Figure 16.57 Migrate Data From Previous Cycle Window

Click the "Close" button to close the window.

16.5.4 Reports Menu

Opening the Monitoring Area Menu shows that there are two menu options available:

- EPA Integrated Report; and
- State Report.

The State Report option is further subdivided to allow you to create reports by:

- Pollutant;
- Use;
- Total
- Source; and
- Region.

EPA Integrated Report

Clicking on the EPA Integrated Report option opens the Generate Reports window (Figure 16.58). From here, you can enter AU Search Criteria to find the AUs that match the selected region, cycle year, waterbody type, keyword, and category you selected. Click the "Refresh" button to display all results in the Search Results window. Select the Assessment Unit you wish to generate a report for and click the "Create Report" button to create a report in Excel that you can then manipulate and distribute as needed.

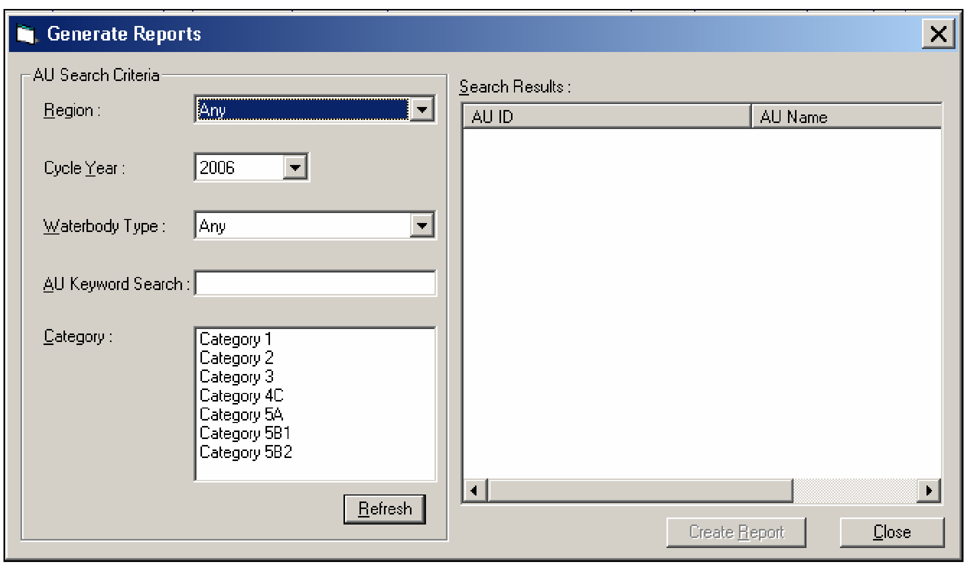


Figure 16.58 Generate Reports Window

State Reports

Each state report exports 303(d) total source category listings for the current cycle. Each option produces a report filtered by different criteria (pollutant, use, total, source, and region).

CIWQS Water Board User's Guide

Part VI

System Administration

17
CIWQS Security

This chapter addresses the following topics:

- An overview of CIWQS and GeoWBS security
- Discussion of User types
- Groups and Functions

17.1 CIWQS Security

The California Integrated Water Quality System (CIWQS) and the Geo Waterbody System (GeoWBS) each operates based on a set of security principles. This chapter reviews the security standards for each system and gives an overview of how Users are granted access to the various Modules and pages.

17.1.1 CIWQS Security Principles

CIWQS system security is based on the following principles:

- Each User has a unique User ID and a password. No two people should share the same ID and passwords should be kept secret
- Each User is assigned to one or more User Groups
- Each security Group has access to one or more system Functions
- Access to a system Function is granted at one of the following levels: read-only, update, or super. If a Group does not have one of these levels for a particular Function, this means that the Group has no access to that system Function and the Users within that Group are denied access. For Functions (such as "login"), which do not require access levels, any access level (including read-only) may be used to grant access

- System Functions operate at a variety of levels: entire Modules, individual pages, or individual fields/controls
- When a User belongs to multiple Groups, each with different access levels to the same system Function, the highest access level is applied
- A User may be record limited. Internal Users can access records only for Facilities within their own Water Board or across all Water Boards (based on access level). Dischargers are granted access to Facilities where they are the legally Responsible Person or at Facilities where a Legally Responsible Person has approved them as an additional User

17.1.2 GeoWBS Security Principles

In addition to the security principles operating for CIWQS, GeoWBS includes the following additional principles:

- All Users are Internal Users (Dischargers will not have access to this component)
- At present, no External Users will be permitted access to any component of GeoWBS. However, in the future, the GeoWBS Navigator may become accessible to the public through the Internet

17.2 System Access

The ability of a User to access the various CIWQS Modules is determined based on his or her assignment to particular types, Groups, Functions, and access levels. The combination of these four attributes determine what any particular User will see when they first log in to CIWQS and will determine how much they are able to modify information contained therein.

17.2.1 User Types

Each User is of one of four types: Discharger, Internal, External, or System Administrator.

Dischargers

The “Dischargers” User category includes Users affiliated with a Discharger location, such as engineers, responsible executive officers, and authorized consultants, or laboratories. In general, these are Users who submit self-monitoring reports to the Water Boards.

A Discharger may be affiliated with one or more Facility locations. Security is not granted based on party, Agency, or other entity.

Dischargers consist of two categories of User—those who are designated as Responsible Persons and those who are granted permission to register by a responsible party. The Responsible Person for a facility is the one with legal responsibility for the data submitted to the system via the *Submit/Review a Self-Monitoring Report* (*eSMR)* Module.

A Responsible Person has the authority to approve or disapprove the registration of additional Users. Each Facility can have more than one Responsible Person (Figure 17.1).

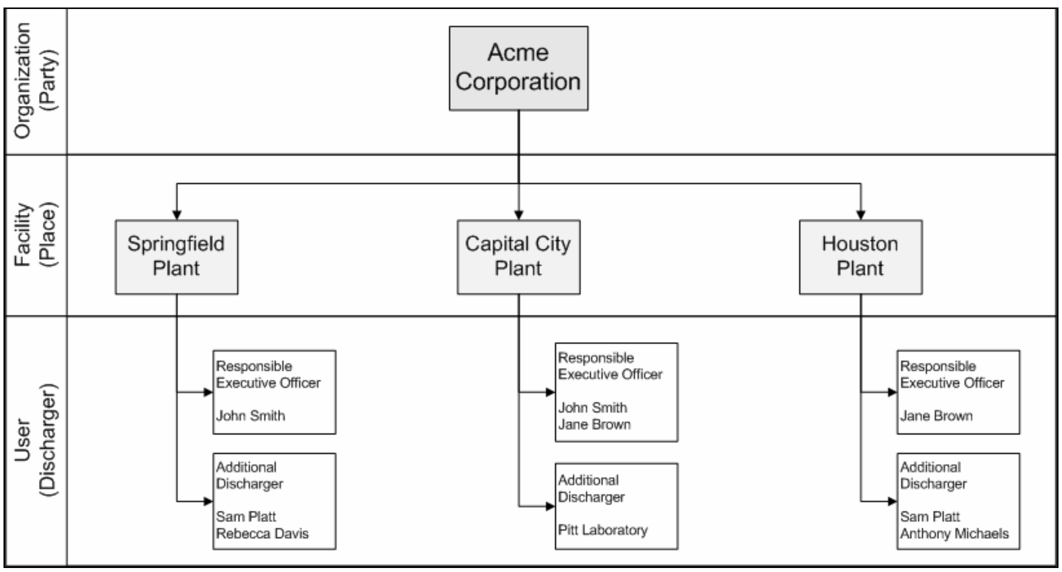


Figure 17.1 How Dischargers are Assigned to Facilities

The Responsible Person for a Facility is the one who first registers the Facility with its associated Water Board for the purposes of submitting *eSMRs.*

Once a Facility has been registered, additional Users for that Facility may then self-register using the CIWQS *Discharge Registration* page. Each additional User for a Facility must be approved by one of the responsible people for that Facility.

For more information on User registration, see Chapters 18 and 20.

Modules accessible to Dischargers include:

- Submit/Review a Self-Monitoring Report
- Run Reports
- View/Change Personal Information

Internal Users

Internal Users are, for the most part, employees of either the State or a Regional Water Board. State Water Board Users have access to data from all Facilities. Regional Water Board Users have access to data from the Facilities within their Region.

Modules accessible to Water Board Staff include:

- Submit/Review a Self Monitoring Report (SMR)
- Run Reports
- View/Change My Personal Information
- Create/Maintain Places
- Create/Maintain Parties
- Create/Maintain Regulatory Measures
- Create/Maintain Violations
- Create/Maintain Inspections
- Create/Maintain Invoices
- GeoWBS Online Editor
- Map It!
- SSO

Internal Users are not permitted to self-register. User accounts must be created for them through the *Administer System* Module.

See Chapter 18 for more information on creating new Users.

External Users

External Users are Users who require access to features other than submitting Self-Monitoring Reports, but need to be granted access to select Facilities. For example, if a State Water Control Board wished to provide access to the system for members of a sister agency sharing responsibility for a location or activity, these Users could be defined as "External".

External Users are allowed to access, based on their individual security profile, any module of the system. As with Dischargers, these Users are only allowed to access facilities for which they have been specifically authorized. External Users may not self-register. User accounts must be created from them through the *Administer System* Module.

See Chapter 18 for more information on setting security profiles.

System Administrators

Users with the security privileges of System Administrators have access to the CIWQS *Administer System* Module as well as all of the Modules accessible to Internal Users. System Administrators are typically members of a Regional or State Water Board and are responsible for maintaining User profiles, as well as Group and Function security levels.

17.2.2 Groups

Each User is assigned to belong to one or more User Groups. These Groups are typically related to the role of the User within an Organization. For example, a User who is assigned to input information into CIWQS for NPDES permits will be assigned to the NPDES Data Submission group.

Group assignments are managed through the *Administer System* Module.

17.2.3 Functions

Each security Group has access to one or more system Functions (e.g., creating Regulatory Measures, certifying self-monitoring reports, creating Users). Access to a system Function is granted at one of the following levels: read-only, update, or super. If a Group does not have one of these levels for a particular Function, this means that the Group has no access to that system Function and the Users within that Group are not granted access to the system Function.

If a User belongs to more than one User Group and two or more Groups are granted the same Function but with different access levels, the User is granted the highest level granted among their assigned Groups.
Function assignments are managed through the *Administer System* Module.

17.2.4 System Security Functions and Access Levels

Appendix B shows the various Modules, Functions, and Access Levels used in CIWQS. Access to reports is determined on a per-report basis. Help and login Functions are available to all Users.

18
Maintaining Users

This chapter addresses the following topics:

- How to create a New User
- How to change User information
- How to change User security privileges

18.1 Administer Users Module

As a System Administrator, you have the authority to change and maintain User information and security privileges. Many of these tasks are carried out through the *Administer Users* Module found within the *Administer System* Module. Actions available through the *Administer Users* Module include:

- Creating new Users;
- Changing User passwords;
- Managing security settings for system functions and groups; and
- Updating User profiles.

Clicking on the "Maintain User" hyperlink from the CIWQS Main Menu and then the "Administer Users" hyperlink brings you to the *Administer Users* page (Figure 18.1).

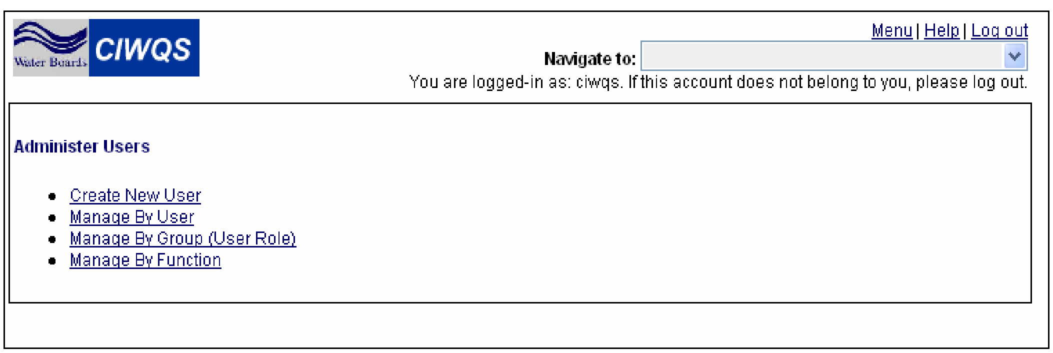


Figure 18.1 Administer Users Page

From this page you can perform one of the following functions:

- Create New User
- Manage by User
- Manage by Group (User Role)
- Manage by Function

The last three options are interrelated. It is possible to move between the Manage by User, Group, and Function pages once any of the three options is chosen.

18.2 Creating a New User

New Users can be created in one of two ways:

1. Dischargers should self-register using the *Registration* Module (Note: User profiles are created by the Discharger and User accounts are activated by a System Administrator). Discharger accounts should not be created through the *Administer System* Module.
2. Accounts for Internal Users and External Users can be created through the *Administer System* Module.

Discharger registration is covered in Chapter 20. Creating new User accounts is described below.

18.2.1 The Administer System Module

To create a new User account through the *Administer System* Module, click the “Administer Users” hyperlink from the *Administer System* Module and then click the “Create New User” hyperlink (Figure 18.2).

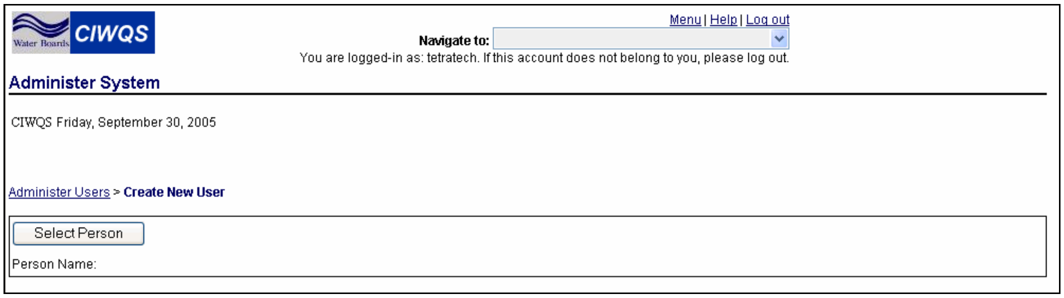


Figure 18.2 First Page in the Create New User Module

A Party record must be created for the Person before that Person can be added as a User.

See Chapter 4 for more information on searching for and creating Party records.

Clicking the "Select Person" button launches the *Party Search* page with the *Party Type* field set to Person (Figure 18.3).

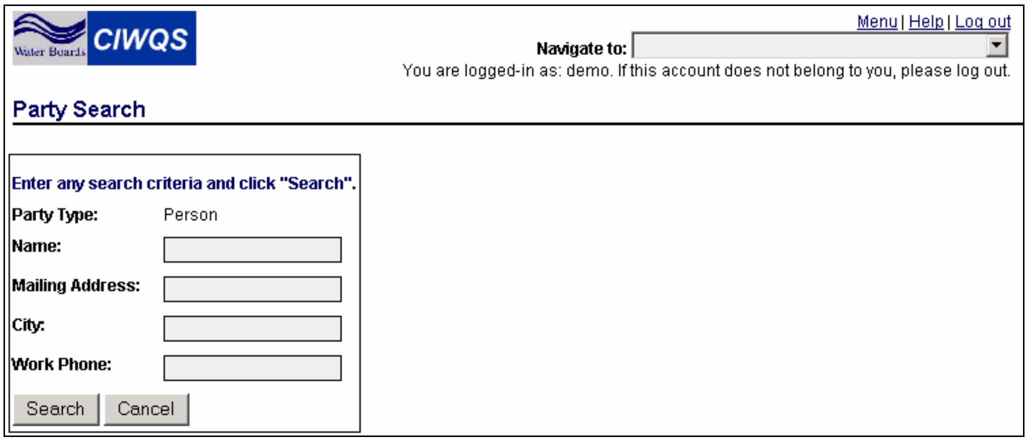


Figure 18.3 Party Search Page

If the Party (Person) you wish to make a User already exists within the system, enter the appropriate information into the search fields and click the "Search" button to view the results of your search. Otherwise, go back to the *Create/Maintain Parties* Module and create a new Party Record.

Once you have found the correct record, click the "Select" hyperlink at the end of the row. This opens the *Create New User* page (Figure 18.4).

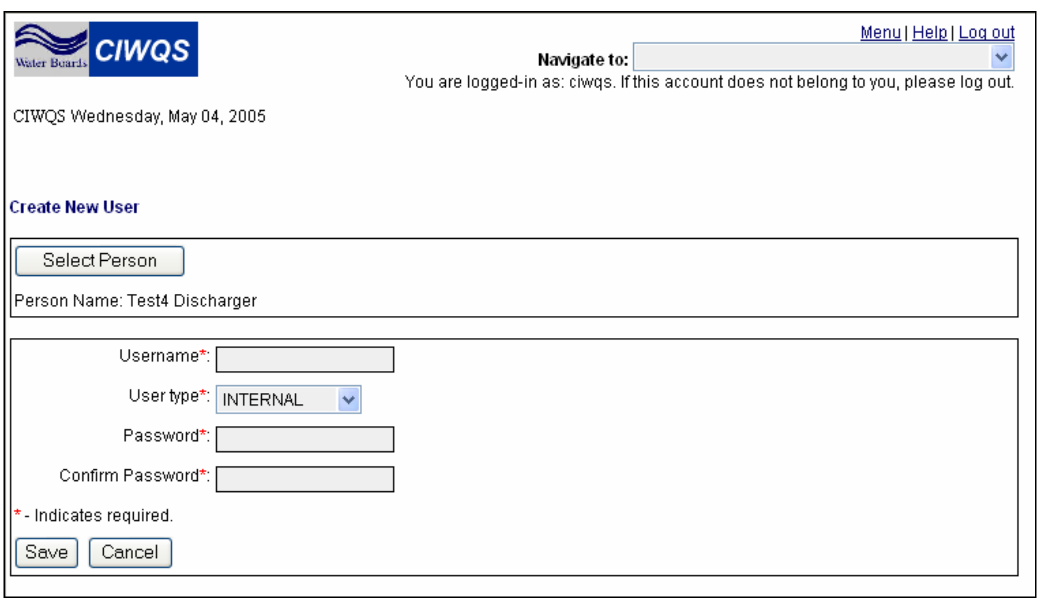


Figure 18.4 Create New User Page

The upper part of the page shows the Person name as a read-only field. The lower part of the page displays the fields needed to create a new User.

☞ **All fields are required to create a new User account.**

The fields of the *Create New User* page are described in Table 18.1.

Table 18.1 Create New User Fields

Field Name	*Description*
User Name	Enter a User name for the new User.
User Type	Select the User type from the drop-down menu. User types are Discharger, Internal and External. **User types are described in Chapter 16.**
Password	Type in the User password. The characters you type will be displayed as stars.
Confirm Password	Re-type the password to verify.

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.

When you have entered data in all four fields, click the “Save” button to create the new User account.

Click the “Cancel” button at any time to exit the *Create New User* page and return to the *Administer Users* Module.

18.3 Manage by User

Clicking the “Manage by User” option from the *Administer Users* Module brings you to the *Manage by User* page (Figure 18.5). Here, you can search by User type checkboxes or the *Username* or *Last Name* fields.

The *Dischargers*, *Internal Users*, and *External Users* checkboxes are used to filter by User type. If the boxes have check marks in them, the related User type will be shown in the results table when the search has been initiated. Selecting the box will remove the check mark from the box and will cause that User type to be filtered out of the search.

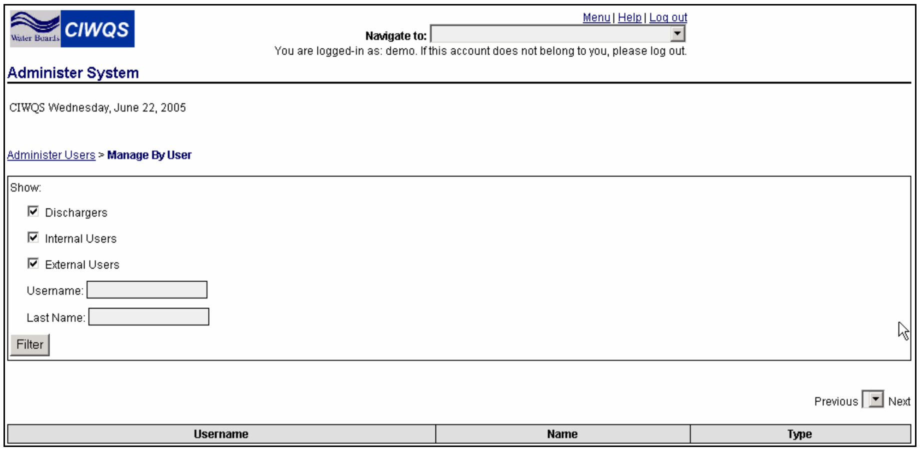


Figure 18.5 User Search page

The *User Type* fields can be used in conjunction with the text fields when searching for a particular User.

Entering a value into the *Username* (the User name given to the account, not necessarily the Person's name) or *Last Name* fields filters the list to show only those records that start with the given characters. For example "jd" finds "jdoe" but not "tajd" and "sm" finds "Smith" but not "Brismoor".

These fields are not case sensitive.

When you have entered your search criteria, click the "Filter" button to activate the search. The table will display the first 100 records that match the criteria you have entered (Figure 18.6). If no matches are found, no records will be shown.

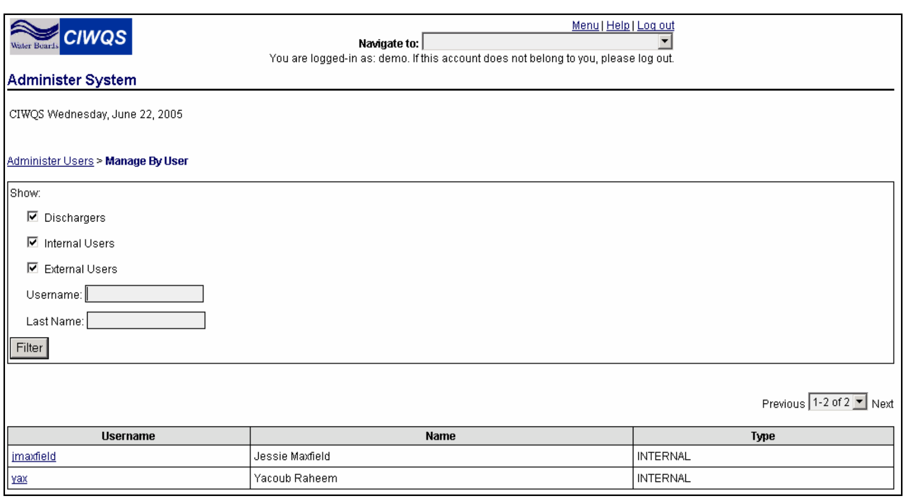


Figure 18.6 Results of a Search for Internal and External Users

The results table displays the User's Username, Name (first + middle + last + suffix), and User Type (i.e., Discharger, Internal, or External). The Username is displayed as a hyperlink. Clicking this hyperlink brings you to the *Manage by User* Module (Figure 18.7).

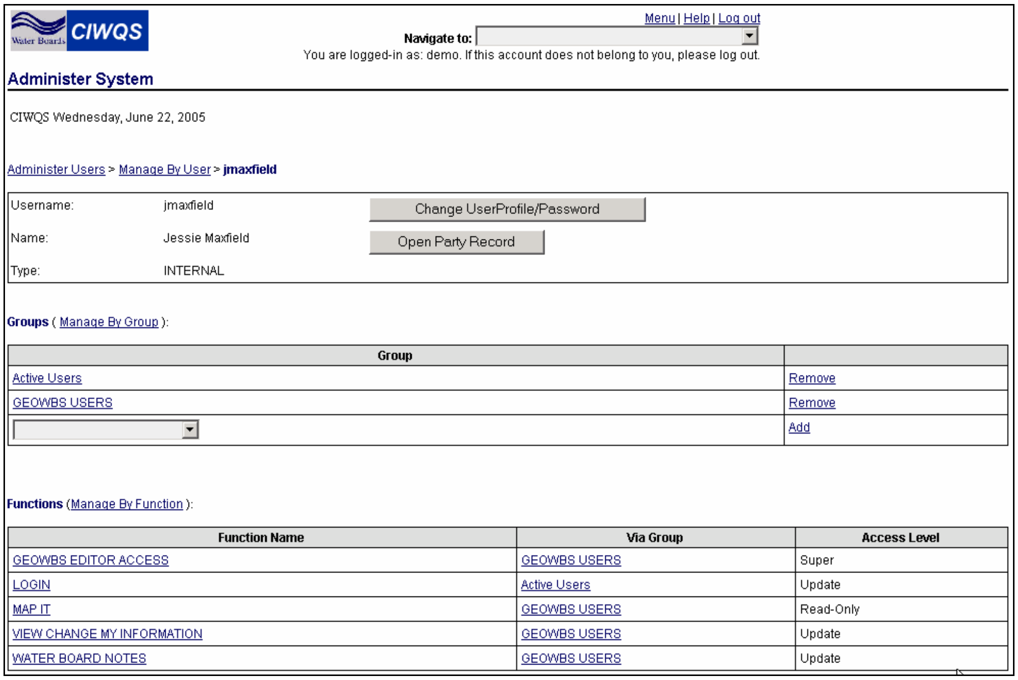


Figure 18.7 Manage by User Page

This page is divided into three sections:

- The User profile
- Affiliated Groups
- Associated Functions

Each of these areas allows you to change or view different information about each User.

18.3.1 User profile

The topmost section of the page shows the User's profile. This box shows the *Username*, *Full Name*, and *User Type* and provides access to the *Change Password* page and the User's Party record).

Change Password Page

Clicking the "Change UserProfile/Password" button opens the *Change Password* page (Figure 18.8). This form allows you to change a User's Username, type, and password.

Figure 18.8 Change Password Page

The *Change Password* page resembles the *Create New User* page (Figure 18.4), though, in this case, the password fields are not required (if the password fields are not filled in, the password will not change).

To change a User's Username, enter a new text string in the *Username* field. You can also change the User type from this page by selecting a new value from the User type drop-down menu.

The *Username* and *User type* fields are marked with an asterisk (*). This indicates that both fields are required to have values if the form is altered. It does not mean that you are required to change them if you open the *Change Password* page.

If you wish to change the User's password, enter a new password in the *Password* field and re-type it into the *Confirm Password* field to verify.

For security purposes, you will not have access to the User's current password.

Click the "Save" button to save the new information or click "Cancel" to return to the *Manage by User* Module without saving.

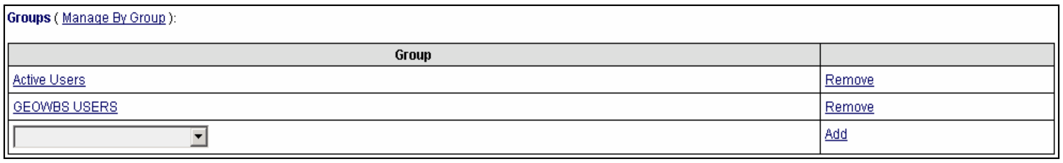
Open Party Record

Clicking the "Open Party Record" button launches the *Parties* Module and opens the Party record for the User. Clicking the "Save" button saves any new or modified information added to the record.

For more information on creating and editing Party records, see Chapter 4.

18.3.2 Affiliated Groups

The Affiliated Groups section of the *Manage by User* page allows you to add and remove affiliated Groups from the User's security profile and provides access to the *Manage by Group* Module (Figure 18.9).



Groups (Manage By Group):

Group	
Active Users	Remove
GEOWBS USERS	Remove
	Add

Figure 18.9 Affiliated Groups Section

Each affiliated Group grants a specific suite of access privileges to the User. Adding and removing Groups from the User's profile can modify these access privileges.

See Appendix B for a complete list of security functions and associated access levels.

Adding a Group

To add an affiliated Group to the User profile, select a Group from the drop-down menu in the last available row of the Groups table. Click the "Add" hyperlink to add the selected Group to the User's profile. Adding a Group changes a User's access profile to include the access privileges of the new Group.

Removing a Group

To remove a set of Group privileges from a User's profile, click the "Remove" hyperlink at the end of the appropriate row. You are asked to verify that you wish to remove the selected Group. Clicking "Yes" removes the Group from the User's profile. Clicking "No" cancels the action and returns you to the *Mange by User* Module without removing the Group.

Jump to the Manage by Group Module

To open the *Manage by Group* page, click the "Group" hyperlink at the top of the section.

To open the group profile for a particular group, click the associated Group name hyperlink in the *Group* column.

The *Manage by Group* Module is covered in detail below.

18.3.3 Associated Functions

The Associated Functions section allows you to view the Functions included in a User's security profile and provides access to the *Manage by Function* and *Manage by Group* Modules (Figure 18.10).

Functions (Manage By Function):

Function Name	Via Group	Access Level
GEOWBS EDITOR ACCESS	GEOWBS USERS	Super
LOGIN	Active Users	Update
MAP IT	GEOWBS USERS	Read-Only
VIEW CHANGE MY INFORMATION	GEOWBS USERS	Update
WATER BOARD NOTES	GEOWBS USERS	Update

Figure 18.10 Associated Functions Section

Each associated Function grants a specific suite of access privileges to the User. Functions are tied to Groups and are automatically assigned to a User as affiliated Groups are added to a Users' profile.

The Function table displays the Functions associated with the User and the Group to which the Function is tied. The access level associated with each Function is also displayed.

See Chapter 17 for additional information on User Types, Groups, Functions, and Access Levels.

To access the *Manage by Function* Module, click the "Function" hyperlink at the top of the section. Section 18.5 discusses *Manage by Function* in detail.

To access the security profile for a particular Function, click the name of a Function from the *Function Name* column.

To access the security profile for a particular Group, click the name of a Group from the *Via Group* column.

18.4 Manage by Group

The *Manage by Group* Module is where Groups are defined, where new Groups may be created, and where system Functions may be assigned to User Groups.

To access the *Manage by Group* Module, click the "Manage by Group (User Role)" hyperlink from the Administer Users menu (accessed by clicking the "Administer Users" hyperlink on the Administer System Main Menu). This brings you to the *Group Selection* page (Figure 18.11).

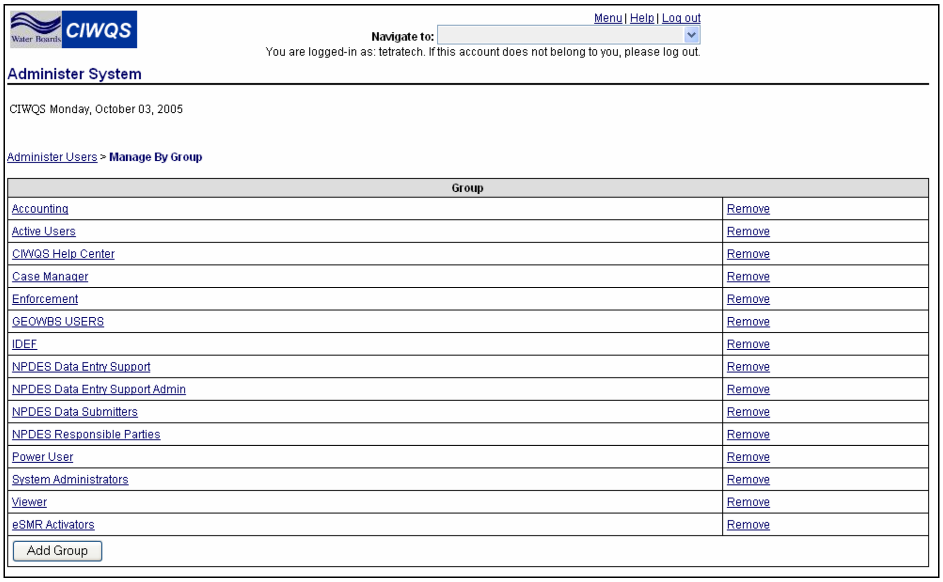


Figure 18.11 Group Selection Page

The *Group Selection* page shows a list of all defined Groups. From this page, it is possible to add and remove Groups and to access individual Group profiles.

Removing a Group

Removing a Group disassociates the combined suite of Functions and access levels associated with the deleted Group. The Functions still exist but they no longer form a set of privileges that can be assigned to a User's profile.

Before a Group can be removed, you must first remove all associated Functions and Users from the Group profile. Follow the instructions in Sections 18.4.2 and 18.5.1 to remove all associated Functions and Users. When you have done so, return to the *Group Selection* Module and click the "Remove" hyperlink in the appropriate table row. You will be prompted to verify whether you wish to remove the Group. Click "OK" to remove the Group from the table. Click "Cancel" to cancel the operation without deleting the Group from the table.

Adding a Group

To add a Group (and an associated suite of Functions and access levels), click the "Add Group" button at the bottom of the table. This opens the *Define Group* page (Figure 18.12).

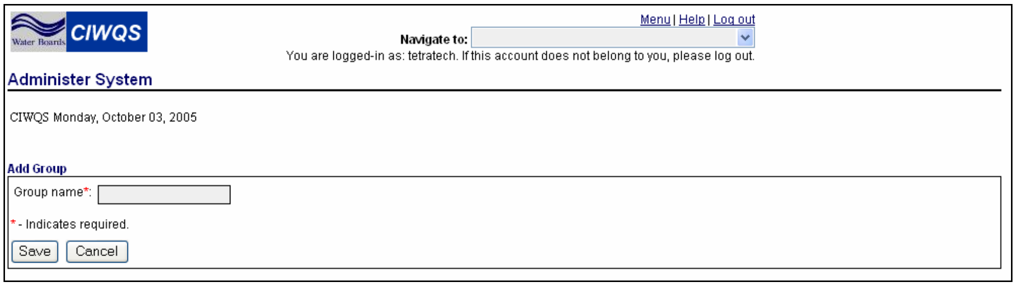


Figure 18.12 Define Group Page

Type a Group name into the *Group name* field (required) and click the "Save" button. You will be prompted to verify whether you wish to save the new Group.

Click "Yes" to save the group name. This saves the Group (without any associated Functions or access privileges) and returns you to the *Group Selection* page.

Click "No" to cancel the save and return to the *Define Group* page. Click the "Cancel" button to cancel the operation and return to the *Group Selection* page without defining a new Group.

18.4.1 Modify a Group Profile

On the *Group Selection* page, the Group name is displayed as a hyperlink. Clicking this hyperlink brings you to the *Group Definition* page (Figure 18.13).

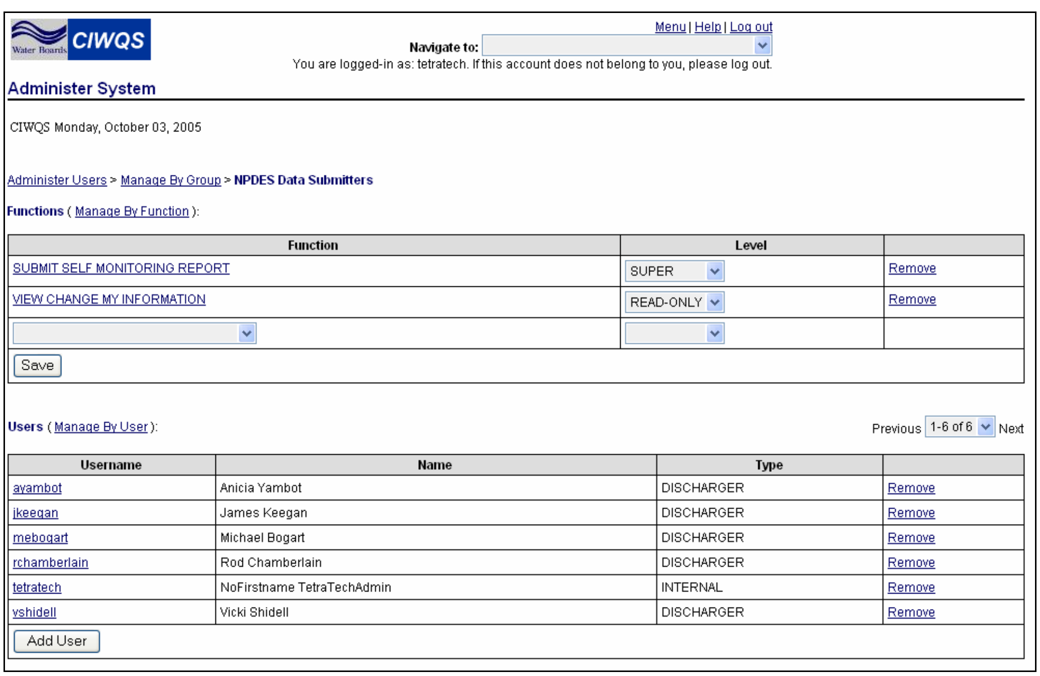


Figure 18.13 Group Definition Page

This page allows you to define which User accounts are members of the Group. It also allows you to define which system Functions the members of the User Group will be granted.

The Group name is displayed as a header at the top of the page. Below that are the Associated Functions and Affiliated Users sections.

Associated Functions

Functions can be added to the Group profile by selecting a new Function from the drop-down menu in the last available row in the Functions table. All Functions that have not yet been assigned to this Group will be available in the list.

Once you have selected a Function, you must assign an access level to that Function (specific to this Group profile). Click the “Save” button to save your changes. If you do not select an access level, the User will have no access to that particular Function.

See Chapter 17 for further discussion of Functions and access levels.

When you have added information for a new associated Function, click the “Save” button. You will be prompted to verify whether you wish to save the record. Click “Yes” to save the record and update the table. Click “Cancel” to cancel the operation without updating the table.

To remove a Function from the list, click the “Remove” hyperlink from the appropriate table row. You will be prompted to verify that you wish to remove the associated Function. Click “OK” to remove the associated Function. Click “Cancel” to cancel the operation without removing the associated Function.

Clicking the “Manage by Function” hyperlink at the top of the table brings you to the *Function Selection* page.

Clicking on the Function name hyperlink in the *Function* column of the table brings you to the individual *Function Profile* page.

18.4.2 Affiliated Users

The bottom part of the Group Profile page displays the User accounts that have been assigned to the Group. This table displays the Username,

Name (first and last name of the User), and Type. The Username is displayed as a hyperlink. Click this hyperlink to open the *Manage by User* page.

Click the "Manage by User" hyperlink above the table to launch the *Users Search* page. Searching for and selecting a User brings you to the *Manage by User* Module.

Adding a User to a Group Profile

To associate a User account to the Group, click the "Add User" button at the bottom of the User table. This launches the *User Search* page (Figure 18.14).

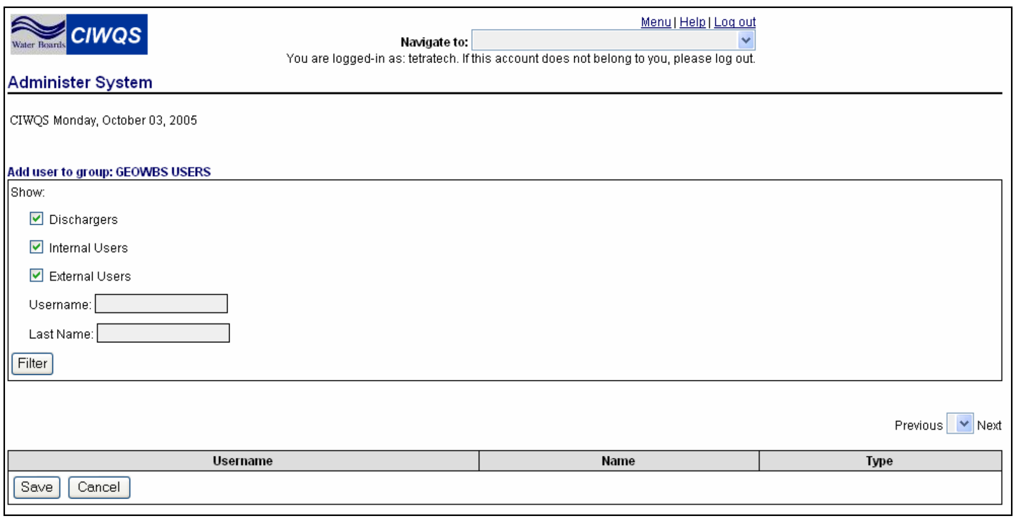


Figure 18.14 User Search Page

Use the search criteria fields to find the User account you wish to add to the Group (see section 18.3 for an explanation of the search fields). Click the "Filter" button to bring up a list of Users that match the criteria you entered (Figure 18.15).

The results table displays the *Username*, *Name*, and *Type* for each User. The *Username* is displayed as a hyperlink.

Clicking the Username hyperlink will bring you to the *Manage by User* page.

Each Username is displayed next to a checkbox. To add one or more Users to the Group, select the checkbox next to each User you wish to add and click the "Save" button. You will be prompted to verify that you wish to add the User(s). Click "OK" to add the Users and return to the Group

Profile page. Click “Cancel” to cancel the operation and return to the *Search Results* page.

Click the “Cancel” button at the bottom of the search results table to cancel the add User action and return to the *Group Profile* page.

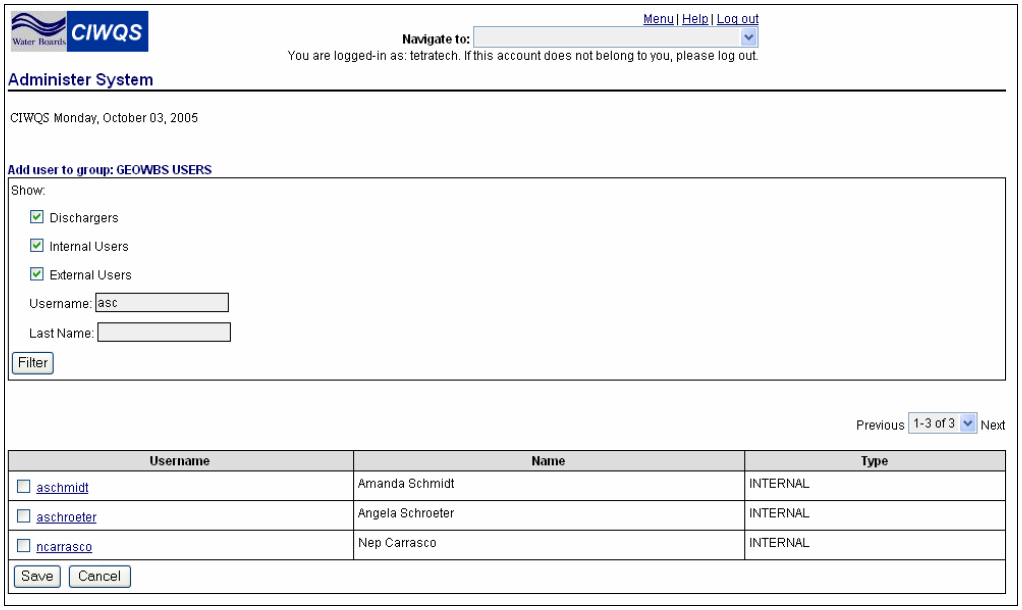


Figure 18.15 Search Results

Remove a User from a Group Profile

To remove a User from a Group (from the *Group Profile* Page), click the “Remove” hyperlink in the appropriate row of the affiliated Users table. You will be prompted to verify that you wish to remove the User from the Group profile (and, therefore, remove the associated access privileges for the User). Click “OK” to remove the User and update the table. Click “Cancel” to cancel the operation without updating the table.

18.5 Manage by Function

The *Manage by Function* Module is where you can add Functions to Group profiles and view a list of Users associated with a Function.

Adding new system Functions involves a non-trivial computer programming effort using the Java programming language. Contact the CIWQS Help Center if you wish to add a Function.

To access the *Manage by Function* Module, click the “Manage by Function” hyperlink on the Administer Users Menu (accessed via the “Administer

Users" hyperlink on the Administer System Main Menu). This brings you to the *Function Selection* page (Figure 18.16). This page shows a list of all defined Functions.

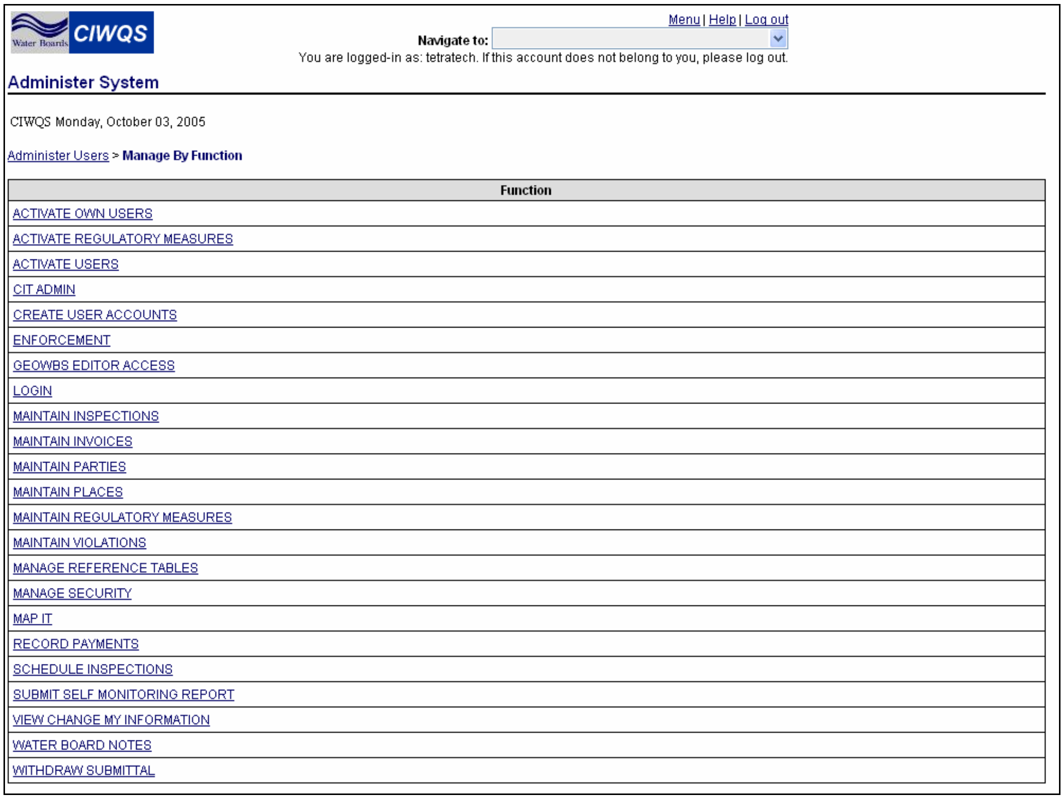


Figure 18.16 Function Selection Page

Clicking on the Function name hyperlink brings you to the *Function Profile* page (Figure 18.17).

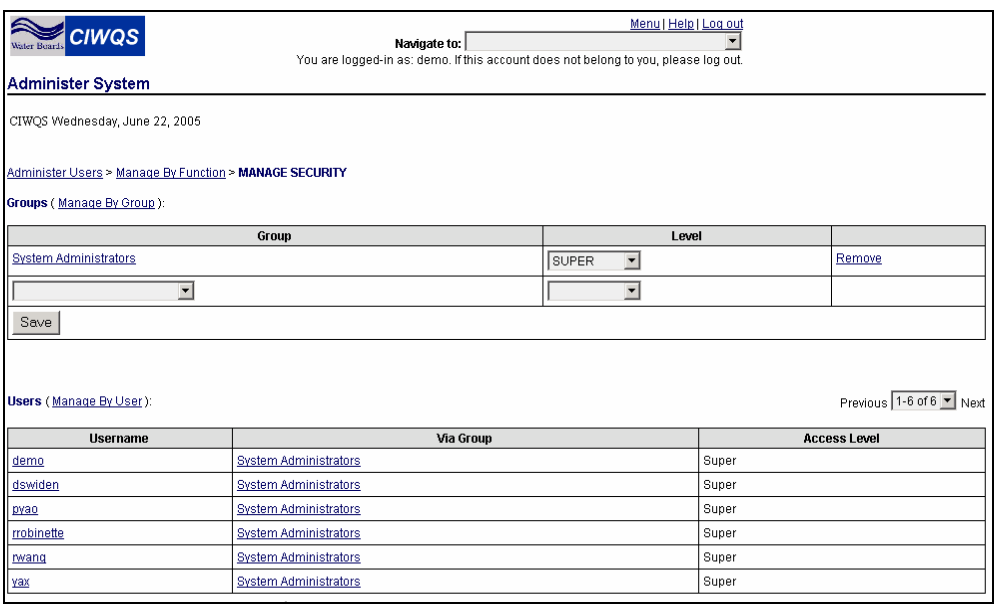


Figure 18.17 Function Profile Page

The Manage by Function page allows you to add a system Fuction to one or more User Groups. You may also view a list of all the Users who are currently granted access to this system Function.

The Function name is displayed as a header at the top of the page. Below that are the Affiliated Group and Affiliated Users sections.

18.5.1 Affiliated Groups

The Affiliated Groups section allows you to assign a Function (and associated access level) to a Group.

Clicking on the "Manage by Group" hyperlink above the Group section brings you to the *Group Selection* page.

Clicking on the Group name in the Group column of the table opens the associated *Group Profile* page.

Adding the Current Function to a Group

To add the current Function to a User Group, select the name of the Group you wish to link to from the drop-down menu in the last row of the Group table. All Groups that are not currently linked to the Function will be available.

Once you have selected a Group, you can assign the access level available to Users assigned to that Group. If you do not select an access level, the User will not have access to the Function via the assigned Group.

See Chapter 17 for an overview of CIWQS security and access levels.

Click the "Save" button to add the Function (and associated access level) to the Group. You will be prompted to verify that you wish to save the Function to the Group. Click "OK" to save the record and update the table. Click "Cancel" to cancel the operation without updating the table.

Removing a Function from a Group

To remove a Function from a Group, click the "Remove" hyperlink in the row of the Function you wish to remove. You will be prompted to verify that you wish to remove the Function. Click "OK" to remove the Function from the Group. Click "Cancel" to cancel the operation without removing the Function from the Group.

18.5.2 Affiliated Users

The lower section of the *Function Profile* page shows the Users associated with the selected Function. This table is read-only and cannot be edited from this page.

Click the "Manage by Users" hyperlink above the table to launch the *User Search* page. This transfers you to the *Maintain by User* Module.

Click the Username in the *Username* field to open the *User Profile* page.

Click the Group name in the *Via Group* field to open the *Group Profile* page.

19
Maintaining List Elements

This chapter addresses the following topics:

- An introduction to how CIWQS is structured
- How to maintain list items
- How to maintain list mappings

19.1 The CIWQS Structure

The California Integrated Water Quality System (CIWQS) is comprised of a web-based interface built on an underlying database. This database is composed of many data tables and relationships that help give the data an integrated structure.

Some of the tables contained in the database are used to populate drop-down menus and table rows or columns within the CIWQS interface (the on-screen Modules described in this Guide). These are called **reference tables**.

The CIWQS *Administer System* Module allows you to modify the values within individual reference tables and also allows you to modify how values in one reference table are related to the values in other reference tables. The first task is accomplished through the "Maintain List Items" link found on the *Administer System* Module. The second task is carried out within the "Maintain List Mapping" link. These two activities are described below.

19.2 How to Maintain List Items

To modify the values found within a single reference table, click the "Maintain List Items" hyperlink found on the *Administer System* Module. This brings you to the *Maintain List Items s*earch page (Figure 19.1).

Select the table you wish to modify from the *List Item Name* drop-down menu. Selecting a value populates the table with the Reference Values available within the table and its associated characteristics (Figure 19.2).

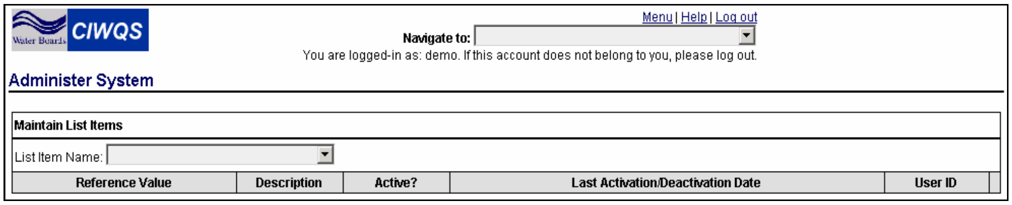


Figure 19.1 Maintain List Search Page

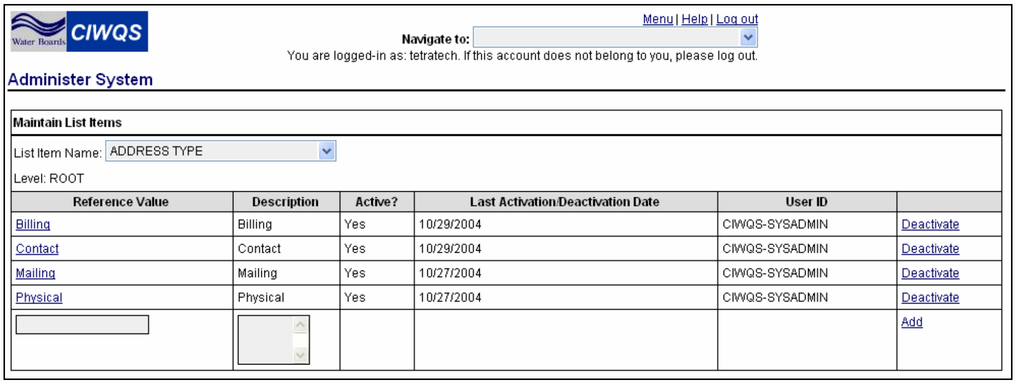


Figure 19.2 Reference Values for the ADDRESS TYPE Table

Figure 19.2 shows the values available in the ADDRESS TYPE table. The name of the table is displayed in the *List Item Name* field and the Level at which you are viewing the table is displayed in the *Level* field (read-only).

The table displays characteristics of the values within the ADDRESS TYPE table. The fields shown are described in Table 19.1.

Table 19.1 Maintain List Item Fields

Field Name	*Description*
Reference Value	Displays the names of the values within the List Items table. This field is displayed as a hyperlink.
Description	This field gives a brief description of the Reference Value.
Active?	Indicates whether the value is currently active. If "yes" is displayed, the value will be available within the CIWQS Modules. If "no", the value will not be available.
Last Activation/ Deactivation Date	Indicates the date the value was last activated (start date) or deactivated (end date).
User ID	Displays the ID number of the User who last activated or deactivated the value.
[Hyperlink Field]	This field displays one of three hyperlinks: "Deactivate", "Activate", or "Add" depending on the status of the value.

19.2.1 Adding a Value to the Maintain List Item Table

To add a value to the list item table, enter data into the *Reference Value* and *Description* fields in the last row of the table and click the "Add" hyperlink. Adding a new value causes the page to refresh to show another available (blank) row at the bottom of the table and updates the *Active?*, *Last Activation/Deactivation Date*, and *User ID* fields. The *Last Activation/ Deactivation Date* will be set to today's date.

In general, no validation for new values takes place except:

- The new value name must conform to the type and length restrictions placed on that field (for example, a CHAR(10) field is restricted to 10 characters). When in doubt, use the names of the other values as a reference when creating a new value
- Each new value must be unique (no duplicate values are allowed in the *Reference Value* field)

19.2.2 Deleting (Deactivating) a Value

To deactivate a value, click the "Deactivate" hyperlink at the end of the appropriate row. This causes the page to refresh to show that the value is no longer active (*Active?* = "No"). The end date of the value is set to today's date (*Last Activation/Deactivation Date*). The hyperlink at the end of the row reads "Activate".

19.2.3 Activating a Value

If a value is currently inactive, it can be activated by clicking the "Activate" hyperlink at the end of the value row. This causes the page to refresh to show that the value is active (*Active?* = "Yes"). Activating a value clears its end date and sets the new start date to today's date (*Last Activation/Deactivation Date*). The hyperlink at the end of the row shows the value "Deactivate".

☞ **Information is saved automatically as the table is updated.**

19.3 How to Maintain List Mappings

To maintain or edit the relationship between values in two reference tables, click the "Maintain List Mappings" hyperlink on the *Administer System* Module. Clicking this link brings you to the *Table Mapping* page (Figure 19.3).

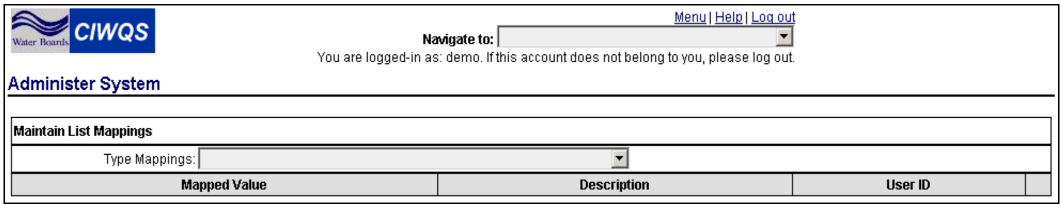


Figure 19.3 Table Mapping Page

The *Table Mapping* page allows you to select pairs of related reference tables and modify the values from the first table that are related to a value within the second table. This is a three-step process:

1. Choose the pair of related reference tables from the *Type Mappings* drop-down menu
2. Choose a value from the second table
3. Choose values to add or delete from the first table. The list of values from the first table related to the value selected from the second table will be displayed on the "Mapped Value" column (Figure 19.4)

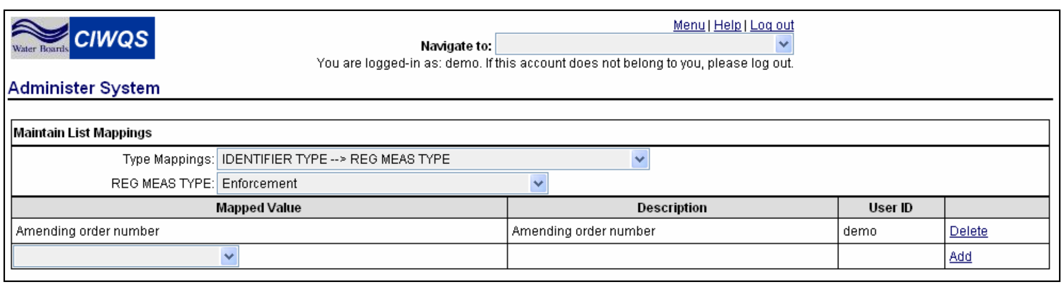


Figure 19.4 Identifier Types for Regulatory Measures of Type "Enforcement"

A visual representation of this process is shown in Figure 19.5 and discussed in section 19.4 below.

19.4 List Mapping Example

In this example (illustrated in Figure 19.5), the list of available Identifiers ("Identifier Type" from the Identifiers reference table) is filtered to reflect only those that are related to People ("Party Type"). Editing this relationship will modify the list of Identifier types that are available for People within the CIWQS Modules.

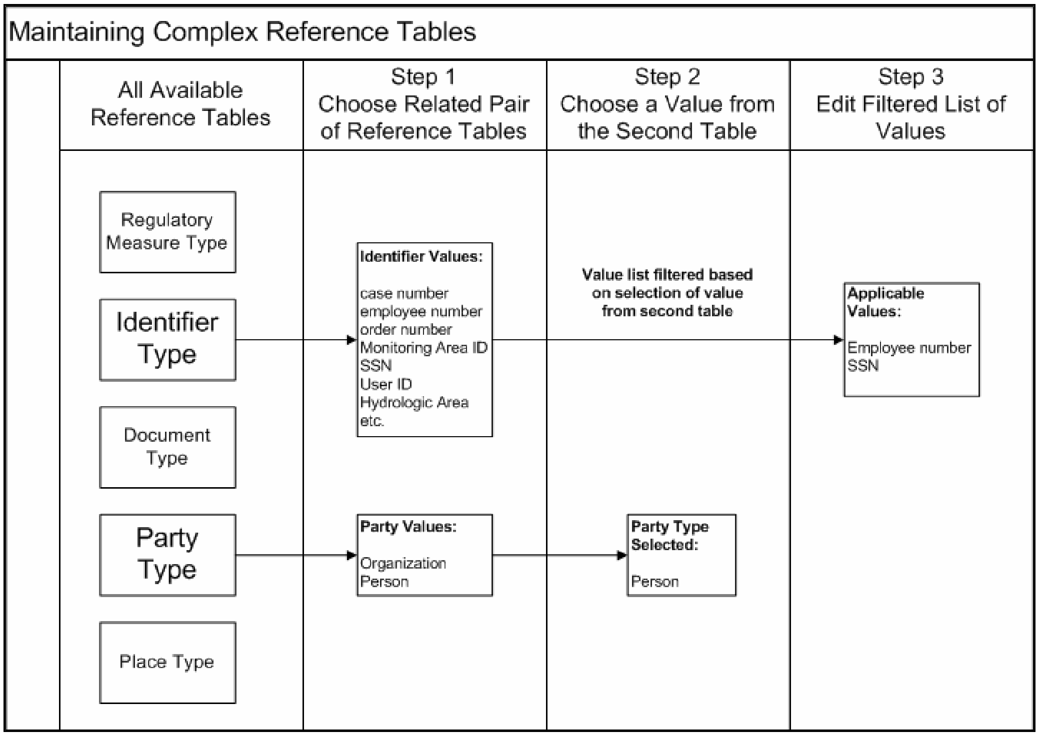


Figure 19.5 Selecting Pairs of Related Tables to Edit Related Values

Remember that an Identifier is a generic name for a unique set of numbers or letters that can be attached to any entity. Examples of Identifiers that can be related to people include Social Security Numbers and Employee numbers. Different entities (People, Places, Violations, etc.) have different sets of associated identifiers.

Select a Pair of Related Tables

You can select the relationship you wish to edit by selecting the options available in the drop-down menus on the *Maintain Table Mappings* page. First, select a pair of related tables from the *Type Mappings* drop-down menu (Figure 19.6).

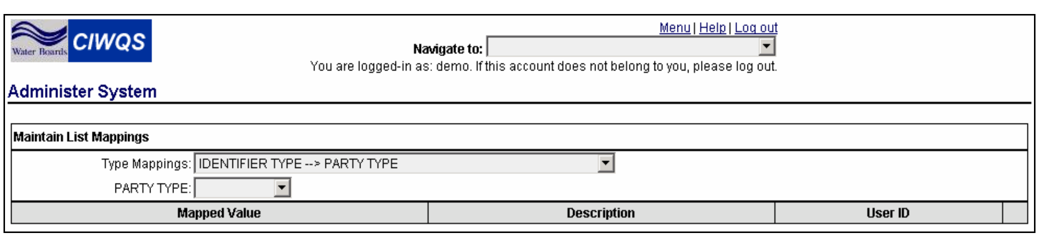


Figure 19.6 Selecting "IDENTIFIER TYPE → PARTY TYPE" from Type Mappings list

When you make your selection, the page refreshes and a field appears below the *Type Mappings* field, which allows you to select a value from the second table (Party Type, in this case). The Party Type selected filters the list of values in the Identifiers table so that only the values related to the selected Party Type are displayed. For this example, "Person" is selected from the *Party Type* dropdown menu. Selecting "Person" from the list causes the page to refresh and show the related values from the Identifiers table (Figure 19.7).

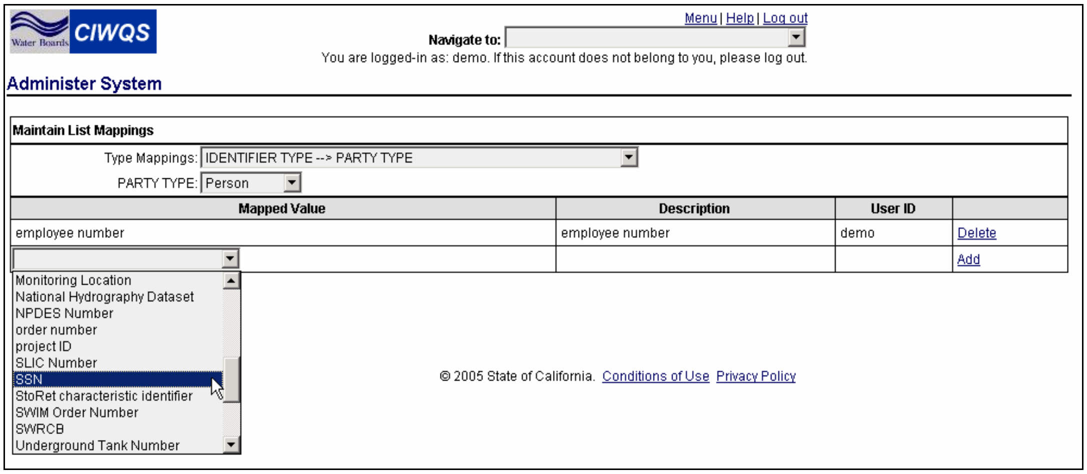


Figure 19.7 Values from the Identifiers Table Related to Party Type value "Person"

Figure 19.7 shows the values from the Identifiers table that relate to the Party Type "Person" as well as a description of the value and the User ID of the User who added the value to the table. The drop-down menu shows all values from the Identifiers table that have not yet been linked to the Party type "Person".

To delete one of the values from the table, click the "Delete" hyperlink at the end of the row. This removes the value from the list of values related to Party Type "Person" but does not delete the value from the Identifiers Type table.

To add a value to the list, select a value from the drop-down menu found in the last row in the *Mapped Value* column. All of the values from the Identifiers table appear in the list. Once you have made your selection, click the "Add" hyperlink at the end of the row. This refreshes the table to show the new value and adds a new, blank row at the bottom of the table.

20
User Registration

This chapter addresses the following topics:

- Registration privileges of the different User types
- How to approve/disapprove pending registrations:
    - for Legally Responsible Persons
    - for other Dischargers

20.1 User Registration

To gain access to CIWQS, a Person must first be registered as a User and assigned a User ID and password. This is true for all User types (Discharger, Internal, External, and System Administrators). Internal and External Users (as well as System Administrators) must be created as new Users through the CIWQS *Administer Users* Module as they are not permitted to self-register. Dischargers are able to self-register. If the Discharger is a Legally Responsible Person (LRP) for a Facility, they require validation (and activation) from a System Administrator to be granted access to the system. An LRP can validate but not activate User accounts for additional Dischargers for his or her Facility.

CIWQS Users are Parties with a User ID Identifier that have been activated as Users within the CIWQS *Administer System* Module.

See Chapter 4 for more information on creating and modifying Party records.

A User ID identifier can be granted to existing Parties or a new Party can be created. Dischargers are allowed to self-register; this grants them certain access privileges to their own Party records. For Internal and External Users, as well as for new System Administrators, the System Administrator is the only one who has access to the Party record for the new User.

See Chapter 18 for more information on creating new Users.

20.2 Discharger Registration

The information input during Discharger registration is automatically used to create a new Party record for that individual. System Administrators do not need to create a Party record before Dischargers are permitted to self-register.

Dischargers can register as either a Legally Responsible Person for a Facility or as an additional User for a Facility. Dischargers are granted access to information within CIWQS on a Facility-by-Facility basis.

See Chapter 17 for more information on User types and access privileges.

If a Discharger registers as a Legally Responsible Person, he or she is responsible for mailing a signed copy of an *Electronic Signature Authorization* form to the Water Board. This form is made available to them at the end of the on-line registration process. Once the signed form is received, a new record for the Facility must be created (if one does not already exist) and the registration can be activated (see section 20.2.1 below).

If a Discharger registers as an additional User for a Facility, his or her registration is not activated until it is approved (validated) by a Legally Responsible Person (for that Facility). Once the registration has been approved, it can be activated by a System Administrator (see section 20.2.2 below).

20.2.1 Registration for Legally Responsible Persons

Pending registrations for Legally Responsible Persons can be viewed within the *Administer System* Module. From the *Administer System* Module, click the "Pending Registrations for Legally Responsible Persons" hyperlink (Figure 20.1).

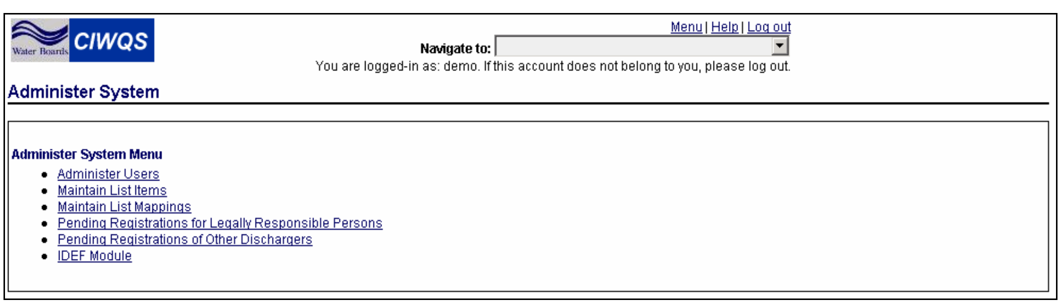
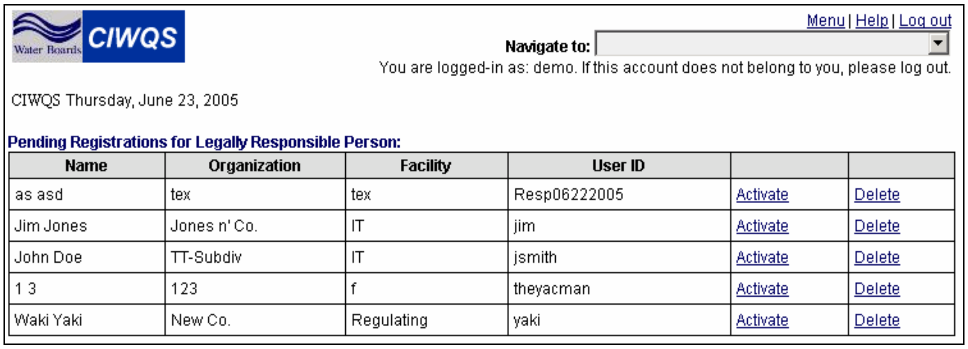


Figure 20.1 Administer System Menu

This brings you to the *Pending Registration* page where you see a list of all pending accounts (Figure 20.2).



Name	Organization	Facility	User ID		
as asd	tex	tex	Resp06222005	Activate	Delete
Jim Jones	Jones n' Co.	IT	jim	Activate	Delete
John Doe	TT-Subdiv	IT	jsmith	Activate	Delete
1 3	123	f	theyacman	Activate	Delete
Waki Yaki	New Co.	Regulating	yaki	Activate	Delete

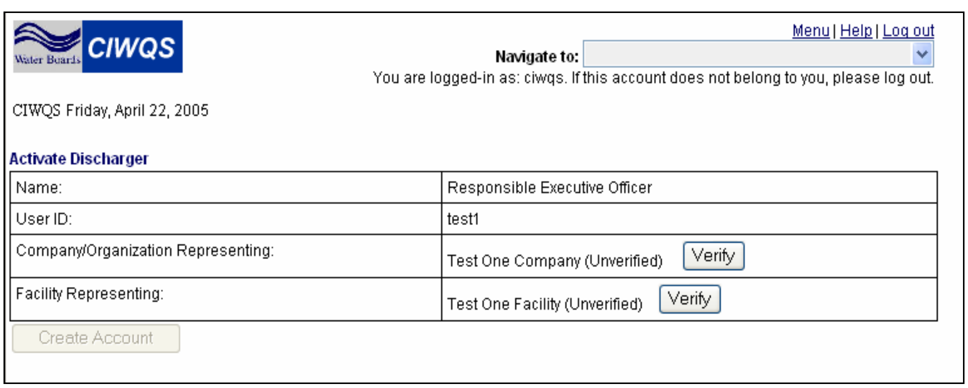
Figure 20.2 Pending Registration Page

The table displays the name of the Discharger who is requesting registration along with the name of the related Organization (Party) and Facility (Place). In addition, the requested User ID is shown.

After reviewing the table information, you can use the hyperlinks within the table to either "Activate" or "Delete" the pending registration record.

Clicking the "Delete" hyperlink triggers the prompt "Do you wish to delete this inactive person?" Selecting "Yes" deletes the record from the system. Selecting "No" cancels the Delete action and returns you to the *Pending Registration* page.

When the "Activate" hyperlink is selected, the following page is displayed (Figure 20.3):



Name:	Responsible Executive Officer
User ID:	test1
Company/Organization Representing:	Test One Company (Unverified) Verify
Facility Representing:	Test One Facility (Unverified) Verify

Figure 20.3 Activate Discharger Page

The Company/Organization and Facility are initially marked as unverified. This indicates that the Organization and Facility are not yet linked to a Party (Company/Organization) or Place (facility) in the system. The account activation cannot be completed until both the Company/Organization and Facility are verified.

Note that this requires that the Place and Party already exist. If not, the appropriate Module (Place or Party) should be used to create the appropriate records.

If the Facility is not yet registered in CIWQS, the Facility representative should have sent the legal Facility name, the full physical address, the full mailing address (if different), and the main phone number for the Facility along with the Electronic Signature Authorization Form. Contact the Legally Responsible Person if this information was not included.

See Chapter 3 for more information on Creating/Maintaining Places.

See Chapter 4 for more information on Creating/Maintaining Parties.

Clicking the “Verify” button in the Company/Organization row launches the *Party Search* page with the name of the Company automatically input in the search criteria fields. If the Party exists, it will be listed in the search results table. To associate the Discharger with the Party, click the “Select” hyperlink in the appropriate row.

Clicking the “Verify” button in the Facility row launches the *Place Search* page with the name of the Company automatically input in the search criteria fields. If the Place exists, it will be listed in the search results table. To associate the Discharger with the Place, click the “Select” hyperlink in the appropriate row.

Verifying the Company/Organization and Facility activates the “Create Account” button (Figure 20.4). Clicking the “Create Account” button activates the pending registration and returns you to the CIWQS Main Menu.

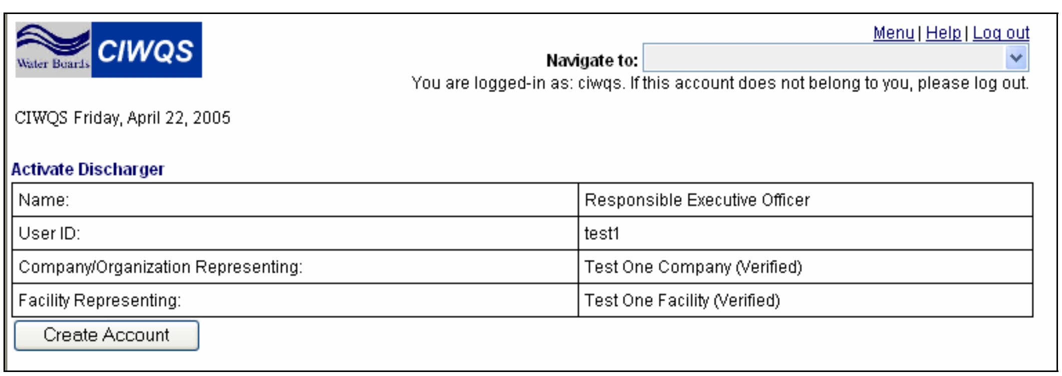


Figure 20.4 Create Account Button Activated

Once the registration is complete, an e-mail message is sent to the User and the Facilities case manager (Water Board staff member) with notification that the account has been activated.

20.2.2 Pending Registrations for Other Dischargers

Once a Legally Responsible Person for a Facility has registered with CIWQS and been approved as a User, additional Users may register for that Facility.

Registration for additional Users is very similar to that for Legally Responsible Persons with two main differences:

- They must select the Facility they wish to be associated with; and
- They do not have to submit an Electronic Signature Authorization form.

Once the additional Users have verified the Facility they wish to be registered for, their part of the registration is complete. An e-mail message is sent to all Responsible Persons for the Facility notifying them of the pending registration.

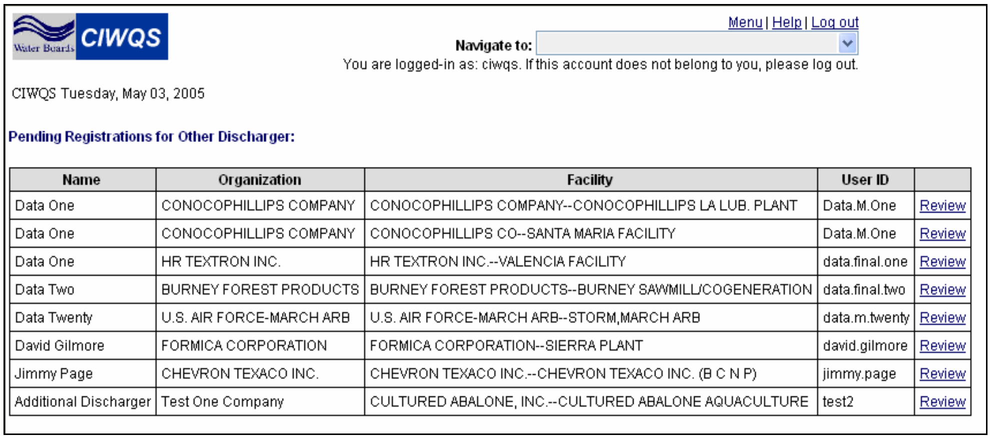
It is not the responsibility of the System Administrator to approve/disapprove pending registrations for additional Users. The Legally Responsible Person(s) for a Facility are responsible for approving or disapproving pending registrations for additional Users.

Chapter 1 of the Dischargers User's Guide describes the process by which a Responsible Person can approve pending registrations.

Viewing Pending Registrations for Additional Dischargers

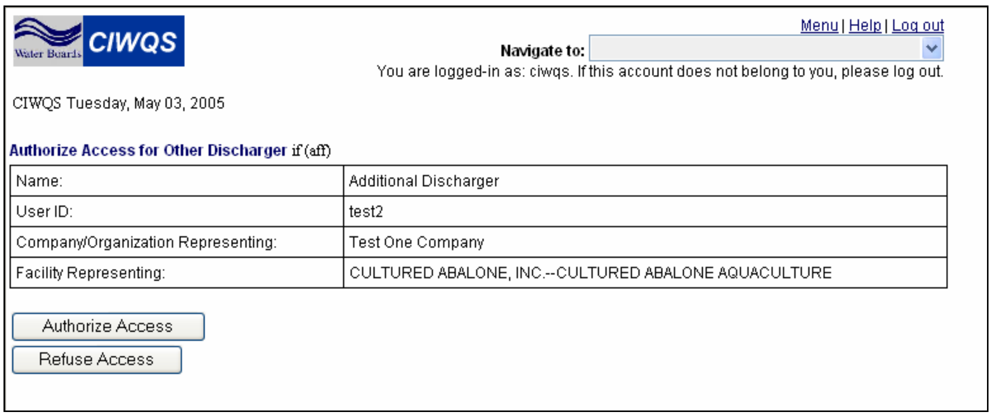
Pending registrations for additional Dischargers can be viewed by clicking the "Pending Registrations for Other Discharger" hyperlink found on the *Administer System* Module. This brings you to the *Pending Registrations* page (Figure 20.5).

Clicking the "Review" hyperlink opens the individual record for the pending User (Figure 20.6).



Name	Organization	Facility	User ID	
Data One	CONOCOPHILLIPS COMPANY	CONOCOPHILLIPS COMPANY--CONOCOPHILLIPS LA LUB. PLANT	Data.M.One	Review
Data One	CONOCOPHILLIPS COMPANY	CONOCOPHILLIPS CO--SANTA MARIA FACILITY	Data.M.One	Review
Data One	HR TEXTRON INC.	HR TEXTRON INC.--VALENCIA FACILITY	data.final.one	Review
Data Two	BURNEY FOREST PRODUCTS	BURNEY FOREST PRODUCTS--BURNEY SAWMILL/COGENERATION	data.final.two	Review
Data Twenty	U.S. AIR FORCE-MARCH ARB	U.S. AIR FORCE-MARCH ARB--STORM,MARCH ARB	data.m.twenty	Review
David Gilmore	FORMICA CORPORATION	FORMICA CORPORATION--SIERRA PLANT	david.gilmore	Review
Jimmy Page	CHEVRON TEXACO INC.	CHEVRON TEXACO INC.--CHEVRON TEXACO INC. (B C N P)	jimmy.page	Review
Additional Discharger	Test One Company	CULTURED ABALONE, INC.--CULTURED ABALONE AQUACULTURE	test2	Review

Figure 20.5 Pending Registrations for Other Discharger Page



Name:	Additional Discharger
User ID:	test2
Company/Organization Representing:	Test One Company
Facility Representing:	CULTURED ABALONE, INC.--CULTURED ABALONE AQUACULTURE

Figure 20.6 Authorize Access for Other Discharger Page

To approve a pending registration, click the "Authorize Access" button on the pending registrations page. This activates the User account and returns you to the CIWQS Main Menu.

Clicking the "Refuse Access" removes the pending registration and marks the account "inactive". The following message will be displayed:

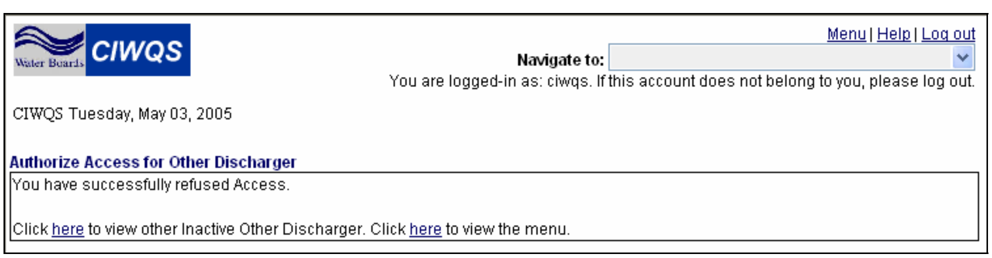


Figure 20.7 Refusing Access to a Pending Discharger

If you wish to return to the *Pending Registrations* page, click the first "here" hyperlink. Otherwise, you can click the second hyperlink to return to the CIWQS Main Menu.

Once the registration review is complete, an e-mail message is sent to the User with notification either that the account is active or that it has been denied.

21
IDEF Module

This chapter addresses the following topic:

- An introduction to the IDEF Module

21.1 Introduction to IDEF

The IDEF Module allows for data transfer from CIWQS to EPA's Central Data Exchange (CDX). CDX is the point of entry for the Environmental Information Exchange Network (Exchange Network) for environmental data submissions (http://www.epa.gov/neengprg/info/index.html). The IDEF Module is accessed within the CIWQS System Administration Module.

Click the "IDEF Module" hyperlink on the *Administer System* page to view the IDEF Menu (Figure 21.1).

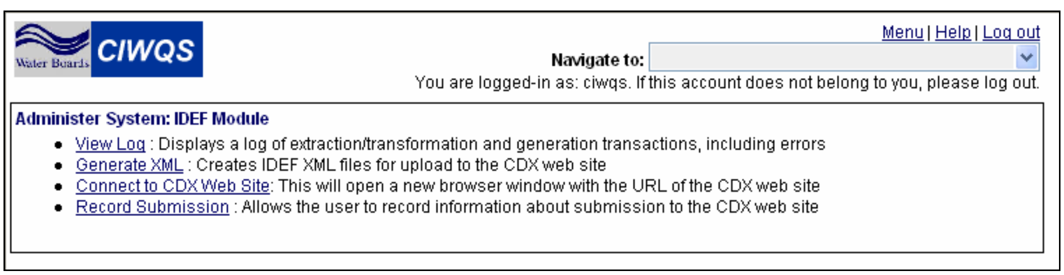


Figure 21.1 IDEF Menu Page

From this page, you can:

- View a log of extraction information and generate transactions (including errors)
- Generate IDEF XML files for upload to the CDX Web-site
- Connect to the CDX Web-site
- Record information about a submission to the CDX Web-site

21.2 View Log

Clicking the "View Log" hyperlink on the *IDEF Module* page brings you to the View Log Query page (Figure 21.2). Here you can search Module logs by date based on Transactions (CIWQS Extractions and Transformations, XML Generations, CDX Submissions) or Type (Information, Warnings, Errors).

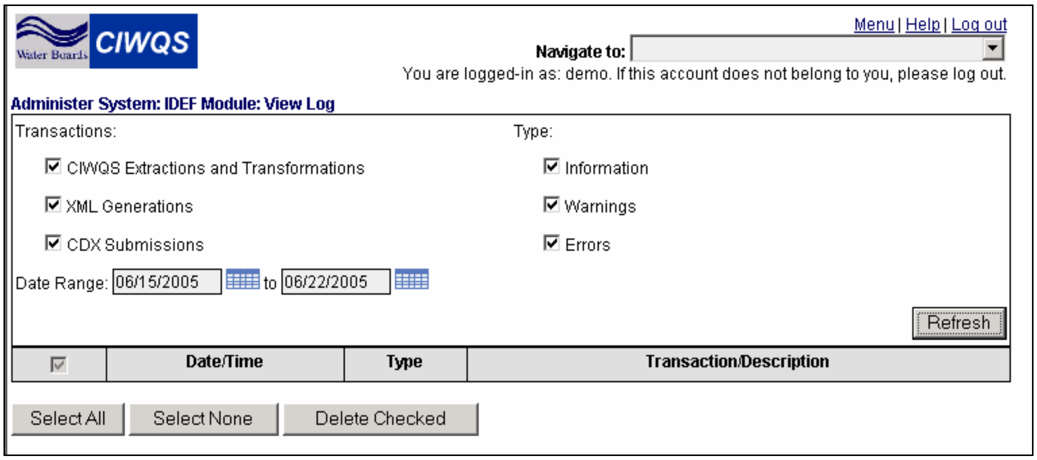


Figure 21.2 View Log Query Page

The *CIWQS Extractions and Transformations, XML Generations, and the CDX Submissions* checkboxes search for data based on Transaction type and *Information*, *Warnings*, and *Errors* checkboxes for log Type. If the boxes have check marks in them, the related information is shown in the results table when the search is executed. Selecting the box removes the check mark from the box and filters the selected Type out of the search.

The *Date Range* fields allow you to search for Modules that were submitted between a particular set of dates.

Once you have selected the appropriate search criteria, click the "Refresh" button to run the search.

Search results are returned at the bottom of the screen. Returned information includes Date/Time, Type, and Transaction/Description (Figure 21.3).

Log entries can be deleted from the system. To do this, select the Log entries you wish to delete by selecting the checkboxes in the appropriate row and then clicking the "Delete Checked" button. If you wish to select all records, click the "Select All" button. Click the "Select None" button to clear the checkboxes for all records.

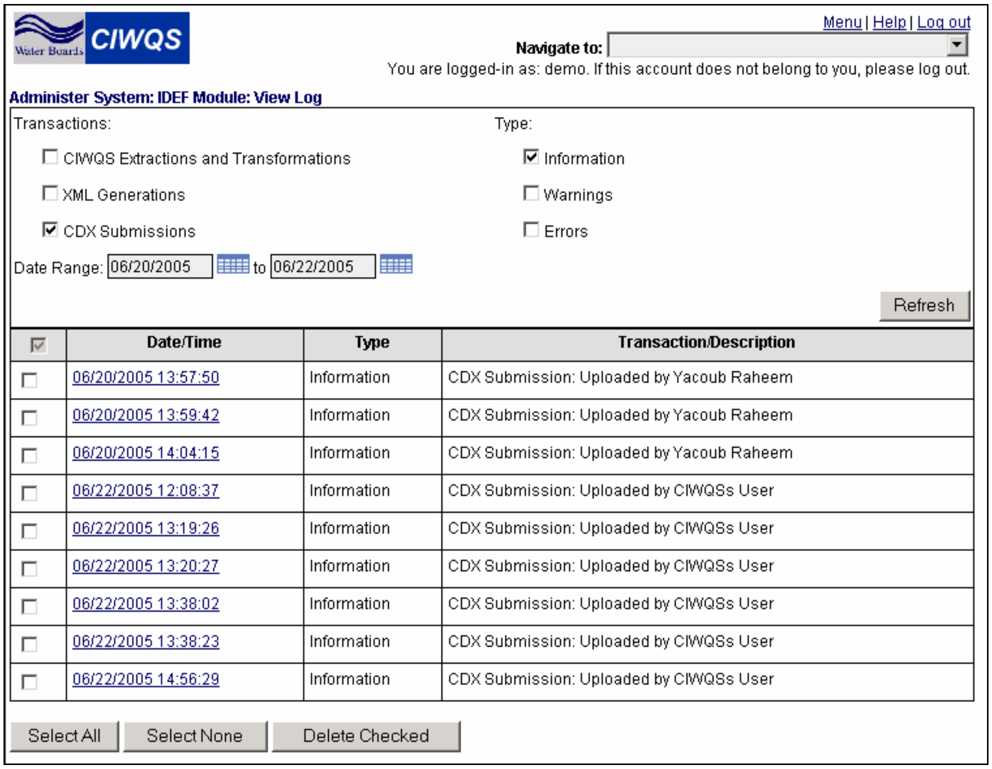


Figure 21.3 Search Results on the View Log Query Page

The Log can be viewed by clicking the hyperlinks in the Date/Time column (Figure 21.4).

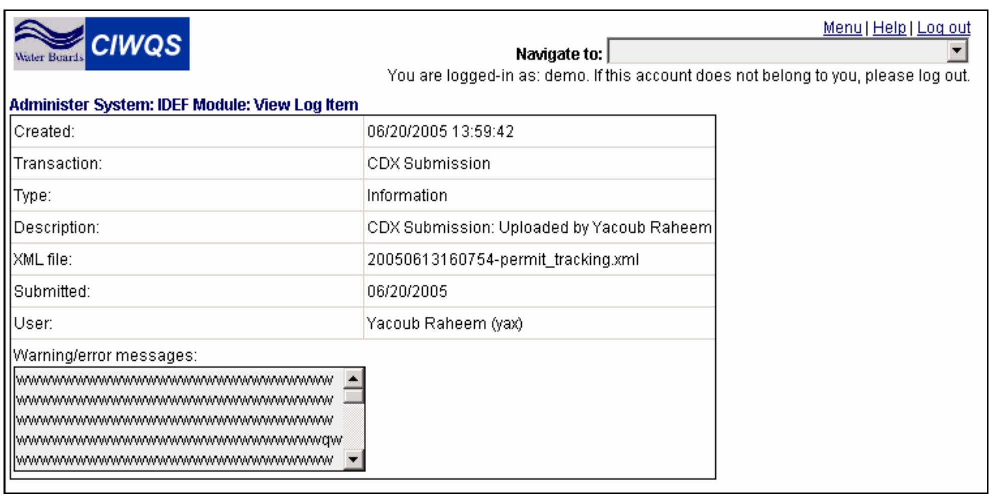


Figure 21.4 View Log Item Page

21.3 Generate XML

The *Generate XML* Module lets you create IDEF XML files for uploading information to the CDX Web site. This process is typically performed by one Internal User.

Click the "Generate XML" hyperlink in the *IDEF Module*, to create a temporary data table in IDEF format that can later be uploaded onto the CDX Web Site.

Generating XML files may take several minutes. Only click the "Generate XML" hyperlink once to prevent the Module from running multiple times.

The message "XML files generated" is displayed when the files have been created. The files are stored in the directory specified by the system configuration parameter for later uploading. Files are automatically named in the following format: YYYYMMDD-type of data.xml.

21.4 Connect to CDX Web Site

To connect to the CDX Web Site, click on the "Connect to CDX Web Site" hyperlink in the *IDEF Module*. This opens the CDX login Web site in a new Internet browser (Figure 21.5).

Figure 21.5 CDX Login Page

21.5 Record Submissions

Once records have been submitted to CDX, you can record/update information about the submission. In the *IDEF Module*, click on the "Record Submission" hyperlink to open the *Record Submission* Page (Figure 21.6).

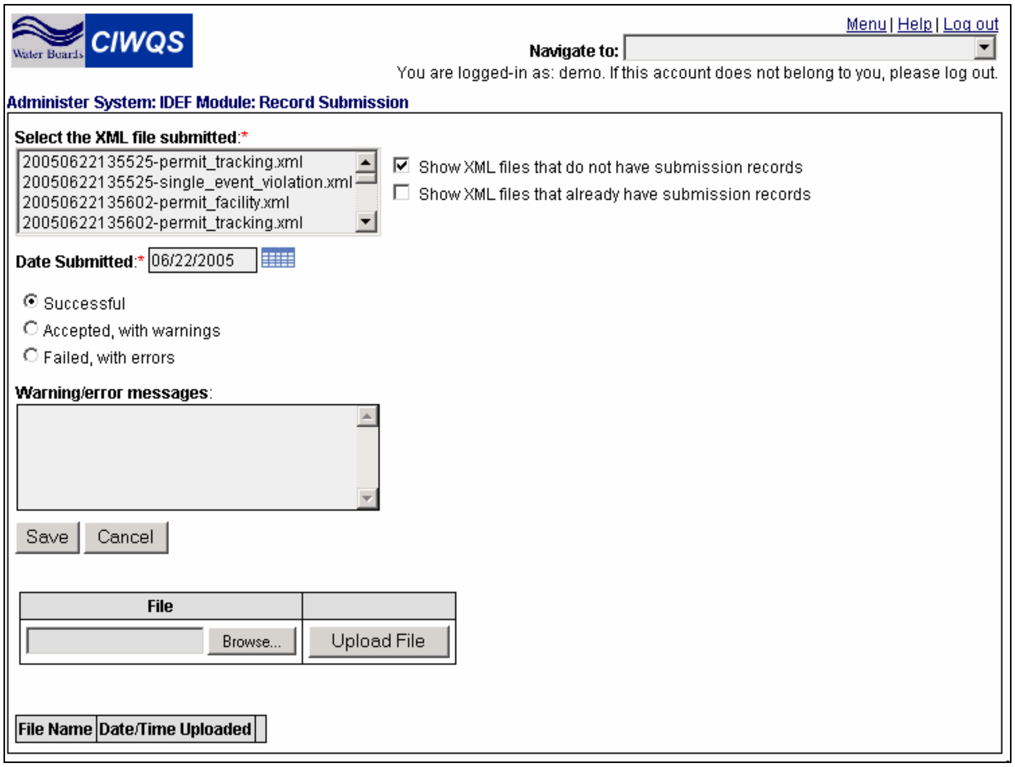


Figure 21.6 Record Submission Page

In the "Select the XML file submitted" box, highlight the file for which you wish to submit a record. You may narrow the list by selecting either the *Show XML files that do not have submission records* or *Show XML files that already have submission records* checkboxes.

Enter the date that the record was submitted in the *Date Submitted* field. Alternatively, you may use the calendar function by clicking the calendar button to the right of the *Date Submitted* field and selecting a date.

Next, indicate the status of the submission by selecting either the "Successful", "Accepted, with warnings", or "Failed, with errors" radio buttons. If there were warning or error messages, enter (or cut and paste) the text in the "Warning/error messages" box. The box will record up to 2,000 characters. For messages that are over 2,000 characters you may upload files into the system using the "Browse" and Upload File" buttons. The uploaded file(s) are listed at the bottom of the page.

Click the "Save" button to save the submission information. Click the "Cancel" button to cancel data entry and return to the *IDEF* Module.

CIWQS Water Board User's Guide

Appendix

A Error Checks
B CIWQS Security Functions
C 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?” or “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 will be 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 of 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 11:59pm (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.

Appendix B

System Security Functions

Module	Function	Read-Only	Update	Super
Security	Login	Grants the User the ability to login. All Users require *at least* Read-Only access to the "Login" function to be able to connect to the system.	Same as Read-Only.	Same as Read-Only.
Security	Activate Users	Grants the User the ability to see pending Discharger registrations, but does not allow activating or deleting Users.	Grants the User the ability to see pending Discharger registrations and to activate or deny pending registrations.	Same as Update.
Security	Activate Own Users	This access level does not exit. If Read-Only access is provided to this function, this is the equivalent of denying access to the function.	Grants a Discharger User (responsible executive officer) the ability to authorize other staff to submit (but not sign/certify) data for his/her Facility.	Same as Update.
Security	Create User Accounts	This access level does not exit. If Read-Only access is provided to this function, this is the equivalent of denying access to the function.	Grants the User the ability to create a login for a Party.	Same as Update.

Module	Function	Read-Only	Update	Super
Security	Manage Security	Allows security information, by User, group, or function, to be viewed, but not changed.	Allows the User to add/remove Users from groups and assign accesses to groups.	Same as Update.
Security	View/ Change My Information	Allows a User to view his own information, but make no changes, except changing the password. This User can request changes via the *Request another Change* button or the *Request another Facility* button. To deny the User the ability to change a password, no access should be provided to this function.	Allows the User to make changes to any of his own information, except for name fields.	Allows the User to make any changes to his own information, including name fields.
Submit a Self Monitoring Report	Submit a Self Monitoring Report	Allows the User to view Self Monitoring Reports for authorized Facilities (Dischargers or External Users) or for Facilities in an authorized Water Board (Internal Users).	Allows the User to enter data into an SMR for authorized Facilities (Dischargers or External Users) or for Facilities in an authorized Water Board (Internal Users). Certification is not allowed.	Allows the User to enter data into an SMR for authorized Facilities (Dischargers or External Users) or for Facilities in an authorized Water Board (Internal Users). Allows the User to certify and submit the SMR. This access level is intended for executive responsible officers only.

Module	Function	Read-Only	Update	Super
Submit a Self Monitoring Report	Water Board Notes	Allows the User to view Water Board Notes within SMRs.	Allows the User to create/edit Water Board Notes within SMRs.	Allows the User to create, edit, and delete Water Board Notes within SMRs.
Submit a Self Monitoring Report	Withdraw Submittal	This access level does not exist. If Read-Only Access is provided to this function, this is the equivalent of denying access to the function.	This access level does not exist. If Update Access is provided to this function, this is the equivalent of denying access to the function.	Allows the User to withdraw submissions.
Map It	Map It	Allows the User to launch the Map It Module.	Same as Read-Only.	Same as Read-Only.
Create/Maintain Places	Create/Maintain Places	Allows the User to view Facilities within an authorized Water Board.	Allows the User to create or update Facilities within an authorized Water Board.	Allows the User to create or update Facilities within any Water Board.
Create/Maintain Regulatory Measures	Create/Maintain Regulatory Measures	Allows the User to view Regulatory Measures for Facilities within an authorized Water Board.	Allows the User to create or update Regulatory Measures within an authorized Water Board.	Allows the User to create or update Regulatory Measures within any Water Board.
Create/Maintain Regulatory Measures	Delete Regulatory Measures	This access level does not exit. If Read-Only access is provided to this function, this is the equivalent of denying access to the function.	Allows the User to delete Regulatory Measures within an authorized Water Board.	Allows the User to delete Regulatory Measures for any Water Board.
Create/Maintain Regulatory Measures	Activate Regulatory Measures	This access level does not exist. If Read-Only Access is provided to this function, this is the equivalent of denying access to the function.	Grants the User privileges to activate and deactivate Regulatory Measures within an authorized Water Board.	Grants the User privileges to activate and deactivate Regulatory Measures within any Water Board.

Module	*Function*	*Read-Only*	*Update*	*Super*
Create/Maintain Regulatory Measures	Schedule Inspections	Allows the User to view the *Inspections* tab within Regulatory Measures for authorized Water Boards.	Allows the User to schedule inspections in the *Inspections* tab within Regulatory Measures for authorized Water Boards.	Allows the User to schedule inspections in the *Inspections* tab within Regulatory Measures for any Water Board.
Create/Maintain Regulatory Measures	Enforcement	Allows the User to view the enforcement tab (if applicable), but not enter any information.	Allows the User to enter information on the enforcement tab. The User must have at least update access to *Create/Maintain Regulatory Measures*, as well.	Same as Update.
Create/Maintain Parties	Create/Maintain Parties	Allows the User to view *all* Parties.	Allows the User to create or update *all* Party information.	Same as Update.
Create/Maintain Inspections	Create/Maintain Inspections	Allows the User to view inspections for Facilities within authorized Water Boards.	Allows the User to create/update inspections for Facilities within authorized Water Boards, including allegations/ violations.	Allows the User to create/update inspections for all Facilities, including allegations/ violations.
Create/Maintain Violations	Create/Maintain Violations	Allows the User to view violations for Facilities within authorized Water Boards.	Allows the User to create/update violations for Facilities within authorized Water Boards.	Allows the User to create/update violations for all Facilities, including allegations/ violations.
Create/Maintain Invoices	Create/Maintain Invoices	Allows the User to view invoices and payments.	Allows the User to create/edit invoices.	Same as Update.
Create/Maintain Invoices	Record Payments	Allows the User to view payments, but not record any payments.	Allows the User to record payments.	Same as Update.
Run Reports	Each report has its own security.			

Module	Function	Read-Only	Update	Super
Administer System	Manage Reference Tables	Allows the User to view any of the reference tables, but no changes can be made.	Allows the User to modify data in any reference table (simple or complex). There is not individual security on each reference table; it is all or none.	Same as Update.

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.

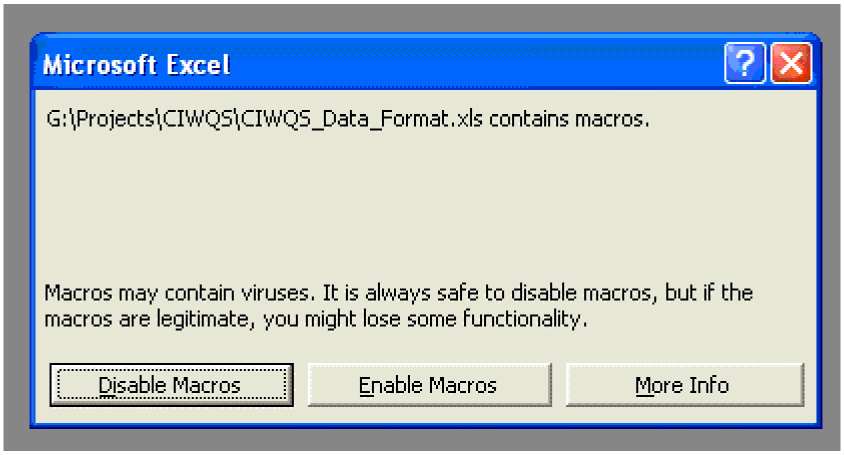
2 CDF Setup Installer

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.

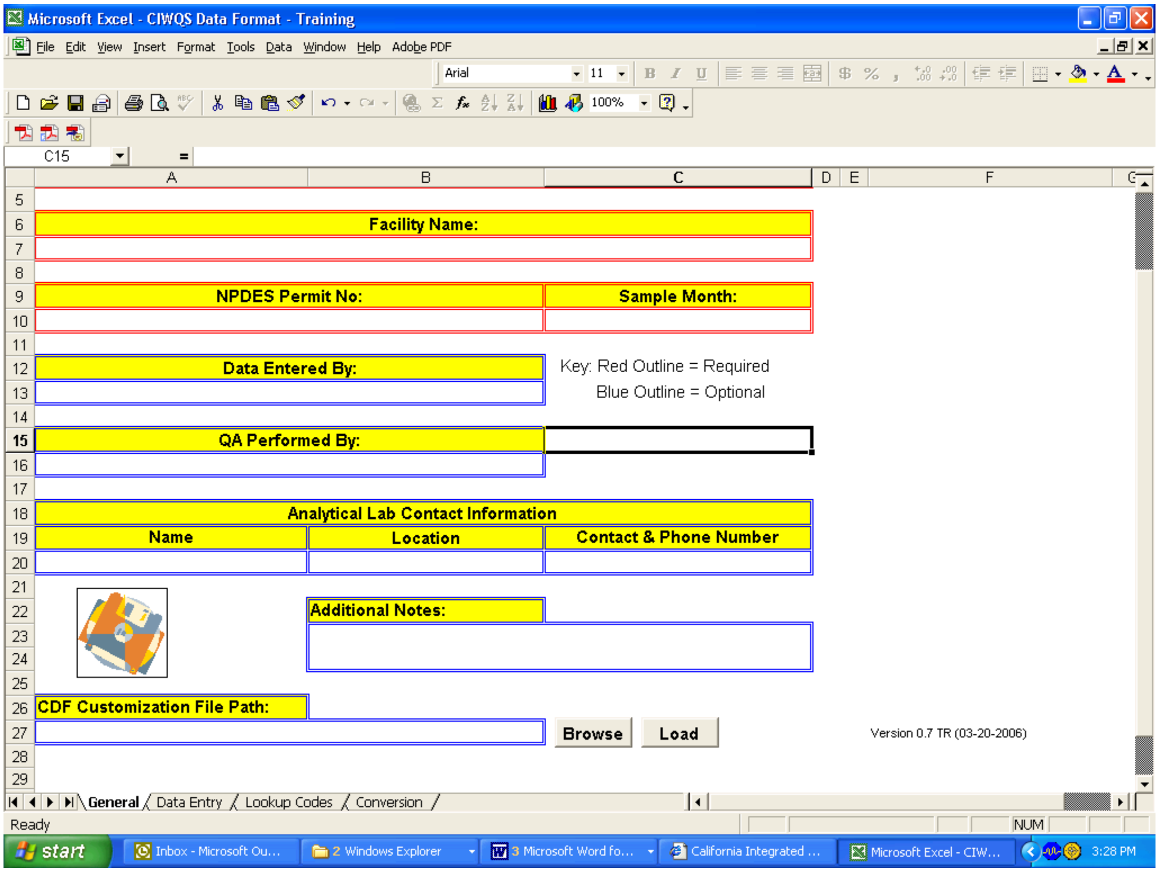
Once the file is open and the macros have been enabled, save the file. It is recommended that you save any changes made to the original file as versions of the original. For example, if you save the original file as CDF.xls, save a working copy as CDF_sept05.xls. This will preserve your original file.

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

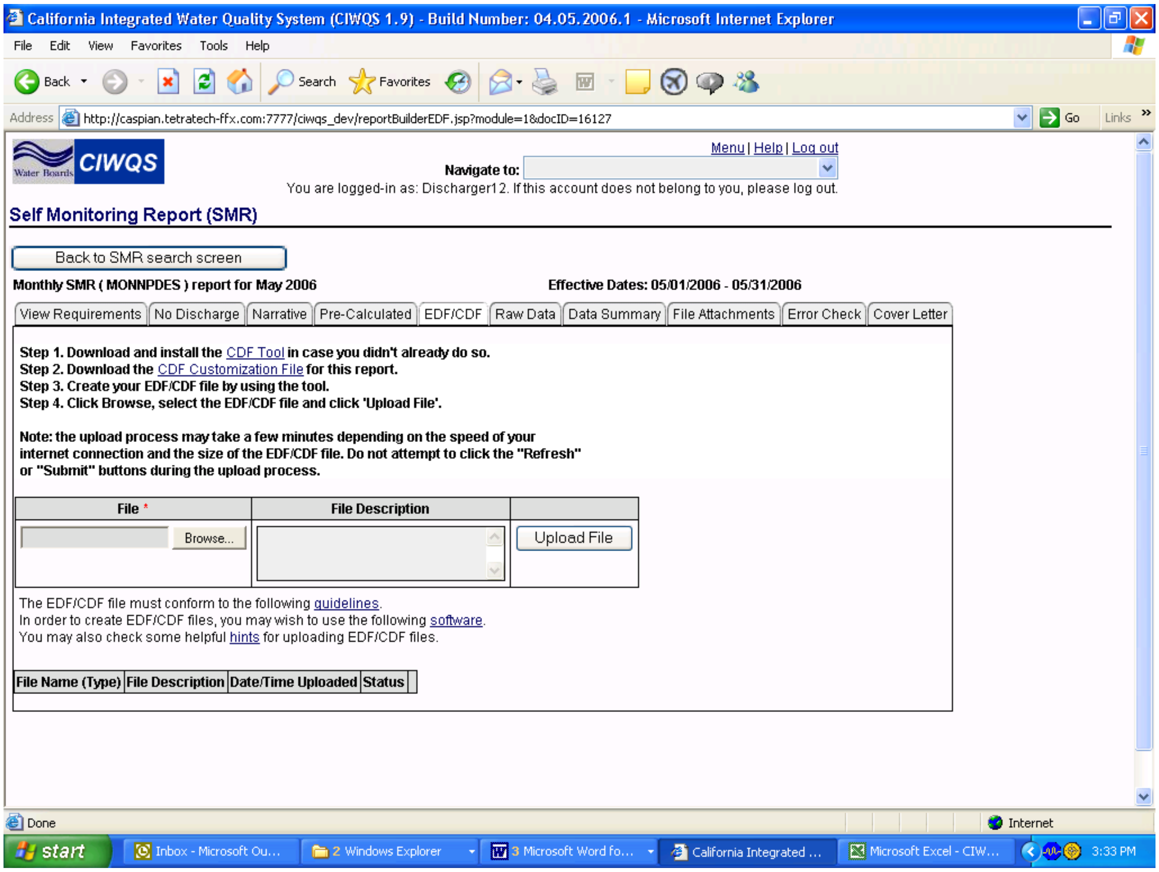
3.2.b. CDF Customization File Path

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.

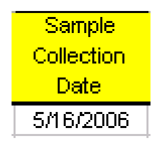
Sample Collection Date

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:

Sample Medium
Water

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:

Analytical Method
Data Unavailable [DU]

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***.

Sample Analysis Date
5/16/2006

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.

Parameter
Flow

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.

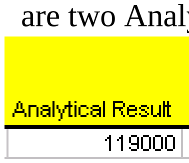
Analytical Result Qualifier

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:

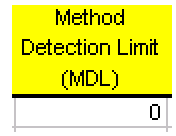


- "=" – the sample was detected and quantified or detected but not quantified (DNQ)
- "<" – the sample was not detected (ND)

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.

Units
g/day

3.4 Data Conversion Before Upload

Sheet:
Click on the sheet entitled *Conversion*.

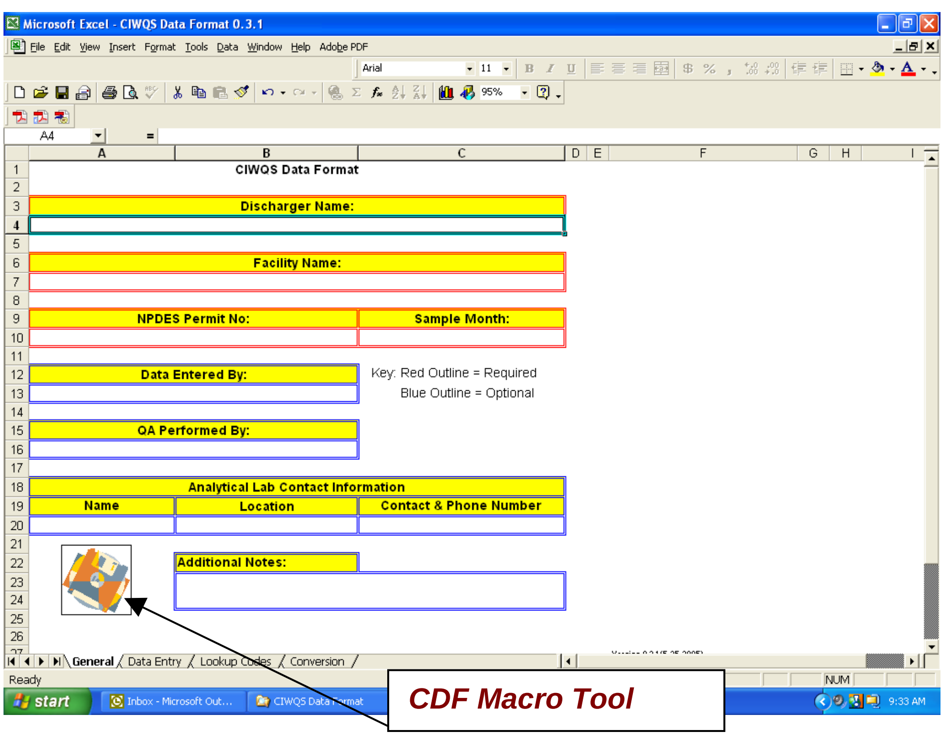
Purpose:
Here, data entered into the *Data Entry* sheet is converted to make it CIWQS-compliant. This sheet converts your data by use of the enabled macro and uses the correct Conversion Field Names and VVL codes. The sheet is displayed and used solely for the purpose of the macro.

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.

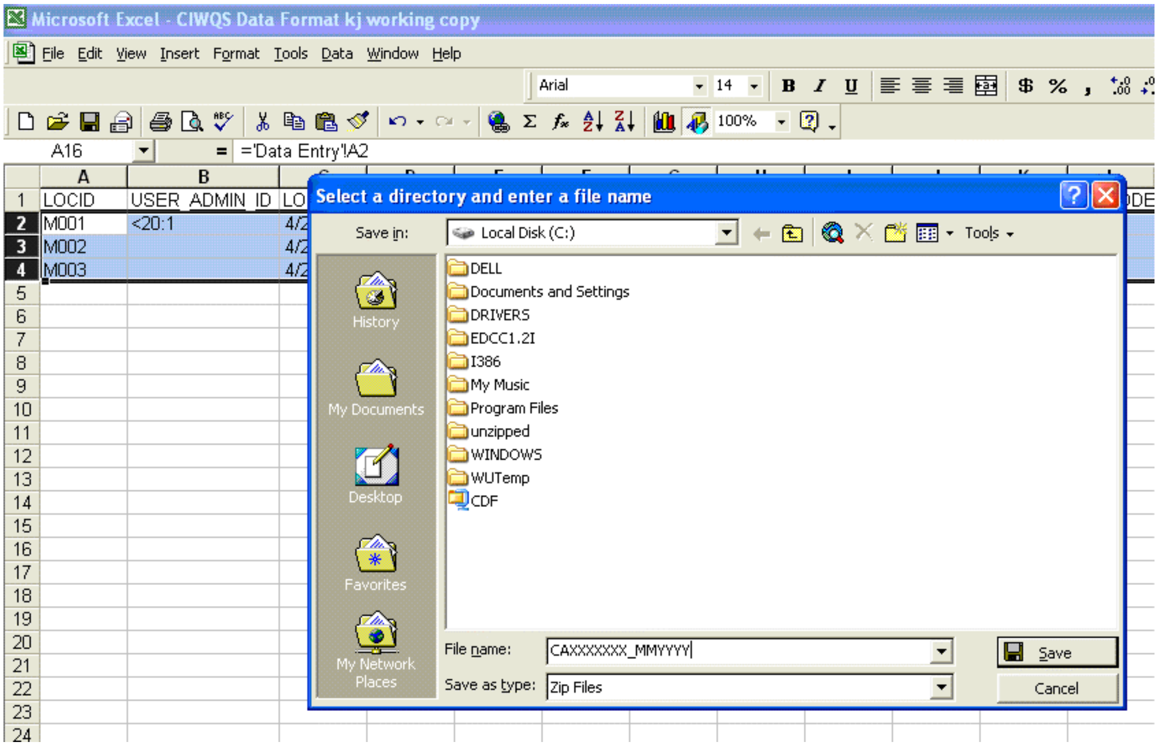
3.5 Using the Macro to Create the ZIP File

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.

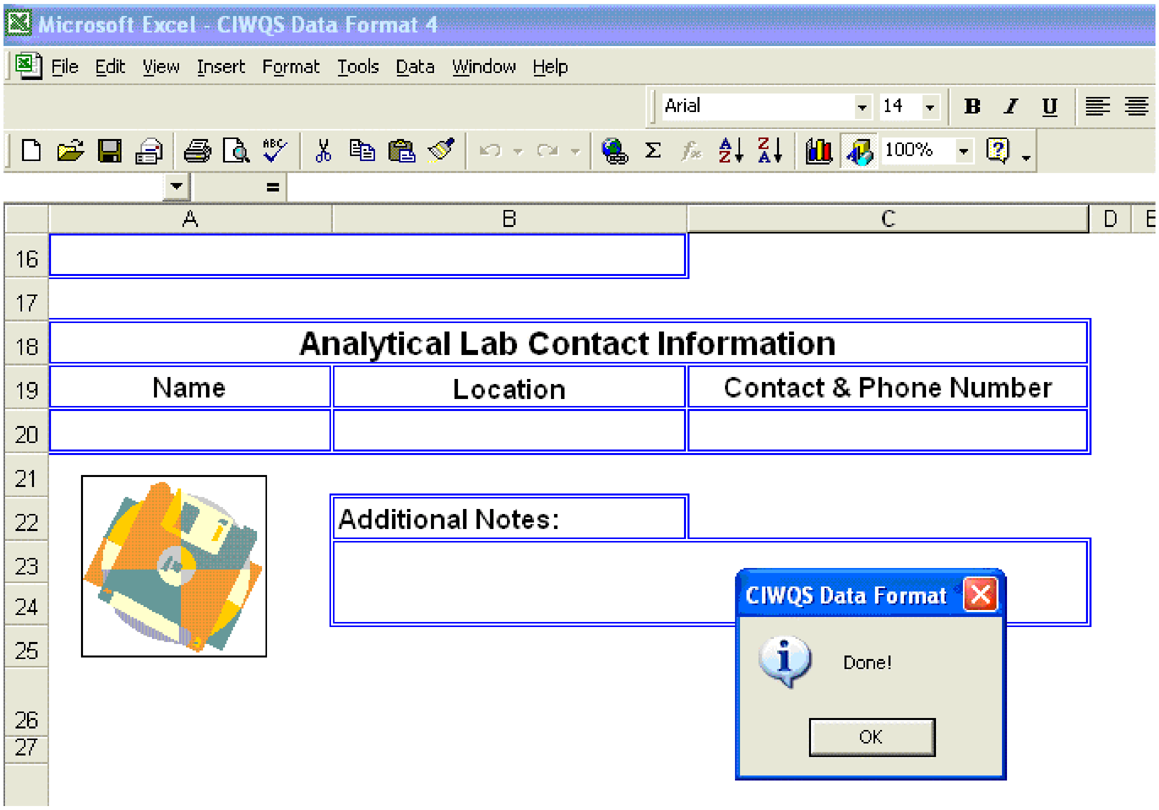


A box stating, *"Select a directory and enter a file name"* will appear.



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**.



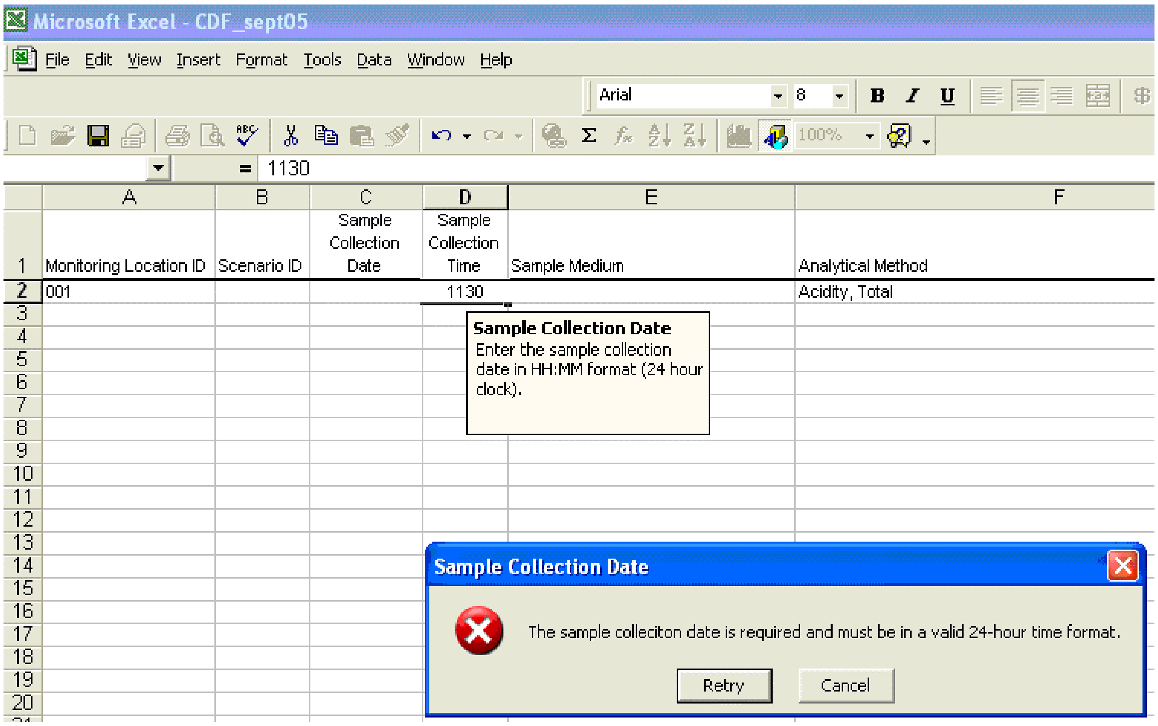
9. The ZIP file is now available for upload into CIWQS. Refer to section 3.6, *Upload the ZIP File into CIWQS*, for instructions.

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.

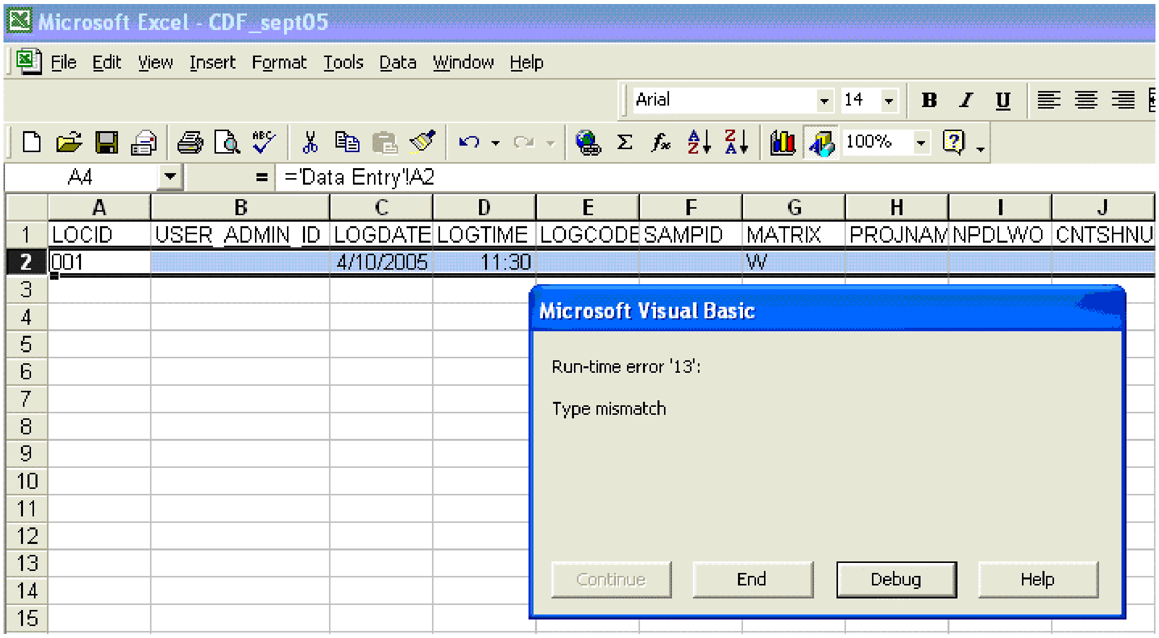
3.7 CDF Macro Errors

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:



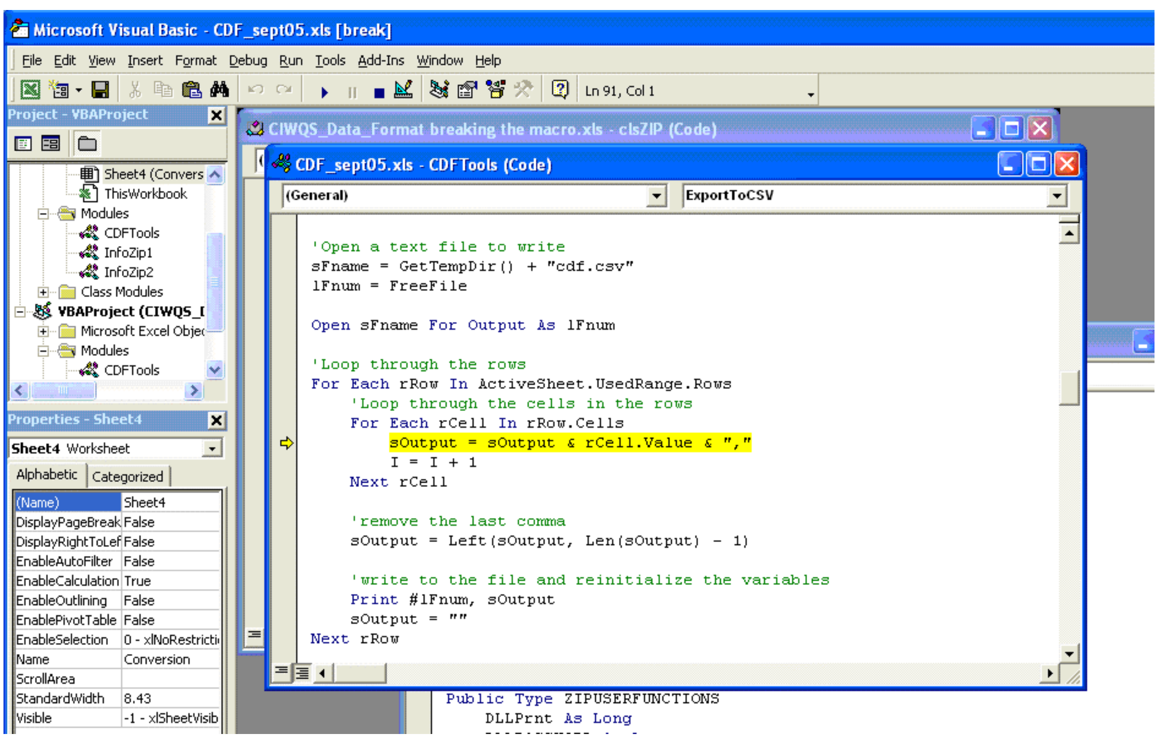
To correct this error, click **Cancel**. Microsoft Excel will then either automatically correct the entry to the valid 24-hour time format or delete the entry. In the latter case, enter the sample collection time in the correct format.

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:

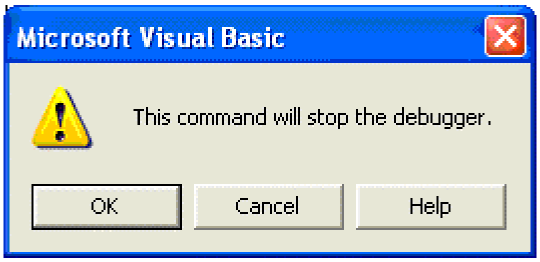


When this occurs, click **End**. This will end the Microsoft Visual Basic application of the CDF macro and allow for the format error to be fixed. After **End** is chosen, the user will be on the *Conversion* sheet of the CDF file. Go to the *Data Entry* sheet and check each Required Field for a missing 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

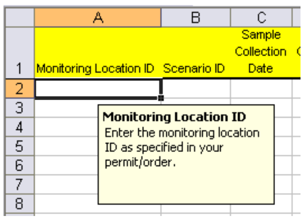
The following are the CDF fields and a description of how each is mapped to the CIWQS SMR raw data screen. This table also shows how

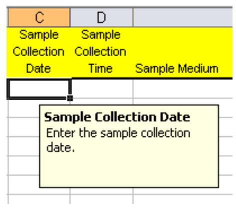
CDF Field	Format/Validation	CIWQS Raw Data Field	EDF Field
Monitoring Location ID	Accepts any text string between 1-10 characters	Monitoring Location	LOCID (FIELD_PT_NAME)
Sample Collection Date	Date; cannot be a future date	Sample Event Date	LOGDATE
Sample Collection Time	24-hour time value	Sample Event 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")

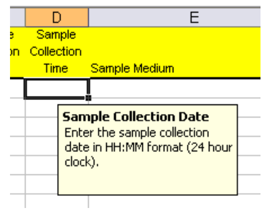
CDF Field	Format/Validation	CIWQS Raw Data Field	EDF Field
Units	Selection from a list of valid values	Units	UNITS

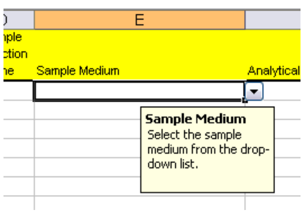
The CDF format always sets PVCCODE to “PR.”

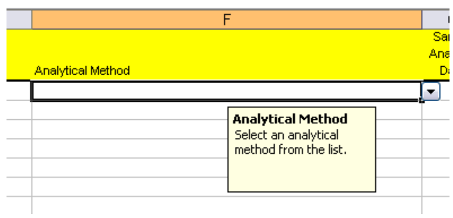
* To enter a Non-Detect (ND), the user would enter the MDL into the “Method Detection Limit” and “Analytical Result” fields and select “<” for the “Analytical Result Qualifier.” To enter a Detected, Not Quantified (DNQ) value, the user would enter the MDL into the “Method Detection Limit,” the ML into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

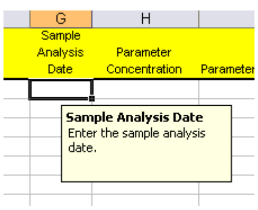


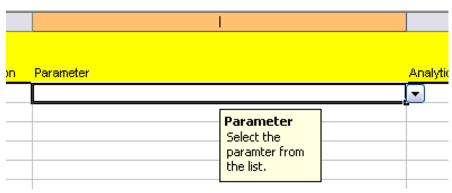


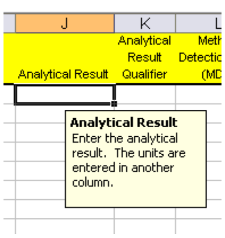


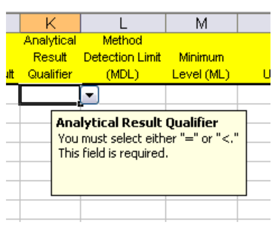


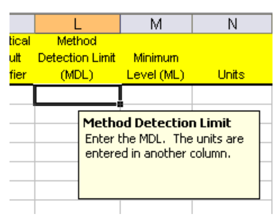


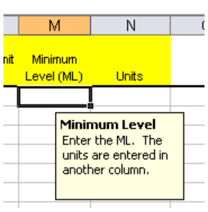


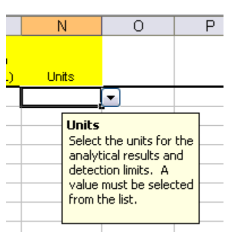






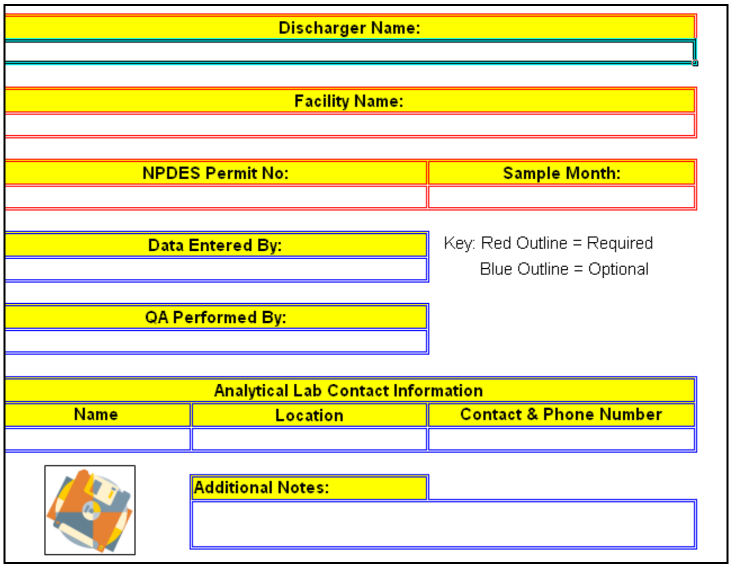






7.3 General Page

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