CWNS 2012 Reports

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1. Introduction

1.1 Overview

The U.S. Environmental Protection Agency (EPA), in partnership with the States, conducts the Clean Watersheds Needs Survey (CWNS) to identify and document the cost of the capital needs required to meet the water quality and water-related public health goals of the Clean Water Act. The CWNS is required under section 205(a) of the Clean Water Act and section 516(b) of the Water Quality Act of 1987, which amended the Clean Water Act.

Every four years, the States and EPA collect information about publicly owned wastewater collection and treatment facilities; combined sewer overflow (CSO) control facilities; stormwater management activities; and decentralized wastewater treatment facilities. The information collected about these facilities and projects includes estimated needs, costs and technical information; location and contact information; and facility population served, flow, effluent, and unit process information.

1.2 Previous Surveys

CWNS 2012 is the 16th survey. The first survey occurred in 1972, and the most recent survey prior to this one addressed needs as of January 1, 2008. Between 1972 and 1992, EPA conducted eleven biennial surveys on a facility-by-facility basis. During that period, the survey focused on providing an estimate of needed publicly owned wastewater treatment works (POTWs) and an inventory of existing and proposed wastewater conveyance and treatment facilities in the United States.

EPA broadened this focus in the CWNS 1992, reflecting an expansion of types of projects eligible for funding under the Clean Water State Revolving Fund (CWSRF) program. Since 1992, EPA and States have expanded data collection to include and/or improve the documentation of:

- Small communities' needs and costs
- Municipal stormwater programs' needs and costs
- Nonpoint Source (NPS) pollution Best Management Practice (BMP) implementation needs and costs
- Combines Sewer Overflow (CSO) needs and costs
- Sanitary sewer systems and sanitary sewer overflow (SSO) technical information
- Geographic location data, including watersheds, for each facility and project

The Reports to Congress and data from the 2000, 2004 and 2008 surveys are available online at http://www.epa.gov/cwns.

1.3 Scope of CWNS 2012 Data Collection

CWNS 2012 includes needs and relevant technical information (flow, population, discharge, effluent, unit process, and utility management data) for publicly owned municipal wastewater collection and treatment, CSO correction, municipal storm water management and recycled water distribution. There are several key changes that were implemented in 2012:

- Combined Sewer Overflow (Category V) is divided into 2 new categories: CSO - Traditional Infrastructure (Category V-A) and CSO - Green Infrastructure (Category V-B). Details on the CWNS 2012 needs categories are outlined in the Data Dictionary.

- CSO correction needs are based exclusively on documented cost estimates. For all previous surveys, needs were estimated using a combination of documented costs and cost curve estimates.
- Nonpoint Source (NPS) Control needs and technical information were not collected for CWNS 2012

1.4 Scope of CWNS 2012 Reports

The following options for data access and reports are provided:

- **Maps** show facility locations and information as well as Official Needs on the State, County and Congressional District level.
- **Data Dashboard** displays CWNS data for chosen geographic areas in bar graphs and pie charts.
- **Technical Data** display data that was previously included in the appendices of the Report to Congress. These data tables are comparable to the data tables found in Appendix I of the CWNS 2008 Report to Congress. These reports are only available at the National-level.
- **Facility/Project Fact Sheets** summarizes data for selected facility(ies)/project(s) is an easy to read PDF fact sheet(s).
- **Summary Reports** display selected CWNS data for chosen geographic areas in bar graphs and pie charts.
- **Detail Reports** display selected CWNS data for chosen geographic areas. The output is displayed in tables which can be exported as csv files.
- **Data Download** provides a downloadable Microsoft Access database of all available data elements for a selected geographic area (state or nation).

2. Navigating CWNS 2012 Reports

2.1 Entering CWNS 2012 Reports

Users can enter the CWNS 2012 Reports through the CWNS website (http://www.epa.gov/cwns), and then selecting the "2012 Report & Data" option on the top navigation bar (Figure 1).

Note: The new online tools were developed to work with Internet Explorer 9.0 or higher version browsers but works best when using Google Chrome or Mozilla Firefox.

Figure 1: Entering CWNS 2012 Reports

2.2.1 Tabs

The tabs across the top of the page allow users to navigate among the different options for data access and reports. The current tab is white; all other tabs are light blue (Figure 2).

• *Move to a different report type by clicking on the desired tab.*

Figure 2: Tab navigation

• *Refresh the content of the current tab by clicking the browser's Refresh or Reload icon* .

2.2.2 Breadcrumbs and links

The Breadcrumbs (e.g., **You are here:** Water >> Science & Technology >>Applications & Databases >> Program Databases >> Clean Watersheds Needs Survey >> 2012 Report & Data >> Map) in the top left corner of the screen indicate the current page and provide a link to return to any of the listed pages (Figure2).

2.3 Resources

The following resources are available to assist users:

- The Help link launches a pop-up window with the CWNS 2012 Reports User Manual.
- The Data Dictionary link launches a pop-up window with a list of all the data elements, included the detail reports and Microsoft Access database, and their definitions.

For specific questions about the Maps, Reports or the data, contact the EPA CWNS team at cwns@epa.gov.

3. Maps

3.1 Introduction

Maps show facility location and information as well as Official Needs on the State, County and Congressional District level.

Note: This mapping tool was developed to be viewable on most monitor screen sizes. Due to that fact, viewing the mapping tool on larger screens may make some of the header fonts a little smaller. This tool also works faster when using the Google Chrome browser

3.2 Navigating Maps

The opening map of the contiguous 48 states will contain an information panel to the right of the map with a Needs and Legend tab. The Needs tab will only show the needs for the location of the current cursor placement. On initial opening of the map, no location is selected, so the overall (national) CWNS 2012 Total Official Needs figure is displayed (Figure 3). Cursor placement is discussed in section 3.2.2.

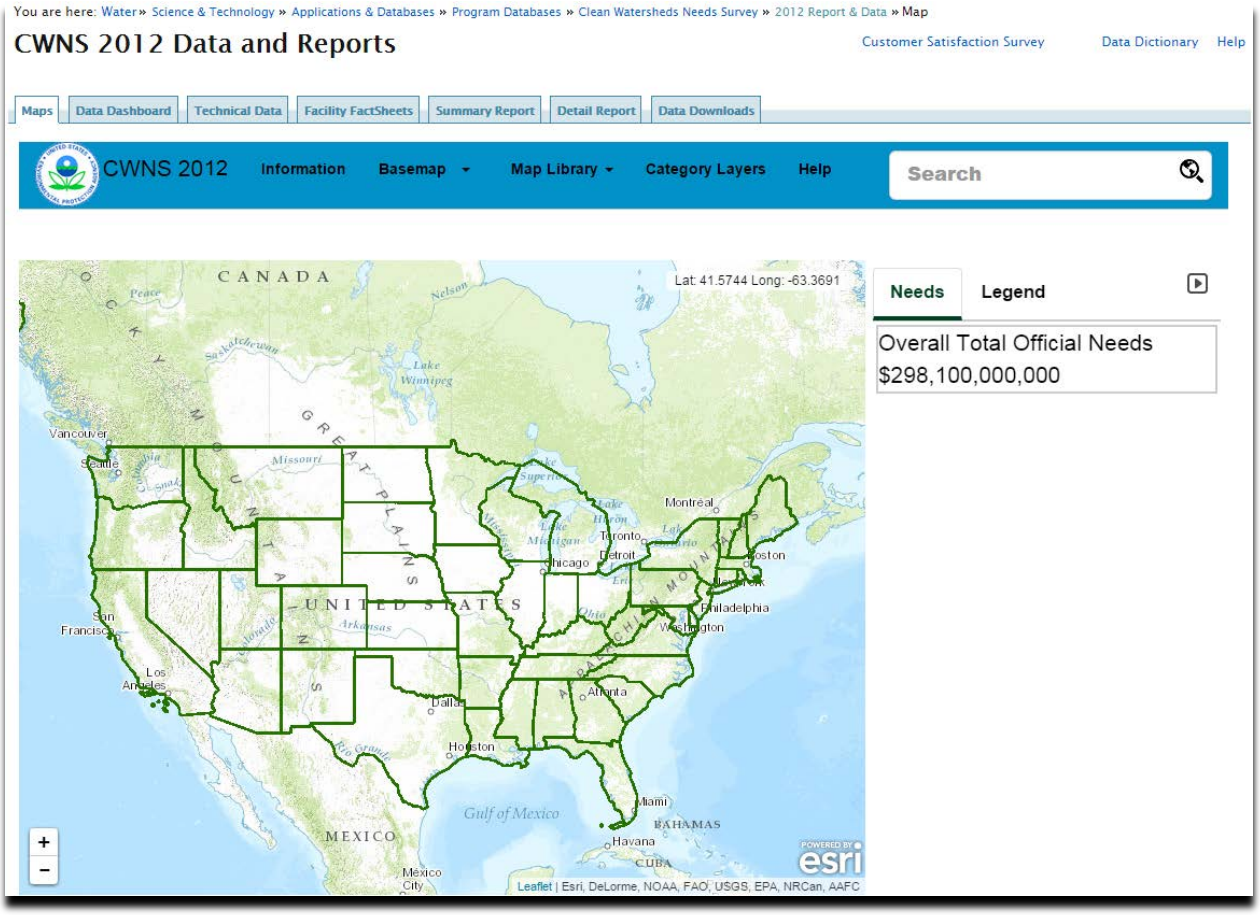


Figure 3: Map Navigation

3.2.1 Maps Menu Banner

The menu options across the top of the Maps tab allow users to navigate among the different options for map navigation. These headers will highlight in white when you roll your cursor across them. The headers with a down arrow will provide a drop down with more choices to select from. (Figure 4).

• *Move to a different menu option by clicking on the desired option.*

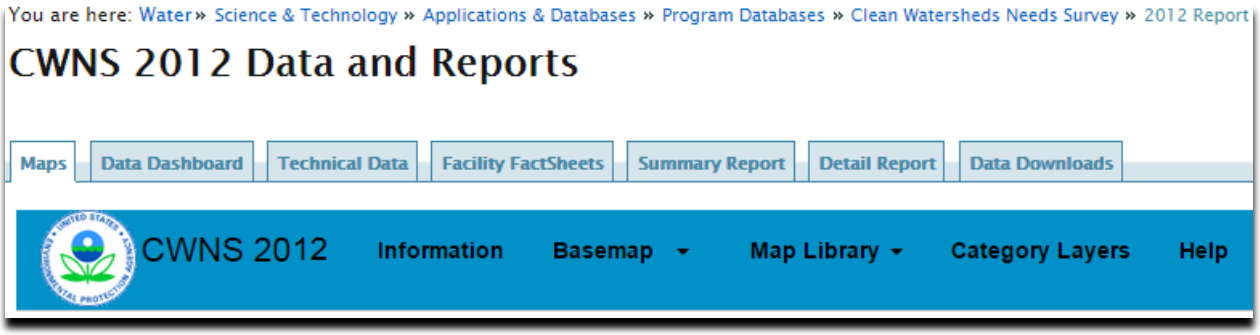


Figure 4: Menu navigation

Menu options are discussed in section 3.2.2.

3.2.2 How to navigate around the maps

Zoom Function

This map tool works similarly to other computer or online applications for maneuvering around the page and viewing.

- *To center an area of interest, place your cursor over that area and hold down the left tab on your mouse and drag it to the center of the screen.*
- *Zoom in or out by to by using the Zoom icon* *on the lower left of the map. You can also zoom in by double clicking your left mouse tab on that location, or by scrolling the wheel of the mouse forward(zoom in) or backwards(zoom out).*

Topographic and Satellite Views

It is always easier to navigate around the map using the Topo view because it has a much lighter background and shows the roads and other discernable landmarks to better zero in on a location. The Satellite view is helpful when you are zoomed in closer and want to better identify the location or see an aerial view of a facility.

- *Click the **Basemap** menu option in the blue banner. Choose between Topo and Satellite by clicking on it. (Figure 5)*

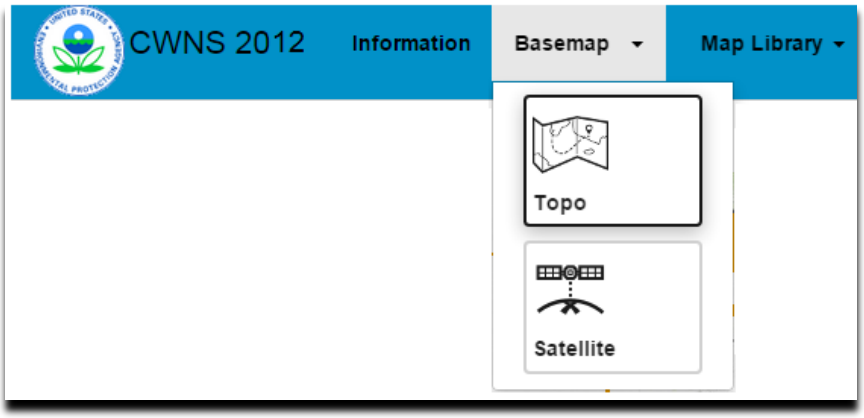


Figure 5: Topographic or Satellite view

Viewing Needs data

- *Click on any area of the map to view the Total needs by category for that State, Congressional District or County in the right hand panel. (Figure 6)*

  Note: Congressional District and County information only display once the map is zoomed in to a level where the boundaries for these geographic areas are displayed.

- *Click the* *icon to go to a zoomed-in polygon of the geographical area on the map (county, congressional district or state).*

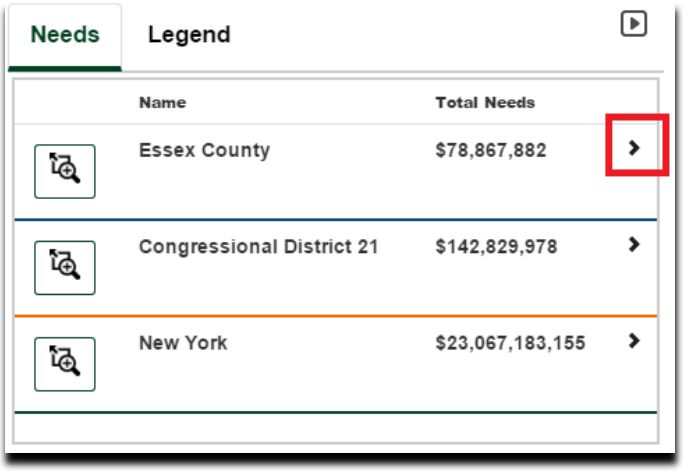
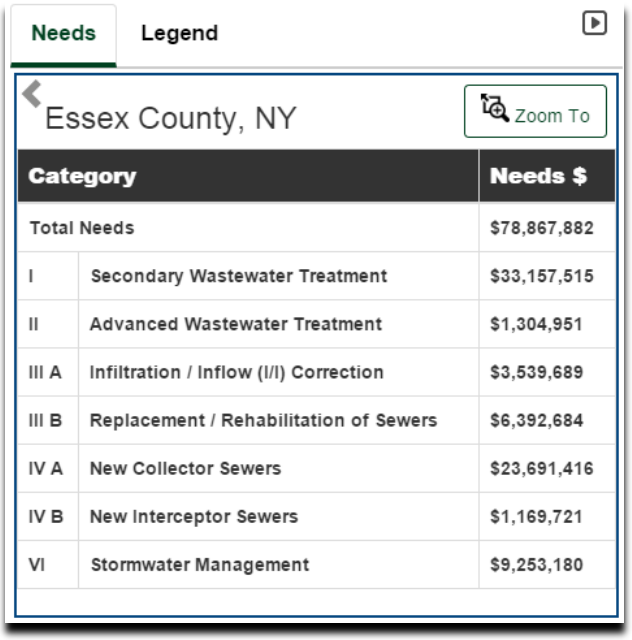


Figure 6: Total needs by category for that State, Congressional District or County

- *Click on the* › *icon (Figure 6) to get a detailed list of needs by category for the selected geographical area. (Figure 7)*



Category		Needs $
Total Needs		$78,867,882
I	Secondary Wastewater Treatment	$33,157,515
II	Advanced Wastewater Treatment	$1,304,951
III A	Infiltration / Inflow (I/I) Correction	$3,539,689
III B	Replacement / Rehabilitation of Sewers	$6,392,684
IV A	New Collector Sewers	$23,691,416
IV B	New Interceptor Sewers	$1,169,721
VI	Stormwater Management	$9,253,180

Figure 7: needs by category for the selected geographical area.

- *Click the* Zoom To *icon to go to a zoomed in polygon of the geographical area on the map (county, congressional district or state).*
- *Click on the* ‹ *icon to go back to the Total needs by category for that State, Congressional District or County view.*

Using the Legend tab

The Legend tab in the information panel enables the user to manipulate which data layers should be turned on or off when zooming in on the map.

- *Click on the Legend tab to manipulate layers (Figure 8). Table 3-1 explains the different layers.*

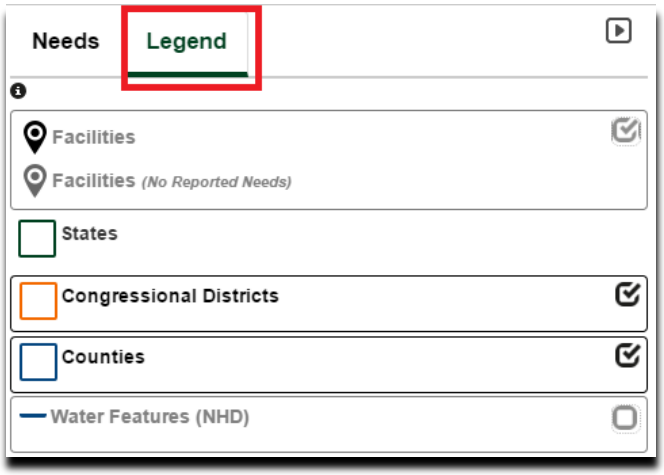


Figure 8: Legend tab

Table 3-1: Explanation of map layers

Layer	Description
Facilities Facilities *(No Reported Needs)*	The black (darker) icons are systems **with reported needs**. The gray (lighter) icons are systems **with no reported needs**.
States	When you first click on a state you will see it outlined in a heavy green border letting you know which state you selected.
Congressional Districts	When you zoom in further you will see all of the Congressional Districts outlined in orange.
Counties	When you zoom in to the next level you will see all of the counties outlined in blue.
Water Features (NHD)	The National Hydrography Dataset (NHD) is a database that interconnects and uniquely identifies the millions of stream segments or reaches that comprise the Nation's surface water drainage system. This was added to help further identify location and could aid in emergency response efforts for spills or other purposes. The NHD is a large dataset so it may take a little time to load. Here is a link for the NHDPlus website: http://water.epa.gov/scitech/datait/tools/waters/docs/nhd_model.cfm

- *Click on the bold* ☐ *icon to enable the layer for the map*
- *Click on a bold* ☑ *icon to ensure the layer is not displayed on the map.*

Note: Layers are dependent on how far the user is zoomed in to the map: when a feature box is grayed out and is checked then you are not zoomed in close enough and that feature is not visible to you. If the box is **bold** and not checked then that feature is within the proper viewing zoom level but you need to click on the box to view that feature. And if the box is grayed out and is unchecked then you need to zoom in until the box turns black and then check the box to view that feature (Figure 9).

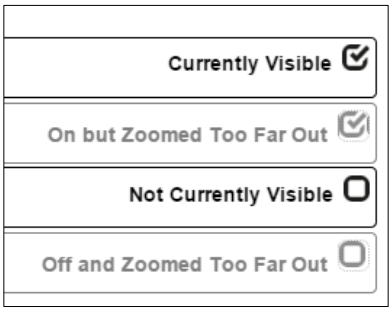


Figure 9: Layer manipulation

State Level Needs Information

- *Click inside of any* ***green*** *state polygon. A yellow circle* ● *will show up on the map inside of that state and the figure in the Needs tab to the right of the map will change to just the needs for that state.(Figure 10)*

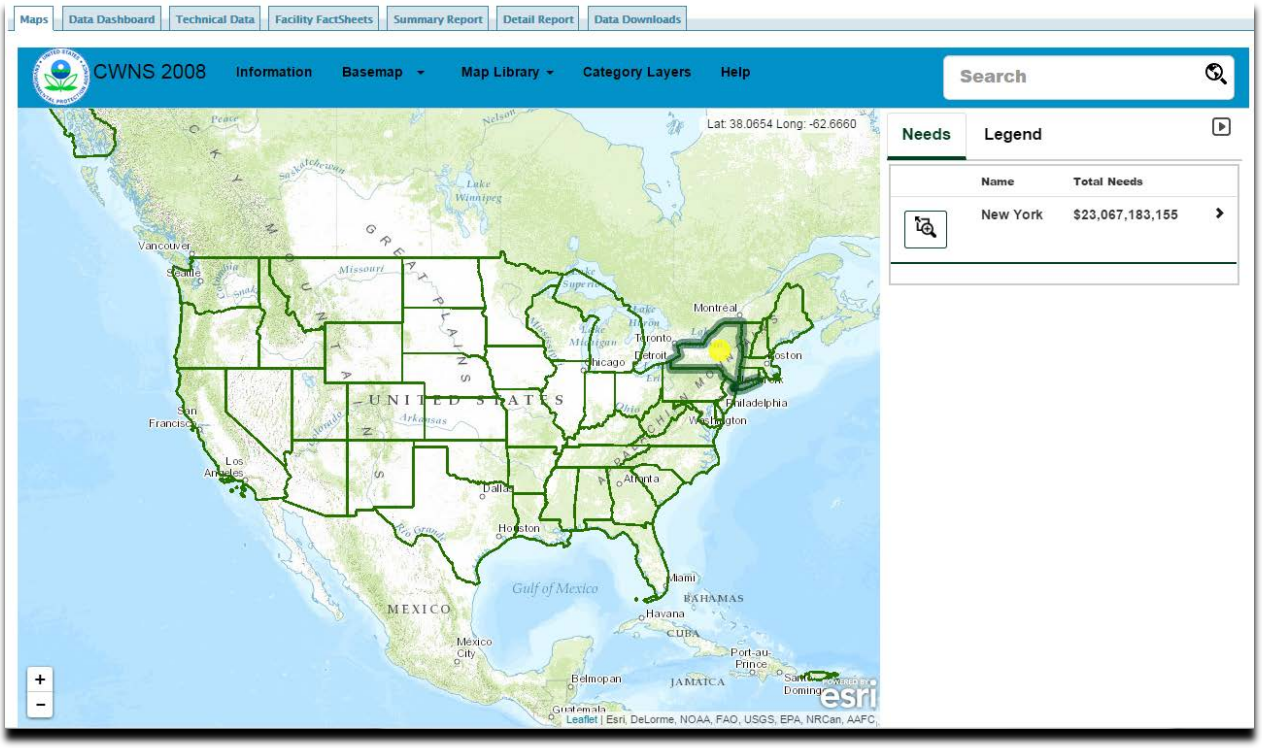


Figure 10: State Level Needs

Congressional District Needs Information

- *Zoom in until **orange** colored polygons show on the map. These **orange** polygons indicate the Congressional Districts.*
- *Click inside of any **orange** Congressional District polygon. A yellow circle will show up on the map inside of that Congressional District and the figures in the Needs tab to the right of the map will change to just the needs for that Congressional District and state.(Figure 11)*

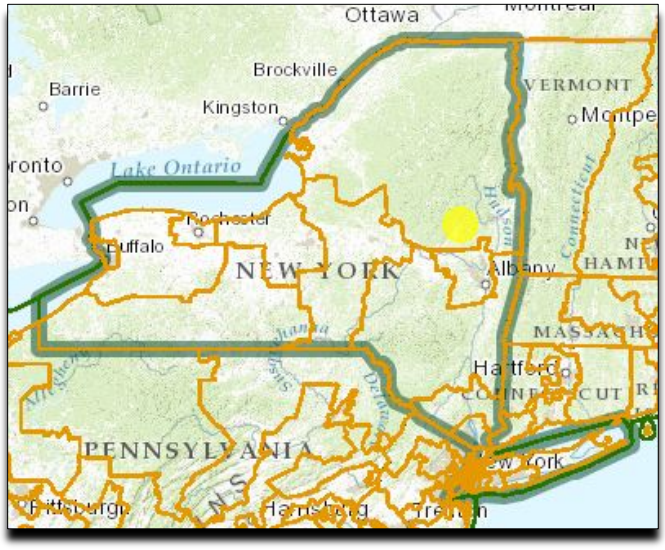


Figure 11: Congressional District Needs

County Needs Information

- *Zoom in until **blue** colored polygons show on the map. These **blue** polygons indicate the Counties.*
- *Click inside of any **blue** County polygon. A yellow circle will show up on the map inside of that County and the figures in the Needs tab to the right of the map will change to just the needs for that County, Congressional District and state.(Figure 12)*
- *Zoom in more and the names of the counties will pop up for better identification. (This example is Essex County)*

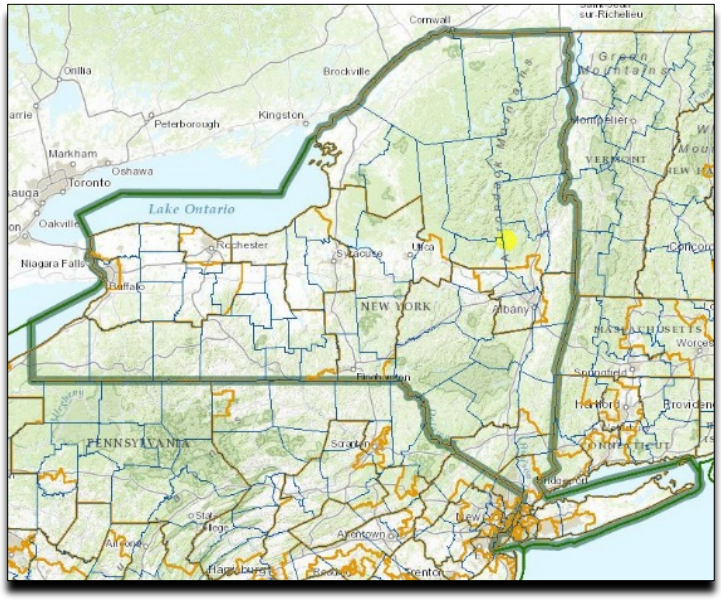


Figure 12: Congressional District Needs

Facility Needs Information

- *Zoom in until* icons *show on the map. These icons are publically owned treatment works (POTW) (Figure 13).*

  Note: The black (darker) icons are systems with reported Needs. They gray (lighter) icons are systems with no reported Needs.

Figure 13: Facilities (publically owned treatment works (POTW)

- *Click on any* *icon to show a pop-up box* with that facility's name as well as its Needs broken down by the individual Cost Categories. *(Figure 14).*
- *Click on the* *icon to close this box*

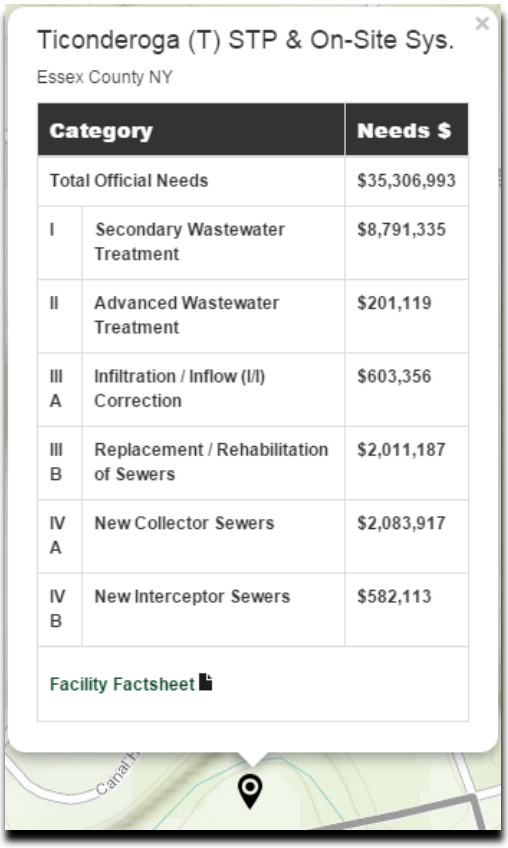
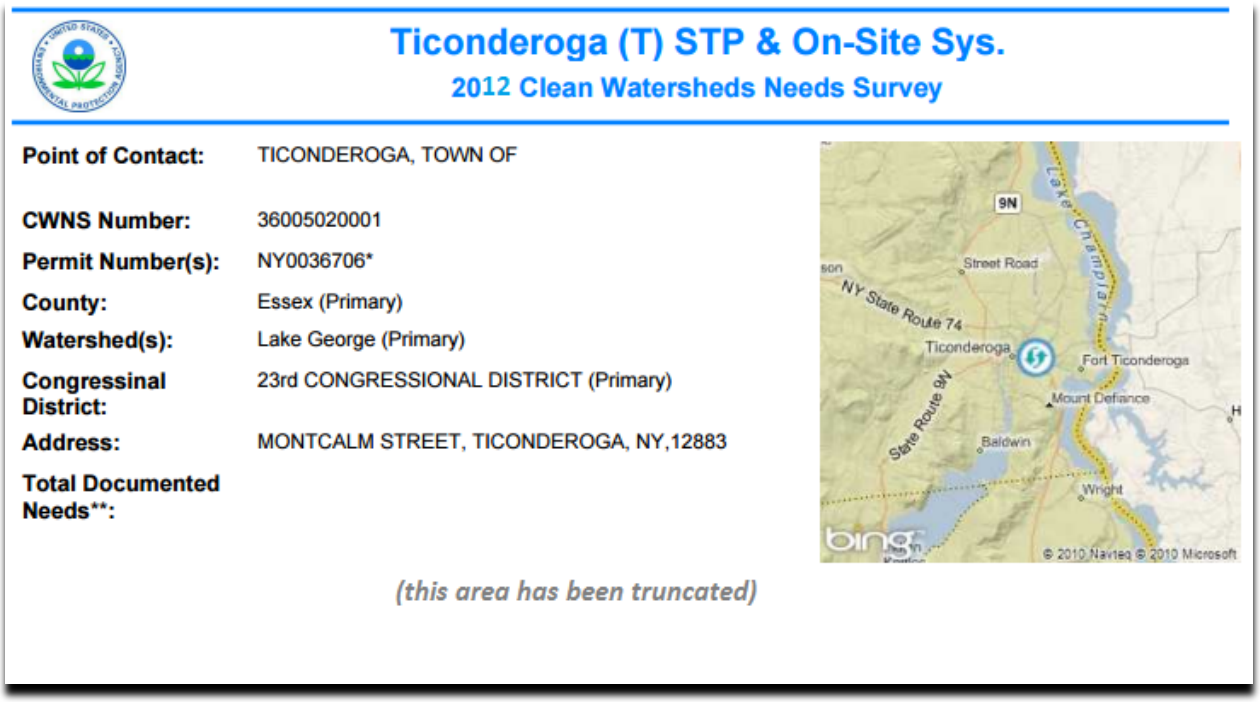


Figure 14: Facility Information

- *Click on the* *icon to show that facility's factsheet on a new page (Figure 15).*
- *Scroll down the document to read it.*
- *Right click to print a copy of the factsheet*



Ticonderoga (T) STP & On-Site Sys.

2012 Clean Watersheds Needs Survey

Point of Contact:	TICONDEROGA, TOWN OF
CWNS Number:	36005020001
Permit Number(s):	NY0036706*
County:	Essex (Primary)
Watershed(s):	Lake George (Primary)
Congressinal District:	23rd CONGRESSIONAL DISTRICT (Primary)
Address:	MONTCALM STREET, TICONDEROGA, NY,12883
Total Documented Needs:**	

(this area has been truncated)

Figure 15: Facility Factsheet

- *Zoom all the way in on a facility switch to Satellite view to see that facility. You may see the facility with primary and or secondary clarifiers or you may view lagoons depending on what type of system it is. (Figure 16)*

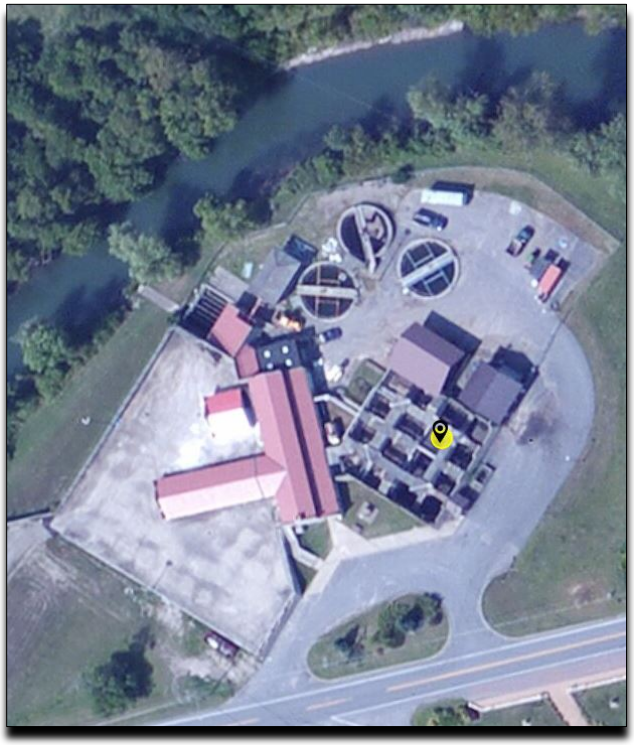


Figure 16: Facility in Satellite Basemap mode

Map Library Function

The **Map Library** function can be used to access the Hawaii and Alaska maps as well as all of the territories.

- *Click the Map Library menu option in the blue banner. Hover over the small maps for an indication of what state or territory it represents and then click on the required map to view. (Figure 17)*
- *To go back to the original map, refresh the content of the Maps tab by clicking the browser's Refresh or Reload button* .

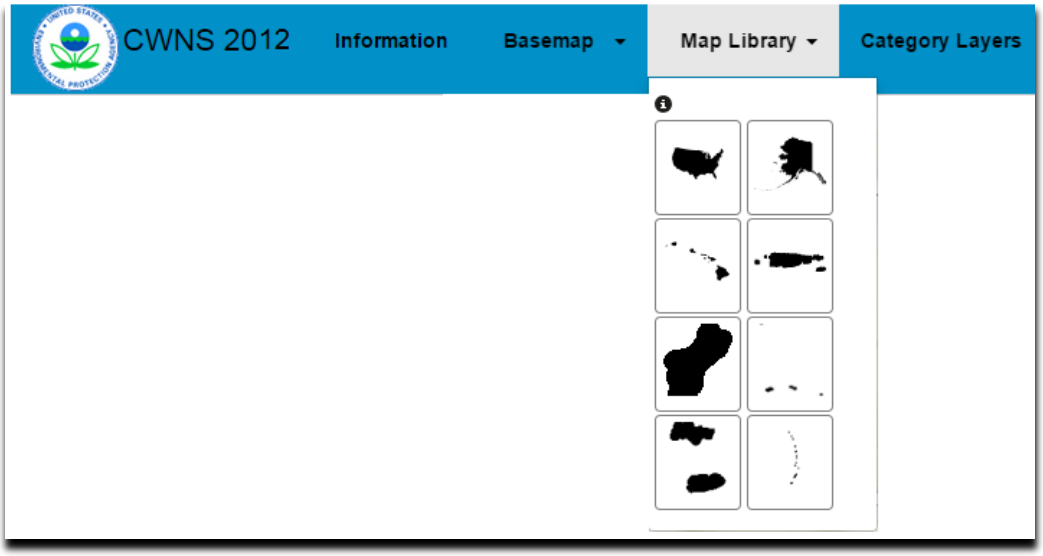


Figure 17: State and Territory maps

Category Layers Function

The **Category Layers** function is for access to the same needs category maps that were in the CWNS 2008 Report to Congress. These include Total Documented Needs, National Per Capita Need, Total Categories I through IV Needs, Total Categories I and II Needs, Total Categories III and IV Needs, Total Category X Needs, Total CSO Needs, Total Stormwater Management Needs and Total Smalll Community Needs.

- *Click the Category Layers menu option in the blue banner. Select a map (Table 3-2).(Figure 18)*

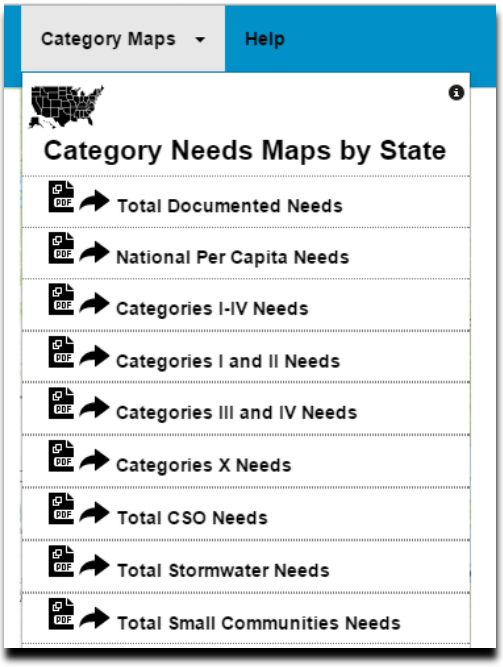


Figure 18: Category Layers

Table 3-2: Category Layer Maps

Map	Description
Total Documented Needs	Map of distribution of total documented needs by State (January 2012 dollars)
National Per Capita Needs	Map of distribution of per capita documented needs by State (January 2012 dollar/person)
Total Categories I Through IV Needs	Map of distribution of wastewater treatment, pipe repair, and new pipes needs by State (January 2012 dollars)
Total Categories I and II Needs	Map of distribution of wastewater treatment needs by State (January 2012 dollars)
Total Categories III and IV Needs	Map of distribution of pipe repairs and new pipes needs by State (January 2012 dollars)
Total Category X Needs	Map of distribution of recycled wastewater distribution needs by State (January 2012 dollars)
Total CSO Needs	Map of distribution of combined sewer overflow

	correction needs by State (January 2012 dollars)
Total Stormwater Management Needs	Map of distribution of stormwater management needs by State (January 2012 dollars)
Total Small Community Needs	Map of distribution of small community needs by State (January 2012 dollars)

Search Function

The **Search** function on this mapping tool is fairly robust (Figure 20). You can find a location using a Facility number of entry types. The search will suggest facility names as well as addresses and places as you type, with Facilities being listed first.

Figure 19: Search functionality

There are 3 main ways to access your facility;

- *Type in the facility name, or part thereof, e.g. type Ticonderoga and the Ticonderoga STP will show up first (you may need to wait several seconds while the search compiles and orders the data. Select from the list. (Figure 21)*
  Note: **Do not hit enter after you put in your search name or address in the search box. This will kick you back to the main screen**

- *Type in the facility's complete CWNS number, e.g. 36005020001. Select the facility from the list.*

- *Type in the facility's address. Select the address from the list. Facilities surrounding that address will be shown.*

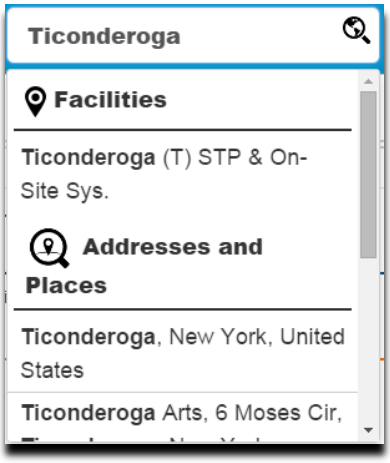


Figure 20: Search using facility name

Lat / Long Indicator

In the top right corner of the Map is a Lat Long indicator which is a tool that will provide the lattitude and longitude of wherever the cursor is placed (Figure 22). This can be used to improve locational data for future surveys.

Figure 21: Lat/Long indicator

4. Data Dashboard

4.1 Introduction

The Data Dashboard displays a number of bar graphs and pie charts for the chosen geographical areas (Table 4-1).

Note: All dollar amounts are indicated in millions.

Table 4-1: Explanation of displayed bar graphs and pie charts.

Bar graph/Pie chart	Description
Total Documented Needs by Category	A pie chart that indicates the dollar amount of wastewater treatment and collection, recycled water distribution, and stormwater management (categories I-VI and X) Official Needs are shown by category for the geographic area selected.
Official Needs by Category	A bar chart displaying the dollar amount of wastewater treatment and collection, recycled water distribution, and stormwater management (categories I-VI and X) Official Needs are shown by category for the geographic area selected. Official Needs are rounded up to the nearest million. Needs less than $1 Million are shown as $1 Million.
Number of Facilities by Population/Flow/Treatment	**Population**: A pie chart that indicates how many wastewater facilities that currently serve residential (1) populations of less than 1,000; (2) populations of 1,000 to 3,499; (3) populations of 3,500 to 9,999; (4) populations of 10,000 or more in the selected geographic area. **Flow**: A pie chart that indicates how many wastewater facilities that currently have Total Existing Flow of less than or equal to 0.100mgd, 0.101mgd to 1.00mgd, 1.001mgd to 10mgd and more than 10mgd in the selected geographic area. **Treatment**: A pie chart that indicates how many wastewater facilities that currently have Treatment of Less than Secondary, Secondary, Greater than Secondary, No Discharge and Partial Treatment in the selected geographic area.
Small versus Large Communities	A multiple bar chart that compares the number of publicly owned treatment works (POTWs), the present population served, and needs in categories I-V, X) in small community (population less than 10,000) versus large community (population 10,000 and greater).
Total Needs over time	A multiple bar chart that compares needs from

	CWNS 2008 and CWNS 2012. Note: This chart is only available at National-level. When this report is selected, the ability to select State, County, Watershed, or Congressional District as a geographic area is disabled.
Number of Facilities with Needs (Wastewater and Stormwater)	A pie chart that indicates how many wastewater and stormwater management facilities have (1) no documented needs; (2) only Official Needs documented; (3) both Official Needs and Unofficial Cost Estimates; (4) only Unofficial Cost Estimates in the selected geographic area.

4.2 Selection Criteria

- *Select the State area for the search. For national data, select "Nation." (Multiple states can be selected by holding down the Ctrl key while selecting states.)* Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012. (Figure 23)

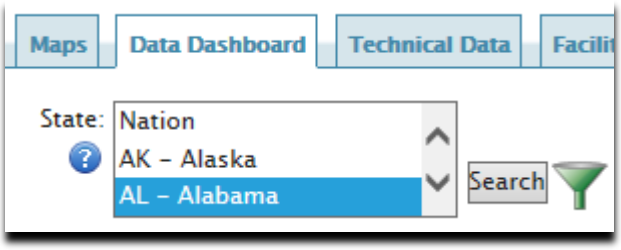


Figure 22: Geographical Area Selection Criteria

- *To further refine selection criteria, click* *. A list of Counties, Congressional Districts and Watershed for the selected State is displayed.* (Note: refined selection is only available if one State has been selected) (Figure 24)

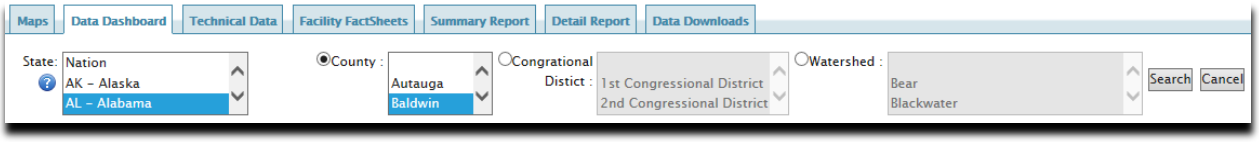


Figure 23: Geographical Area Selection Criteria

4.3 Run Report

- *After selecting desired geographic areas, click* *to view charts.*

4.4 Results

4.4.1 Charts and Graphs

The dashboard is displayed and for the selected search criteria (e.g., State: Alabama, Counties: Baldwin, Barbour, Bibb) (Figure 25). For all charts, an image file or printer friendly version is available by right clicking on the chart and selecting the required option.

Figure 24: Data Dashboard – results

4.4.2 Detailed Reports

For all charts, *click on any wedge or bar to get a detailed facility listing*. The detailed facility listing provides data on all the individual facilities from which the summary data presented in the chart was derived (Figure 26).

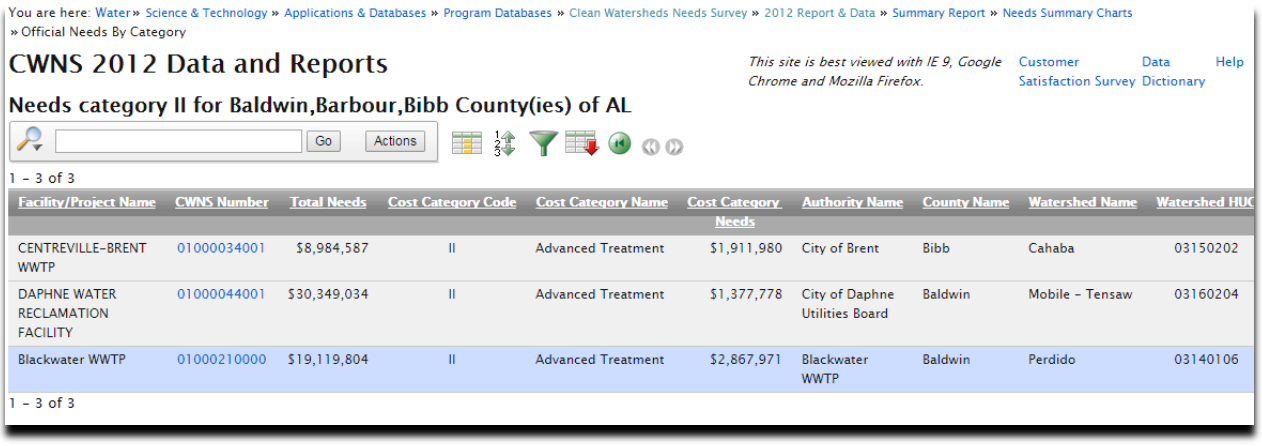


Figure 25: Detailed Report

The detail reports are displayed as a table with a predetermined set of columns. The report may be further customized using the tools provided. The user is able to:

- Search the columns
- Select the number of rows to display per page
- Create break groups one or more columns
- Highlight cells or rows based on user defined characteristics
- Add computed columns to the table
- Perform computations on selected columns
- Create a chart from the data
- Select which columns to display
- Sort columns
- Filter the data
- Download displayed data in CSV format

Detailed information on how to use the software tools for the detail reports is available in Appendix A.

5. Technical Data

5.1 Introduction

Technical Data reports display data that was shown in the Report to Congress in the past. These reports are only available at the National-level.

5.2 Selection Criteria

- *Select the one or more types of report outputs (Table 5-1). If no report type is selected, then output is displayed for all report types (Figure 27).*

Figure 26: Summary Report – Selection Criteria

Table 5-1: Explanation of Types of Report Output.

Types of Report Output	Description
Number of Treatment Facilities and Pipe Systems	Summarizes the number of wastewater treatment facilities and pipe systems in operation in 2012 in each State and the number of wastewater treatment facilities and pipe systems projected to be in operation in each State if all documented needs are met. This table contains technical data only for facilities that were accepted by EPA. This table does not include data from facilities that were not updated by States in the CWNS 2012, either because the state did not participate in this survey or because the State did not have resources to update the facilities. Because of these analysis methods, numbers in this figure cannot be directly compared to other Technical Data reports.
Number of Facilities by Flow	Shows, for five flow ranges, the number of treatment facilities in operation in 2012 and the number projected to be in operation if all documented needs are met. The number of facilities and their cumulative flow (in millions of gallons per day) are shown for each of the flow ranges.
Number of Facilities by Treatment	Shows, by level of treatment, the number of treatment facilities in operation in 2012 and the number projected to be in operation if all documented needs are met. The number of facilities, their cumulative capacities (in millions of gallons per day), and the

	population served are shown for each level of treatment. The population served number is then presented as a percentage of the total 2012 and 2032 U.S. population, respectively.
By Treatment, the number of facilities that will be in operation if all documented needs are met and the population served at State level	Shows, by treatment level, the number of facilities that will be in operation if all documented needs are met and the population served at State level. The number of facilities and population served are shown for each level of treatment and for each State.
Number of facilities with CSO Needs	Presents the number of CSO facilities with documented needs identified during the CWNS 2008 and CWNS 2012.
Number of facilities with Stormwater Needs	Presents the number of stormwater facilities with needs identified in the CWNS 2012 by the type of the MS4.
Number of Treatment facilities and population served per State by Level of Treatment	Shows, by treatment level, the number of facilities in operation in 2012 and the population served at the State level. The number of facilities and population served are shown for each level of treatment and for each State.
Facilities with less-than-secondary effluent levels	Presents the treatment facilities represented in the CWNS 2012 as having less-than-secondary effluent discharges and no 301(h) waivers from secondary treatment for discharges to marine waters. The present and future effluent levels, design flow and population receiving treatment are shown for each facility, in addition to the Secondary Treatment (Category I) needs for the facility. Technical data are of January 1, 2012.

5.3 Run Report

After selecting desired report outputs, geographic areas and unit process (if applicable), click Run Report *to view data tables.*

5.4 Results

5.4.1 Technical Reports

The technical reports are displayed as a table with a predetermined set of columns (Figure 28).

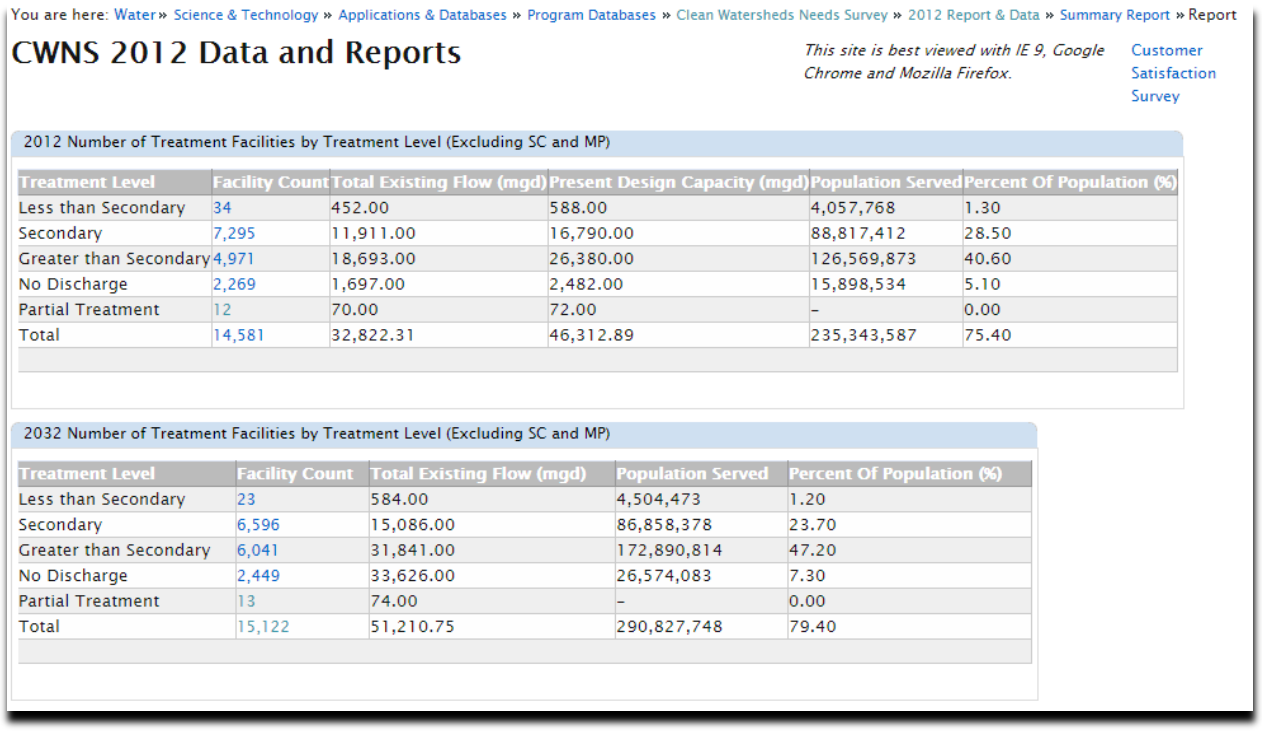


Figure 27: Technical Report – results

5.4.2 Detailed Reports

For all technical reports, *click on any blue (hyperlinked) value to get a detailed facility listing*. The detailed facility listing provides data on all the individual facilities from which the summary data presented in the report was derived (Figure 29).

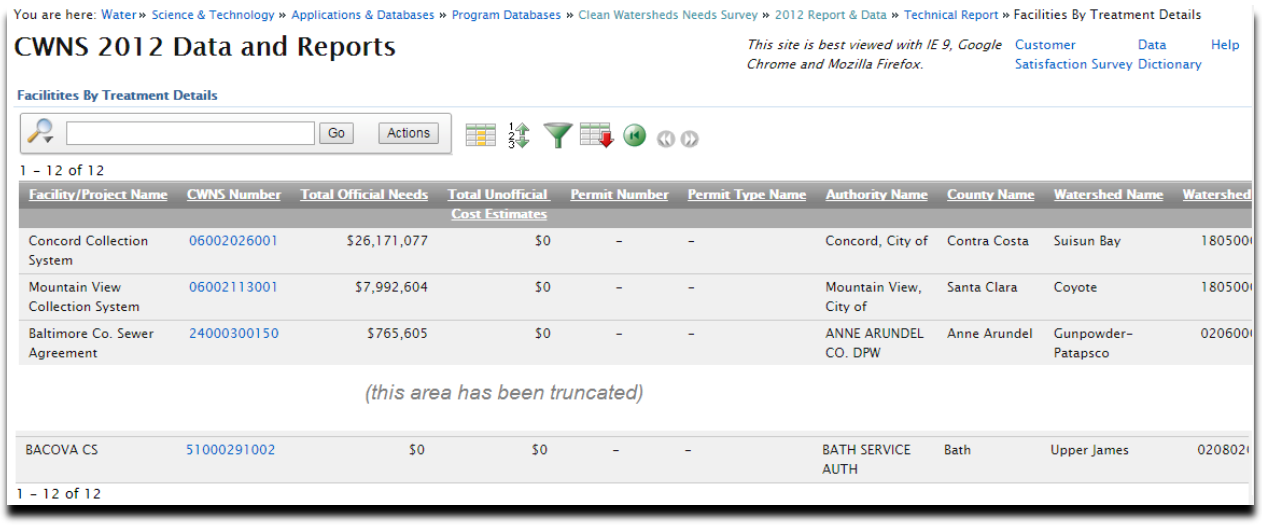


Figure 28: Detailed Report

The detail reports are displayed as a table with a predetermined set of columns. The report may be further customized using the tools provided. The user is able to:

- Search the columns
- Select the number of rows to display per page
- Create break groups one or more columns
- Highlight cells or rows based on user defined characteristics
- Add computed columns to the table
- Perform computations on selected columns
- Create a chart from the data
- Select which columns to display
- Sort columns
- Filter the data
- Download displayed data in CSV format

Detailed information on how to use the software tools for the detail reports is available in Appendix A.

6. Facility Fact Sheet Tab

6.1 Introduction

Facility Fact Sheet summarizes CWNS data for chosen facility/project(s) in an easy to read PDF fact sheet. Users can search for specific Facility Fact Sheets using either the Basic Search or Advanced Search.

- *Click on the link Basic Search to do a quick search or the link Advanced Search to do a more detailed search (Figure 30).*

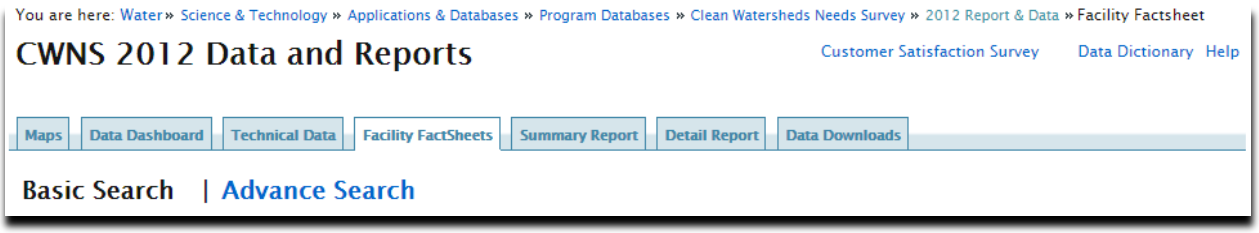


Figure 29: Facility Fact Sheet

6.2 Selection Criteria

6.2.1 Basic Search

The Basic Search allows users to perform a keyword search of Facilities/Projects, either nationwide or within a selected state. Users can search for text that is part of the CWNS Number, Facility/Project Name, NPDES Permit Number, County, Watershed, and Authority data fields (Figure 31).

- *Select the geographic area for the search, either a specific state or the entire nation.* Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012.
- *Type the keyword(s) in the text box. Keyword(s) can be a full phrase or part of a phrase included in the Facility/Project Name, CWNS Number, Permit, County, Watershed, or Authority.*
- *Click* Search.

Figure 30: Facility Fact Sheet - Basic Search

6.2.2 Facility/Project Advanced Search

The Advanced Search allows users to search the Facilities/Projects on one or more of the criteria provided in Table 6-1 (Figure 32).

- *After entering one or more search criteria, click* Search.
- *Click* Clear *to delete all entered search criteria from the Advanced Search*

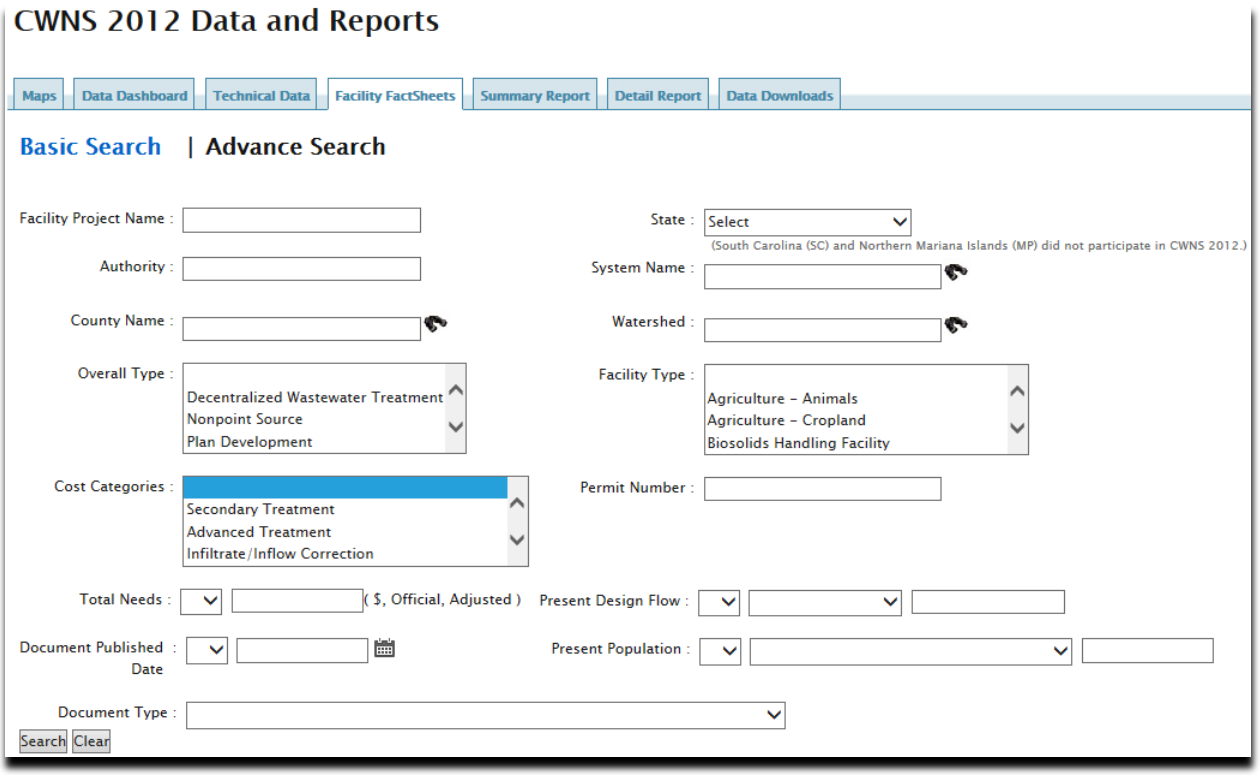
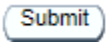
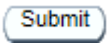
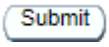


Figure 31: Facility Fact Sheet - Advanced Search

Table 6-1: Explanation of Advanced Search criteria.

Search Criteria	Explanation
Facility/Project Name	Performs a keyword search on the data field Facility/Project Name. *Type the phrase of part of the phrase in the text box.*
State	Limits the Facility/Project List to the selected State. The default selection is Nation. A State must be selected in order to search by System Name, County, and/or Watershed. *Select the desired State from the dropdown list.* Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012.
Authority	Performs a keyword search on the data field Authority. *Type the phrase of part of the phrase in the text box.*

System Name	Limits the Results to the selected System Name in a specified state. *First, select a State in the State search criteria. Type the phrase of part of the phrase in the text box to perform a keyword search on the System Name this data field. Or, click* *to launch the System Name Lookup and view the list of System Names. Click the radio button of the desired System Name and then*  *. The selected System Name is populated in the text box.*
County	Limits the Results to the selected County. *First, select a State in the State search criteria. Type the phrase of part of the phrase in the text box to perform a keyword search on the County name. Or, Click* *to launch the County/FIPS Code Lookup and view the list of all Counties/FIPS Codes in the State. Click the radio button of the desired County/FIPS Code and then*  *. The selected County/FIPS Code is populated in the text box.*
Watershed	Limits the Results to the selected Watershed. *First, select a State in the State search criteria. Type the phrase of part of the phrase in the text box to perform a keyword search on the Watershed name. Click* *to launch the Watershed Lookup and select view the list of all Watersheds in the State. Click the radio button of the desired Watershed and then*  *. The selected Watershed is populated in the text box.*
Overall Type	Limits the Results to the selected Overall Type(s). *Select one or more from the following: Wastewater, Decentralized Wastewater Treatment, Point Source, Nonpoint Source, Stormwater, and Plan Development. Use the Control key to highlight more than one Overall Type.*
Facility Type	Limits the Results to the selected Facility Type. *Select one or more Type from the provided list. Use the Control key to highlight more than one Type.* Definitions of the Facility Types are available in the Data Dictionary.
Cost Categories	Limits the Results to the selected Cost Categories. *Select one or more Cost Category from the provided list. Use the Control key to highlight more than one Cost Category.* Definitions of the Cost Categories are available in the Data Dictionary.

Total Needs	Limits the Results to facilities/projects that are greater than, less than, or equal to the entered Documented Need Amount. *Select either > (greater than), < (less than), or = (equal to) from the dropdown list under the heading Total Need. Then enter a numeric amount in the text box as an integer (no commas, no decimal points).Remember: The search is based on documented needs adjusted to January 1, 2012 dollars.*
Document Publish Date	Limits the Results to facilities/projects with documentation entered before, after, or on the specified date. *Select either > (after), < (before), or = (on) from the dropdown list under the heading Documentation. Then enter the date in the mm/dd/yyyy format or click* *to launch a calendar and select a date.*
Document Type	Limits the Results to the selected Document Type. *Select one or more Document Type(s) from the list provided. Use the Control key to highlight more than one Document Type.*
Permit Number	Limits the Facility/Project List to facilities/projected associated with the entered permit number. *Enter the permit number.*
Present Flow	Limits the Results to facilities/projects with specified present flow values, in MGD. *Select from the dropdown list: Infiltration, Industrial, Municipal, Total or Wet Weather Peak. Select either > (greater than), < (less than), or = (equal to) from the dropdown list under the heading Present Flow. Then enter the flow in MGD as an integer (no commas, no decimal points).*
Present Population	Limits the Results to facilities/projects with specified population values. *Select from the dropdown list: Residential Receiving Collection, Residential Onsite Wastewater Treatment, Residential Clustered Systems, Non-residential Receiving Collection, Non-residential Onsite Wastewater Treatment, Non-residential Clustered Systems. Select either > (greater than), < (less than), or = (equal to) from the dropdown list under the heading Present Population. Then enter the number of persons as an integer (no commas, no decimal points).*

6.3 Results

The Results is a list of all of the facilities and projects that meet the entered search criteria. The first twenty facilities/projects that meet the search criteria are listed in the Results. The total number of

Facilities/Projects that meet the search criteria is indicated at the bottom of the Results (e.g. 1-20 of 65) (Figure 33).

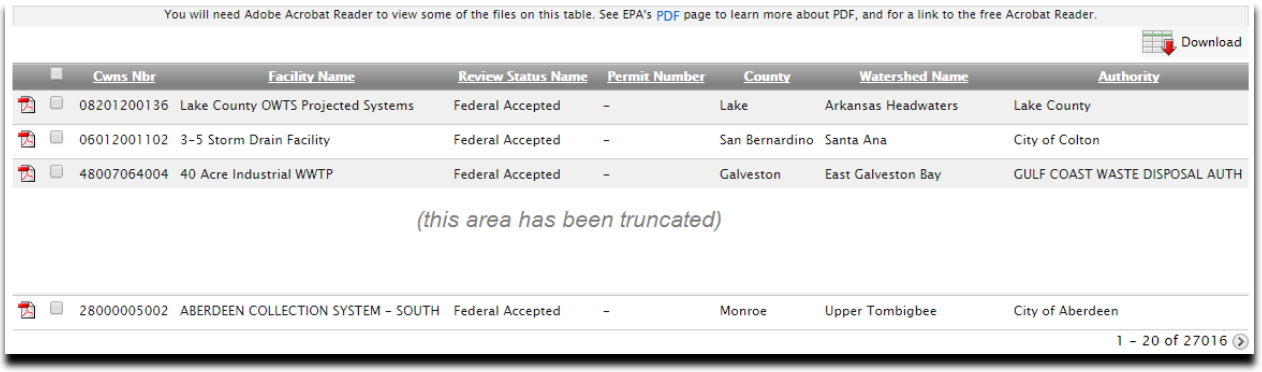


Figure 32: Facility Fact Sheet - Results list

The Results are organized into the following columns:

- **Fact Sheet:** A PDF icon ( ) that can be clicked to open a PDF version an individual facility fact sheet.
- **:** A checkbox to select/deselect all listed fact sheets for download.
- **CWNS Nbr**: A unique 11-digit identification number assigned to the facility/project by the State. The first two digits are the Federal Information Processing Standards (FIPs) code for the State.
- **Facility Name**: The State's unique name for the facility/project.
- **Review Status Name**: Federal Accepted indicates that the facilities was reviewed and approved.
- **Permit Number:** The number of NPDES permit associated with the facility**.**
- **County**: The County identified as the Primary County in which the facility/project is located.
- **Watershed:** The watershed identified as the Primary Watershed in which the facility/project is located.
- **Authority:** Name of the system (group of facilities) to which the facility has been assigned.

For each facility listed, a Fact Sheet is available. The Fact Sheet summarizes CWNS data for chosen facility/project(s) in an easy to read PDF fact sheet. The fact sheet contains data on the following:

- Facility/Project name, CWNS number, permit, and point of contact information
- County, watershed, and Congressional District information
- Map showing the location
- Facility/Project description
- Total documented needs and documented needs by category
- Population information for centralized and decentralized wastewater treatment systems
- Flow , discharge, and effluent information for centralized wastewater treatment systems
- Population problems and 303(d) impaired waters information

- *Click on to open a PDF version of an individual Fact Sheet (Figure 34).*

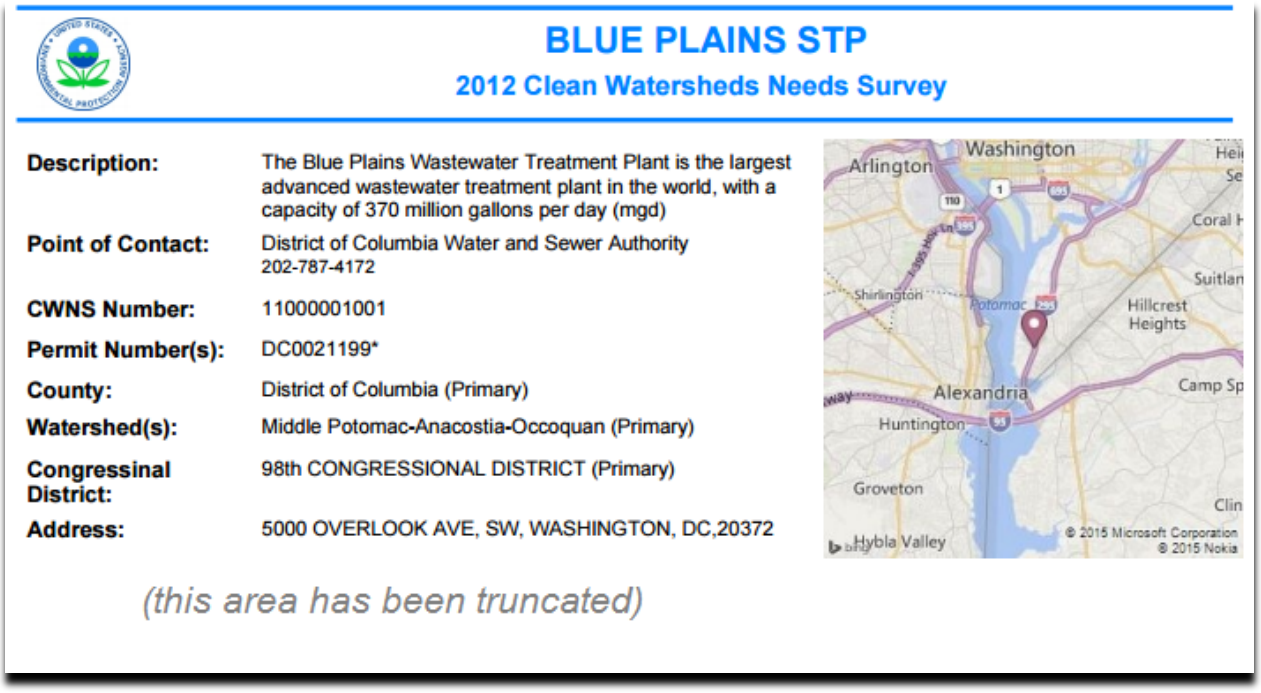
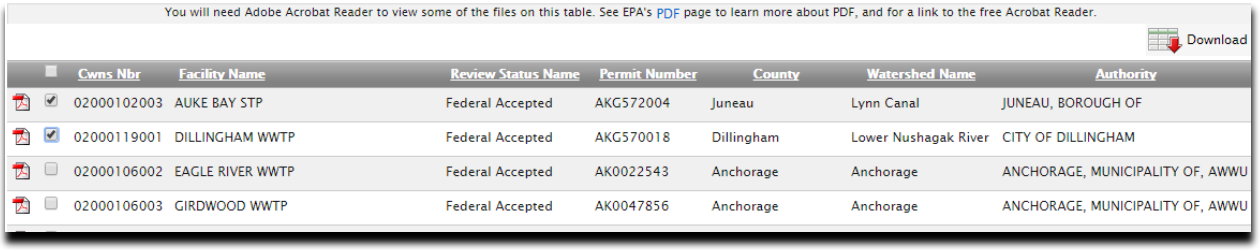


Figure 33: Facility Fact Sheet

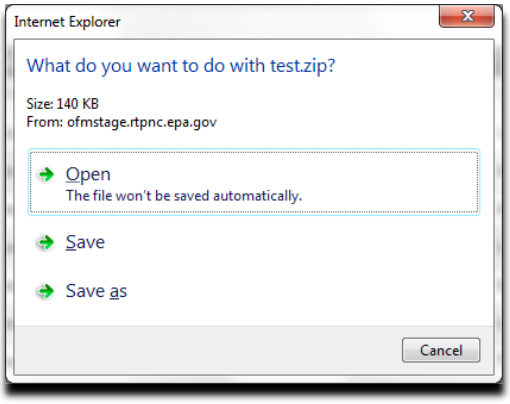
- *Select one or more fact sheets by marking a check in the checkbox in the Select column ( ).*
- *Click to download a zip file containing individual PDF files of all the selected Facility Fact Sheets. (Figure 35).*



Cwns Nbr	Facility Name	Review Status Name	Permit Number	County	Watershed Name	Authority
02000102003	AUKE BAY STP	Federal Accepted	AKG572004	Juneau	Lynn Canal	JUNEAU, BOROUGH OF
02000119001	DILLINGHAM WWTP	Federal Accepted	AKG570018	Dillingham	Lower Nushagak River	CITY OF DILLINGHAM
02000106002	EAGLE RIVER WWTP	Federal Accepted	AK0022543	Anchorage	Anchorage	ANCHORAGE, MUNICIPALITY OF, AWWU
02000106003	GIRDWOOD WWTP	Federal Accepted	AK0047856	Anchorage	Anchorage	ANCHORAGE, MUNICIPALITY OF, AWWU

Figure 34: Facility Fact Sheet - Downloading Fact Sheet(s)

- *Open or Save the zip file containing the selected Fact Sheets (Figure 36).*



Or (depending on browser)

Figure 35: Zip file - Open or Save

- *To print all the Fact Sheets, open the file then click Extract All Files (Figure 37).*

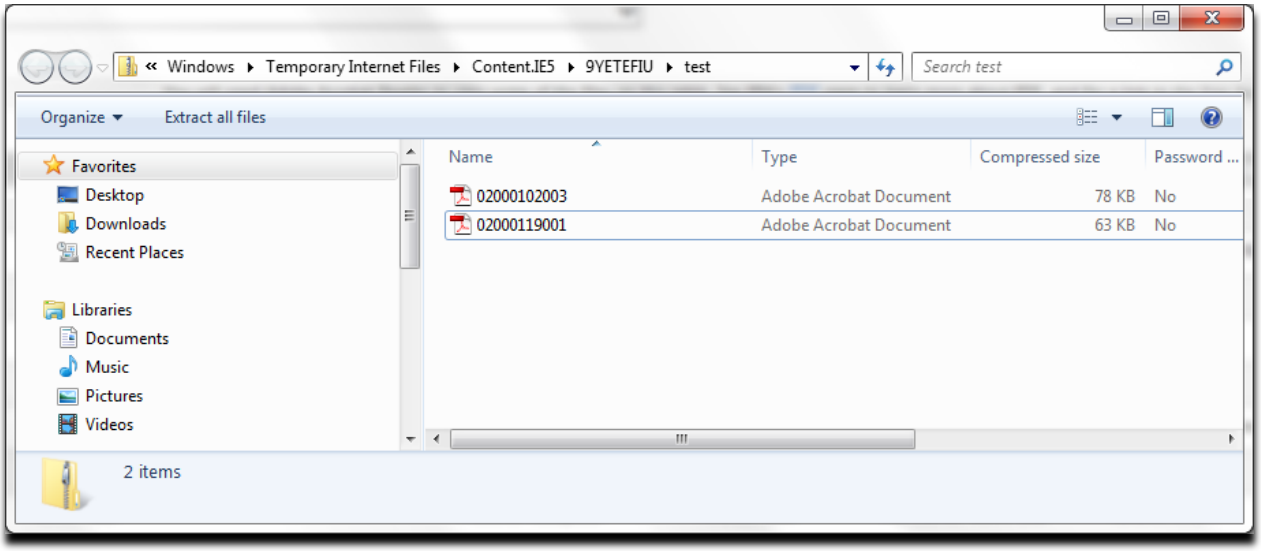


Figure 36: Extract Fact Sheet(s)

Then, select a location (Figure 38).

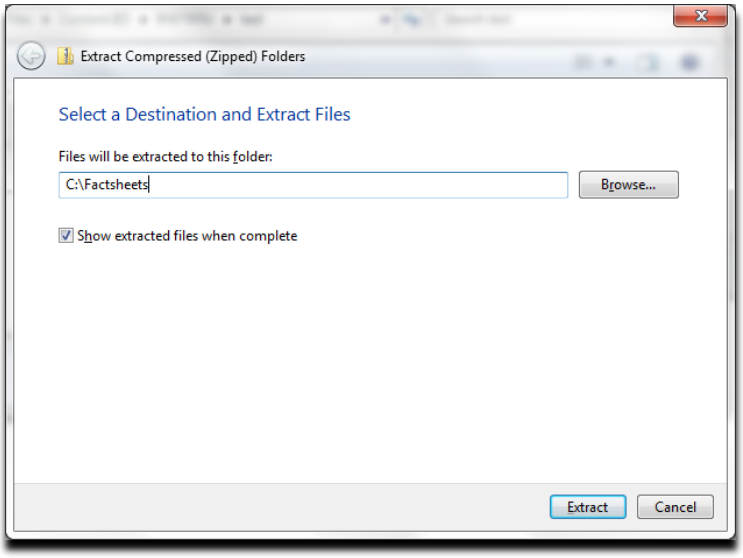


Figure 37: Select a location

Then, select all the Fact Sheets, right click and select Print (Figure 39).

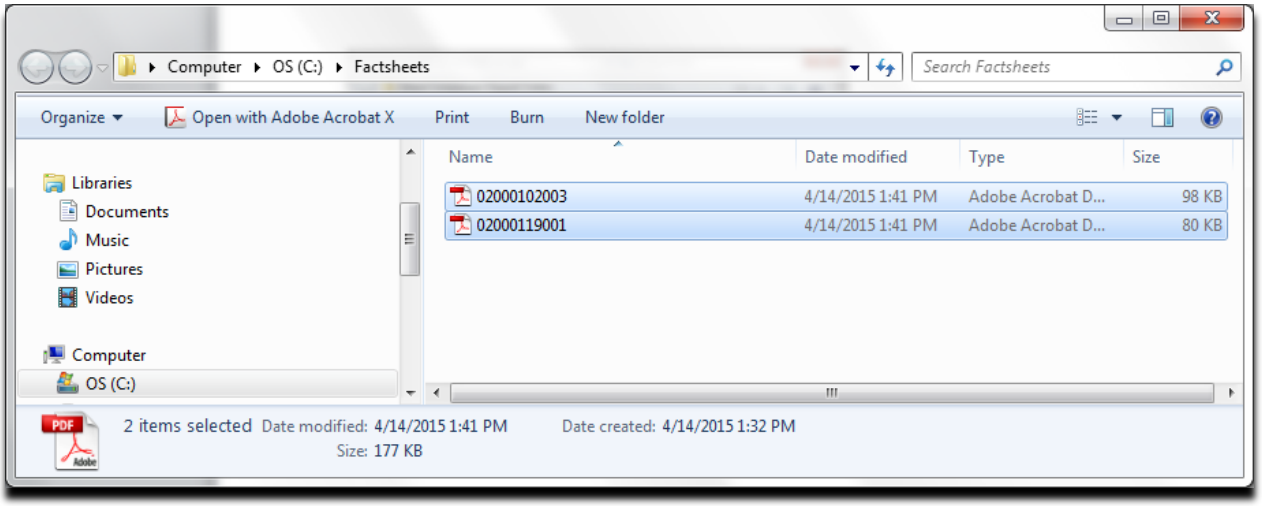


Figure 38: Print

7. Summary Reports

7.1 Introduction

Summary reports display selected CWNS data for chosen geographic areas in bar graphs and pie charts.

7.2 Selection Criteria

7.2.1 Report Output

- *Select the one or more types of report outputs (Table 7-1). If no report type is selected, then output is displayed for all report types (Figure 40).*

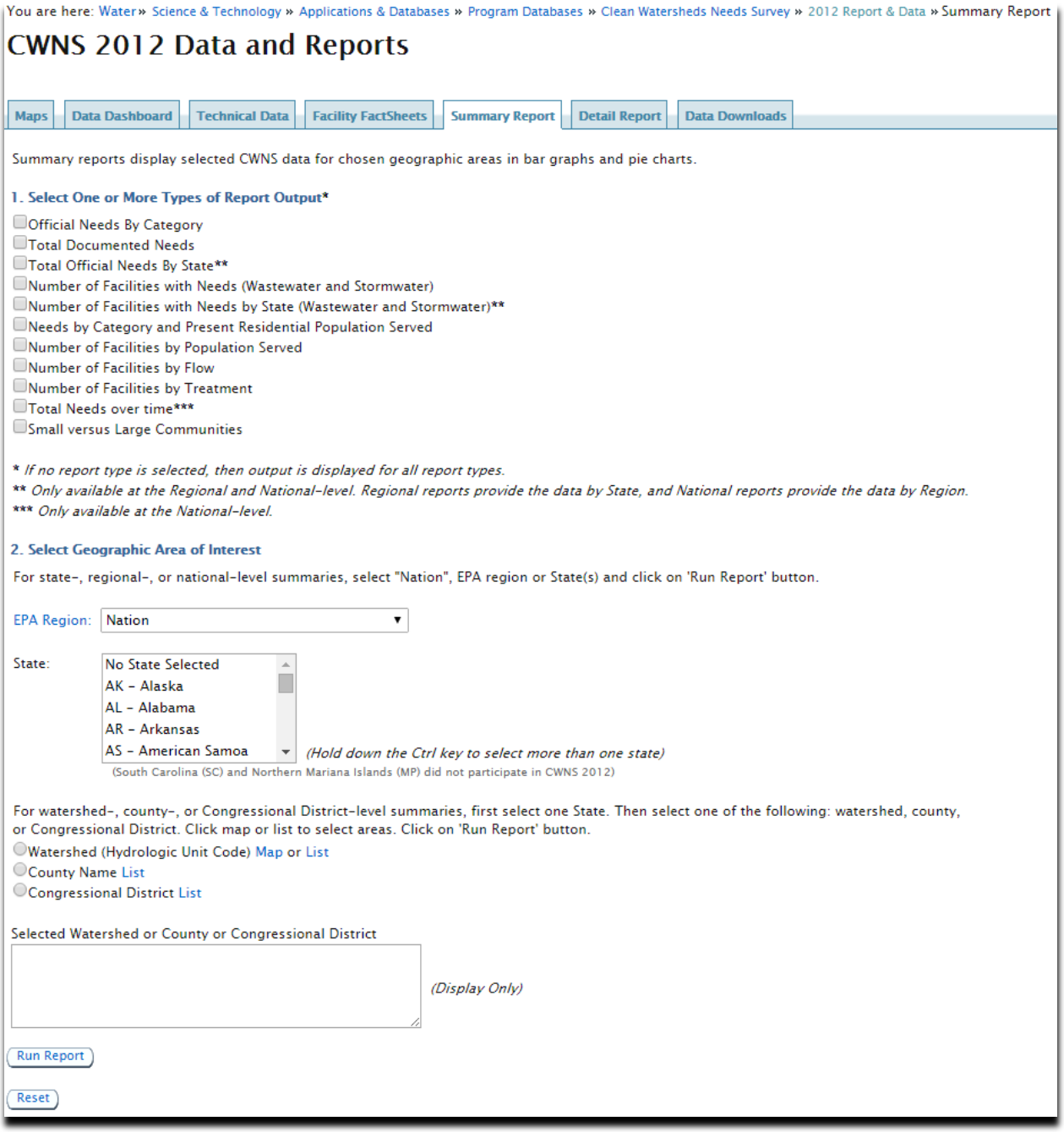


Figure 39: Summary Report – Selection Criteria

For these reports, Needs are considered to be one of the following:

- **Official Needs (ON):** The unfunded capital costs of projects as of January 1, 2012 that (1) address a water quality or water quality-related public health problem existing as of January 1, 2012, or expected to occur within the next 20 years and (2) meet the CWNS documentation requirements outlined in Chapter 1 of the Report to Congress. Official Needs can only be reported in Categories I, II, III, IV, V, VI, and X.

- **Other Documented Needs (ODN):** Meet the same criteria as Official Needs, but are for needs that are not explicitly required in the CWNS Report to Congress by Clean Water Act section 516(b)(1). Other Documented Needs can only be reported in Categories XII.

- **Unofficial Cost Estimates (UCE):** These cost estimates do not meet the definition of need and/ or the documentation requirements outlined in the Report to Congress. States entered these cost estimates for purposes other than this Report, such as State-level planning and communication with State legislatures and other groups involved with addressing and preventing water quality problems. They do not meet that QA/QC requirements for CWNS 2012.

Table 7-1: Explanation of Types of Report Output.

Types of Report Output	Description
Official Needs By Category	A bar chart displaying the dollar amount of wastewater treatment and collection, recycled water distribution, and stormwater management (categories I-VI, X) Official Needs by category for the selected geographic area. Official Needs are rounded up to the nearest million. Needs less than $1 Million are shown as $1 Million.
Total Documented Needs by Category	A pie chart that indicates the dollar amount of wastewater treatment and collection, recycled water distribution, and stormwater management (categories I-VI, X) Official Needs by category for the selected geographic area.
Total Official Needs By State	A bar chart displaying the total wastewater treatment and collection, recycled water distribution, and stormwater management (categories I-VI, X) Official needs by state or EPA Region. Needs less than $1 Million are shown as $1 Million. Note: This chart is only available at the Regional and National-level. Regional reports provide the data by State, and National reports provide the data by EPA Region. When this report is selected, the ability to select State, County, Watershed, or Congressional District as a geographic area is disabled.
Number of Facilities with Needs (Wastewater and Stormwater)	A pie chart that indicates how many wastewater and stormwater management facilities have (1) no documented needs; (2) only Official Needs documented; (3) both Official Needs and Unofficial

	Cost Estimates; (4) only Unofficial Cost Estimates in the selected geographic area.
Number of Facilities with Needs by State (Wastewater and Stormwater)	A multiple bar chart that indicates how many wastewater and stormwater management facilities have (1) no documented needs; (2) only Official Needs documented; (3) both Official Needs and Unofficial Cost Estimates; (4) only Unofficial Cost Estimates by state or EPA Region. Note: This chart is only available at the Regional and National-level. Regional reports provide the data by State, and National reports provide the data by EPA Region. When this report is selected, the ability to select State, County, Watershed, or Congressional District as a geographic area is disabled.
Needs by Category and Present Residential Population Served	A multiple bar chart that indicates the amount of Official needs by category for wastewater facilities that serve residential (1) populations of less than 10,000; and (2) greater than 10,000.
Number of Facilities by Population Served	A pie chart that indicates how many wastewater facilities that currently serve residential (1) populations of less than 1,000; (2) populations of 1,000 to 3,499; (3) populations of 3,500 to 9,999; (4) populations of 10,000 or more in the selected geographic area.
Number of Facilities by Flow	A pie chart that indicates how many wastewater facilities that currently have Total Existing Flow of less than or equal to 0.100mgd, 0.101mgd to 1.00mgd, 1.001mgd to 10mgd and more than 10mgd in the selected geographic area.
Number of Facilities by Present Population Served	A pie chart that indicates how many wastewater facilities that currently have less than Secondary Treatment, Secondary Treatment, greater than Secondary Treatment and no discharge in the selected geographical area.
Total Needs over time	A multiple bar chart that shows the compares needs from CWNS 2008 and CWNS 2012. Note: This chart is only available at National-level. When this report is selected, the ability to select State, County, Watershed, or Congressional District as a geographic area is disabled.
Small versus Large Communities	A multiple bar chart that compares the number of publicly owned treatment works (POTWs), the present population served, and needs

	in categories I-V, X) in small community (population less than 10,000) versus large community (population 10,000 and greater).

7.2.2 Geographic Area of Interest

Summary reports can be run at the National-, EPA Regional-, State-, Watershed-, County-, or Congressional District- level.

Geographic Area	Explanation
EPA Region	*For data by one of EPA's ten Regions, select the appropriate region. States located in each Region are listed after the Region's number.* *For national data, select "Nation." For State, watershed, county, and Congressional District queries, also select "Nation."*
State	*Select one or more state. (Multiple states can be selected by holding down the Ctrl key while selecting states.)* Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012.
Watershed	*First, select one state. Then, click the radio button labeled Watershed.* *Watershed(s) can be selected in two ways:* *(1) To select a watershed(s) by viewing a map, click Map. A map of the selected state will launch in a pop-up window. HUC 8 watersheds are outlined in purple. Click within the outline of the desired watershed and a pop-up box will launch to indicate the name and HUC of the selected watershed. Click OK to select this watershed or Cancel to select a different watershed. After clicking OK, the name of the watershed will be listed in the "Selected Watersheds" box. Repeat process to select additional watersheds. When selection is complete, click* Submit *(Figure 41).*

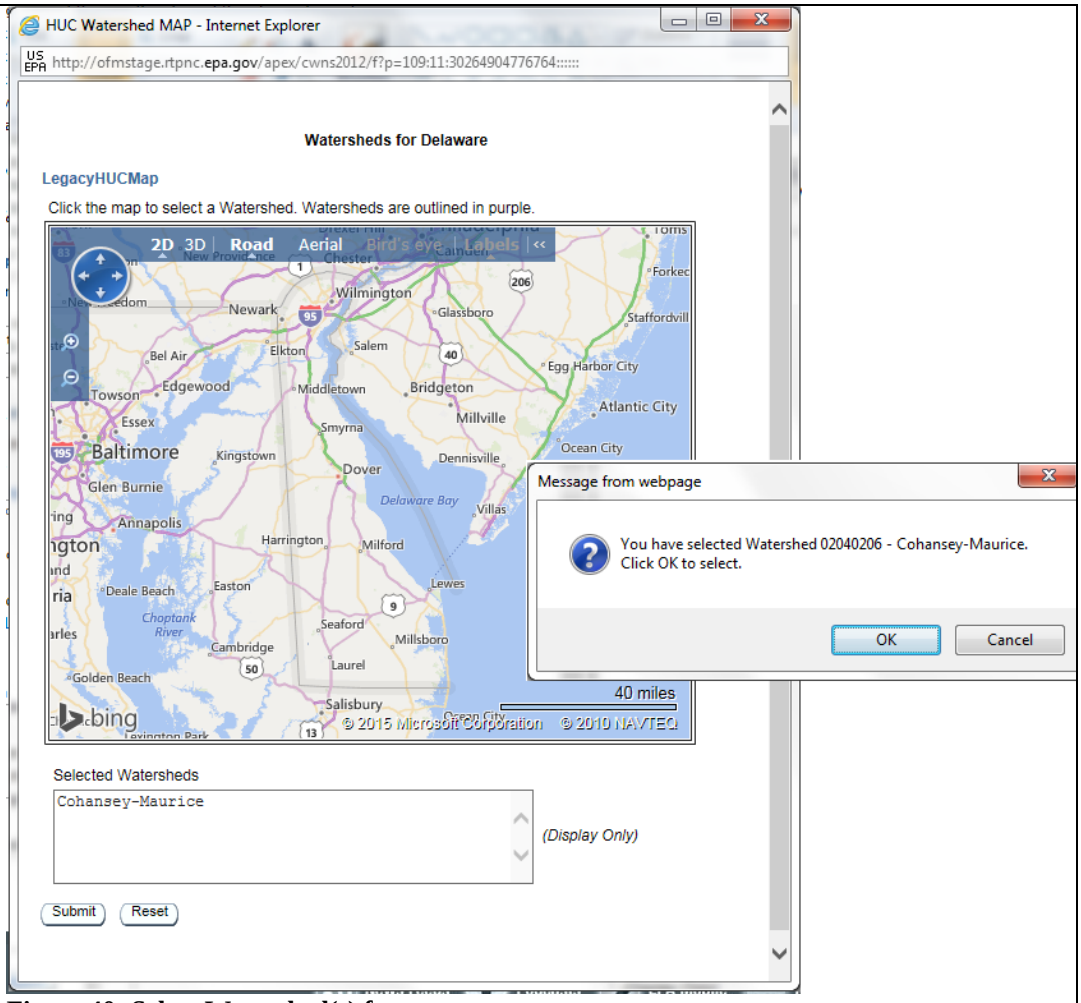


Figure 40: Select Watershed(s) from map

The watershed name(s) will be listed in the Selected Watershed or County or Congressional District box (Figure 42).

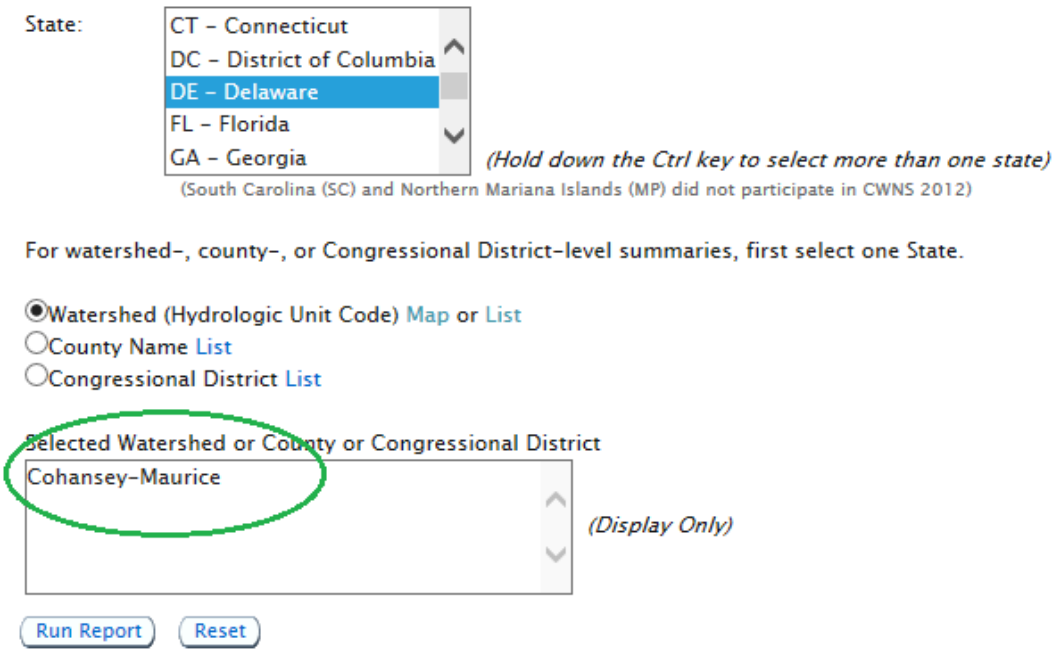


Figure 41: Selected Watershed or County or Congressional District

(2) To select a watershed(s) by viewing a list of all watersheds in the state, click List. Click to highlight the desired watershed (use the Control key to select multiple watersheds) and then click » to select the watershed(s). When selection is complete, click Submit *(Figure 43). The watershed name(s) will be listed in the Selected Watershed or County or Congressional District box.*

Repeat these steps to add additional watersheds from a different state.

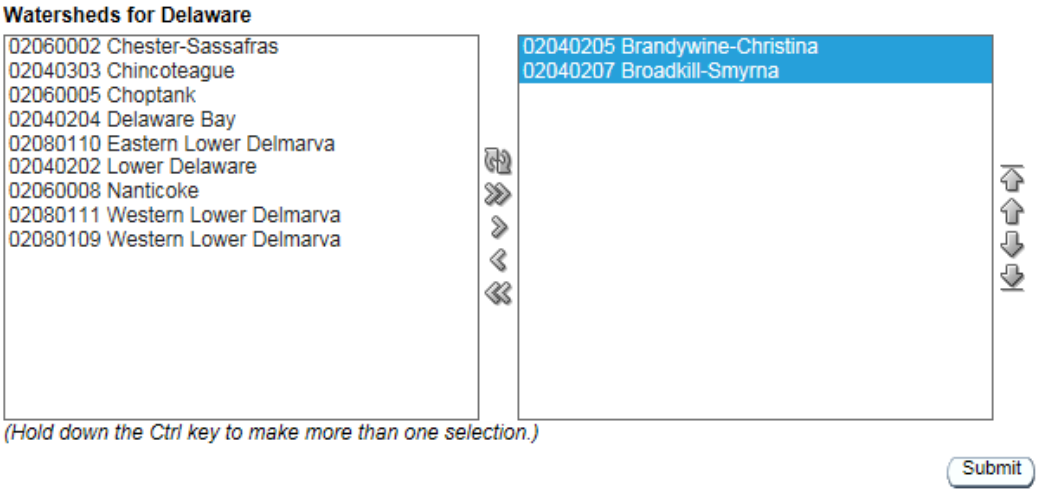
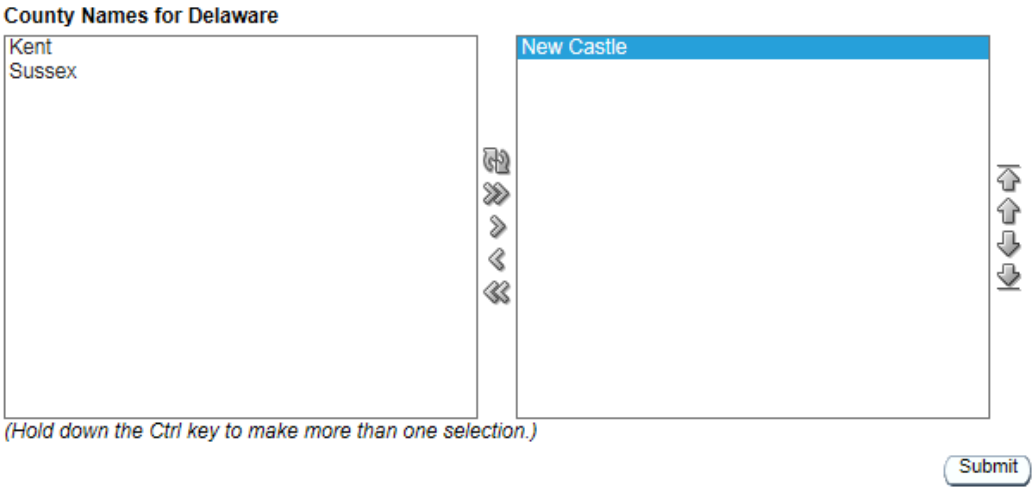


Figure 42: Select Watershed(s) from list

County	*First, select one state. Then, click the radio button labeled County.* *To select a county(ies) by viewing a list of all counties in the state, click List. Click to highlight the desired county (use the Control key to select multiple counties) and then click » to select the county(ies). When selection is complete, click* Submit *(Figure 44). The county name(s) will be listed in the Selected Watershed or County or Congressional District box.* *Repeat these steps to add additional counties from a different state.*  **Figure 43: Select County from list**
Congressional District	*First, select one state. Then, click the radio button labeled Congressional District.* *To select a Congressional District(s) by viewing a list of all Congressional Districts in the state, click List. Click to highlight the desired Congressional District (use the Control key to select multiple counties) and then click » to select the Congressional District(s). When selection is complete, click* Submit *(Figure 45). The Congressional District name(s) will be listed in the Selected Watershed or County or Congressional District box.* *Repeat these steps to add additional Congressional Districts from a different state.*

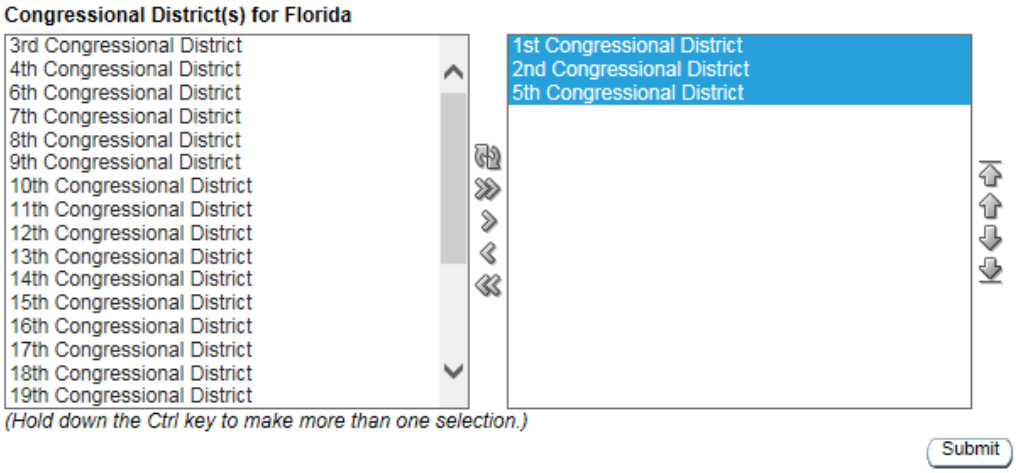


Figure 44: Select Congressional District from list

7.3 Run Report

- *After selecting desired report outputs and geographic areas, click* Run Report *to view charts.*

7.4 Results

7.4.1 Charts and Graphs

All selected output reports are listed on page containing the title of the Report (e.g., State Report for Alabama, Watershed Report for Chipola (Alabama)) (Figure 46). For all charts, an image file or printer friendly version is available by right clicking on the chart and selecting the required option.

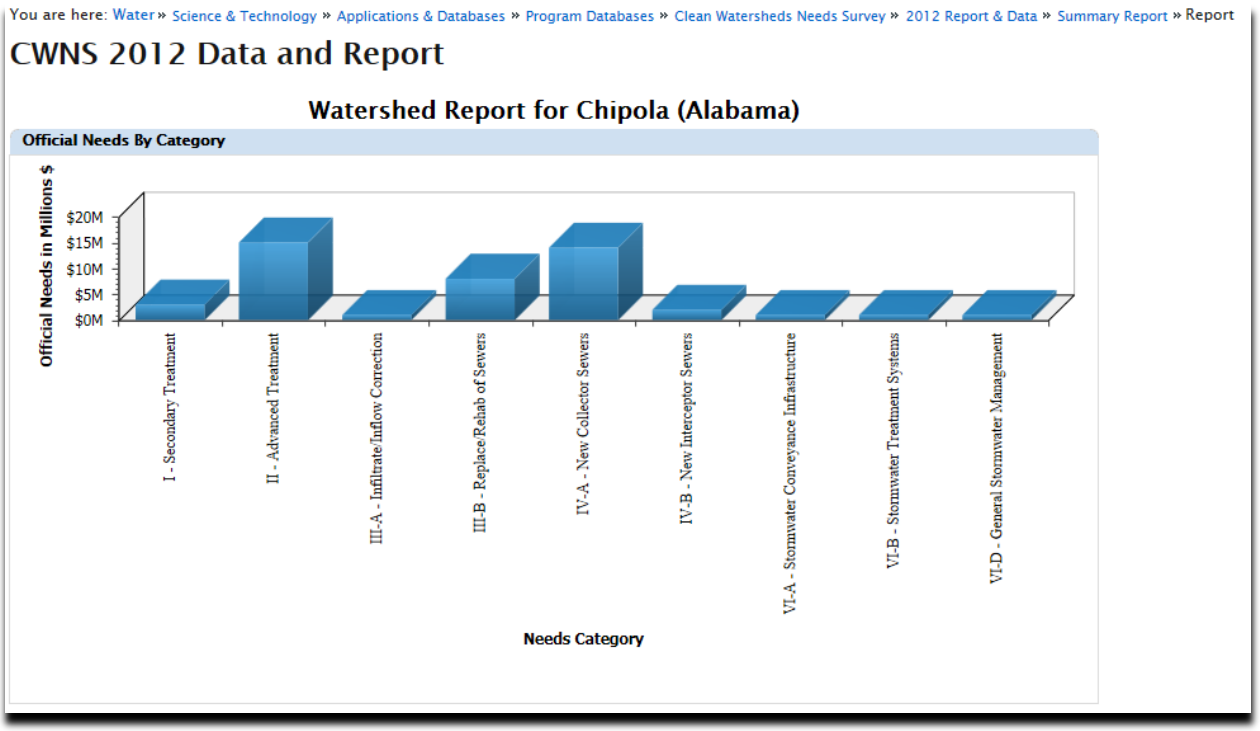


Figure 45: Summary Report - results

7.4.2 Detailed Reports

For all charts, *click on any wedge or bar to get a detailed facility listing.* The detailed facility listing provides data on all the individual facilities from which the summary data presented in the chart was derived (Figure 47).

Facility/Project Name	CWNS Number	Total Official Needs	Cost Category Code	Cost Category Name	Cost Category Official Needs	Permit Number	Permit Type
DOTHAN CYPRESS CREEK WWTP	01000061001	$25,417,292	II	Advanced Treatment	$9,933,627	AL0072737	Individual Permit
WEWAHITCHKA STP	12000233001	$4,314,634	II	Advanced Treatment	$4,314,634	FL0020125	Individual Permit
MARIANNA WWTP	12000256001	$3,175,396	II	Advanced Treatment	$388,427	–	–

1 – 3 of 3

Figure 46: Detailed Report

The detail reports are displayed as a table with a predetermined set of columns. The report may be further customized using the tools provided. The user is able to:

- Search the columns
- Select the number of rows to display per page
- Create break groups one or more columns
- Highlight cells or rows based on user defined characteristics
- Add computed columns to the table
- Perform computations on selected columns
- Create a chart from the data
- Select which columns to display
- Sort columns
- Filter the data
- Download displayed data in CSV format

Detailed information on how to use the software tools for the detail reports is available in Appendix A.

8. Detail Reports

8.1 Introduction

Detail reports display selected CWNS data for chosen geographic areas. The output is displayed in tables which can be exported as csv files.

8.2 Selection Criteria

8.2.1 Data Area of Interest

- *Select one or more Data Areas of Interest (Table 8-1). If no Data Area is selected, then output is displayed for Water Quality Facility/Project Needs (Figure 48).*

Table 8-1: Explanation of Data Areas of Interest.

Data Area of Interest	Description
Water Quality Facility/Project Needs	A table containing of costs by needs category for the facilities located in the selected geographic area. Select one of the following: • **Official Needs (ON):** The results are limited to the unfunded capital costs of projects as of January 1, 2012 that (1) address a water quality or water quality-related public health problem existing as of January 1, 2012, or expected to occur within the next 20 years and (2) meet the CWNS documentation requirements outlined in the CWNS 2012 Detailed Scope and Methods. Official Needs can only be reported in Categories I, II, III, IV, V, VI, and X.

	• **Other Documented Needs (ODN):** The results are limited to facilities that meet the same criteria as Official Needs, but are for needs that are not explicitly required in the CWNS Report to Congress by Clean Water Act section 516(b)(1). Other Documented Needs can only be reported in Category XII. • **Unofficial Cost Estimates (UCE):** The results are limited to the cost estimates do not meet the definition of need and/ or the documentation requirements outlined in the Report to Congress. States entered these cost estimates for purposes other than this Report, such as State-level planning and communication with State legislatures and other groups involved with addressing and preventing water quality problems. UCE do not meet the CWNS 2012 QA/QC requirements. • **All:** The results contain Official Needs, Other Documented Needs, and Unofficial Cost Estimates.
Wastewater Treatment Plant Flows	A table containing flow information (existing total, present design, and projected design) for the wastewater treatment plant facilities in the selected geographic area.
Population Receiving Treatment (Centralized and Decentralized)	A table containing population receiving treatment information for the centralized and decentralized wastewater treatment facilities in the selected geographic area.
Wastewater Facility Discharge Methods	A table containing discharge methods for the wastewater treatment facilities in the selected geographic area. Because a single wastewater treatment facility may have multiple discharge methods, it is possible that the same facility would have multiple lines on this table. This data area cannot be combined with other data areas.
Treatment Technologies (Unit Processes)	A table containing treatment technologies (unit processes) for the facilities/projects in the selected geographic area. Because a single facility/project will likely have multiple treatment technologies, it is likely that the same facility/project would have multiple lines on this table. This data area cannot be combined with other data areas

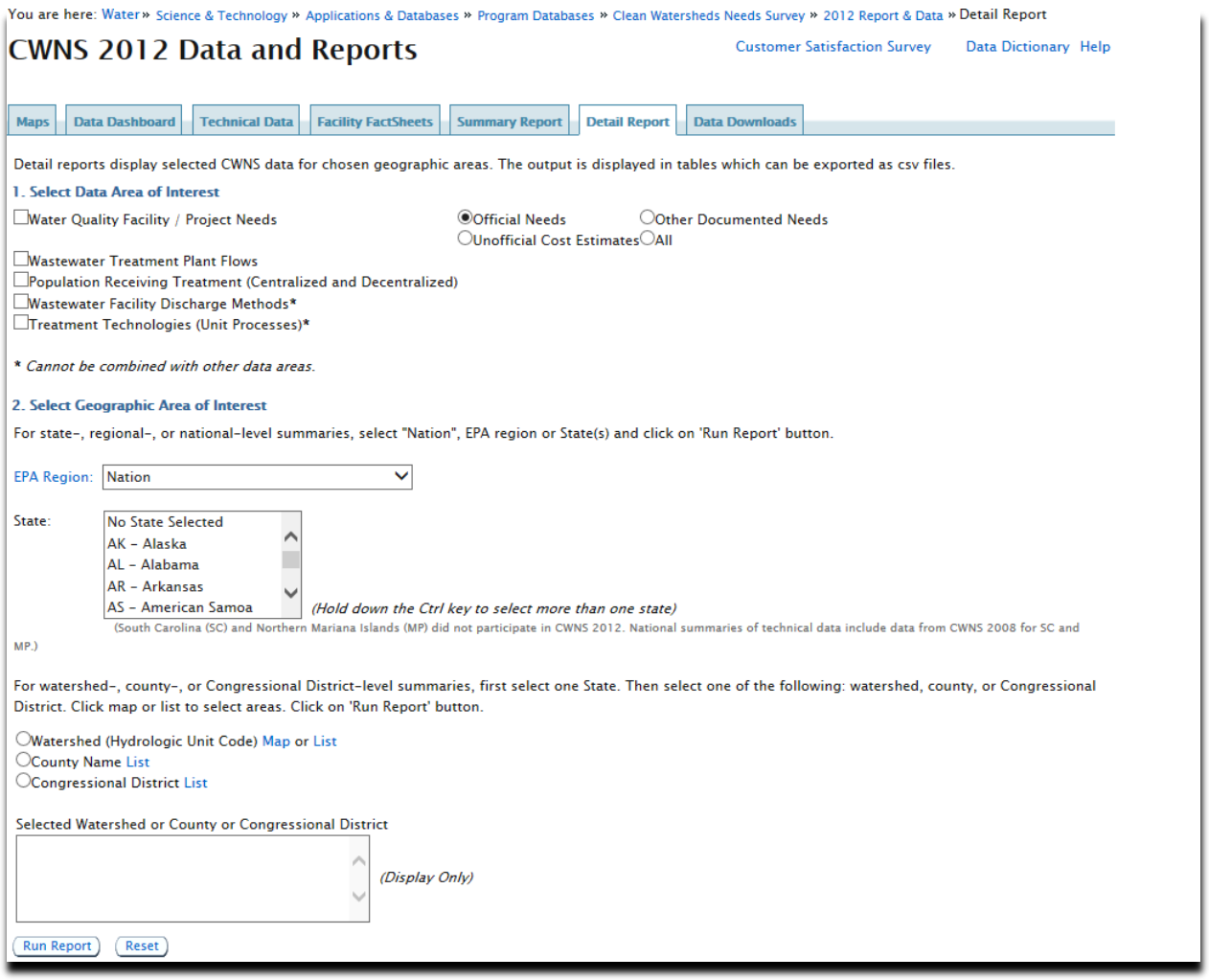


Figure 47: Detail Report - search criteria

8.2.2 Geographic Area of Interest

Detail reports can be run at the National-, EPA Regional-, State-, Watershed-, County-, or Congressional District- level.

Geographic Area	Explanation
EPA Region	*For data by one of EPA's ten Regions, select the appropriate region. States located in each Region are listed after the Region's number.* *For national data, select "Nation." For State, watershed, county, and Congressional District queries, also select "Nation."*

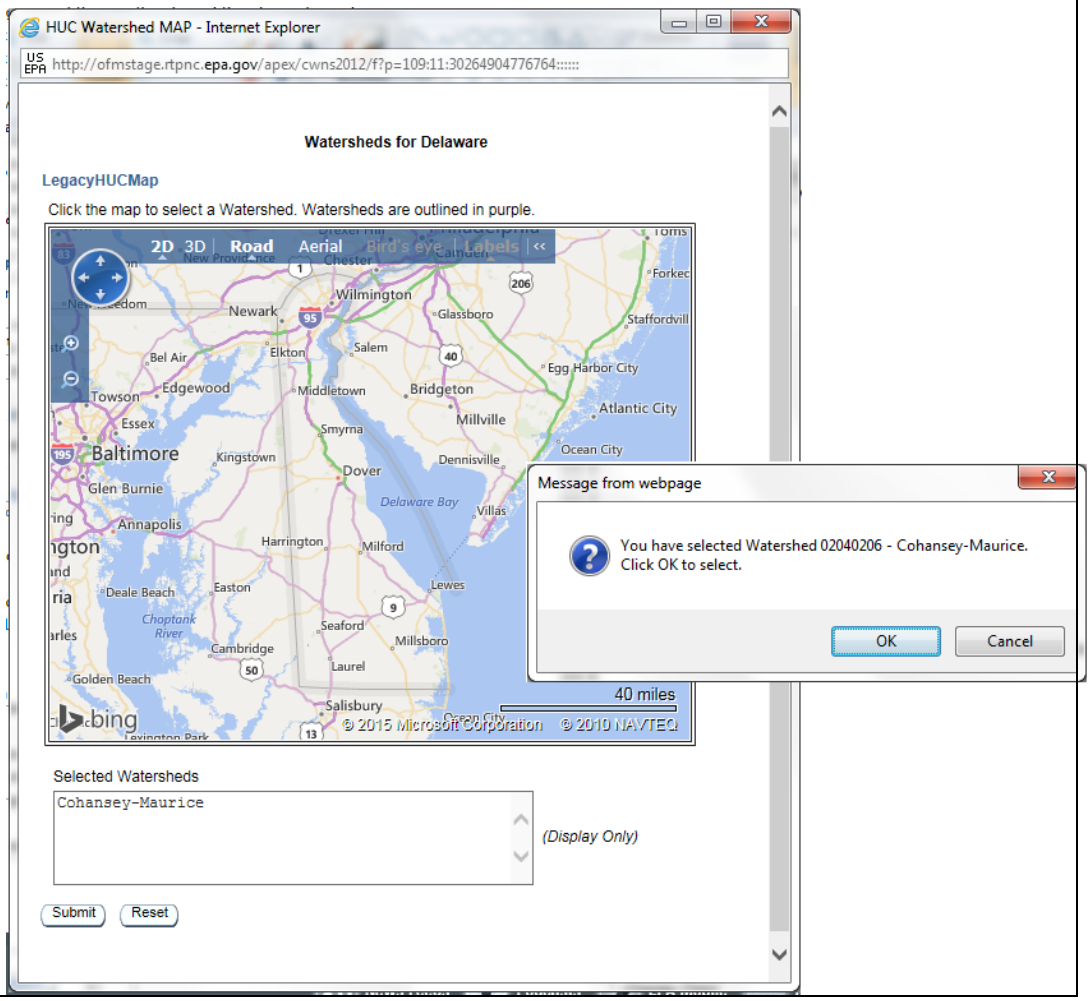
State	*Select one or more state. (Multiple states can be selected by holding down the Ctrl key while selecting states.)* Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012.
Watershed	*First, select one state. Then, click the radio button labeled Watershed.* *Watershed(s) can be selected in two ways:* *(1) To select a watershed(s) by viewing a map, click Map. A map of the selected state will launch in a pop-up window. HUC 8 watersheds are outlined in purple. Click within the outline of the desired watershed and a pop-up box will launch to indicate the name and HUC of the selected watershed. Click OK to select this watershed or Cancel to select a different watershed. After clicking OK, the name of the watershed will be listed in the "Selected Watersheds" box. Repeat process to select additional watersheds. When selection is complete, click* Submit *(Figure 49).* 

Figure 48: Select Watershed(s) from map

The watershed name(s) will be listed in the Selected Watershed or County or Congressional District box (Figure 50).

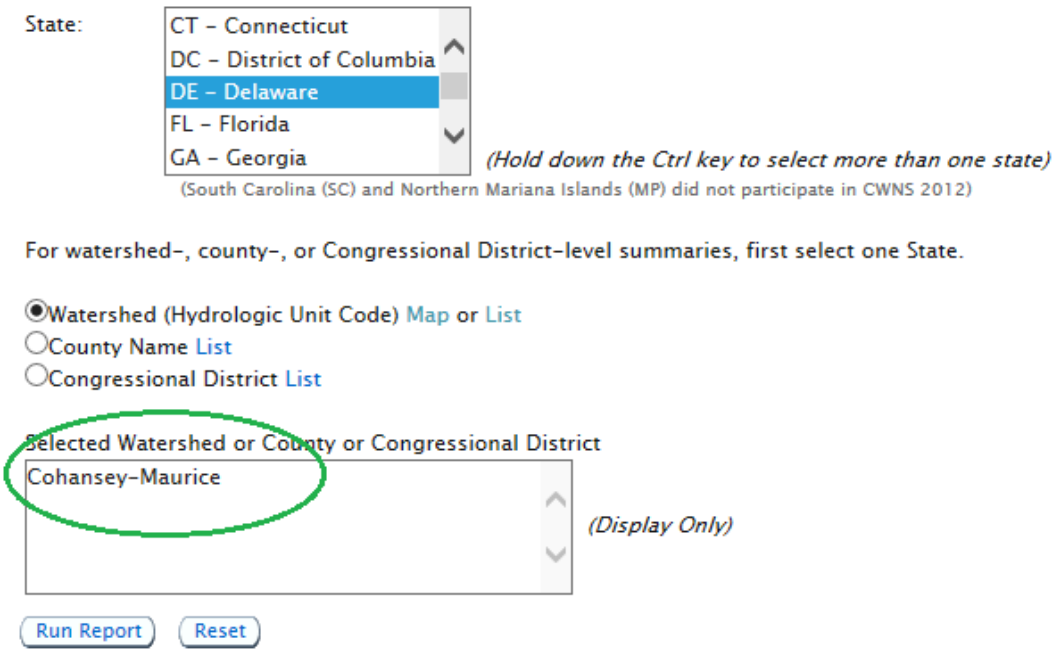
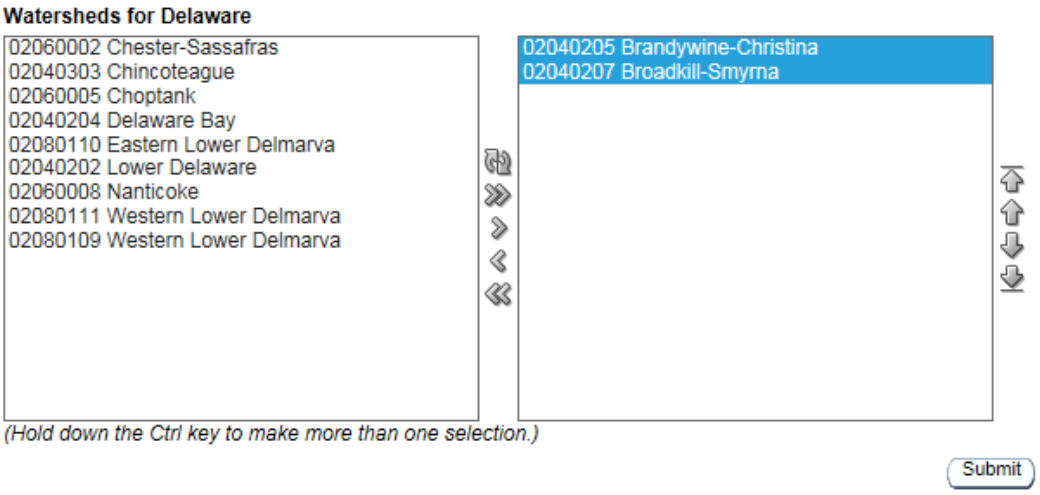
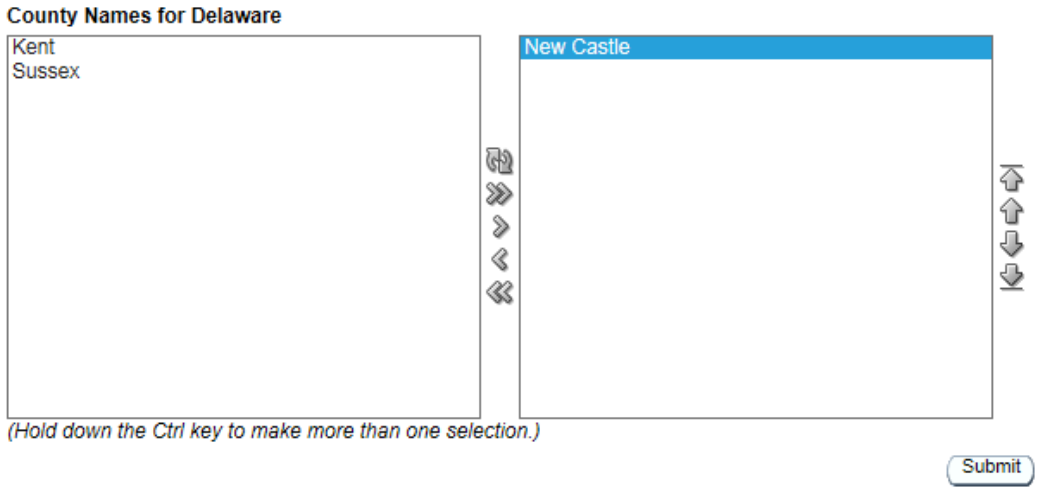


Figure 49: Selected Watershed or County or Congressional District

(2) To select a watershed(s) by viewing a list of all watersheds in the state, click List. Click to highlight the desired watershed (use the Control key to select multiple watersheds) and then click » to select the watershed(s). When selection is complete, click Submit *(Figure 51). The watershed name(s) will be listed in the Selected Watershed or County or Congressional District box.*

Repeat these steps to add additional watersheds from a different state.

	 **Figure 50: Select Watershed(s) from list**
County	*First, select one state. Then, click the radio button labeled County.* *To select a county(ies) by viewing a list of all counties in the state, click List. Click to highlight the desired county (use the Control key to select multiple counties) and then click » to select the county(ies). When selection is complete, click* Submit *(Figure 52). The county name(s) will be listed in the Selected Watershed or County or Congressional District box.* *Repeat these steps to add additional counties from a different state.*  **Figure 51: Select County from list**
Congressional District	*First, select one state. Then, click the radio button labeled Congressional District.* *To select a Congressional District(s) by viewing a list of all Congressional Districts in the state, click List. Click to highlight the desired Congressional District (use the Control key to select multiple counties) and then click » to select the Congressional District(s). When*

selection is complete, click Submit *(Figure 53). The Congressional District name(s) will be listed in the Selected Watershed or County or Congressional District box.*

Repeat these steps to add additional Congressional Districts from a different state.

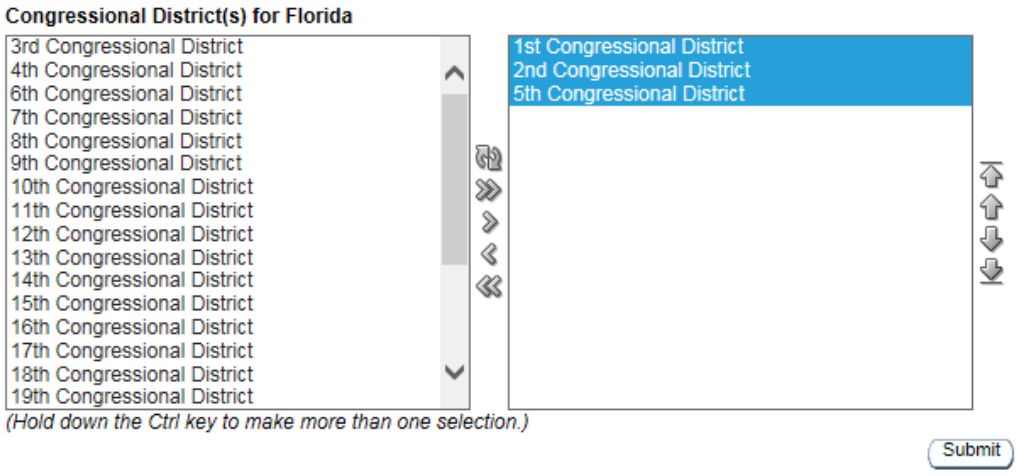


Figure 52: Select Congressional District from list

8.2.3 Unit Processes of Interest

This is only applicable when the Data Area of Interest Treatment Technologies (Unit Processes) is selected.

- *Click to highlight the desired unit process (use the Control key to select multiple unit processes) and then click » to select the unit process(es).*
- *Click »to select all unit processes in the list (note: If no unit process is selected, then report is displayed for all unit processes).*
- *Click « to unselect highlighted unit process(es).*
- *Click «or to unselect all unit processes. (Figure 54)*

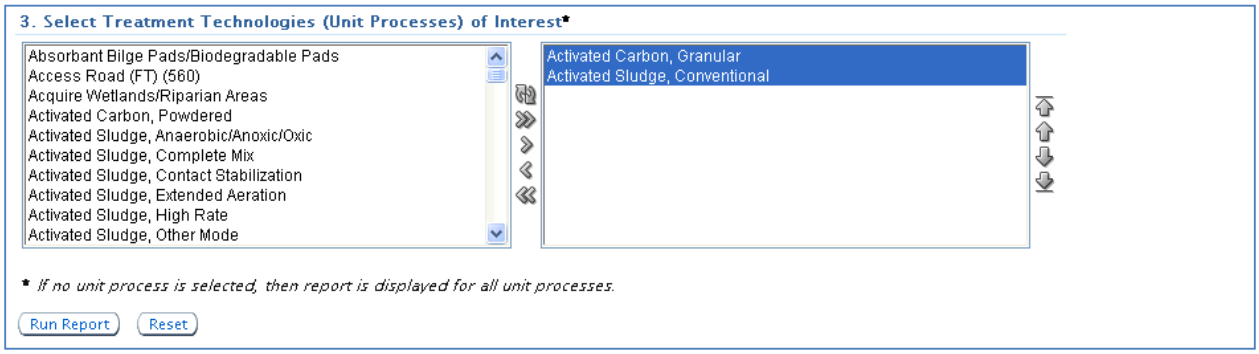


Figure 53: Detail Report - Treatment Technologies selection

8.3 Run Report

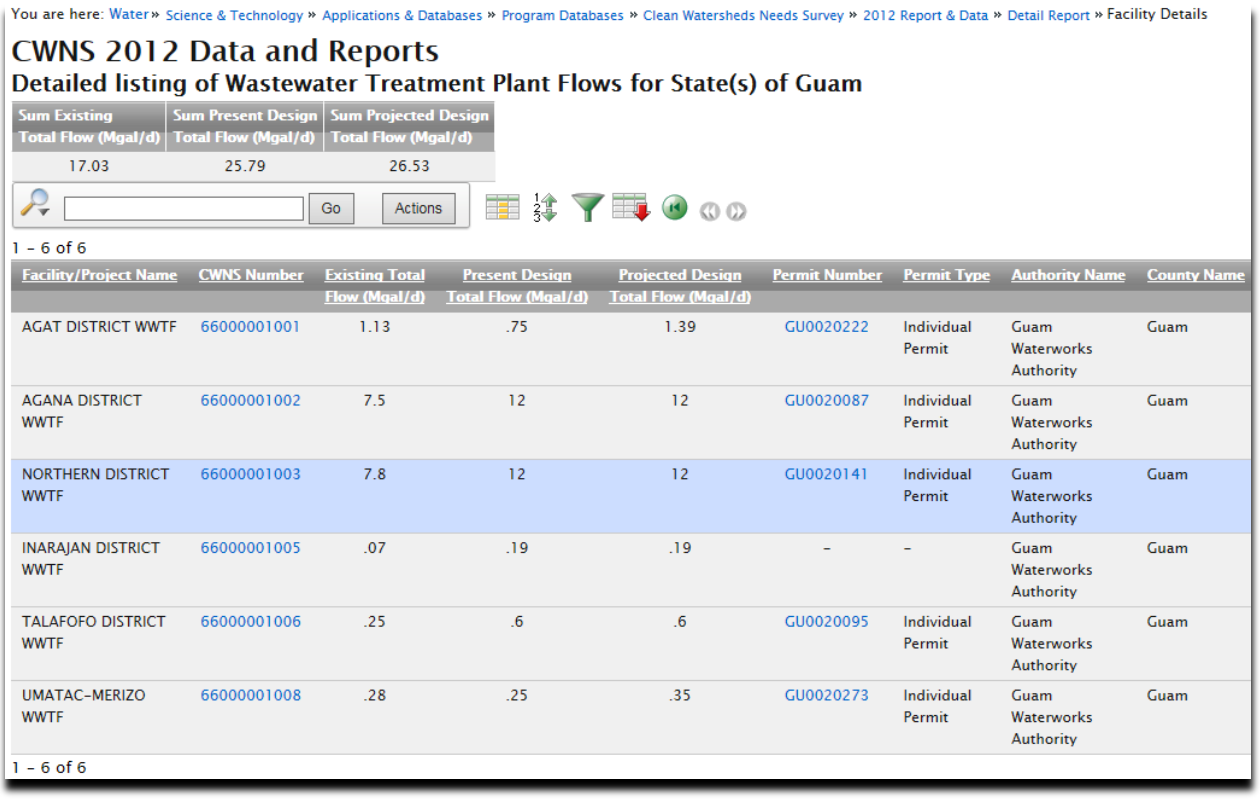
After selecting desired report outputs, geographic areas and unit process (if applicable), click Run Report *to view data tables.*

8.4 Results

The detail reports are displayed as a table with a predetermined set of columns (Figure 55). The report may be further customized using the tools provided. The user is able to:

- Search the columns
- Select the number of rows to display per page
- Create break groups one or more columns
- Highlight cells or rows based on user defined characteristics
- Add computed columns to the table
- Perform computations on selected columns
- Create a chart from the data
- Select which columns to display
- Sort columns
- Filter the data
- Download displayed data in CSV format

Detailed information on how to use the software tools for the detail reports is available in Appendix A.



You are here: Water » Science & Technology » Applications & Databases » Program Databases » Clean Watersheds Needs Survey » 2012 Report & Data » Detail Report » Facility Details

CWNS 2012 Data and Reports

Detailed listing of Wastewater Treatment Plant Flows for State(s) of Guam

Sum Existing Total Flow (Mgal/d)	Sum Present Design Total Flow (Mgal/d)	Sum Projected Design Total Flow (Mgal/d)
17.03	25.79	26.53

Go Actions

1 - 6 of 6

Facility/Project Name	CWNS Number	Existing Total Flow (Mgal/d)	Present Design Total Flow (Mgal/d)	Projected Design Total Flow (Mgal/d)	Permit Number	Permit Type	Authority Name	County Name
AGAT DISTRICT WWTF	66000001001	1.13	.75	1.39	GU0020222	Individual Permit	Guam Waterworks Authority	Guam
AGANA DISTRICT WWTF	66000001002	7.5	12	12	GU0020087	Individual Permit	Guam Waterworks Authority	Guam
NORTHERN DISTRICT WWTF	66000001003	7.8	12	12	GU0020141	Individual Permit	Guam Waterworks Authority	Guam
INARAJAN DISTRICT WWTF	66000001005	.07	.19	.19	-	-	Guam Waterworks Authority	Guam
TALAFOFO DISTRICT WWTF	66000001006	.25	.6	.6	GU0020095	Individual Permit	Guam Waterworks Authority	Guam
UMATAC-MERIZO WWTF	66000001008	.28	.25	.35	GU0020273	Individual Permit	Guam Waterworks Authority	Guam

1 - 6 of 6

Figure 54: Detail Report Results

9. Data Downloads

Allows the user to download a Microsoft Access database of the CWNS 2012 data for a particular state or for the nation (Figure 56).

- *Select one State or Nation from the dropdown list and click* Download .
- *Save the Microsoft Access file to the desired location.*

Note: South Carolina and Northern Mariana Islands are not listed, because they did not report data for CWNS 2012.

The Data Dictionary explains the data elements that are provided in the Microsoft Access database.

Figure 55: Select State for Data Download

Appendices

Appendix A: Customizing Detailed Reports

Detail Report Help

A Detail Report displays a predetermined set of columns. The report may be further customized with an initial filter clause, a default sort order, control breaks, highlighting, computations, aggregates and a chart. Each Report can then be further customized and the results can be viewed or downloaded. An Interactive Report can be customized in three ways: the search bar, actions menu and column heading menu.

Search Bar

At the top of each report page is a search region (Figure A-1). The region provides the following features:

- **Select columns icon** ( ) allows you to identify which column to search (or all).
- **Text area** allows for case insensitive search criteria (no need for wild cards).
- **[Go] button** executes the search.
- **[Actions] button** displays the actions menu (discussed next).

Please note that all features may not be available for each report.

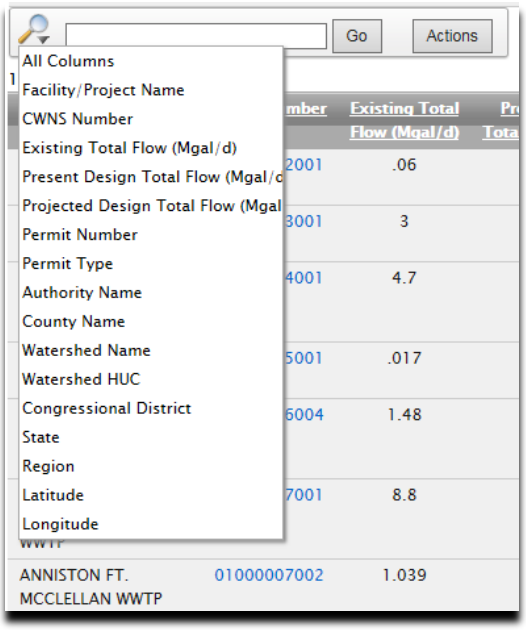


Figure A-1: The search bar allows you to search for a word or phrase on either all columns or a selected column.

Actions Menu

The actions menu (Figure A-2) is used to customize the display of your Interactive Report.

- **Select Rows Per Page** to specify the number of rows per page.
- **Format** actions are described below.

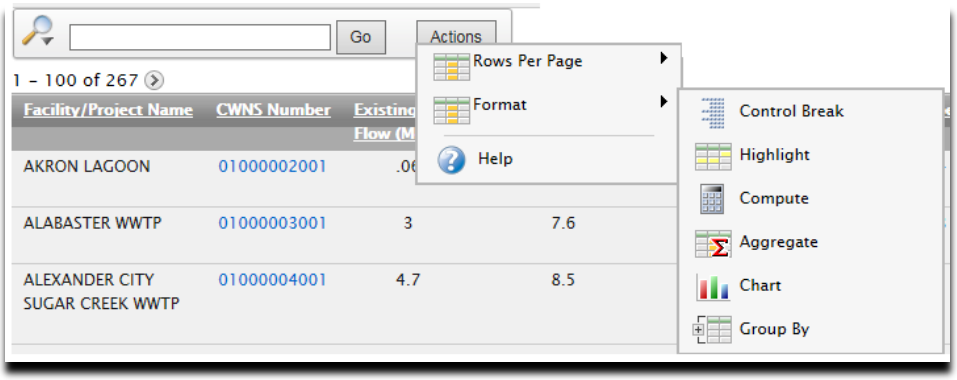


Figure A-2: The Actions Menu allows customization of the report

Control Break

Used to create a break group on one or several columns (Figure A-3). This pulls the columns out of the Interactive Report and displays them as a master record. This may be useful for viewing facilities/projects by county or watershed or Congressional District within a State.

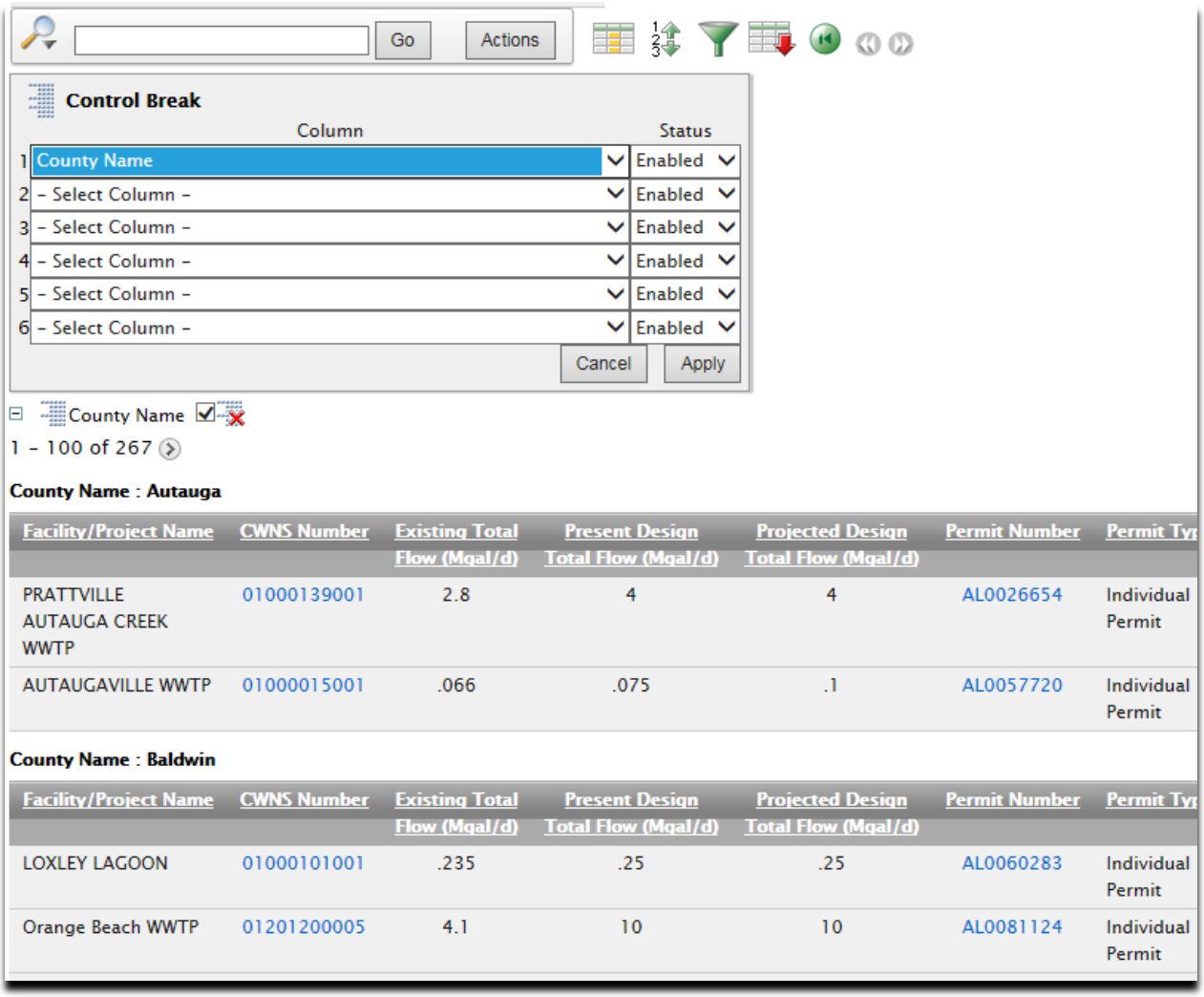


Figure A-3: The Control Break function allows the creation of breaks based on data in one or more columns.

Highlight

Highlighting allows for specifying a filter (Figure A-4). The rows that meet the filter are highlighted using the characteristics associated with the filter.

- **Name** is used only for display.
- **Sequence** identifies the sequence in which the rules will be evaluated.
- **Enabled** identifies if the rule is enabled or disabled.
- **Highlight Type** identifies whether the Row or Cell should be highlighted. If Cell is selected, the column referenced in the Highlight Condition is highlighted.
- **Background Color** is the new color for the background of the highlighted area.
- **Text Color** is the new color for the text in the highlighted area.
- **Highlight Condition** defines your filter condition.

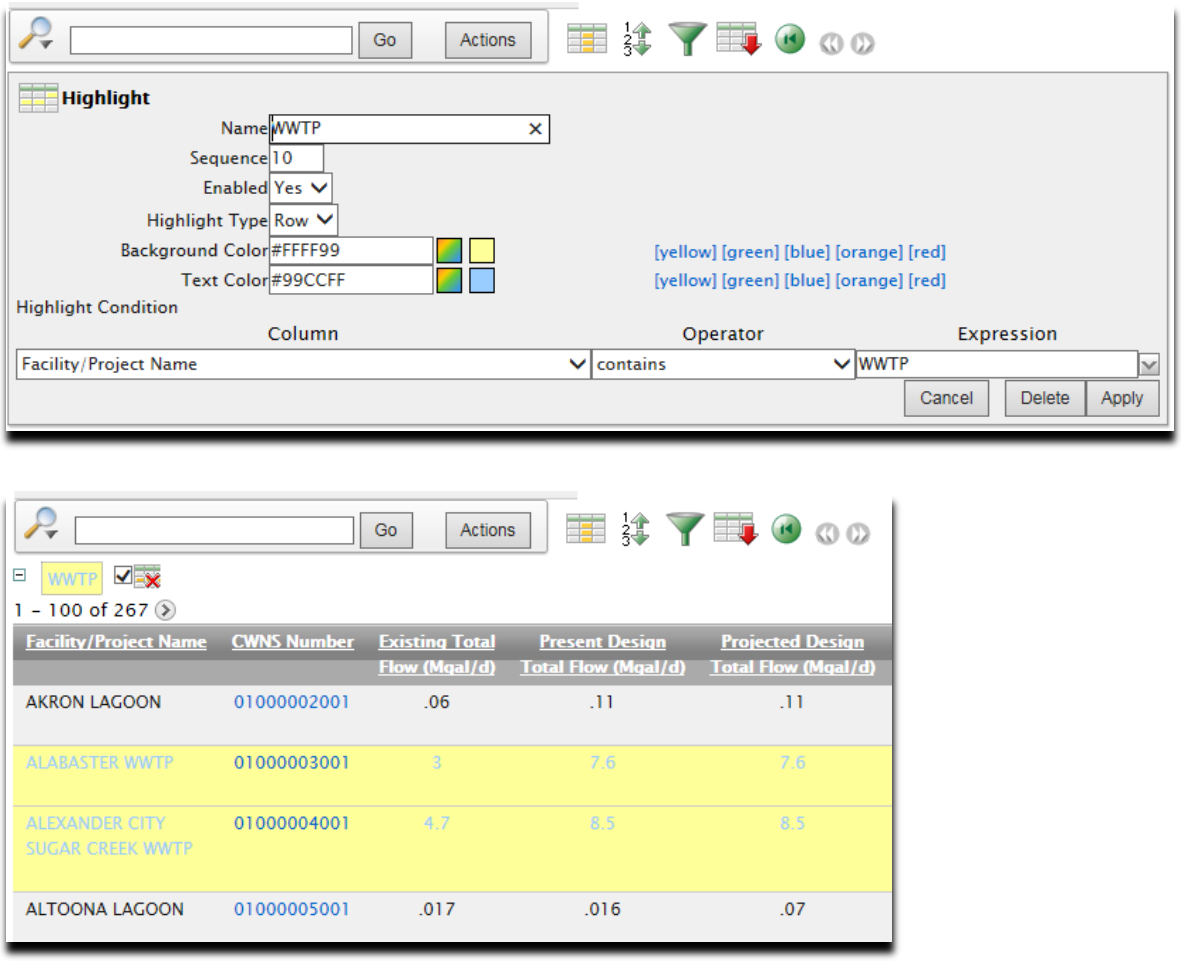


Figure A-4: The Highlight function allows for highlighting rows that meet a certain condition. In this case, highlighted rows have the word "WWTP" in the Facility/Project Name column.

Compute

Computations allow you to add computed columns to your report (Figures A-5 and A-6). These can be mathematical computations (e.g. NBR_HOURS/24) or standard Oracle functions applied to existing columns (some have been displayed for example, others, like TO_DATE, can also be used).

- **Computation** allows you to select a previously defined computation to edit.
- **Column Heading** is the column heading for the new column.
- **Format Mask** is an Oracle format mask to be applied against the column (e.g. $9999).
- **Computation** is the computation to be performed. Within the computation, columns are referenced using the aliases displayed.

Below computation, the columns in your query are displayed with their associated alias. Clicking on the column name or alias will write them into the Computation. Next to Columns is a Keypad. These are simply shortcuts of commonly used keys. On the far right are Functions.

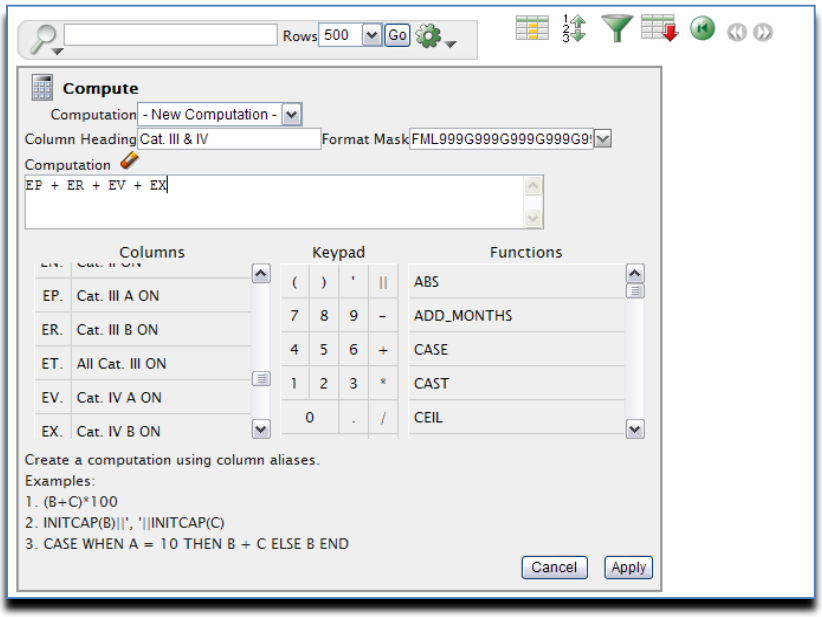
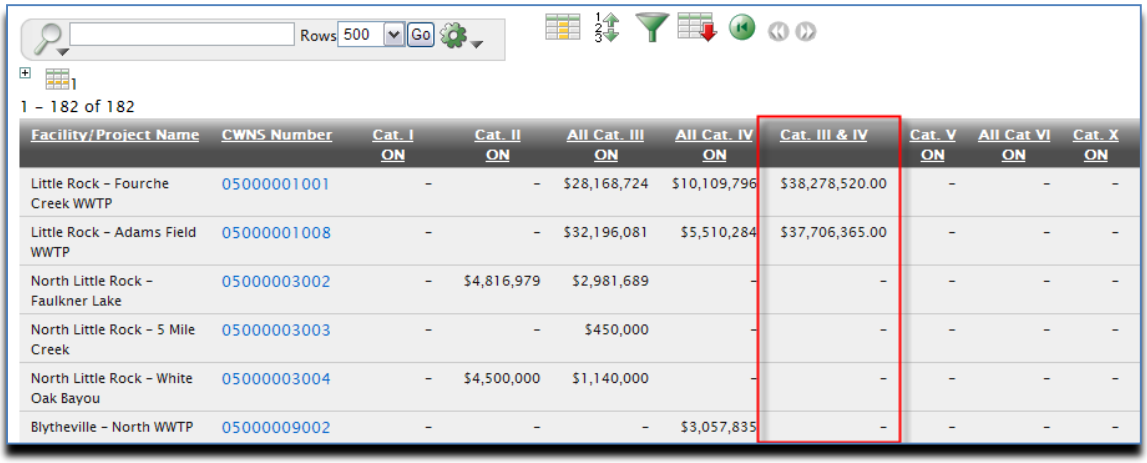


Figure A-5: The Computation function allows for calculations on selected columns. In this example, Category III & IV needs are being adding to determine all Collection System needs for each facility.



Facility/Project Name	CWNS Number	Cat. I ON	Cat. II ON	All Cat. III ON	All Cat. IV ON	Cat. III & IV	Cat. V ON	All Cat VI ON	Cat. X ON
Little Rock – Fourche Creek WWTP	05000001001	-	-	$28,168,724	$10,109,796	$38,278,520.00	-	-	-
Little Rock – Adams Field WWTP	05000001008	-	-	$32,196,081	$5,510,284	$37,706,365.00	-	-	-
North Little Rock – Faulkner Lake	05000003002	-	$4,816,979	$2,981,689	-	-	-	-	-
North Little Rock – 5 Mile Creek	05000003003	-	-	$450,000	-	-	-	-	-
North Little Rock – White Oak Bayou	05000003004	-	$4,500,000	$1,140,000	-	-	-	-	-
Blytheville – North WWTP	05000009002	-	-	-	$3,057,835	-	-	-	-

Figure A-6: The result of the calculation is displayed as a new column in the table.

Aggregate

Aggregates are mathematical computations performed against a column (Figure A-7 and A-8). Aggregates are displayed after each control break and at the end of the report within the column they are defined.

- **Aggregation** allows you to select a previously defined aggregation to edit.
- **Function** is the function to be performed (e.g. SUM, MIN).

- **Column** is used to select the column to apply the mathematical function to. Only numeric columns will be displayed.

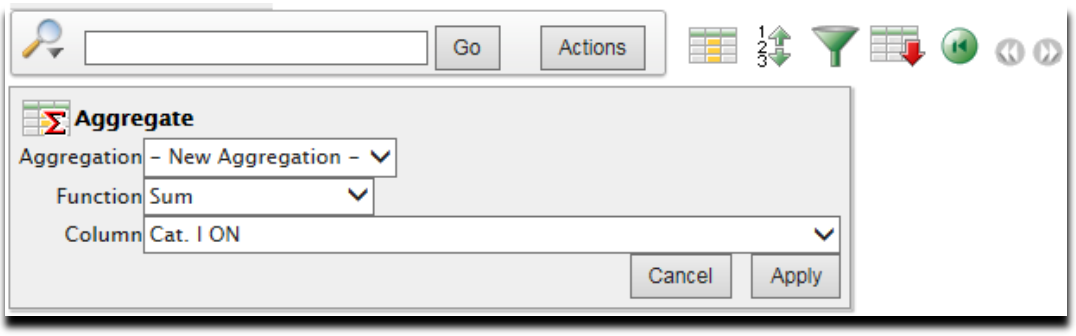


Figure A-7: The Aggregate function allows for a calculation on a single column. In this example, the sum of Category I needs for the entire state.

1 – 6 of 6

Facility/Project Name	CWNS Number	Cat. I ON	Cat. II ON	Cat. III A ON	Cat. III B ON	Permit Number
AGAT DISTRICT WWTF	66000001001	$66,774,144	–	$3,924,461	$57,839	GU0020222
AGANA DISTRICT WWTF	66000001002	$31,816,276	–	$2,032,033	$111,754,885	GU0020087
NORTHERN DISTRICT WWTF	66000001003	$43,158,823	–	$2,833,532	$23,027,796	GU0020141
INARAJAN DISTRICT WWTF	66000001005	$1,787,597	–	–	$697,595	–
TALAFOFO DISTRICT WWTF	66000001006	$8,806,630	–	–	$2,322,722	GU0020095
UMATAC-MERIZO WWTF	66000001008	$13,985,842	–	–	$30,110	GU0020273
		$166,329,312				

1 – 6 of 6

Figure A-8: The results are displayed at the end of the column.

Chart

You can include one chart per Interactive Report (Figures A-9 and A-10). Once defined, you can switch between the chart and report views using links below the search bar.

- **Chart Type** identifies the chart type to include. Select from horizontal bar, vertical bar, pie or line.
- **Label** allows you to select the column to be used as the label.
- **Axis Title for Label** is the title that will display on the axis associated with the column selected for Label. This is not available for pie chart.
- **Value** allows you to select the column to be used as the value. If your function is a COUNT, a Value does not need to be selected.

- **Axis Title for Value** is the title that will display on the axis associated with the column selected for Value. This is not available for pie chart.
- **Function** is an optional function to be performed on the column selected for Value.

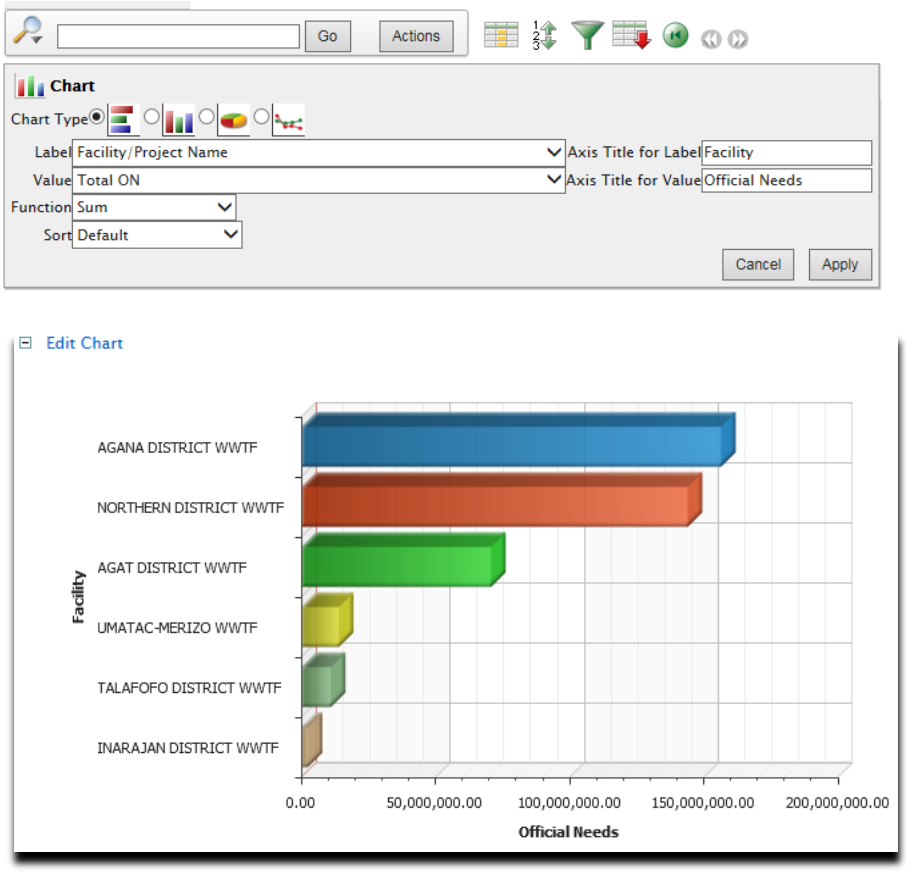


Figure A-9: Example of a bar graph comparing the total needs per facility in a specified county.

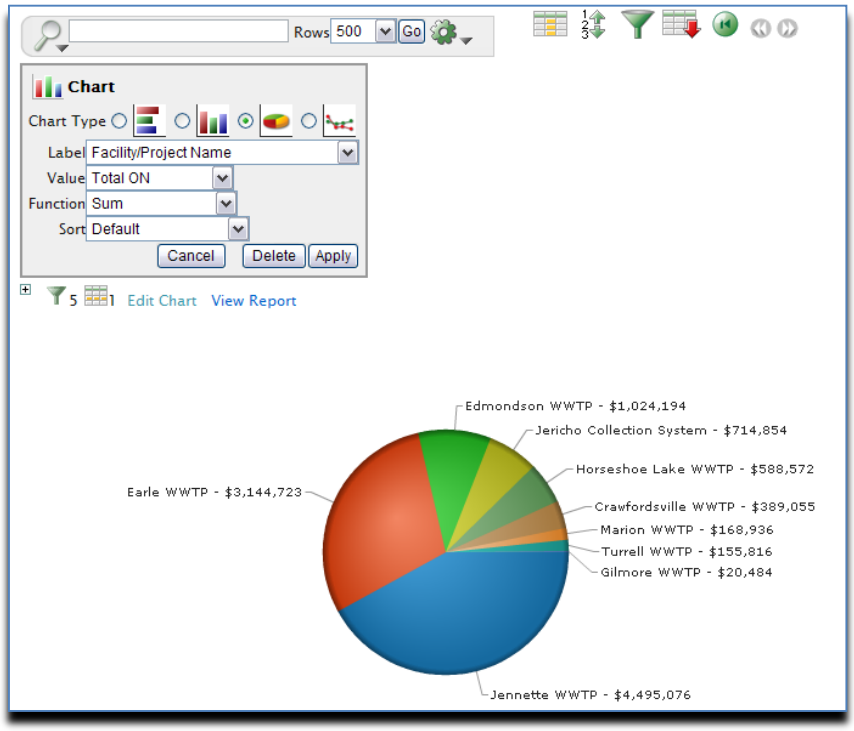


Figure A-10: Example of a pie chart displaying the same data as Figure A-9, the total needs per facility in a specified county.

Select Columns

Used to modify the columns displayed (Figure A-11). The columns on the right are displayed. The columns on the left are hidden. You can reorder the displayed columns using the arrows on the far right. Computed columns are prefixed with **.

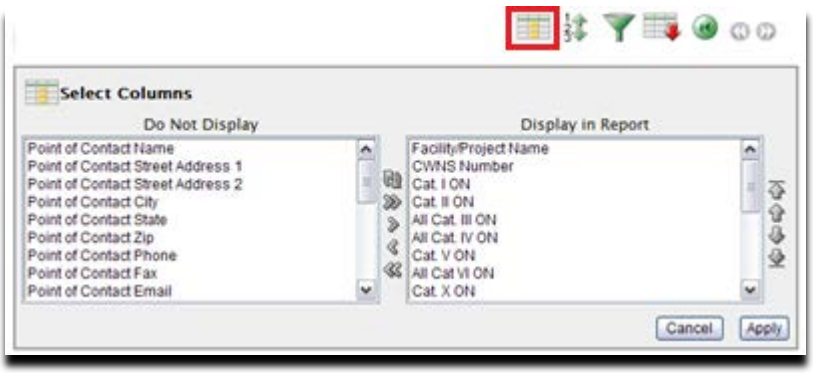


Figure A-11: The select column function allows you to increase or decrease the number of columns displayed. For all CWNS reports, default "Display in Report" columns have been selected. Additional data is available by adding the "Do Not Display" columns.

Sort

Used to change the column(s) to sort on and whether to sort ascending or descending (Figure A-13). You can also specify how to handle nulls (use the default setting, always display them last or always display them first). The resulting sorting is displayed to the right of column headings in the report.

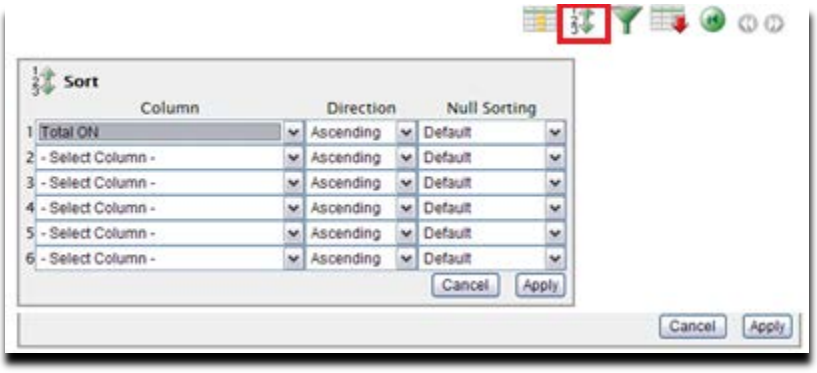


Figure A-13: The sort function allows you to sort by column(s). In this example, the data will be sort from the lowest Total Official Needs (ON) to the highest

Filter

Used to add or modify the where clause on the query (Figure A-12). You first select a column (it does not need to be one that is displayed), select from a list of standard Oracle operators (=, !=, not in, between), and enter an expression to compare against. The expression is case sensitive and you can use % as a wild card (e.g. STATE_NAME like A%).

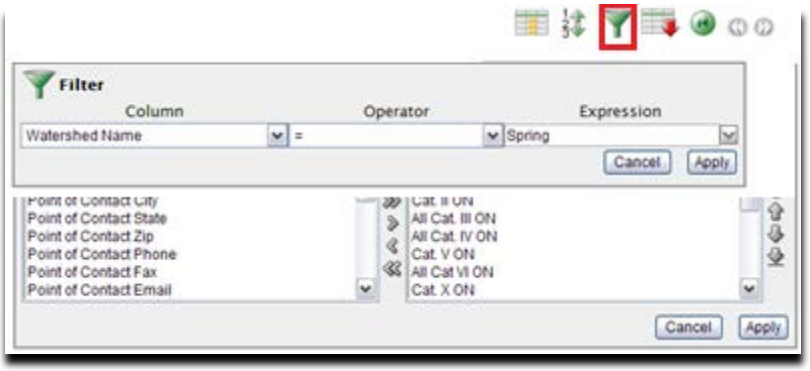


Figure A-12: The Filter function allows you to further refine your original query. In this example, after adding the filter, only entries for the Spring watershed will be displayed.

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Download

Allows the current result set to be downloaded in CSV format (Figure A-14).

Figure A-14: The Download function allows you to download to CSV format to be viewed in Excel. Note: the current displayed results will be downloaded.

Reset

Resets the report back to the default settings, removing any customizations that you have made.

Skip to First/ Last Page

Allows you to navigate to the first or last page of the results.

Column Heading Menu

Clicking on any column heading exposes a column heading menu.

- **Sort Ascending icon ( )** sorts the report by the column in ascending order.
- **Sort Descending icon ( )** sorts the report by the column in descending order.
- **Break Column** ( ) creates a break group on the column. This pulls the column out of the report as a master record.
- **Text Area** is used to enter case insensitive search criteria (no need for wild cards). Entering a value will reduce the list of values at the bottom of the menu. You can then select a value from the bottom and the selected value will be created as a filter using '=' (e.g. column = 'ABC'). Alternatively, you can click the flashlight icon and the entered value will be created as a filter with the 'LIKE' modifier (e.g. column LIKE '%ABC%').
- **List of Unique Values** contains the first 500 unique values that meet your filters. If the column is a date, a list of date ranges is displayed instead. If you select a value, a filter will be created using '=' (e.g. column = 'ABC').

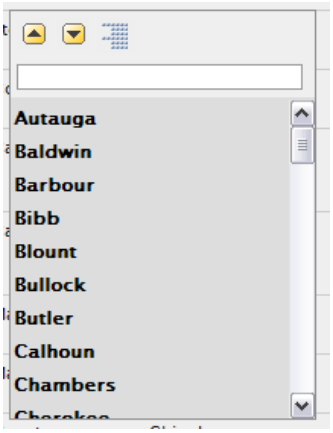

Figure A-15: Column heading options