National Levee Database

(NLD)

User Manual: Public User

Version 3.0

Prepared by

US Army Corps of Engineers (USACE)
Cold Regions Research and Engineering Laboratory (CRREL)

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1. Preface

The National Levee Database (NLD) is a web-based application created to assist in the dissemination of levee data. The NLD was created by the United States Army Corps of Engineers (USACE) and serves as the single source of national flood damage reduction or flood control structures. The purpose of the NLD is to provide a common database and database structure to allow all levee owners the ability to share and manage levee information in one common location and one common data structure for Federal Government user including the USACE and the Federal Emergency Management Agency (FEMA), and non-federal users including state and local governments, Association of State Dam Safety Officers (ASDSO), the National Association of Flood & Stormwater Management Agencies (NAFSMA), and the general public.

The user manual is targeted for the Public users and designed to:

1. Provide an overview of the National Levee Database
2. Provide detailed instructions on how to leverage capabilities available in the NLD (e.g. reporting and mapping interfaces)
3. Improve usage of the NLD tool to improve risk communication, provide transparency and improve outreach

The document will help orient the users to leverage the following NLD capabilities:

1. Getting Started: How to access the tool, prerequisites, etc.
2. Reports: How to view, customize and export reports
3. Maps: How to utilize the mapping capabilities
4. Feedback: How to submit and view feedback

2. Getting Started

The Getting Started section provides you with instructions on how to access the NLD.

2.1 Technical Requirements

The NLD is a web-based tool which requires an Internet connection, without the need to install any software. The initial release of the NLD has been designed for and tested within Internet Explorer version 8 and 9 and Firefox. Other internet browsers should work as well, but are considered unsupported.

To use the NLD, you will need:

1. A computer with an Internet connection
2. Internet Explorer or Mozilla Firefox
3. The NLD can be accessed via the following web site address: http://nld.usace.army.mil
4. Basic levee information can be accessed from the NLD without needing a user name and password. Users who require access to additional information may request account access and privileges in the NLD. Account access can be requested by sending an email to DLL-CEERD-NLD-General-Support@usace.army.mil or calling 1-877-LEVEEUS (1-877-538-3387). User accounts will be adjudicated by NLD stakeholders. You will receive an email notification regarding your account request

2.1.1 Launching the NLD

Launching the NLD involves opening an Internet browser and directing the browser to the NLD web site: http://nld.usace.army.mil

2.1.2 Launching Internet Explorer Browser

Since the NLD is a web-based application, you must first launch your internet browser, either Internet Explorer or Mozilla Firefox. There are a number of ways to do this; three of the more common methods are outlined below.

Method 1: Double-click the “Internet Explorer” shortcut icon on the desktop.

Figure 2-1: Internet Explorer Desktop Shortcut

Method 2: Click the “Internet Explorer” or “Firefox” icon in the quick launch menu.

Figure 2-2: Quick Launch Menu

Method 3: Select Internet Explorer from the Start menu.

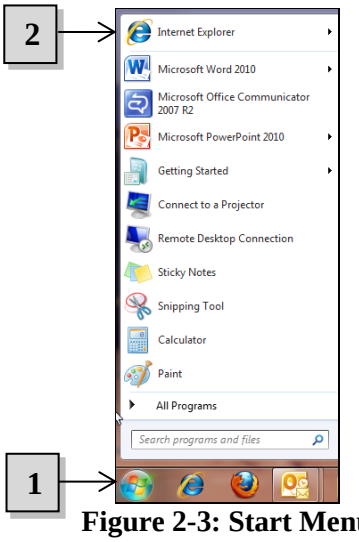


Figure 2-3: Start Menu

1. Click the "Start" icon
2. Use your mouse to choose Internet Explorer

2.1.3 Navigating to the NLD

Once the browser window has launched, navigate to the NLD home screen by typing in http://nld.usace.army.mil as depicted in

Figure 2-4: Internet Explorer Address Bar**.**

Figure 2-4: Internet Explorer Address Bar

1. Enter the appropriate URL in the address bar
2. Click the "Enter" key on the keyboard or click the "Go" button to the right of the address in the browser

2.2 Navigation

Once you have navigated to the NLD you will view the NLD "Home" screen. Before we introduce the details of this screen it is important to understand the overall layout of the NLD site.

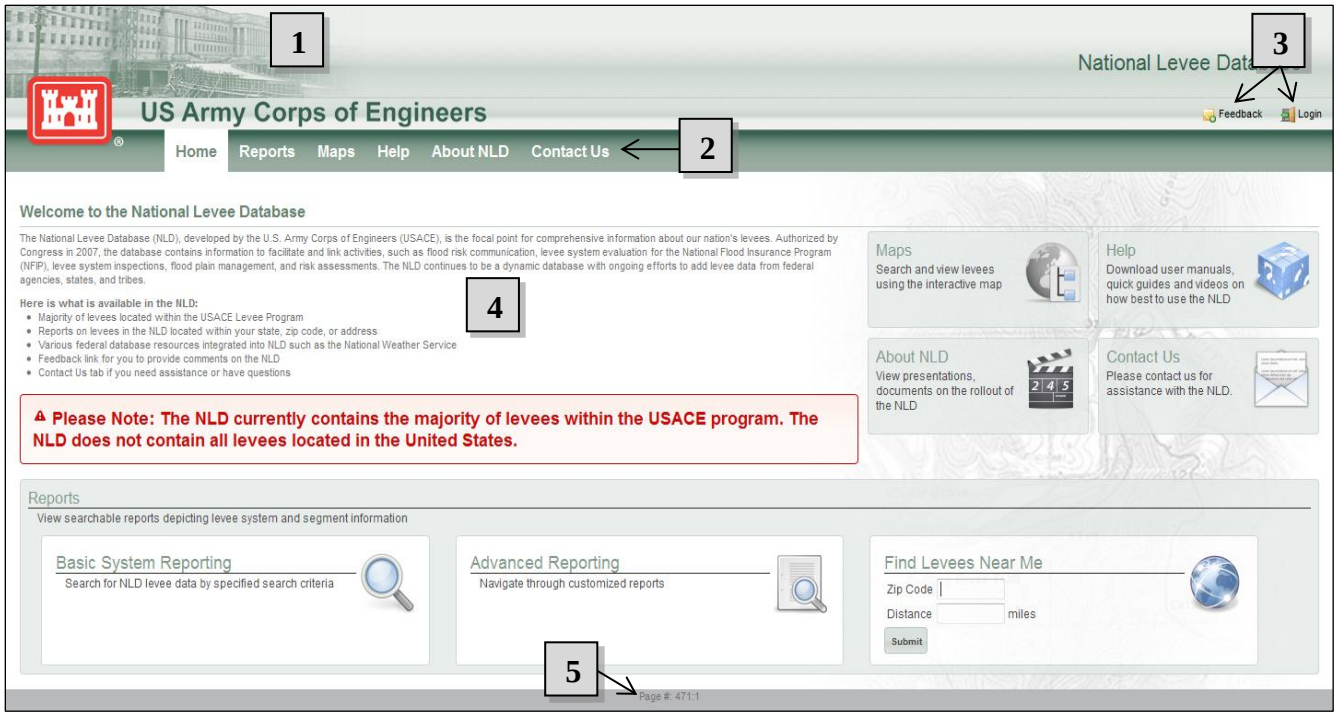


Figure 2-5: NLD Site Layout

There are five primary components of the NLD site:

1. Banner – Every screen in the NLD Tool will include the banner. You will see the NLD logo and title of the tool. The banner is static throughout the entire tool and you can use any of its links and buttons from anywhere within the tool
2. Navigation Toolbar –The banner includes the navigation toolbar. There are six modules accessible from the navigation tool bar. These modules include: Home, Reports, Maps, Help, About NLD and Contact Us. This tool bar will be available for you to navigate the tool from any module. No matter where you are located in the tool if you click on one of these links you will be directed to one of the six modules
3. Feedback & Login – These buttons provide the user the ability to provide feedback on the tool and for those with an adjudicated account, the ability to login to the tool
4. Primary Content Region – When items on the navigation toolbar are selected this section of the web page is the primary location where content will be displayed. For instance, if you click “Home” on the navigation toolbar you will view the Welcome message and Home Portal
5. Page ID/Number – Found at the bottom of each of the NLD web pages, you will notice a number. This number is unique for each screen

3. Home

3.1 Home Portal

The NLD Home screen provides a portal-like view to provide users quick-link buttons to navigate the NLD from one central location. In addition to the quick-link buttons, there are associated tabs displayed on the screen at the top, left corner of the web page. The "Home" tab contains an introductory welcome message, from here you may click on the different tabs or quick-link buttons to navigate through the application. An explanation for each tab and quick-link button is listed below.

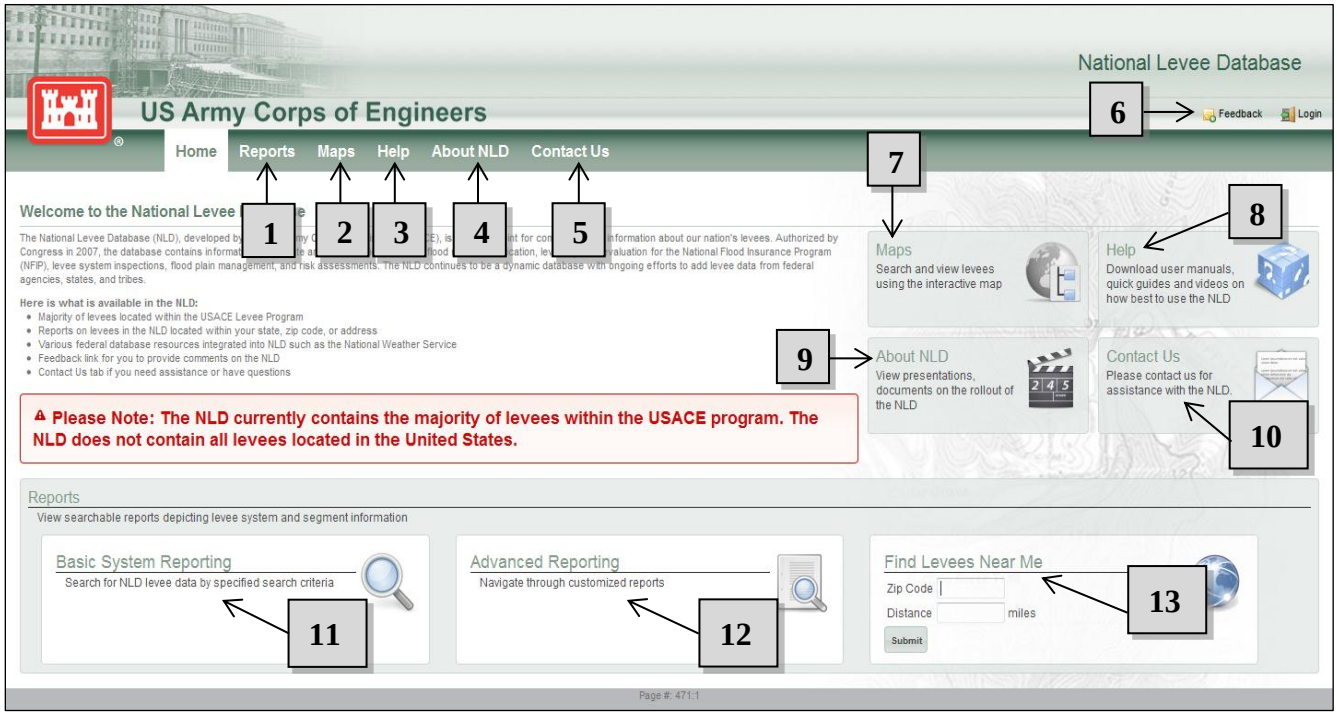


Figure 3-1: The 'Home' Tab

- Reports (**1**): Allows users to navigate to the Report Store. The Report Store provides multiple options for users to search, navigate and review levee data within the NLD
- Maps (**2** and **7**): Allows users to search and view levees using the interactive map
- Help (**3** and **8**): Provides users access to documentation, including: downloadable user manuals, quick guides and video tutorials
- About NLD (**4** and **9**): Provides users information regarding the roll-out of the NLD to include: state, federal and public events
- Contact Us (**5** and **10**): Provides email and phone contact information to request assistance from the NLD help desk
- Feedback (**6**): Allows users to provide feedback and recommendations to improve the NLD
- Basic System Reporting (quick-link button) (**11**): Allows users to navigate directly to the Basic System Reporting tool
- Advanced Reporting (quick-link button) (**12**): Allows users to navigate directly to the Advanced Reports
- Find Levees Near Me (quick-link button) (**13**): Allows users to search for levees in the NLD within a specified distance from a given zip code

The subsequent sections details the capabilities available for each of the navigation items highlighted above.

4. Reports

4.1 Navigating to Reports

The "Reports" tab is the second tab available on the NLD navigation toolbar.

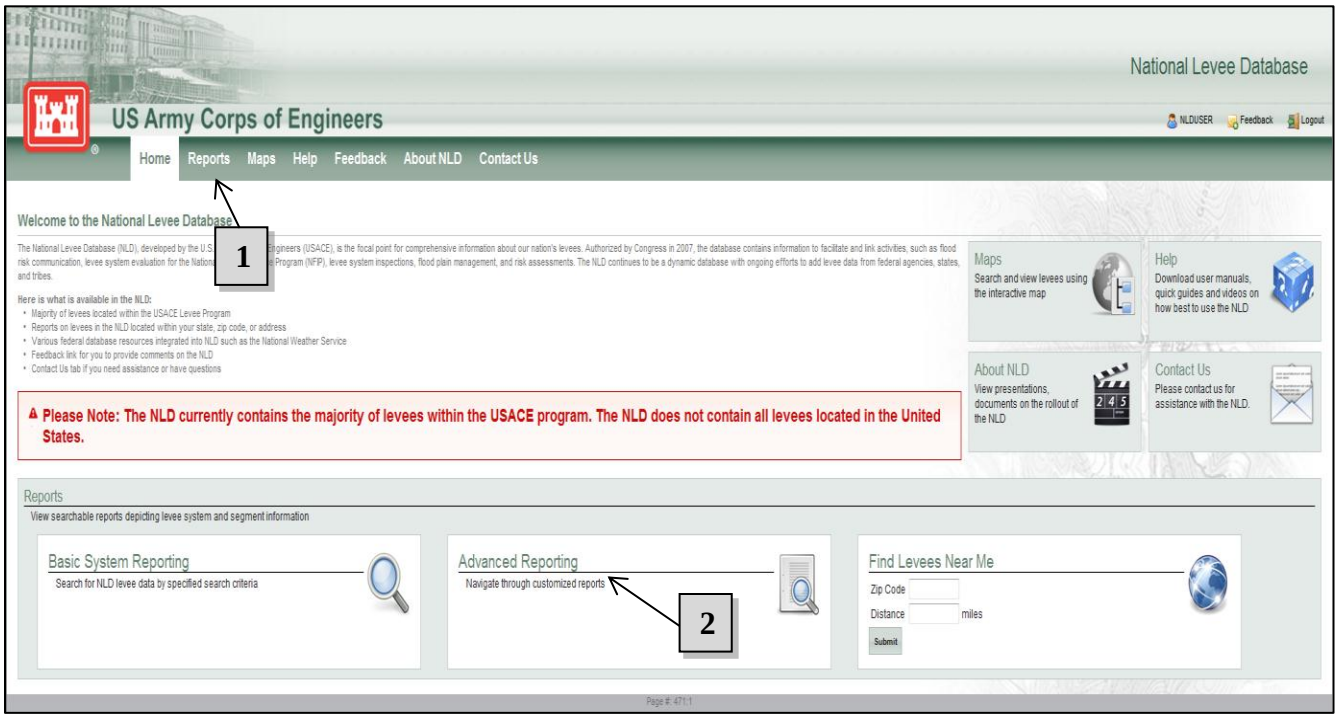


Figure 4-1: Reports Tab

1. The user can click on the Reports tab to navigate to the interactive map
2. Clicking the "Advanced Reporting quick-link" button will also navigate to the interactive map

By clicking on the "Reports" tab you will be taken to the Report Store screen shown below in Figure 4-2**:** Report Store.

4.2 Report Store

The Report Store allows you to choose which method you would like to search and view reports with four easily navigable options, as seen in Figure 4-2: Report Store.

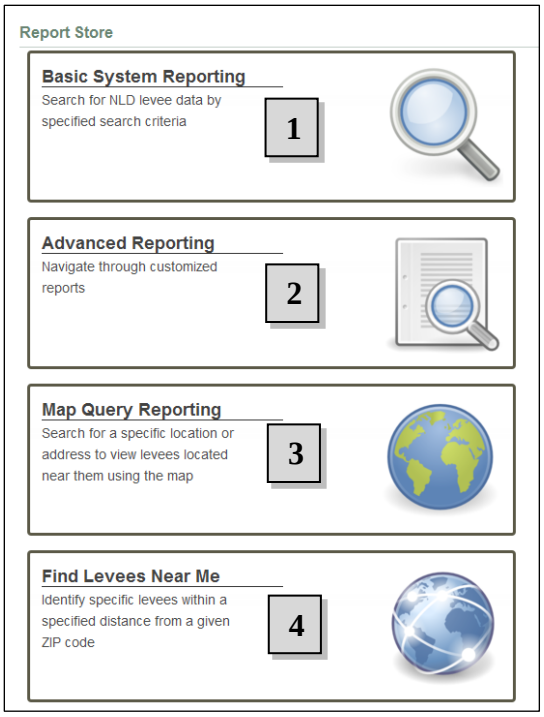


Figure 4-2: Report Store

1. Click the "Basic System Reporting" icon to search for NLD levee data by predetermined search criteria
2. Click the "Advanced Reporting" icon to navigate through customized reports
3. Click the "Map Query Reporting" icon to search for a specific location or levee feature on the map to query in order to view levee data
4. Click the "Find Levees Near Me" icon to easily enter a zip code and distance in which to search for levees

4.3 Basic System Reporting

Basic System Reporting interface allows a quick and easy search for NLD levee data by specified search criteria such as: State, County, FEMA region, Organization, PAL status (Provisionally Accredited Levee), Authorization Category, and RIP status (Rehabilitation and Inspection Program).

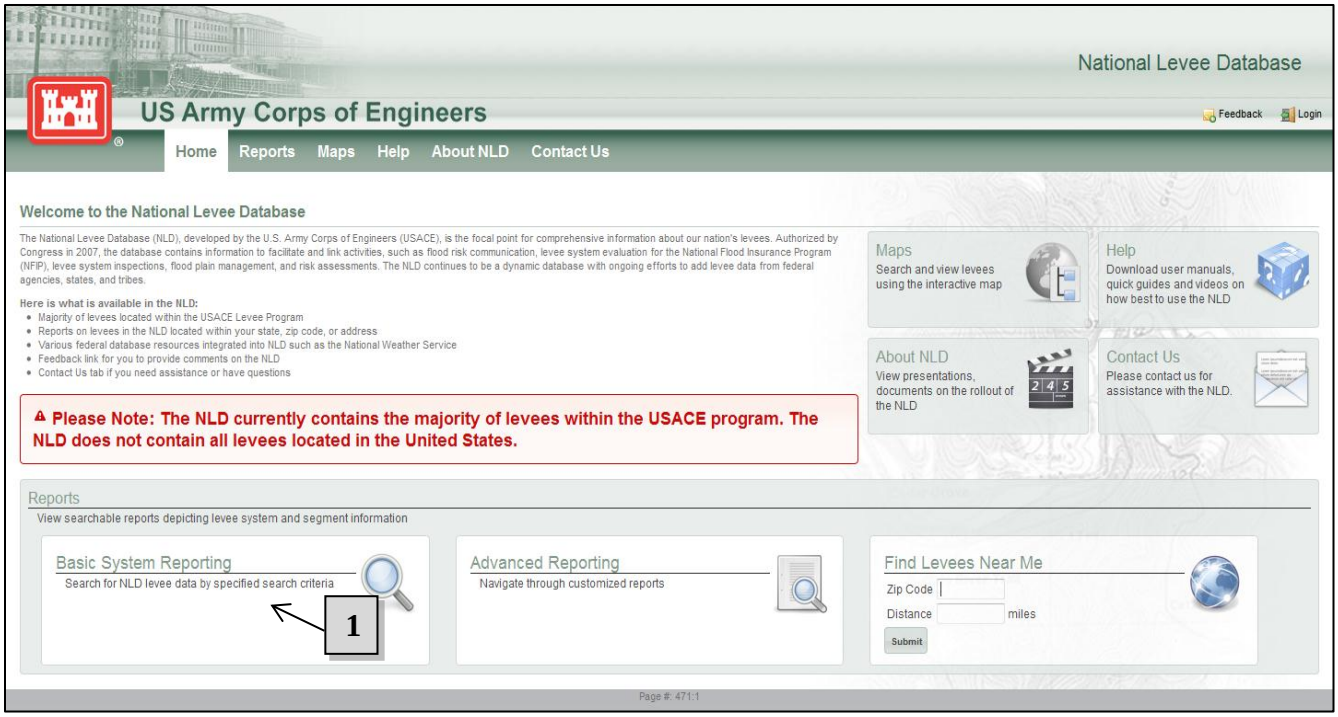


Figure 4-3: Basic System Reporting

1. Click the "Basic System Reporting quick-link" button to search for NLD data by predetermined search criteria

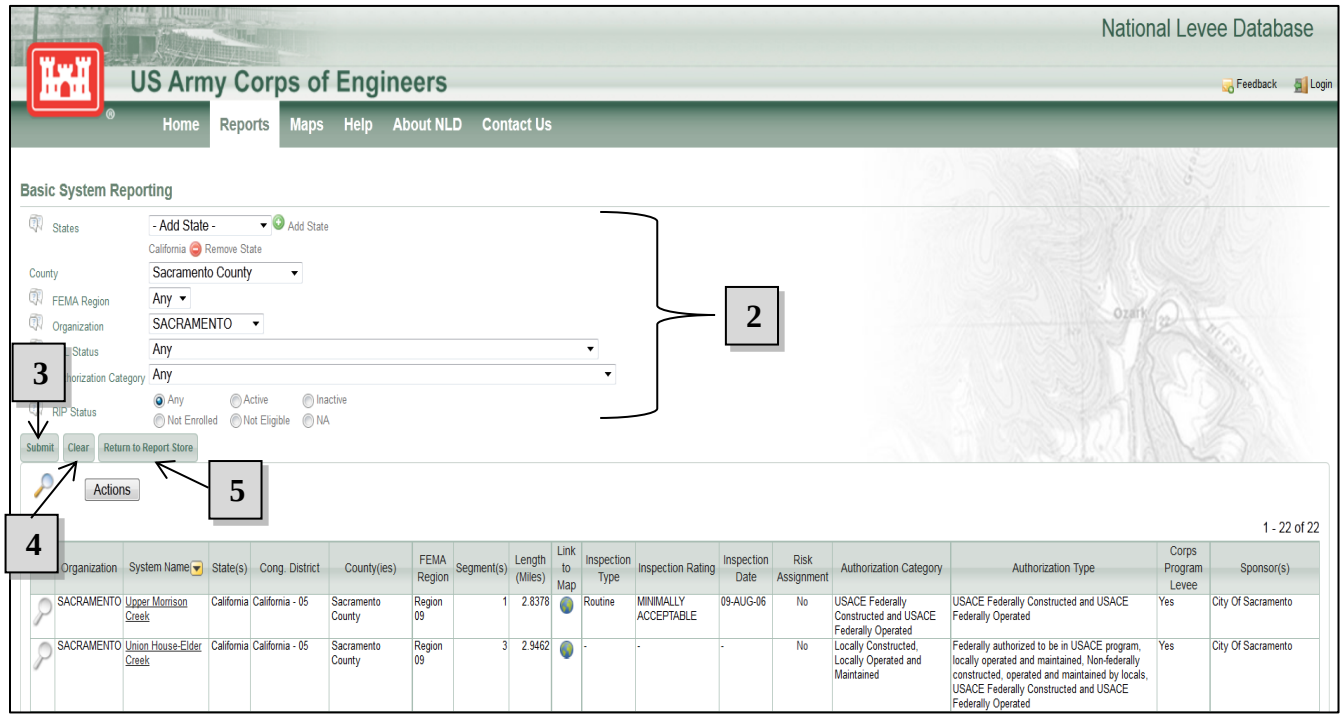


Figure 4-4: Basic System Reporting

2. Use the dropdowns to specify State, County, FEMA Region, Organization, PAL Status, and Authorization Category. Use the radio buttons to specify a RIP Status. To select the State, you need to press the green "+" icon. After selecting and adding a State, a County dropdown will appear to further define your search
3. Click the "Submit" button to view results
4. Click the "Clear" button to clear the search criteria and run a new report

5. Click the “Return to Report Store” button to view Report Store reporting options

4.4 Advanced Reporting

The Advanced Reporting screen allows the user to create a more customizable report. View the Interactive Reports Primer to learn about the different reports and advanced reporting features, or choose a report to view and customize, as seen in **Figure** 4-6**:** Advanced Reporting.

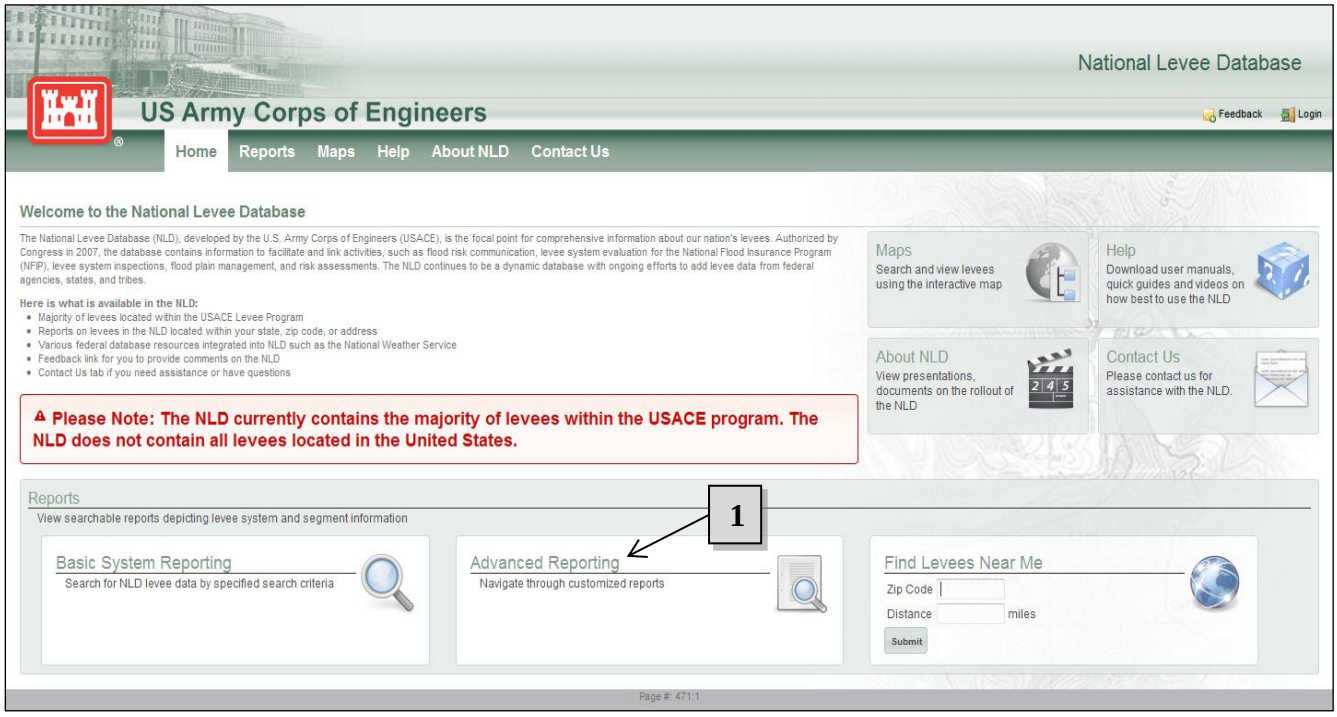


Figure 4-5: Advanced Reporting

1. Click the “Advanced Reporting quick-link” button to navigate through customized reports

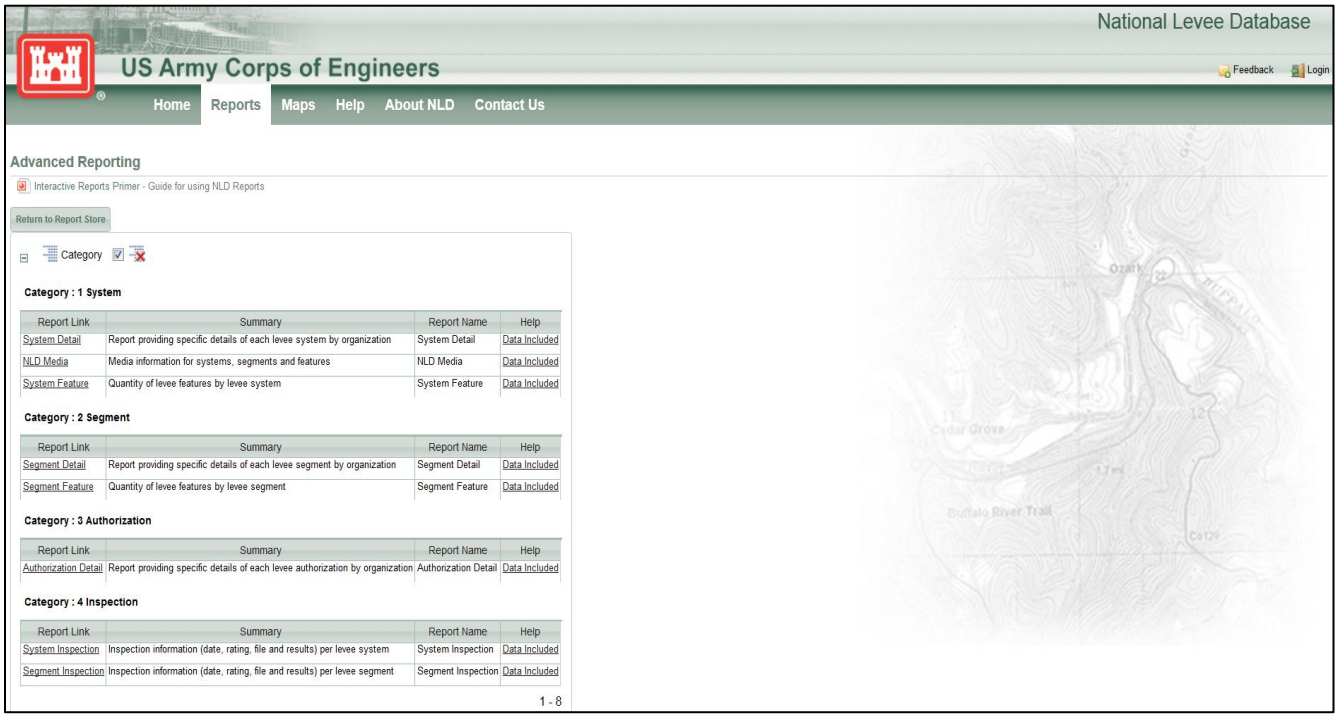


Figure 4-6: Advanced Reporting

4.4.1 Interactive Reports Primer

The Interactive Reports Primer is a PowerPoint briefing that provides an introduction to the "Interactive Reports" functionality within the NLD.

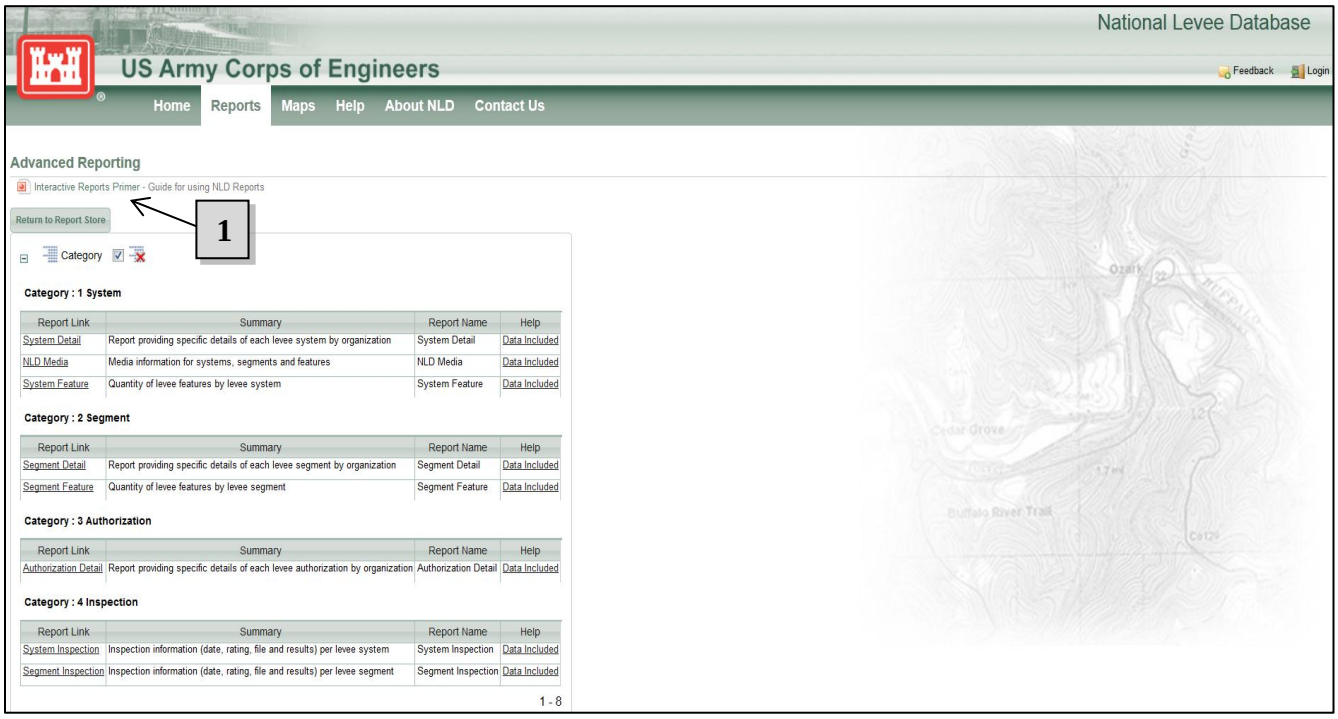


Figure 4-7: Advanced Reporting, Interactive Reports Primer

1. Click on the hyperlink titled "Interactive Reports Primer." The "File Download" pop-up will display as shown in **Figure** 4-8**:** File Download

   Figure 4-8**:** File Download

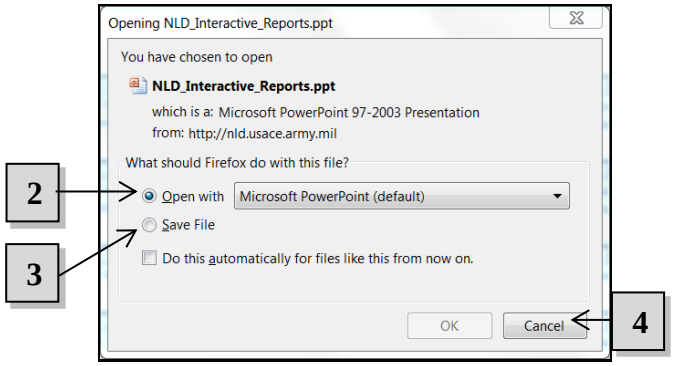
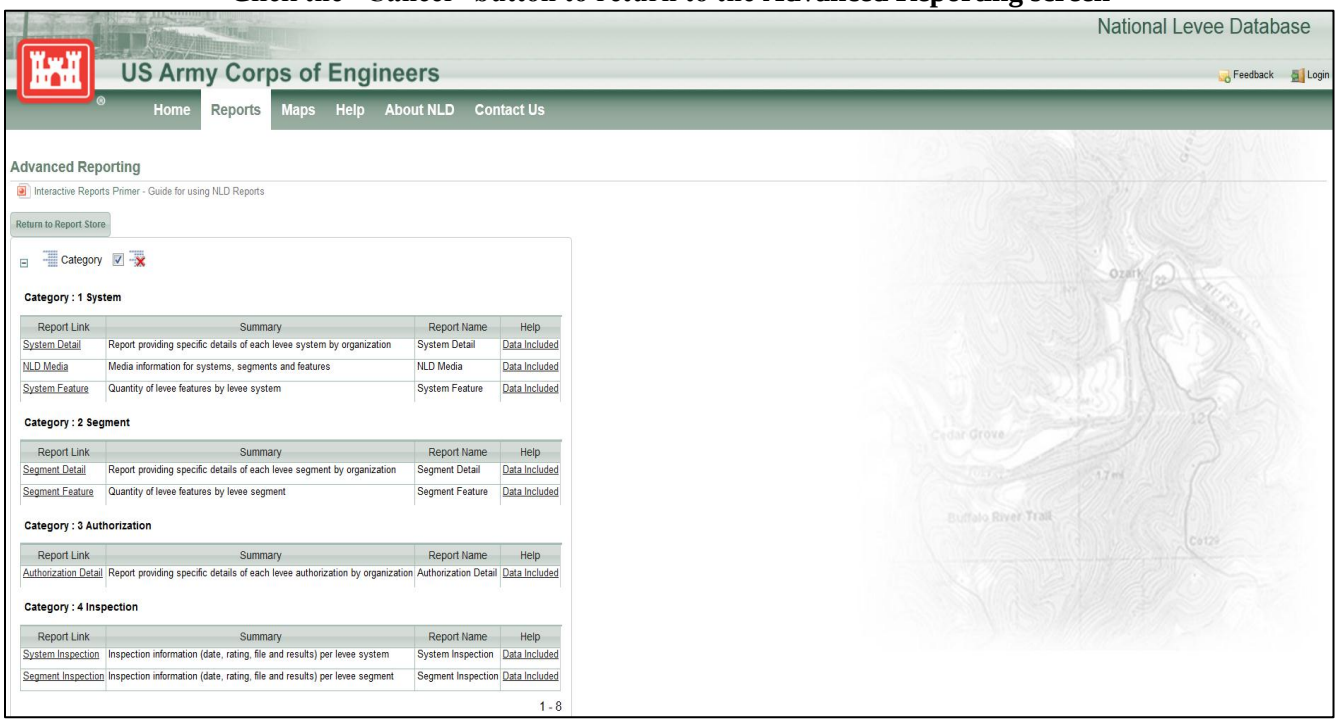


Figure 4-8: File Download

2. Click the "Open" radio button to open the file and save to a temporary location on your computer
3. Click the "Save" button to save the document to a specific location on your computer

Click the "Cancel" button to return to the Advanced Reporting screen



4. **Figure** 4-6**:** Advanced Reporting

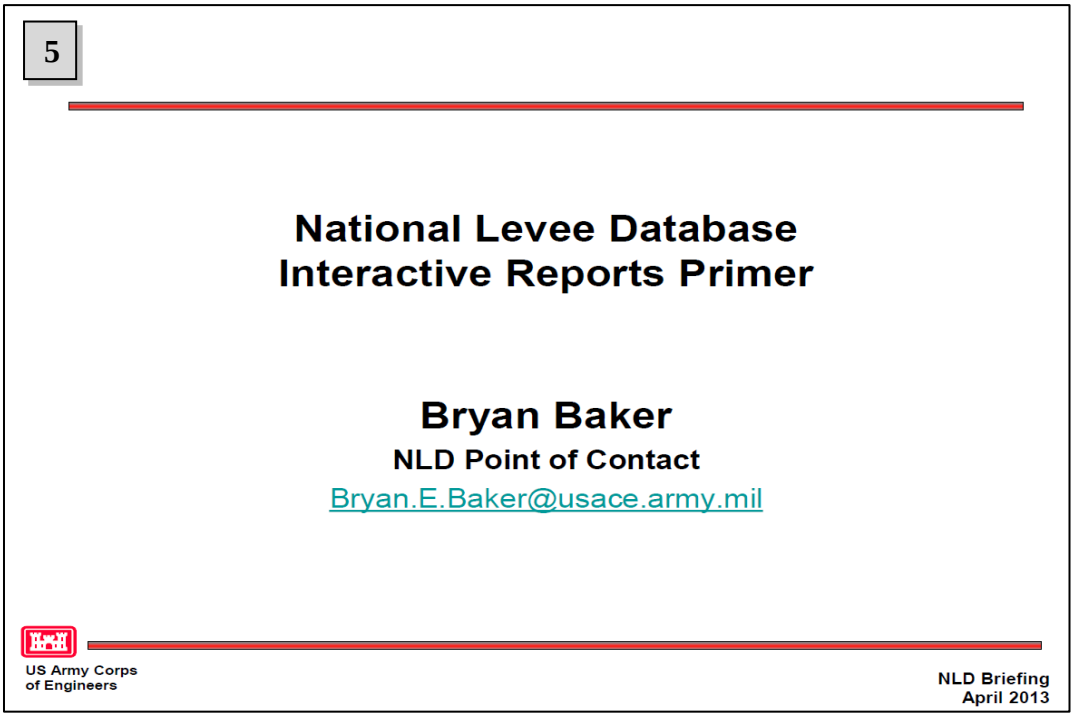


Figure 4-9: Interactive Reports Primer PowerPoint Presentation

5. The PowerPoint briefing will open in a new web browser window. We highly recommend that you peruse this document to become better acquainted with the full reporting functionality

4.4.2 Selecting a Report

The reports area of the tool includes a number of predefined reports. Currently there are 8 reports as detailed below:

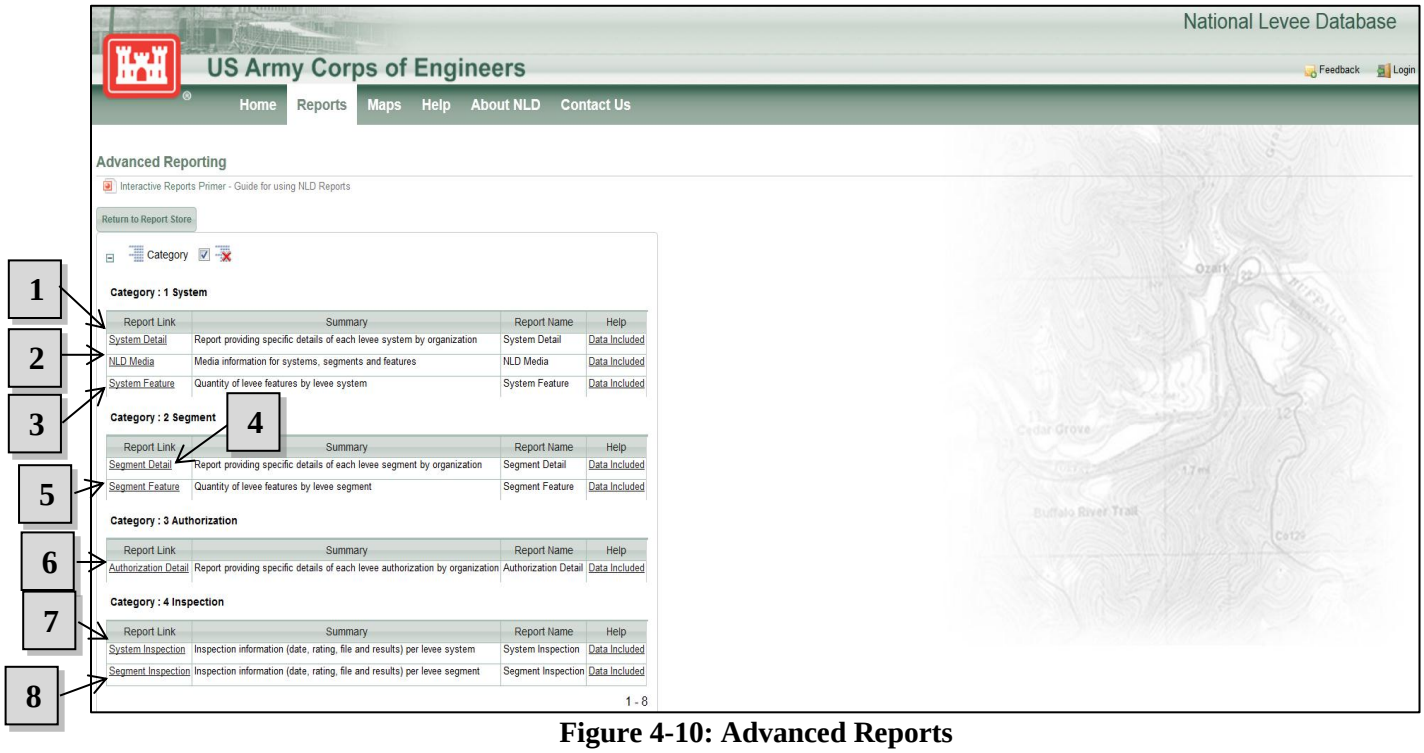
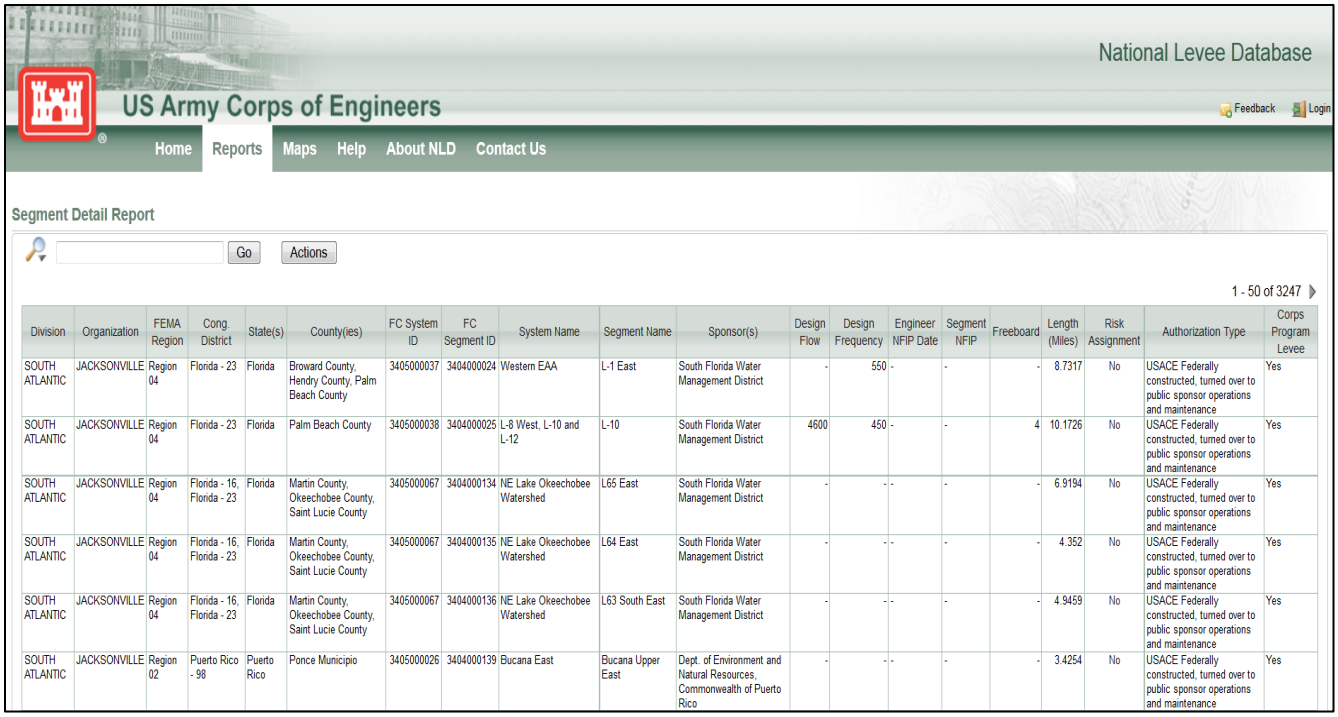


Figure 4-10: Advanced Reports

1. **System Detail:** Report providing specific details of each levee system by organization
2. **NLD Media:** Report providing media information for systems, segments, and features
3. **System Feature:** Report providing quantity of levee features (i.e. gravity drains, pump stations relief wells, boreholes, etc.) by levee system
4. **Segment Detail:** Report providing specific details of each levee segment by organization
5. **Segment Feature:** Report providing quantity of levee features (gravity drains, pump stations, relief wells, boreholes, etc.) by levee segment
6. **Authorization Detail:** Report providing specific details of each levee project by organization
7. **System Inspection:** Report providing levee inspection information (date and rating) by levee system
8. **Segment Inspection:** Report providing levee inspection information (date and rating) by levee segment

By clicking on a report link, in this case Segment Detail report, you will be taken to the report view shown below in **Figure** 4-11**:** View Report.



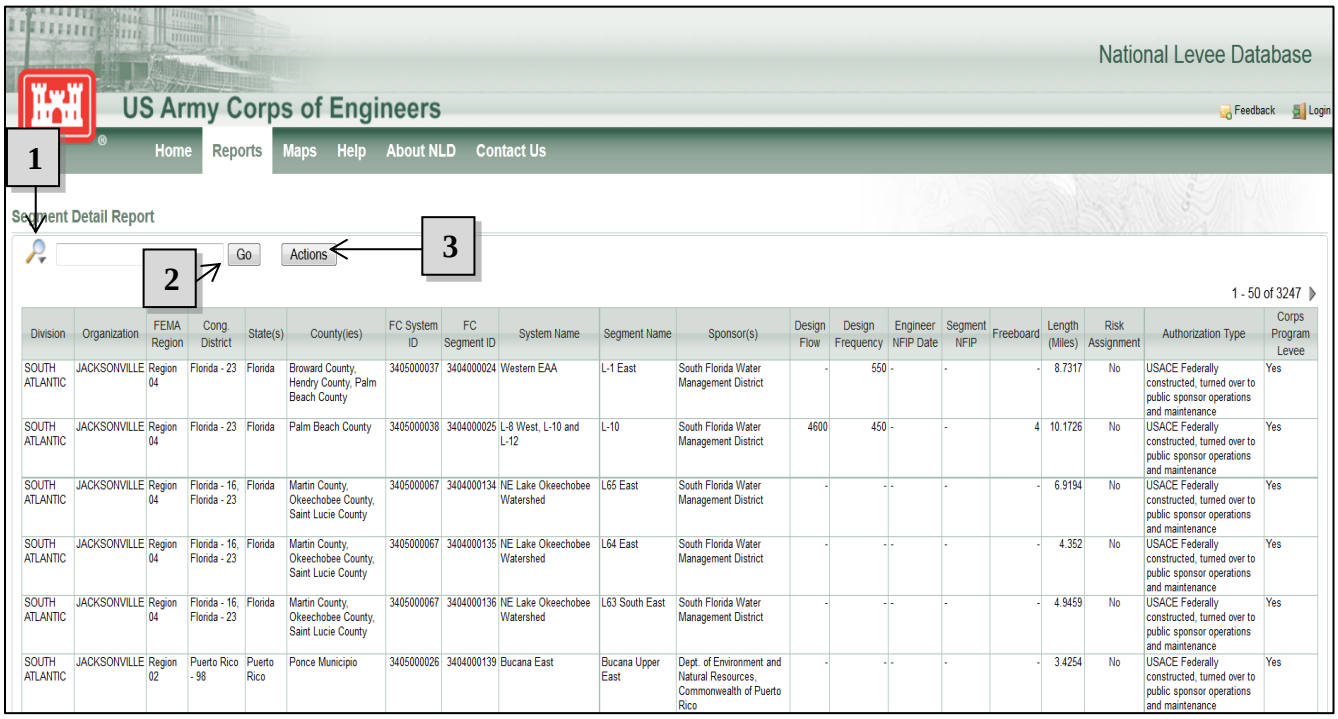
Division	Organization	FEMA Region	Cong. District	State(s)	County(ies)	FC System ID	FC Segment ID	System Name	Segment Name	Sponsor(s)	Design Flow	Design Frequency	Engineer NFIP Date	Segment NFIP	Freeboard	Length (Miles)	Risk Assignment	Authorization Type	Corps Program Levee
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Broward County, Hendry County, Palm Beach County	3405000037	3404000024	Western EAA	L-1 East	South Florida Water Management District	-	550	-	-	-	8.7317	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Palm Beach County	3405000038	3404000025	L-8 West, L-10 and L-12	L-10	South Florida Water Management District	4600	450	-	-	4	10.1726	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000134	NE Lake Okeechobee Watershed	L65 East	South Florida Water Management District	-	-	-	-	-	6.9194	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000135	NE Lake Okeechobee Watershed	L64 East	South Florida Water Management District	-	-	-	-	-	4.352	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000136	NE Lake Okeechobee Watershed	L63 South East	South Florida Water Management District	-	-	-	-	-	4.9459	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 02	Puerto Rico - 98	Puerto Rico	Ponce Municipio	3405000026	3404000139	Bucana East	Bucana Upper East	Dept. of Environment and Natural Resources, Commonwealth of Puerto Rico	-	-	-	-	-	3.4254	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes

Figure 4-11: View Report

4.5 Interactive Reporting Tools

NLD reports are fully customizable. All columns are customizable so that you may search, organize, and filter the data using the interactive reporting tool features. These tools can be accessed by selecting the column headings and also from the "Actions" button, which provides additional search and display features.

The basic functions of the interactive reporting tool include the following:



Division	Organization	FEMA Region	Cong. District	State(s)	County(ies)	FC System ID	FC Segment ID	System Name	Segment Name	Sponsor(s)	Design Flow	Design Frequency	Engineer NFIP Date	Segment NFIP	Freeboard	Length (Miles)	Risk Assignment	Authorization Type	Corps Program Levee
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Broward County, Hendry County, Palm Beach County	3405000037	3404000024	Western EAA	L-1 East	South Florida Water Management District	-	550	-	-	-	8.7317	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Palm Beach County	3405000038	3404000025	L-8 West, L-10 and L-12	L-10	South Florida Water Management District	4600	450	-	-	4	10.1726	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000134	NE Lake Okeechobee Watershed	L65 East	South Florida Water Management District	-	-	-	-	-	6.9194	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000135	NE Lake Okeechobee Watershed	L64 East	South Florida Water Management District	-	-	-	-	-	4.352	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 16, Florida - 23	Florida	Martin County, Okeechobee County, Saint Lucie County	3405000067	3404000136	NE Lake Okeechobee Watershed	L63 South East	South Florida Water Management District	-	-	-	-	-	4.9459	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 02	Puerto Rico - 98	Puerto Rico	Ponce Municipio	3405000026	3404000139	Bucana East	Bucana Upper East	Dept. of Environment and Natural Resources, Commonwealth of Puerto Rico	-	-	-	-	-	3.4254	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes

Figure 4-12: View Report

1. Search (Magnifying Glass): Allows you to search and filter by a keyword within a specific column. For a complete list of columns, see **Figure** 4-13**:** Search
2. Go: Allows you to submit request to search the NLD and display search results based upon the search criteria entered
3. Actions button: Allows you to customize the report to your liking. Options include Select Columns, Filter, Rows Per Page, Sort, Control Break, Highlight, Compute, Group By, Reset, Help and Download

4.5.1 Search

The "Search" feature allows you to search and filter the report for a specific keyword or value within the report.

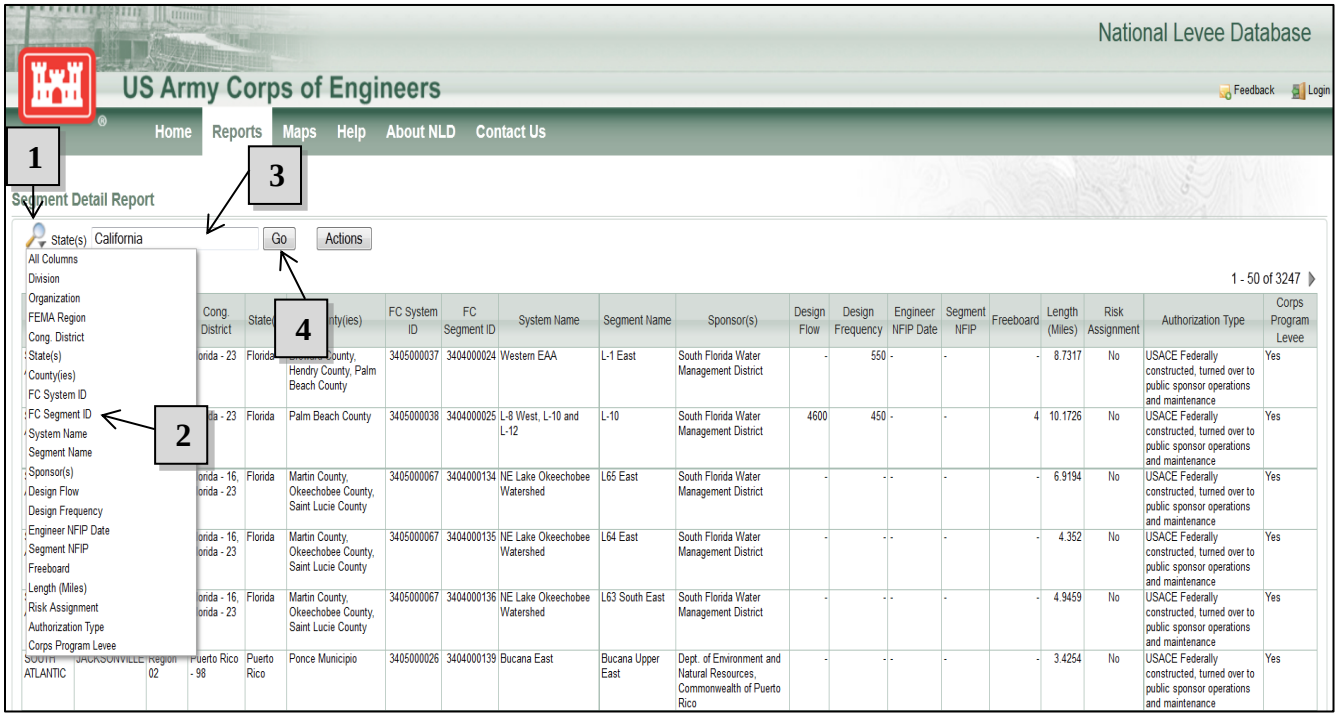


Figure 4-13: Search

1. Click on the "magnifying glass" icon, a list of columns will display
2. Select a column name to search and filter the report by
3. Insert search criteria (keyword or value) in the search box
4. Click the "Go" button to submit the search
5. When the system is loading, it will display a symbol in the center top of the screen to notify you of its current status as shown in
6. Figure 4-14: Loading Symbol

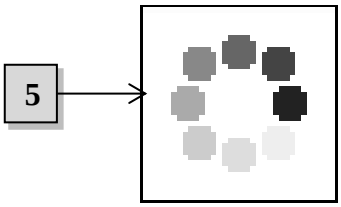
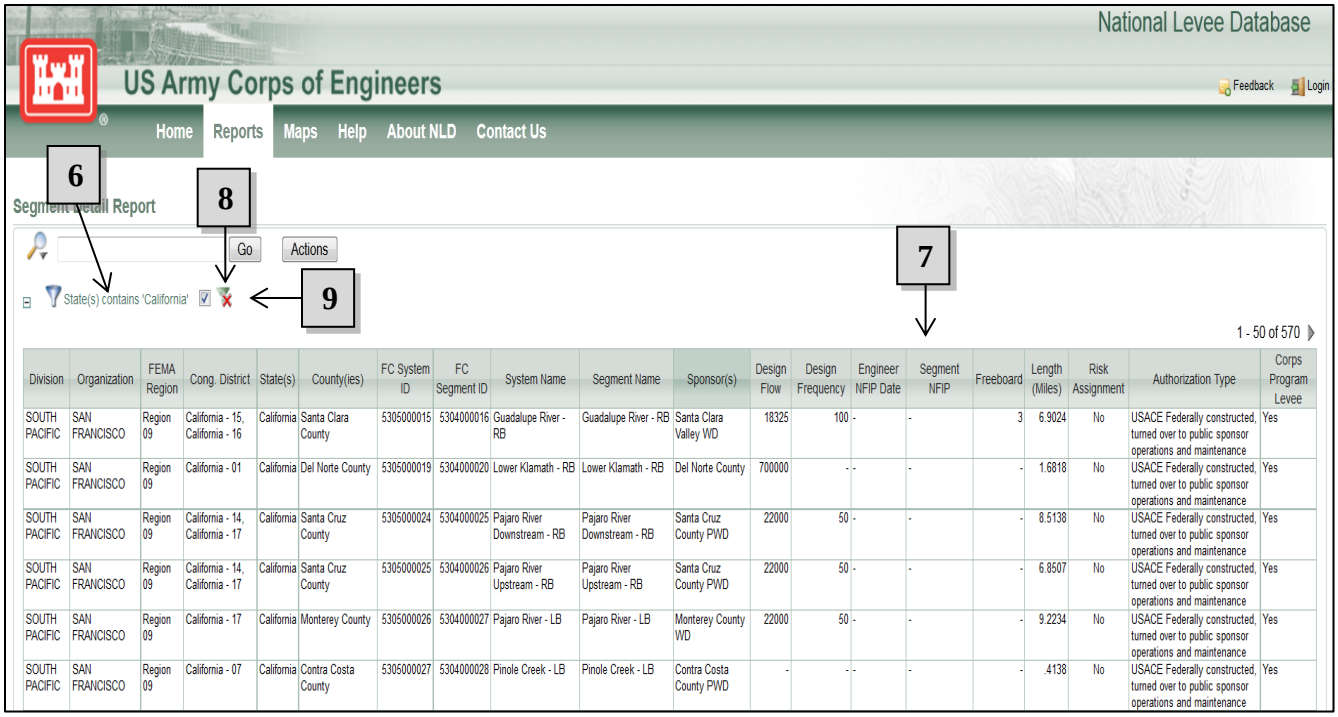


Figure 4-14: Loading Symbol



Division	Organization	FEMA Region	Cong. District	State(s)	County(ies)	FC System ID	FC Segment ID	System Name	Segment Name	Sponsor(s)	Design Flow	Design Frequency	Engineer NFIP Date	Segment NFIP	Freeboard	Length (Miles)	Risk Assignment	Authorization Type	Corps Program Levee
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 15, California - 16	California	Santa Clara County	5305000015	5304000016	Guadalupe River - RB	Guadalupe River - RB	Santa Clara Valley WD	18325	100	-	-	3	6.9024	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 01	California	Del Norte County	5305000019	5304000020	Lower Klamath - RB	Lower Klamath - RB	Del Norte County	700000	-	-	-	-	1.6818	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 14, California - 17	California	Santa Cruz County	5305000024	5304000025	Pajaro River Downstream - RB	Pajaro River Downstream - RB	Santa Cruz County PWD	22000	50	-	-	-	8.5138	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 14, California - 17	California	Santa Cruz County	5305000025	5304000026	Pajaro River Upstream - RB	Pajaro River Upstream - RB	Santa Cruz County PWD	22000	50	-	-	-	6.8507	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 17	California	Monterey County	5305000026	5304000027	Pajaro River - LB	Pajaro River - LB	Monterey County WD	22000	50	-	-	-	9.2234	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH PACIFIC	SAN FRANCISCO	Region 09	California - 07	California	Contra Costa County	5305000027	5304000028	Pinole Creek - LB	Pinole Creek - LB	Contra Costa County PWD	-	-	-	-	-	.4138	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes

Figure 4-15: Display Criteria

7. After the system loads, it will display the customized filter and search criteria below the search bar
8. The interactive reporting capability displays a table of results based upon your search criteria
9. By clicking the checked box on and off you can remove the specific search terms from the results table
10. By clicking the "Filter" icon with the red "X" you can completely remove the specific search terms

4.5.2 Actions Menu

The Actions Menu contains many tasks that are useful in manipulating an Interactive Report. All Interactive Reporting functions from the Actions Menu are displayed in the example report as shown in **Figure** 4-16**:** Actions Menu Functions.

4.5.2.1 Select Columns

The "Select Columns" option in the actions menu allows you to reorder/modify the columns displayed in a report.

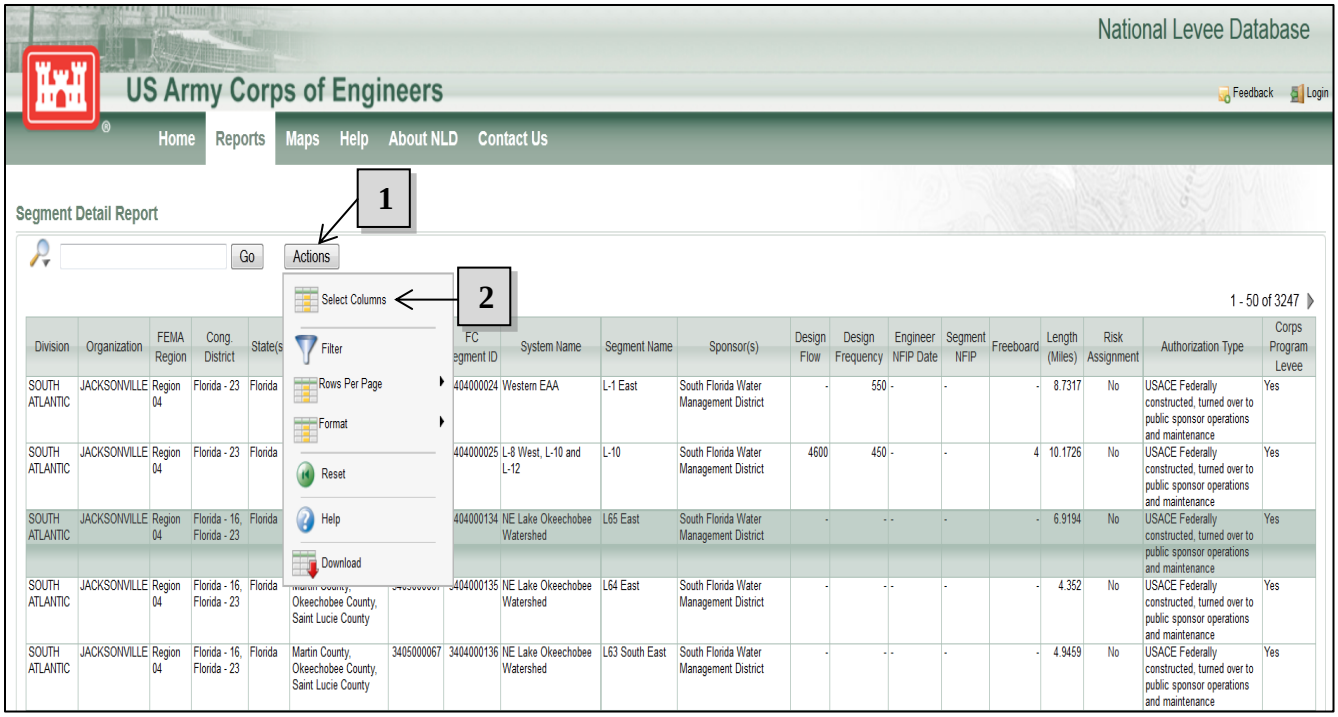


Figure 4-16: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Select Columns," a new region will display as shown below in **Figure** 4-17**:** Actions Menu - Select Columns

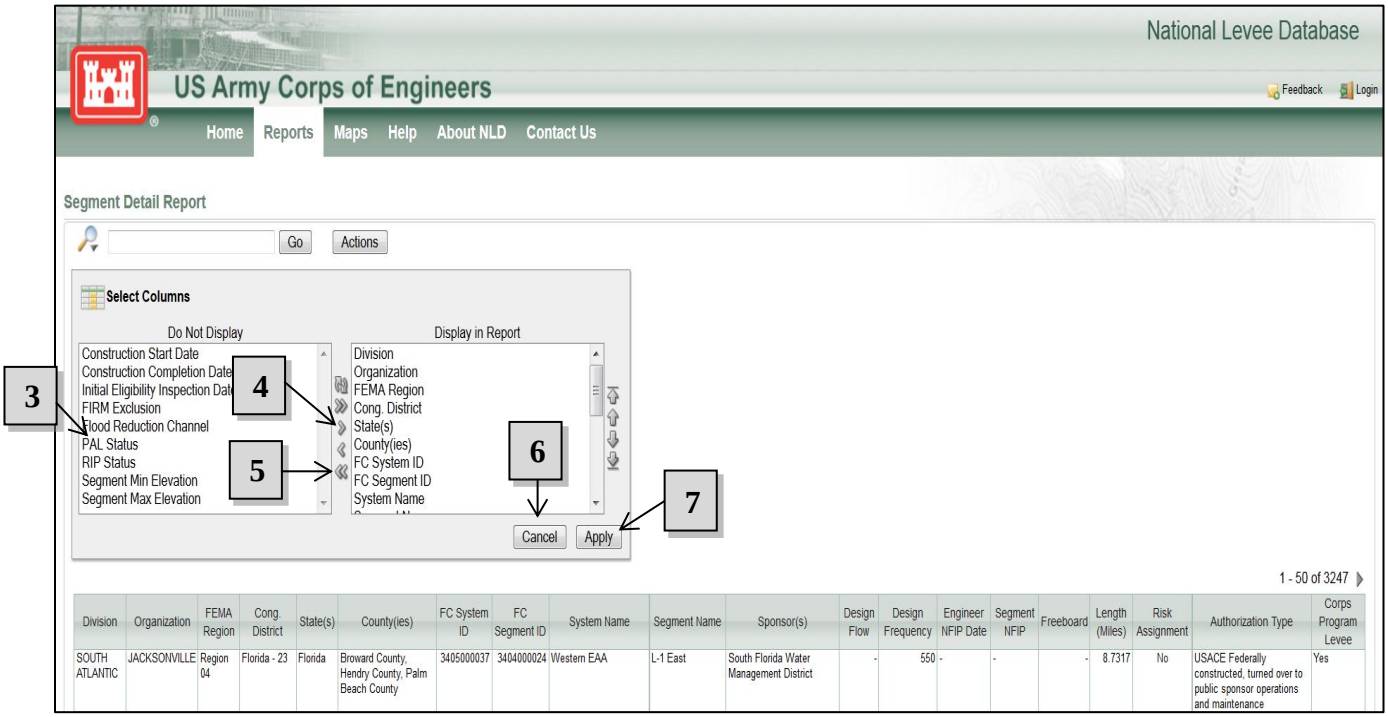


Figure 4-17: Actions Menu - Select Columns

3. Click on a column name (i.e. "PAL Status") in the "Do Not Display" table. The column name will become highlighted (Note: You can also click on a name in the "Display in Report" Column)
4. Click the single arrow to move it over to the "Display in Report" table. The arrow pointing right will move the column to the "Display in Report" table and vice versa
5. To move all columns to one side or the other, click the double arrows

6. Click the “Cancel” button to reset
7. Click the “Apply” button to have your desired column settings displayed

4.5.2.2 Filtering Option

The “Filter” option allows you to modify the report query through the use of Oracle operators and/or expressions.

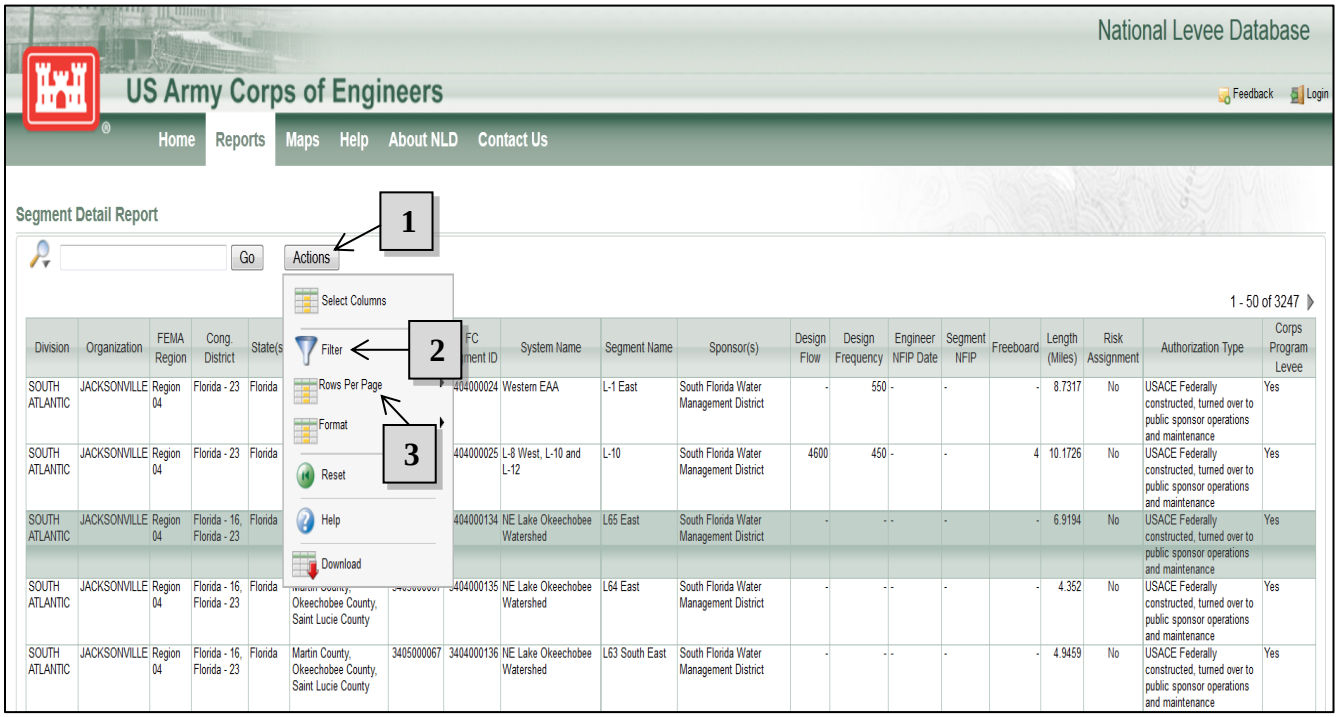
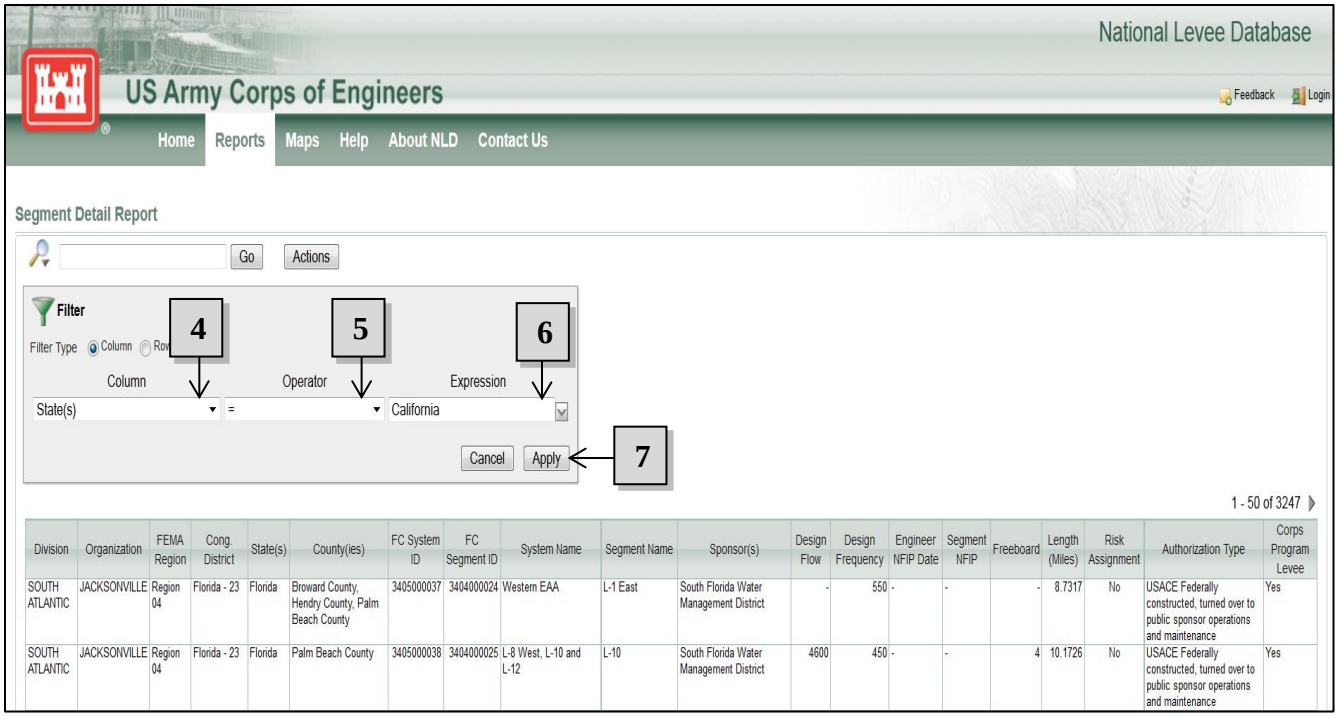


Figure 4-18: Actions Menu Functions

1. Click on the “Actions” button
2. Click on “Filter.” A new filter region will display as shown below in **Figure** 4-19**:** Actions Menu - Filter
3. Click on “Rows Per Page” to select the number of rows you’d like to display on each report page. (All reports will default to a view of 50 rows per page)



Division	Organization	FEMA Region	Cong. District	State(s)	County(ies)	FC System ID	FC Segment ID	System Name	Segment Name	Sponsor(s)	Design Flow	Design Frequency	Engineer NFIP Date	Segment NFIP	Freeboard	Length (Miles)	Risk Assignment	Authorization Type	Corps Program Levee
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Broward County, Hendry County, Palm Beach County	3405000037	3404000024	Western EAA	L-1 East	South Florida Water Management District	-	550	-	-	-	8.7317	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes
SOUTH ATLANTIC	JACKSONVILLE	Region 04	Florida - 23	Florida	Palm Beach County	3405000038	3404000025	L-8 West, L-10 and L-12	L-10	South Florida Water Management District	4600	450	-	-	4	10.1726	No	USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes

Figure 4-19: Actions Menu - Filter

4. Select a column by clicking on the “Column” dropdown list
5. Select an operator by clicking on the “Operator” dropdown list
6. Select an expression by clicking on the “Expression” dropdown list or type your own expression into the field
7. Click the “Apply” button. Results are filtered. You can apply multiple filters to the report view, enable or disable them by checking them on or off, and remove them if necessary (see steps 8-9 under **Figure** 4-15**:** Display Criteria)

4.5.2.3 Sort

The “Sort” option in the actions menu allows you to arrange the columns in a report.

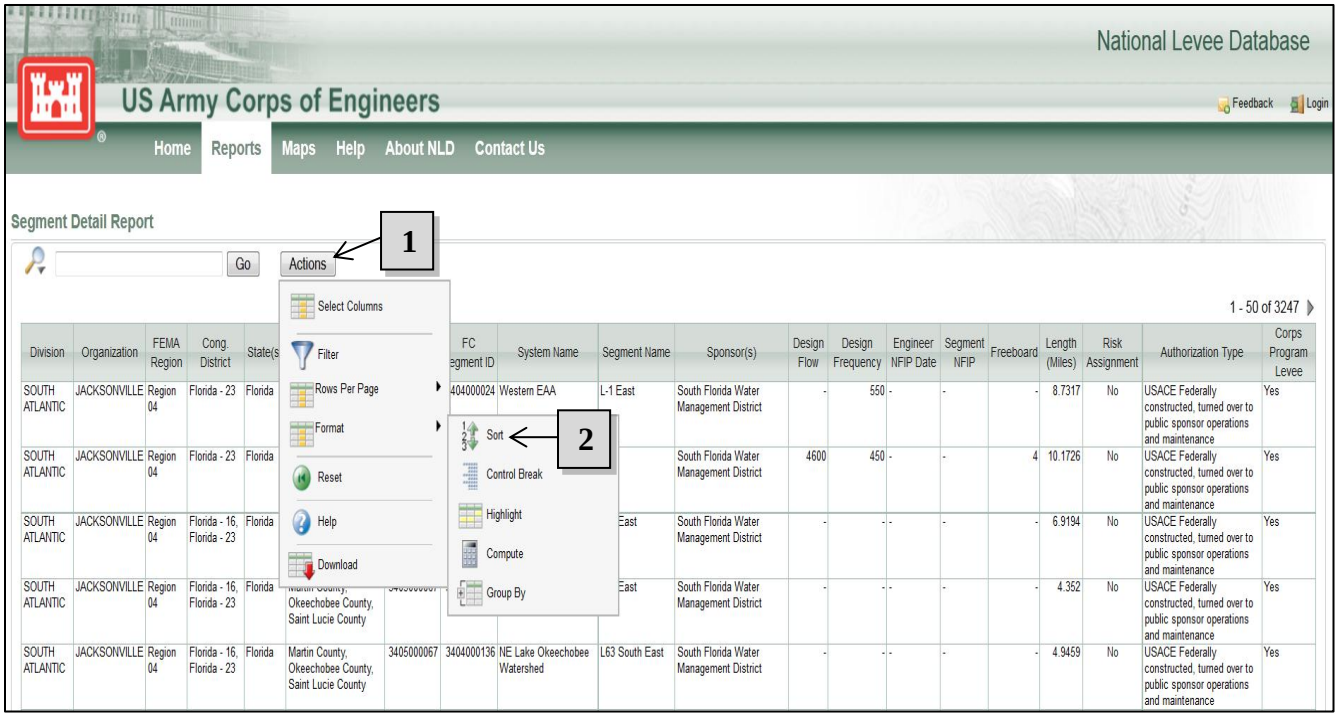


Figure 4-20: Advanced Search Options

1. Click on the "Actions" button
2. Click on "Format" > "Sort." A new sort region will display as shown below in **Figure** 4-21**:** Actions Menu - Sort

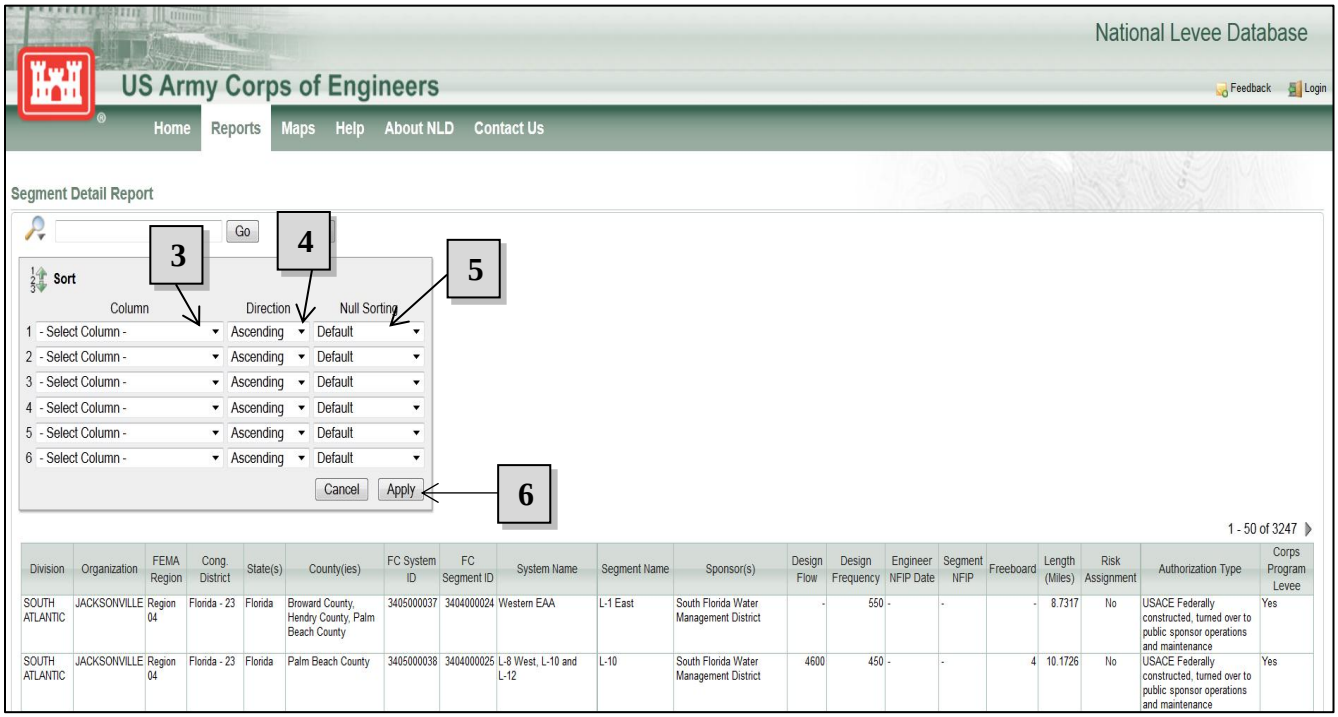


Figure 4-21: Actions Menu - Sort

3. Click on dropdown arrow in the Columns box to change columns to sort
4. Click the dropdown arrow in the Direction box to sort the reports in ascending or descending order
5. Click the dropdown arrow in the Null Sorting box to determine where you want your null results to populate
6. Click the "Apply" button (you also have the choice of clicking the "Cancel" button)

4.5.2.4 Control Break

The "Control Break" option in the actions menu allows you to organize the data by grouping results into sections.

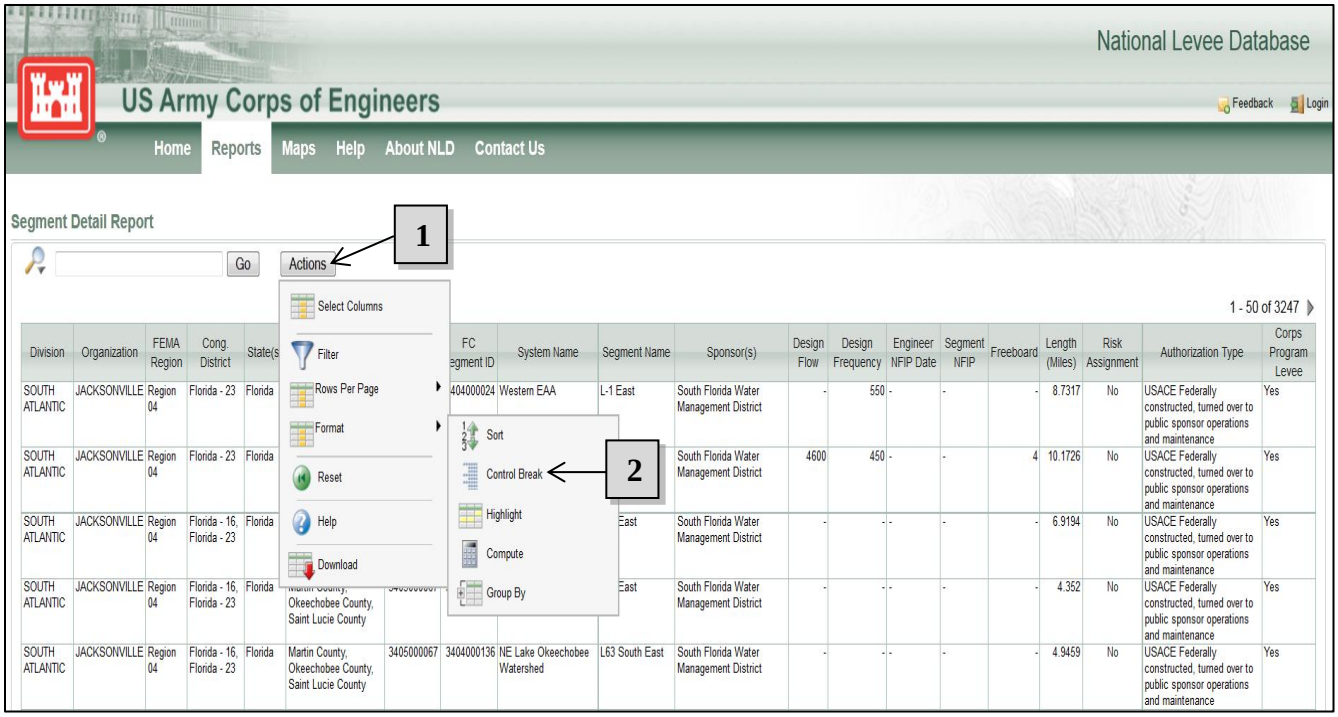


Figure 4-22: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Format" > "Control Break." A new region will display as shown below in **Figure** 4-23**:** Actions Menu - Control Break

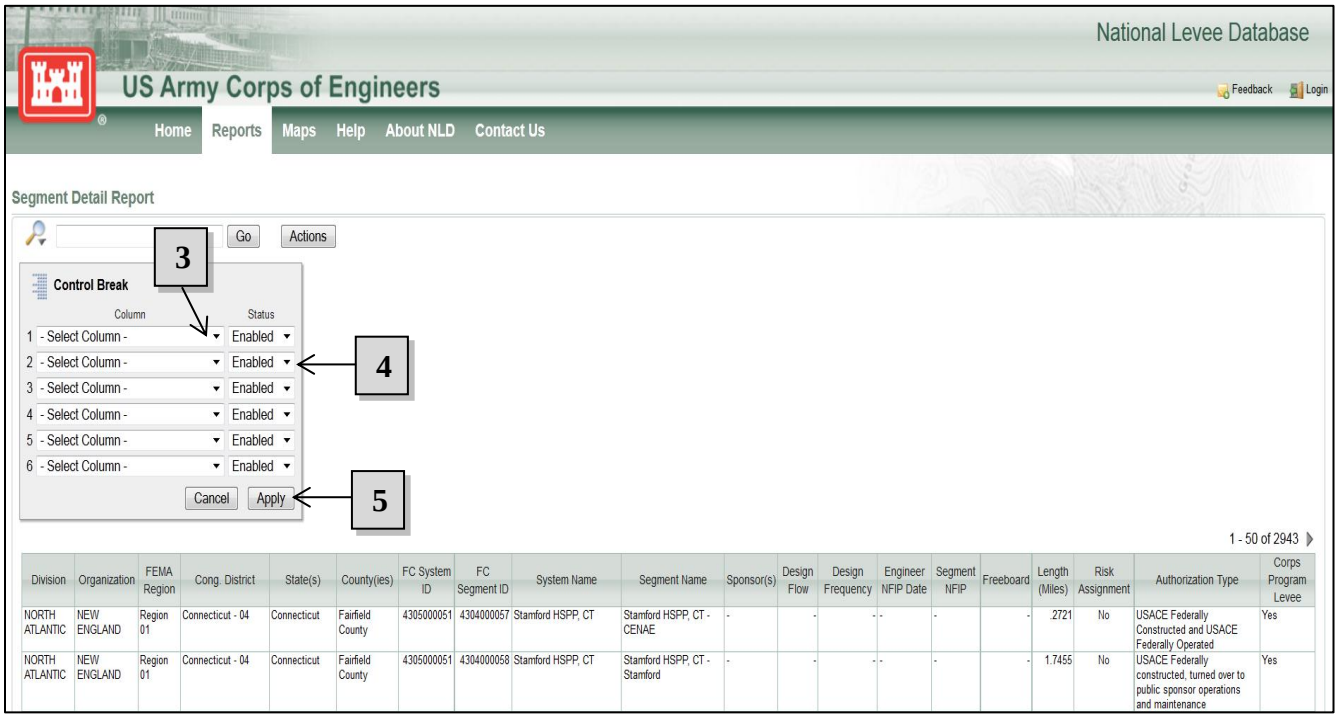


Figure 4-23: Actions Menu - Control Break

3. Click on dropdown arrow in the Columns box to group data into several columns
4. Click the dropdown arrow in the Status box to enable or disable the column
5. Click the "Apply" button (You also have the choice of clicking the "Cancel" button)

4.5.2.5 Highlight

The "Highlight" option in the actions menu allows you define a filter and view the filtered results using custom color options.

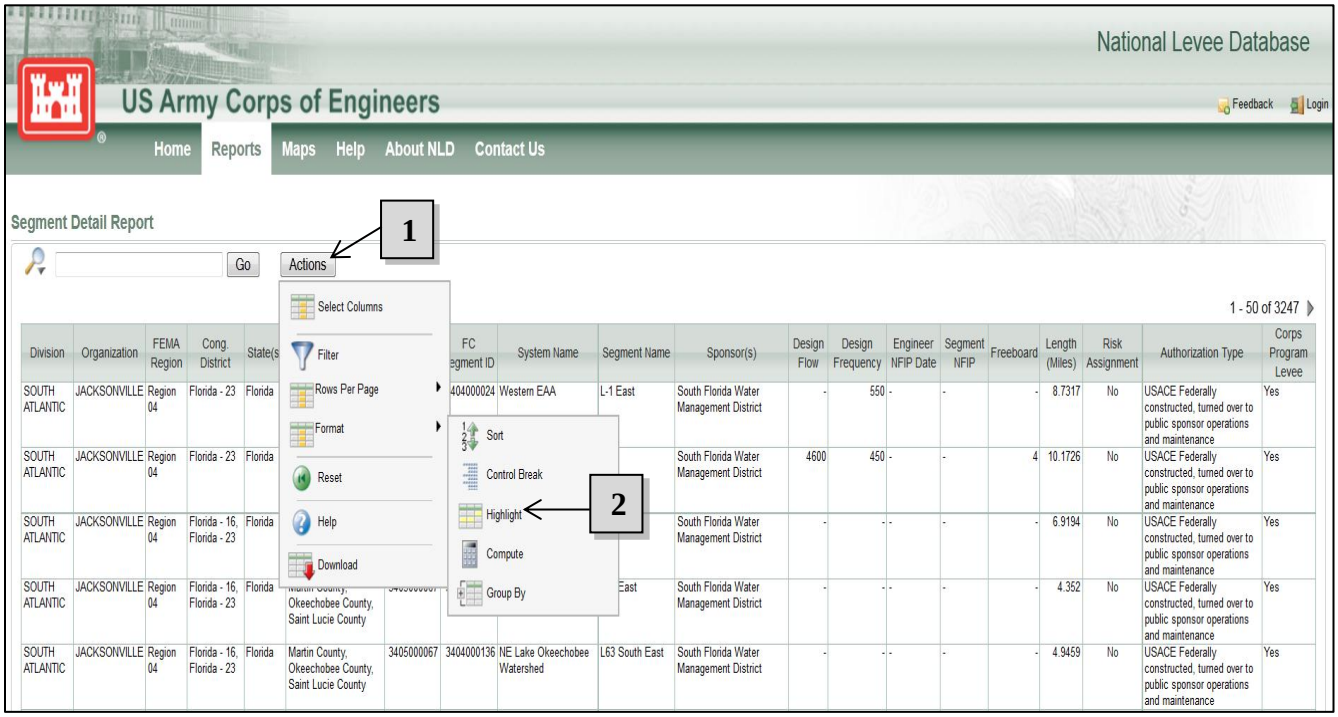
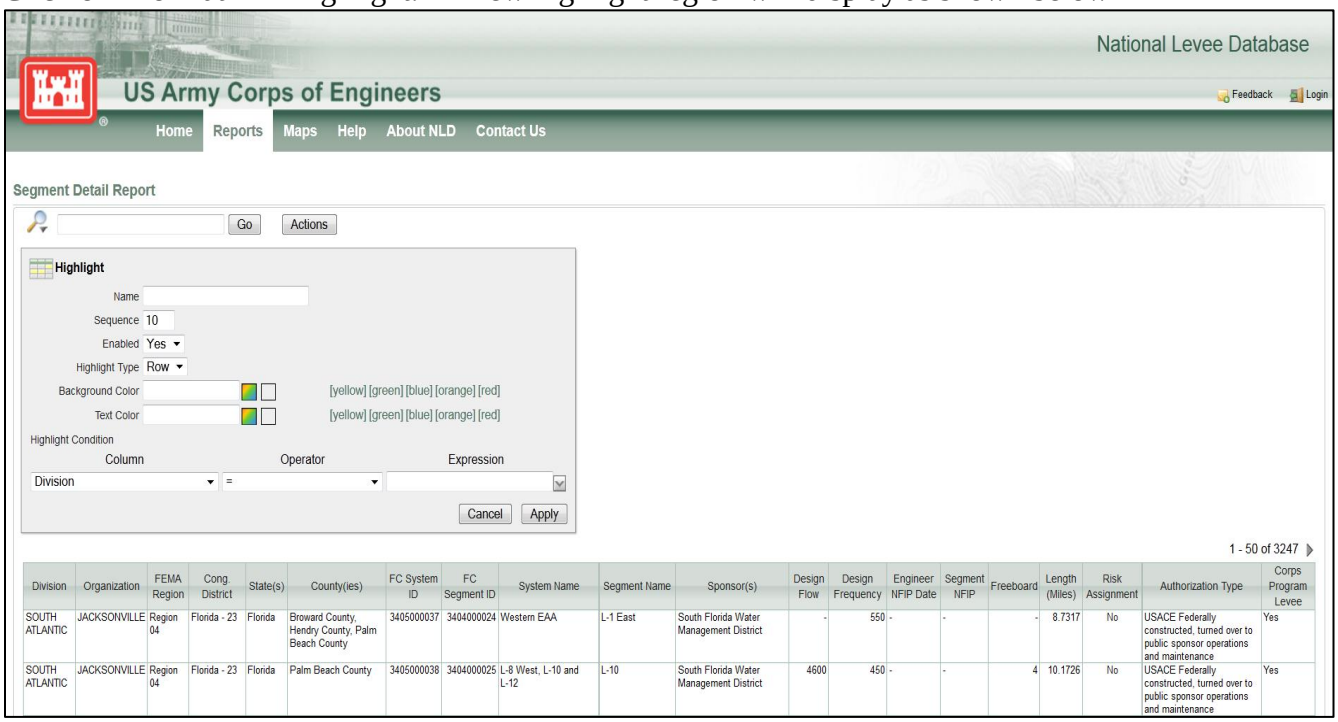


Figure 4-24: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Format" > "Highlight." A new highlight region will display as shown below in



3. Figure **4-25**: **Actions Menu** - Highlight

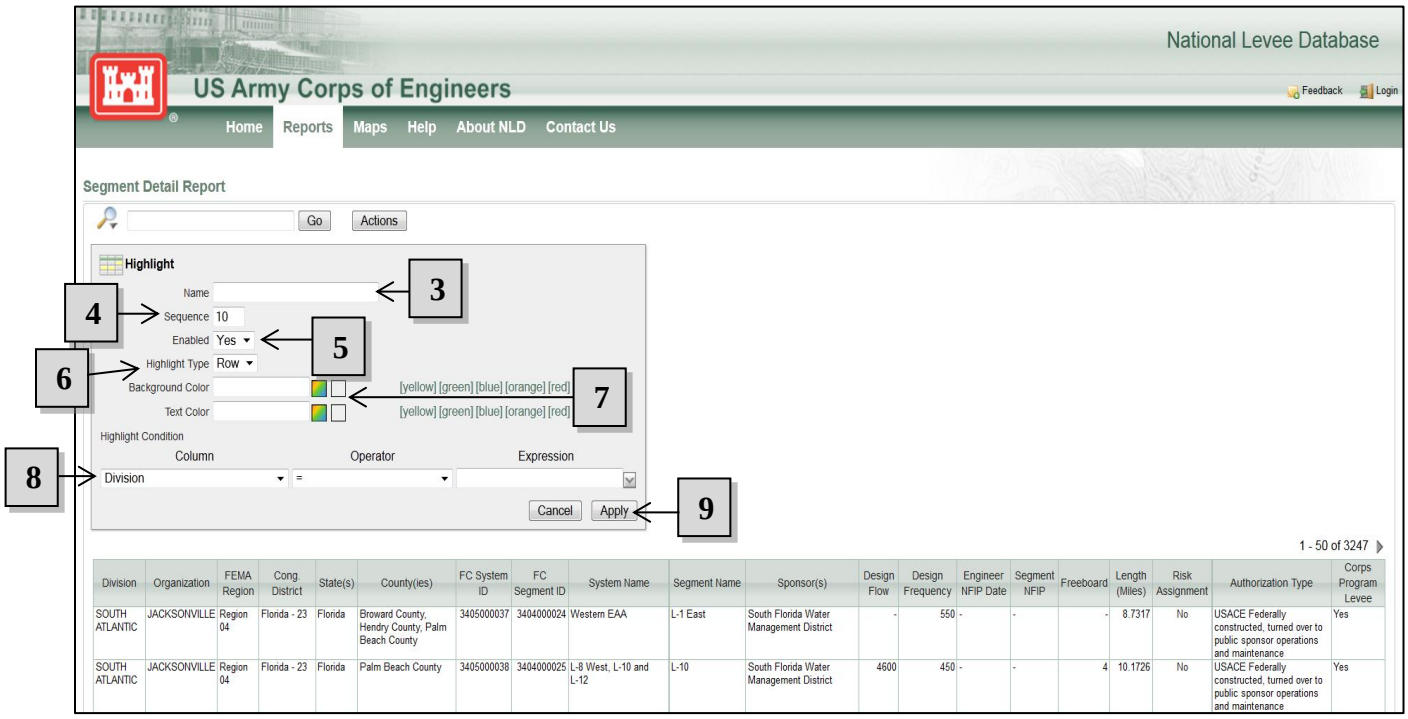


Figure 4-25: Actions Menu - Highlight

4. Enter a "Name" for a customized highlight filter
5. Enter a number in the "Sequence" box. A sequence identifies the sequence in which the rules will be evaluated
6. Select an "Enabled" status (Yes or No). This identifies if the rule is enabled or disabled
7. Select the "Highlight Type." This will identify whether the Row or Cell should be highlighted
8. You can apply colors to certain data set by clicking on the color links beside the background color box and text color box. If you do not like the color selections given by the links, click on the multicolor box. A separate window will display with more color options
9. By selecting the Column, Operator, and Expression in the Highlighted Condition section you will define your filter condition
10. Click the "Apply" button. The fields you selected will be highlighted. (You also have the choice of clicking the "Cancel" button)

4.5.2.6 Compute

The "Compute" option in the actions menu allows you to add computed columns to a report. These can be mathematical computations or standard Oracle functions applied to existing columns.

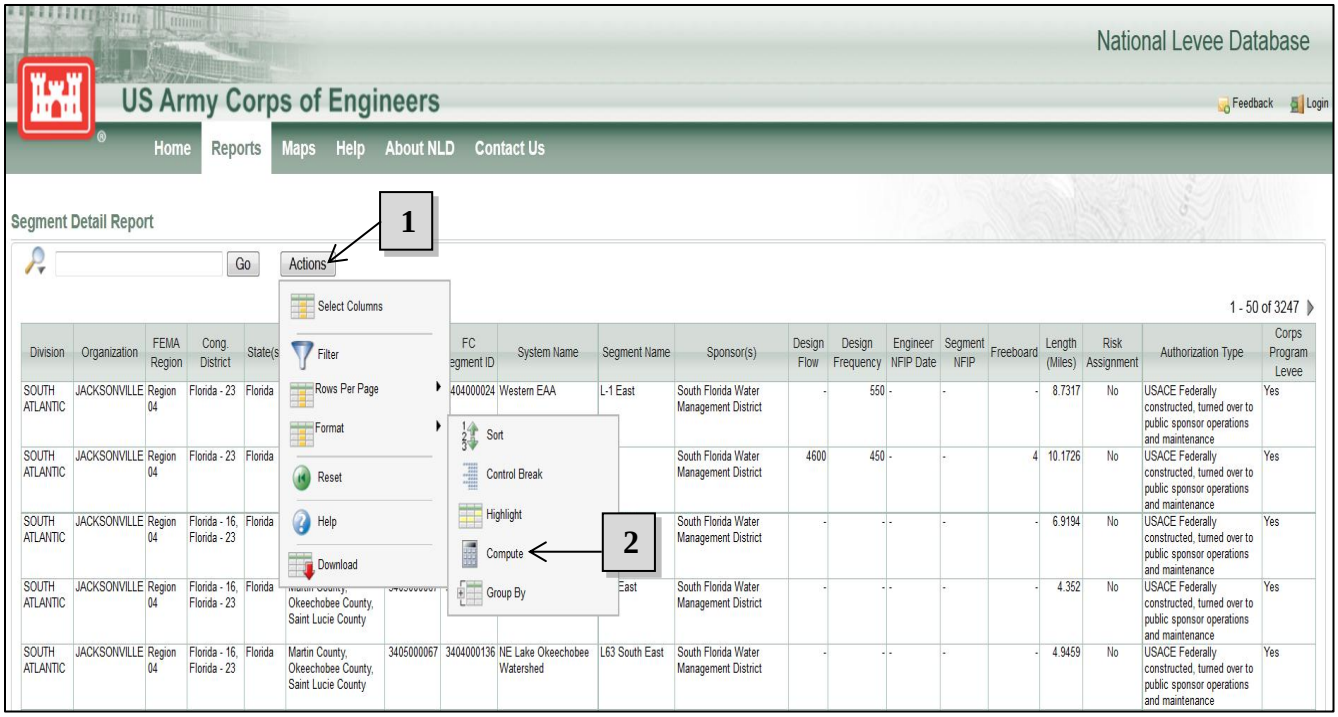


Figure 4-26: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Format" > "Compute." A new computation region will display as shown below in **Figure 4-27:** Actions Menu - Compute

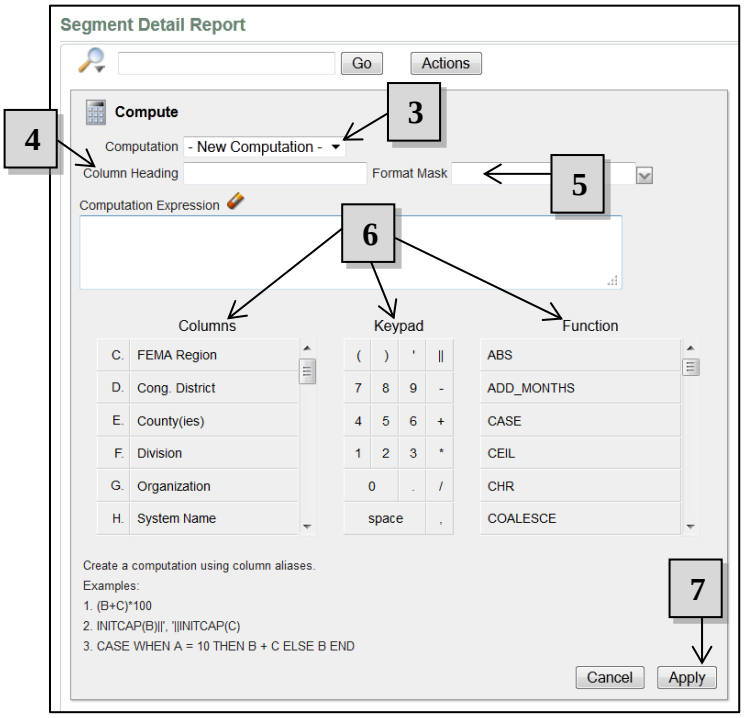


Figure 4-27: Actions Menu - Compute

3. Click on the dropdown arrow in the "Computation" box to select a computation
4. Fill in the "Column Heading" box
5. Select a "Format Mask" to define how the data is to be displayed

6. Fill in “Computation Expression” box. Within the computation columns are referenced using the aliases displayed. Clicking on the column name or alias will write them into the Computation Expression box. Please note the keypad is displayed as a shortcut. These are commonly used keys
7. Click the “Apply” button (You also have the choice of clicking the “Cancel” button)

4.5.2.7 Group By

The “Group By” option in the actions menu allows you to select multiple filters to group your report results by. The “Group By” function allows the user to select functions and sort a group of one to three report column headings.

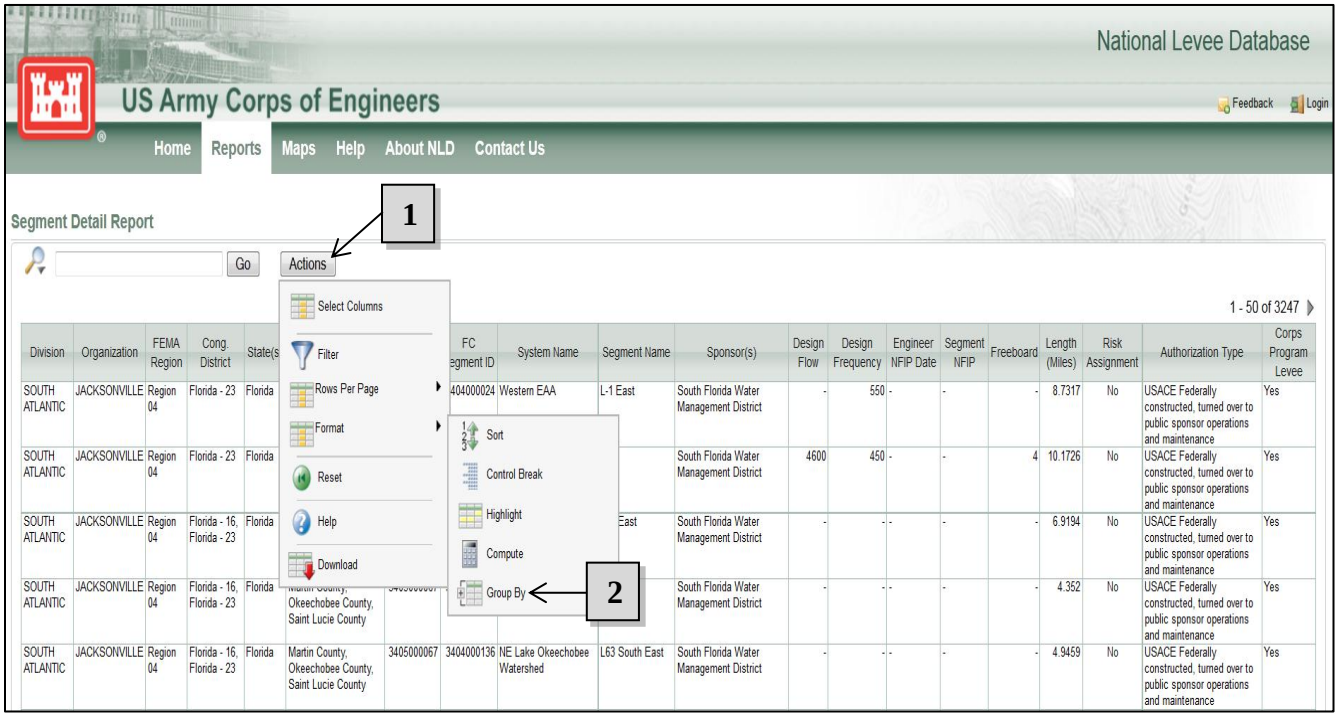


Figure 4-28: Actions Menu Functions

1. Click on the “Actions” button
2. Click on “Format” > “Group By.” A new group by region will display as shown below in **Figure** 4-29**:** Actions Menu - Group By

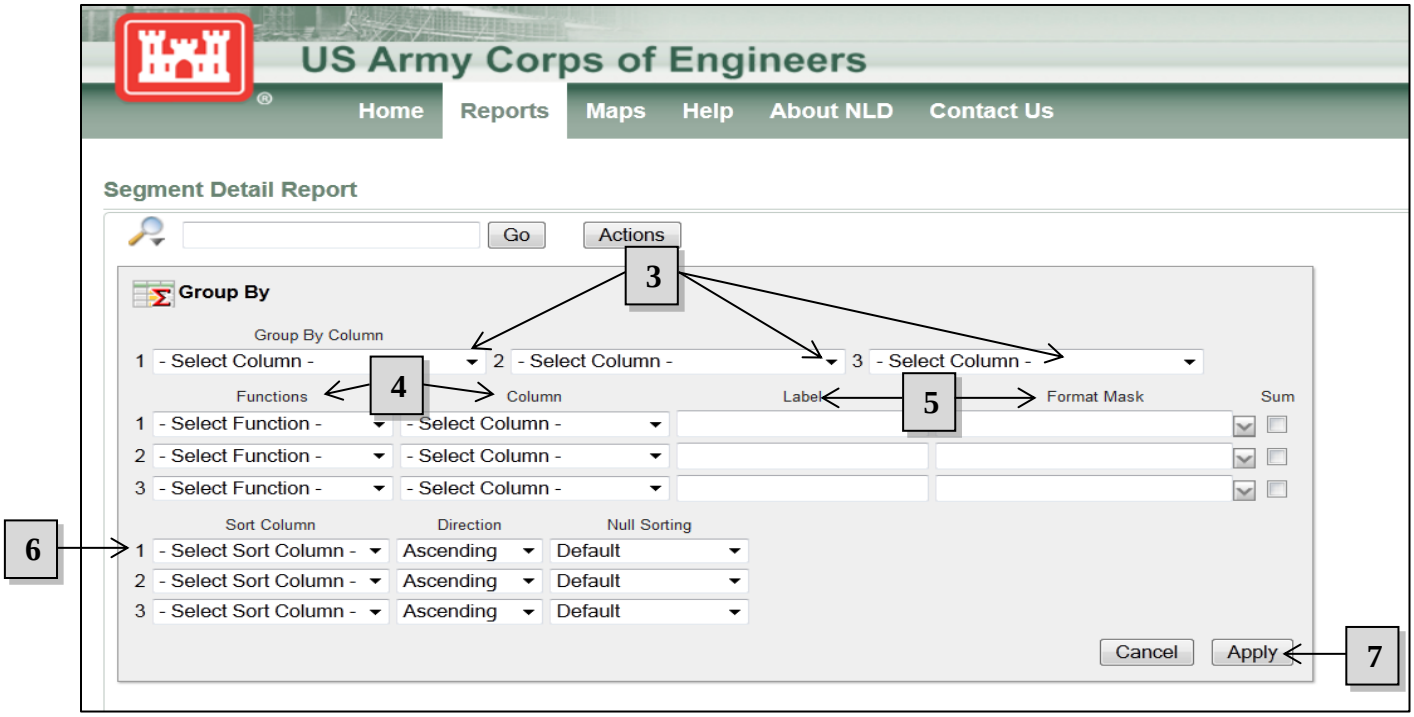


Figure 4-29: Actions Menu - Group By

3. Click on the dropdown arrows in the "Group By Column" boxes to select the columns to group by
4. Click on the dropdown arrows to select functions to perform on the associated selected columns
5. Create a Label and Format Mask for the column functions selected
6. Sort the report by selected columns
7. Click the "Apply" button (You also have the choice of clicking the "Cancel" button)

4.5.2.8 Reset

The "Reset" option in the actions menu allows you to reset the report back to the default settings and remove any customizations that were added.

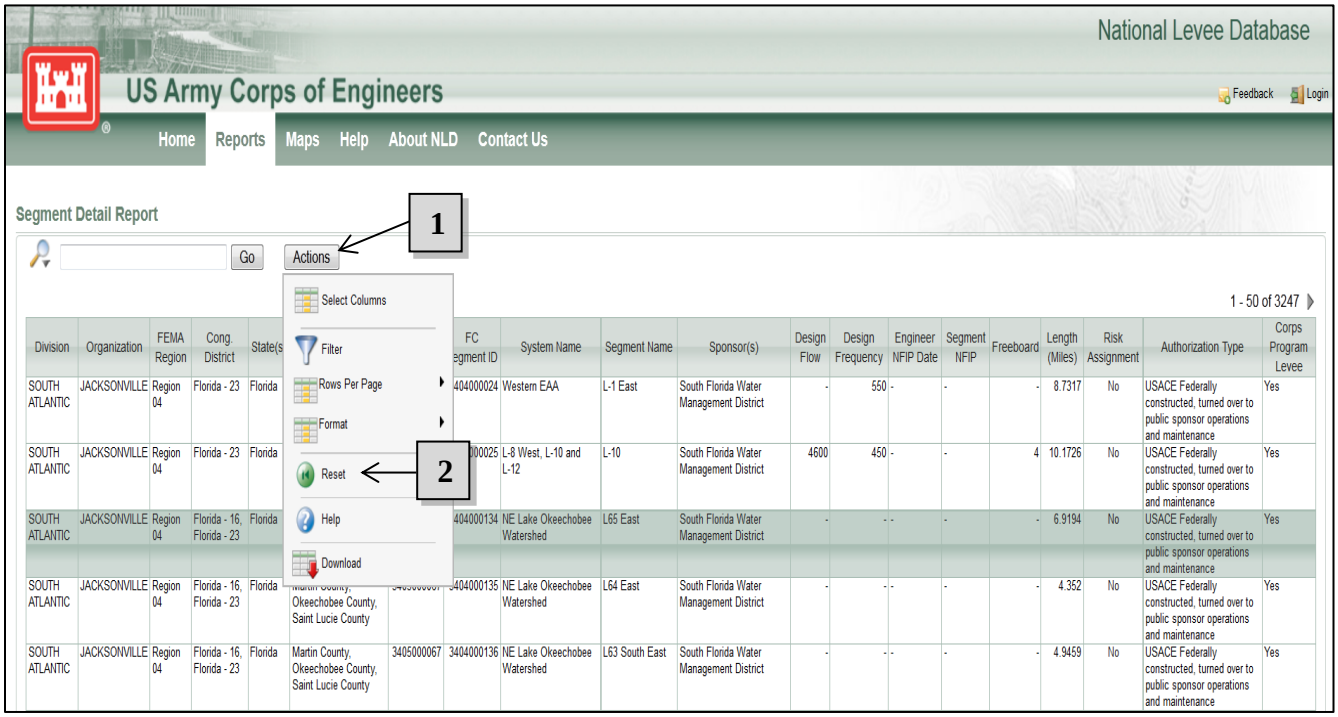


Figure 4-30: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Reset." A reset region will display as shown in **Figure** 4-31**:** Actions Menu - Reset

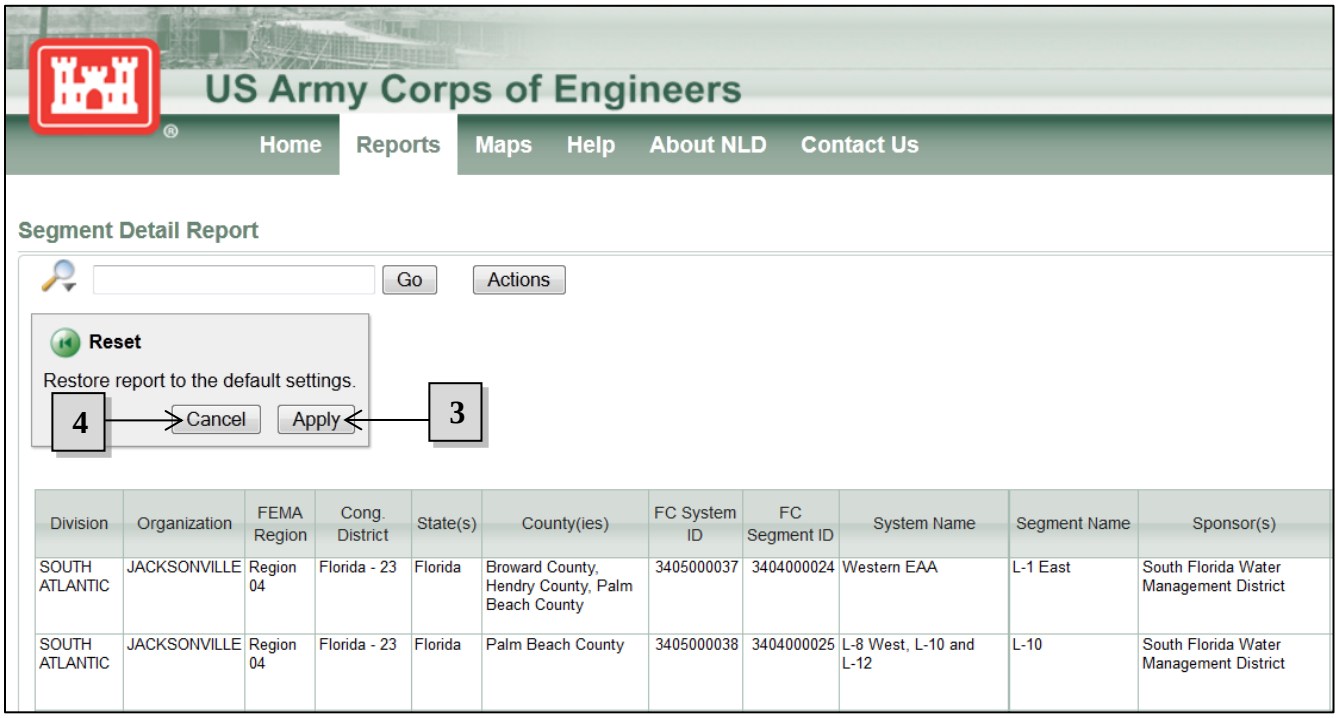


Figure 4-31: Actions Menu - Reset

3. Click the "Apply" button to reset report to the default settings
4. Click the "Cancel" button if you do not want to reset report

4.5.2.9 Help

The "Help" option in the actions menu provides a detailed explanation on the Interactive Reporting functions.

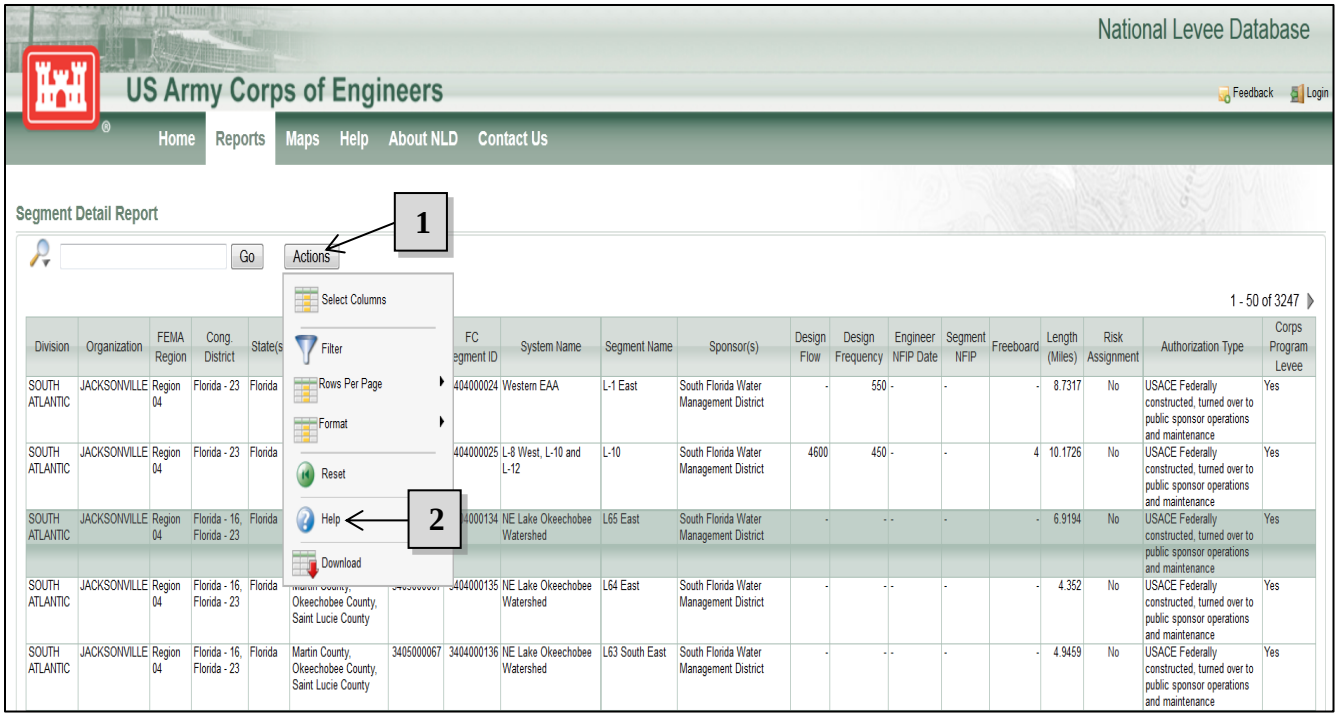


Figure 4-32: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Help." A help region will display as shown in **Figure** 4-33**:** Actions Menu - Help

Interactive Report Help

Interactive report regions enable end users to customize reports. Users can alter the layout of report data by selecting columns, applying filters, highlighting, and sorting. Users can also define breaks, aggregations, charts, group bys, and add their own computations. Users can also set up a subscription so that an HTML version of the report will be emailed to them at a designated interval. Users can create multiple variations of a report and save them as named reports, for either public or private viewing.

An interactive report can be customized using the Search bar, Actions menu, or Column Heading menu. To learn more, see "Customizing Interactive Reports" in online Help.

Search Bar

At the top of each report page is a search region. This region (or Search bar) provides the following features:

- **Select columns icon** enables you to identify which column to search (or all).
- **Text area** enables you to enter case insensitive search criteria (wild card characters are implied).
- **Go button** executes the search.
- **Reports** displays alternate default and saved private or public reports.
- **Actions Menu** enables you to customize a report. See the sections that follow.

Actions Menu

The Actions menu appears to the right of the Go button on the Search bar. Use this menu to customize an interactive report.

Select Columns

Used to modify the columns displayed. The columns on the right display. 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 **.

Filter

Focuses the report by adding or modifying the `WHERE` clause on the query. You can filter on a column or by row.

If you filter by column, select a column (it does not need to be one that displays), select a standard Oracle operator (=, !=, not in, between), and enter an expression to compare against. Expressions are case sensitive. Use % as a wild card (for example, `STATE_NAME like A%)`.

If you filter by row, you can create complex `WHERE` clauses using column aliases and any Oracle functions or operators (for example, `G = 'VA' or G = 'CT'`, where `G` is the alias for `CUSTOMER_STATE`).

Rows Per Page

Sets the number of records to display per page.

Format

Format enable you to customize the display of the report. Format contains the following submenu:

- Sort
- Control Break
- Highlight
- Compute
- Aggregate
- Chart
- Group By

Sort

Figure 4-33: Actions Menu - Help

4.5.2.10 Download

The Download option in the actions menu allows you to download the current result set of the report into an Excel CSV file.

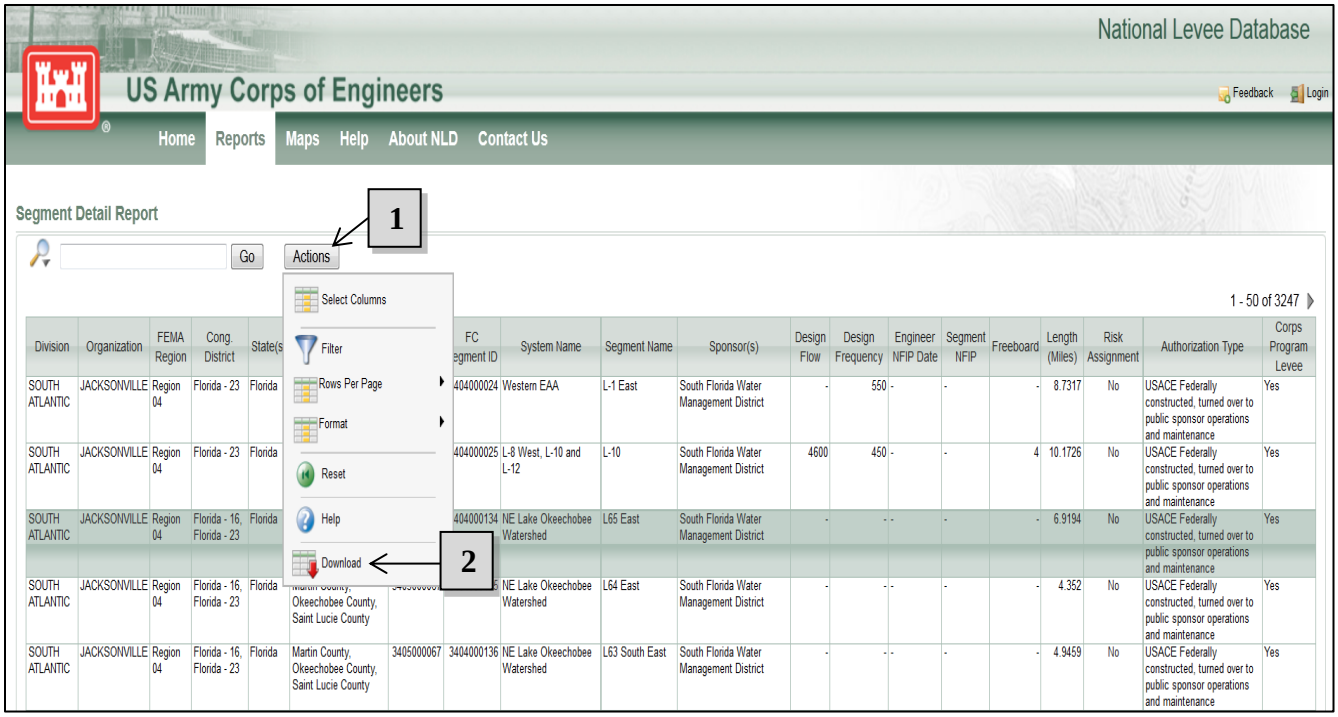


Figure 4-34: Actions Menu Functions

1. Click on the "Actions" button
2. Click on "Download." A download region will display as shown in **Figure** 4-35**:** Actions Menu - Download

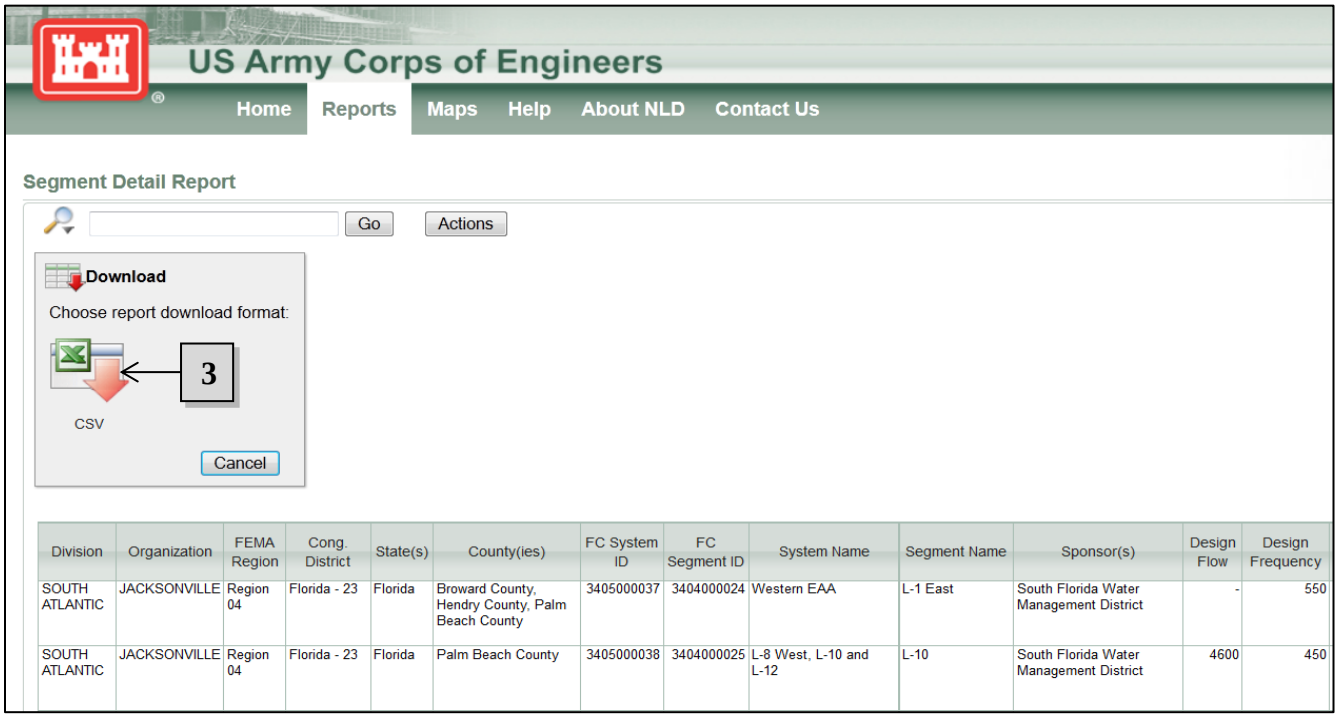


Figure 4-35: Actions Menu - Download

3. To download the report to Excel CSV, click the "Excel CSV" icon. You will be given the option to open or save the file. Choose to open the file to store in a temporary location on your computer, or save it to specify the location of the file

4.5.2.11 Using Interactive Columns

In addition to creating an interactive report within a standard report results list, an interactive report can be created within a column of the results list.

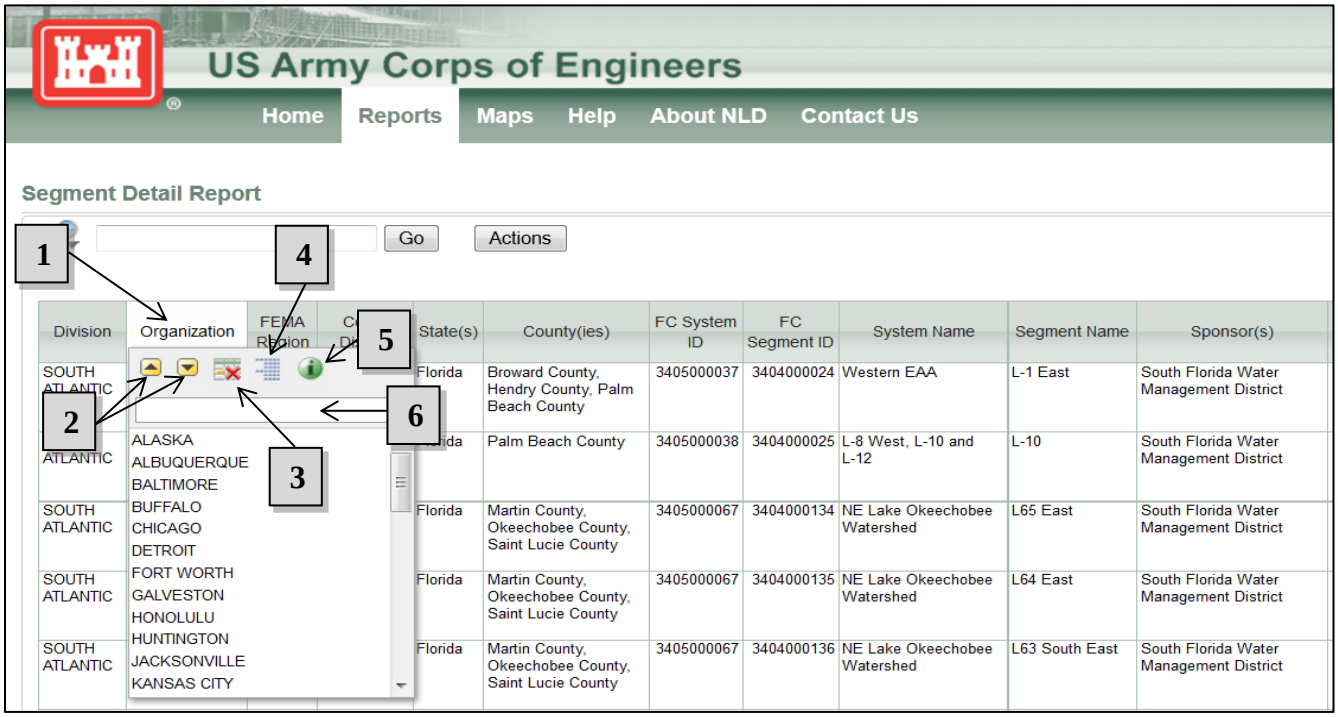


Figure 4-36: Actions Menu Interactive Columns Report

The basic functions of interactive reporting within a column heading include the following:

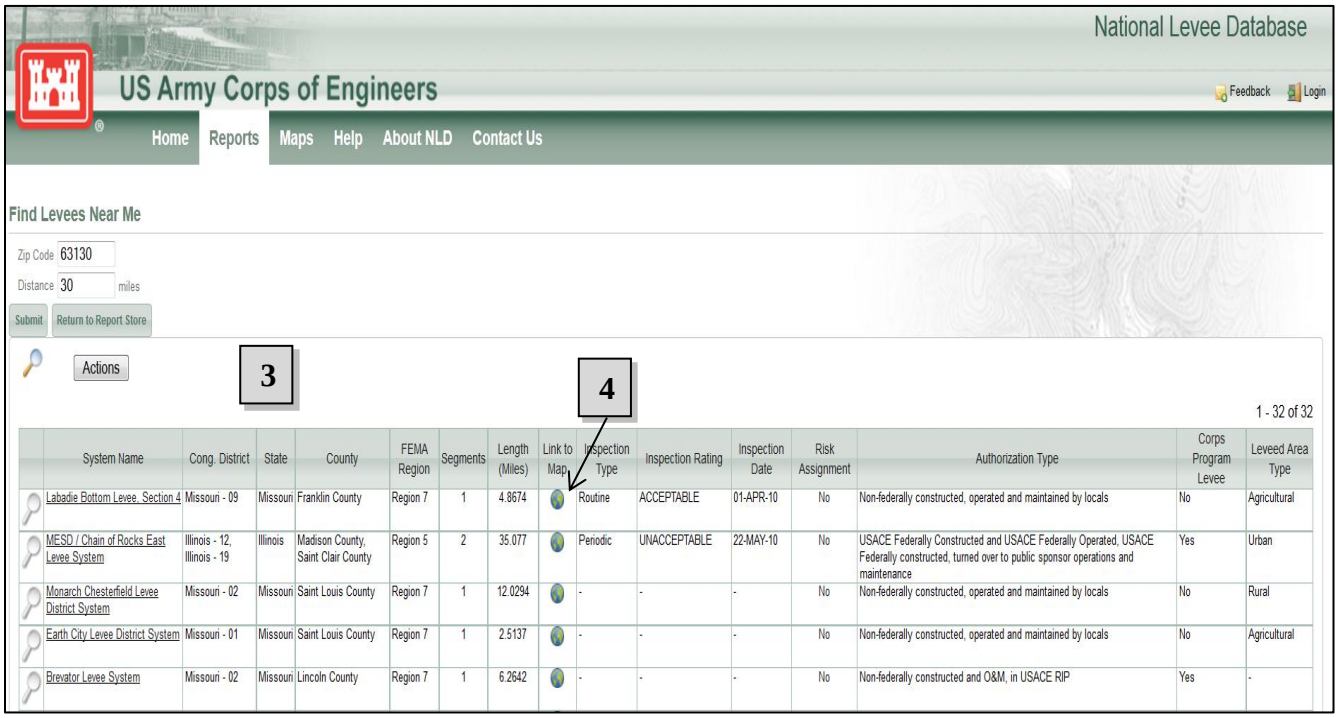
1. Column Header: Allows you to click the column header within a results list to display the interactive reporting capabilities
2. Sort Ascending/Descending: Allows you to sort column results list in ascending/descending order
3. Hide Column: Allows you to hide column from results list
4. Control Break: Allows you to display data, broken out and grouped based upon the values within the selected column
5. Column Information: Gives a short description/definition of the column
6. Search Field: Allows you to enter a keyword to search for and filter data within the column

4.6 Find Levees Near Me

This reporting feature allows you to identify levee data based upon zip code and then display levee systems on the NLD's interactive map.

Figure 4-37: Find Levees Near Me

1. Enter the "Zip Code" and "Distance"
2. Click the "Submit" button



System Name	Cong. District	State	County	FEMA Region	Segments	Length (Miles)	Link to Map	Inspection Type	Inspection Rating	Inspection Date	Risk Assignment	Authorization Type	Corps Program Levee	Leveed Area Type
Labadie Bottom Levee, Section 4	Missouri - 09	Missouri	Franklin County	Region 7	1	4.8674		Routine	ACCEPTABLE	01-APR-10	No	Non-federally constructed, operated and maintained by locals	No	Agricultural
MESD / Chain of Rocks East Levee System	Illinois - 12, Illinois - 19	Illinois	Madison County, Saint Clair County	Region 5	2	35.077		Periodic	UNACCEPTABLE	22-MAY-10	No	USACE Federally Constructed and USACE Federally Operated, USACE Federally constructed, turned over to public sponsor operations and maintenance	Yes	Urban
Monarch Chesterfield Levee District System	Missouri - 02	Missouri	Saint Louis County	Region 7	1	12.0294		-	-	-	No	Non-federally constructed, operated and maintained by locals	No	Rural
Earth City Levee District System	Missouri - 01	Missouri	Saint Louis County	Region 7	1	2.5137		-	-	-	No	Non-federally constructed, operated and maintained by locals	No	Agricultural
Brevator Levee System	Missouri - 02	Missouri	Lincoln County	Region 7	1	6.2642		-	-	-	No	Non-federally constructed and O&M, in USACE RIP	Yes	-

Figure 4-38: Find Levees Near Me Results

3. A list of levees will populate within the distance of the zip code entered
4. Clicking the "Link to Map" icon will display the levee system on the interactive map

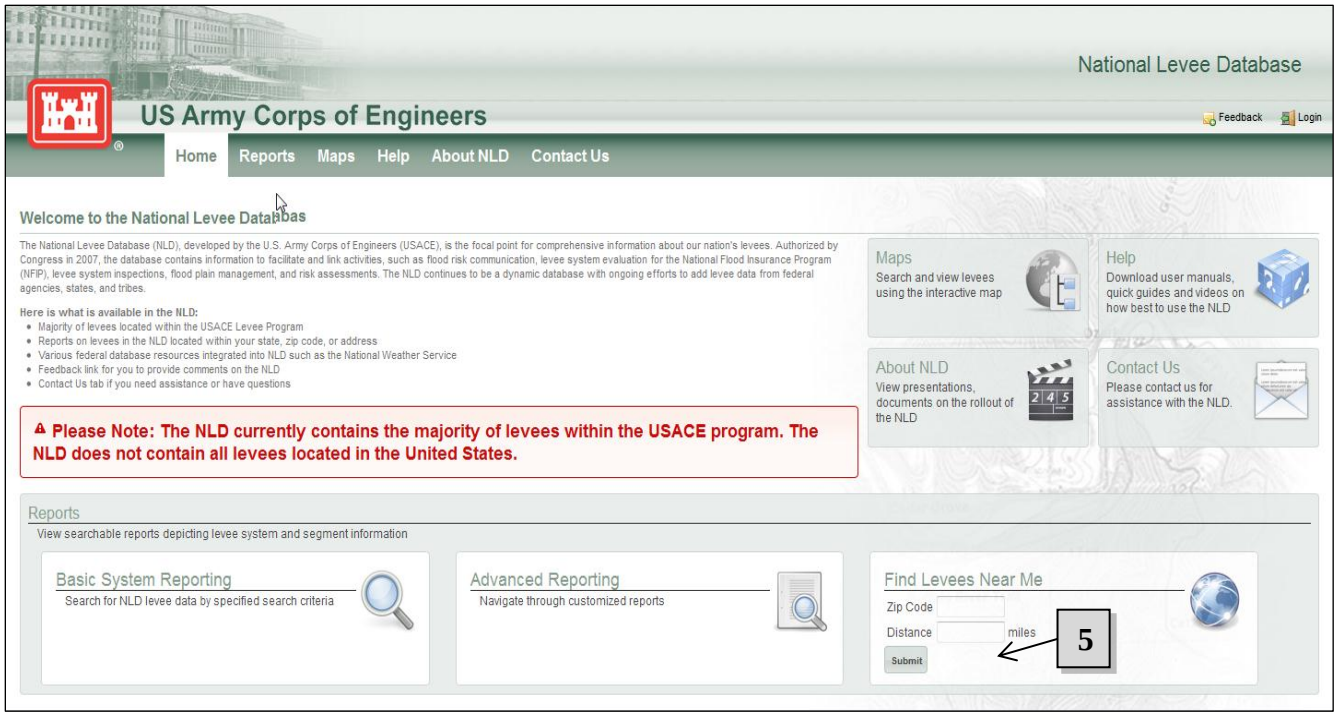
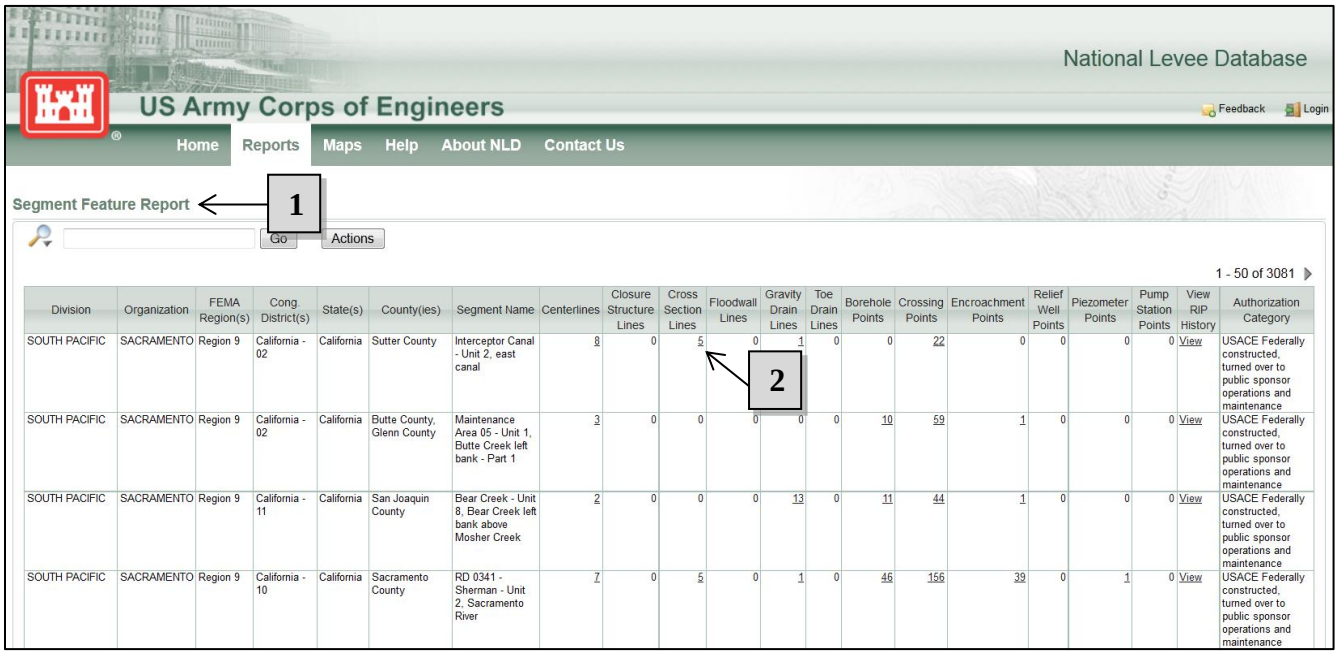


Figure 4-39: Find Levees Near Me

5. Enter a zip code and distance and click “Submit” in order to generate a Find Levees Near Me report directly from the Home tab

5. Plots

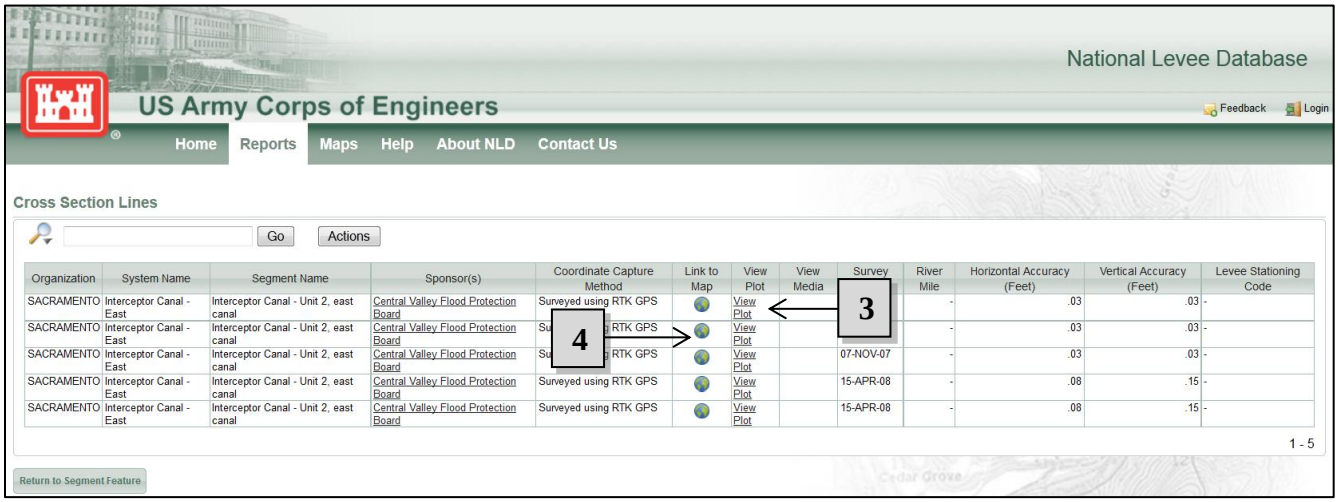
From the System Feature and Segment Feature reports, the user may navigate to the feature drilldown reports to view detailed information about a specific feature type of the system or segment. For both the Cross Section line and Closure Structure line a profile plot is available for viewing:



Division	Organization	FEMA Region(s)	Cong District(s)	State(s)	County(ies)	Segment Name	Centerlines	Closure Structure Lines	Cross Section Lines	Floodwall Lines	Gravity Drain Lines	Toe Drain Lines	Borehole Points	Crossing Points	Encroachment Points	Relief Well Points	Piezometer Points	Pump Station Points	View RIP History	Authorization Category
SOUTH PACIFIC	SACRAMENTO	Region 9	California - 02	California	Sutter County	Interceptor Canal - Unit 2, east canal	8	0	5	0	1	0	0	22	0	0	0	0	View	USACE Federally constructed, turned over to public sponsor operations and maintenance
SOUTH PACIFIC	SACRAMENTO	Region 9	California - 02	California	Butte County, Glenn County	Maintenance Area 05 - Unit 1, Butte Creek left bank - Part 1	3	0	0	0	0	0	10	59	1	0	0	0	View	USACE Federally constructed, turned over to public sponsor operations and maintenance
SOUTH PACIFIC	SACRAMENTO	Region 9	California - 11	California	San Joaquin County	Bear Creek - Unit 8, Bear Creek left bank above Mosher Creek	2	0	0	0	13	0	11	44	1	0	0	0	View	USACE Federally constructed, turned over to public sponsor operations and maintenance
SOUTH PACIFIC	SACRAMENTO	Region 9	California - 10	California	Sacramento County	RD 0341 - Sherman - Unit 2, Sacramento River	7	0	5	0	1	0	46	156	39	0	1	0	View	USACE Federally constructed, turned over to public sponsor operations and maintenance

Figure 5-1: Segment Feature Report – Cross Section Lines

1. Navigate to the System Feature Report or the Segment Feature Report
2. In the Cross Section Lines column, click the hyperlinked value to view the cross section lines for the selected segment



Organization	System Name	Segment Name	Sponsor(s)	Coordinate Capture Method	Link to Map	View Plot	View Media	Survey	River Mile	Horizontal Accuracy (Feet)	Vertical Accuracy (Feet)	Levee Stationing Code
SACRAMENTO	Interceptor Canal - East	Interceptor Canal - Unit 2, east canal	Central Valley Flood Protection Board	Surveyed using RTK GPS		View Plot			-	.03	.03	-
SACRAMENTO	Interceptor Canal - East	Interceptor Canal - Unit 2, east canal	Central Valley Flood Protection Board	Surveyed using RTK GPS		View Plot			-	.03	.03	-
SACRAMENTO	Interceptor Canal - East	Interceptor Canal - Unit 2, east canal	Central Valley Flood Protection Board	Surveyed using RTK GPS		View Plot		07-NOV-07	-	.03	.03	-
SACRAMENTO	Interceptor Canal - East	Interceptor Canal - Unit 2, east canal	Central Valley Flood Protection Board	Surveyed using RTK GPS		View Plot		15-APR-08	-	.08	.15	-
SACRAMENTO	Interceptor Canal - East	Interceptor Canal - Unit 2, east canal	Central Valley Flood Protection Board	Surveyed using RTK GPS		View Plot		15-APR-08	-	.08	.15	-

Figure 5-2: Cross Section Lines – View Plot

3. Click ‘View Plot’ for a cross section to view the profile plot
4. You can also click the ‘Link to Map’ icon to view your point on the map

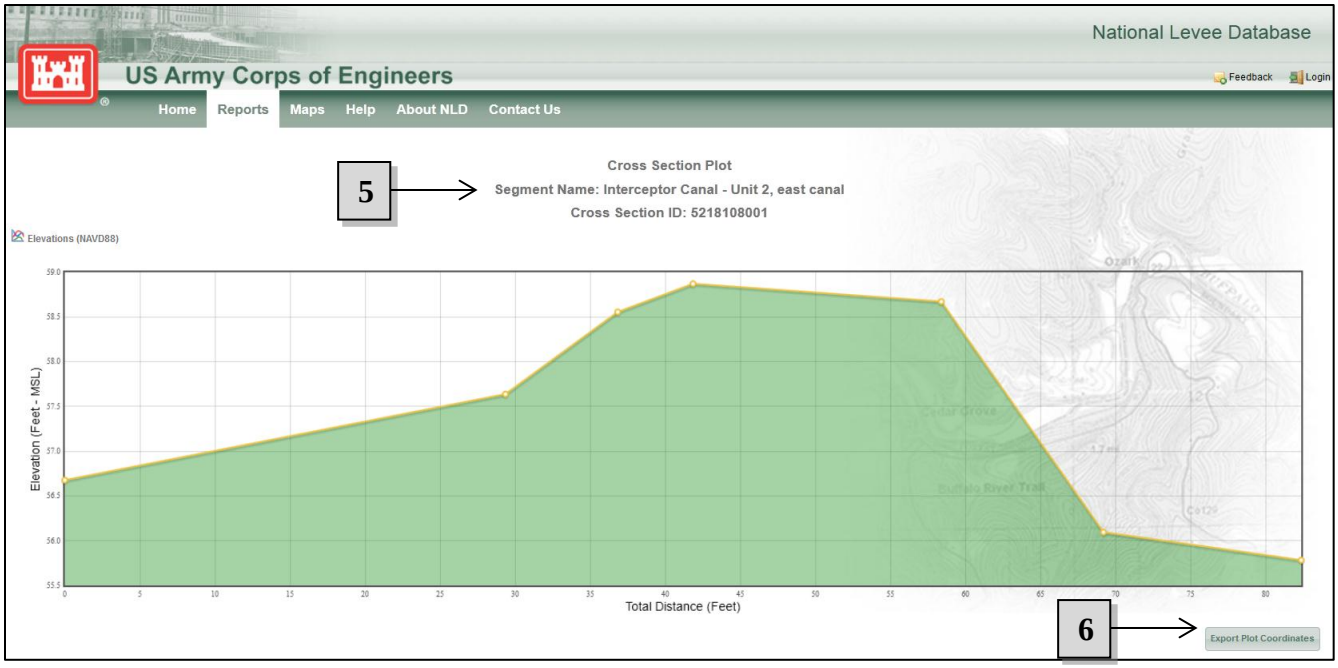


Figure 5-3: Cross Section Plot

5. The Cross Section Plot will display, identified by the Segment Name and Cross Section ID
6. Click 'Export Plot Coordinates' to view the plotted coordinates, by elevation and distance, in Excel

Repeat the above steps to view the closure structure plot, from the Closure Structure Lines report.

Note: the Cross Section Plot and Closure Structure Plot will not display if there is no information regarding the feature's elevation.

6. Maps

6.1 Navigating to Maps

The “Maps” tab is the third tab available on the NLD navigation toolbar.

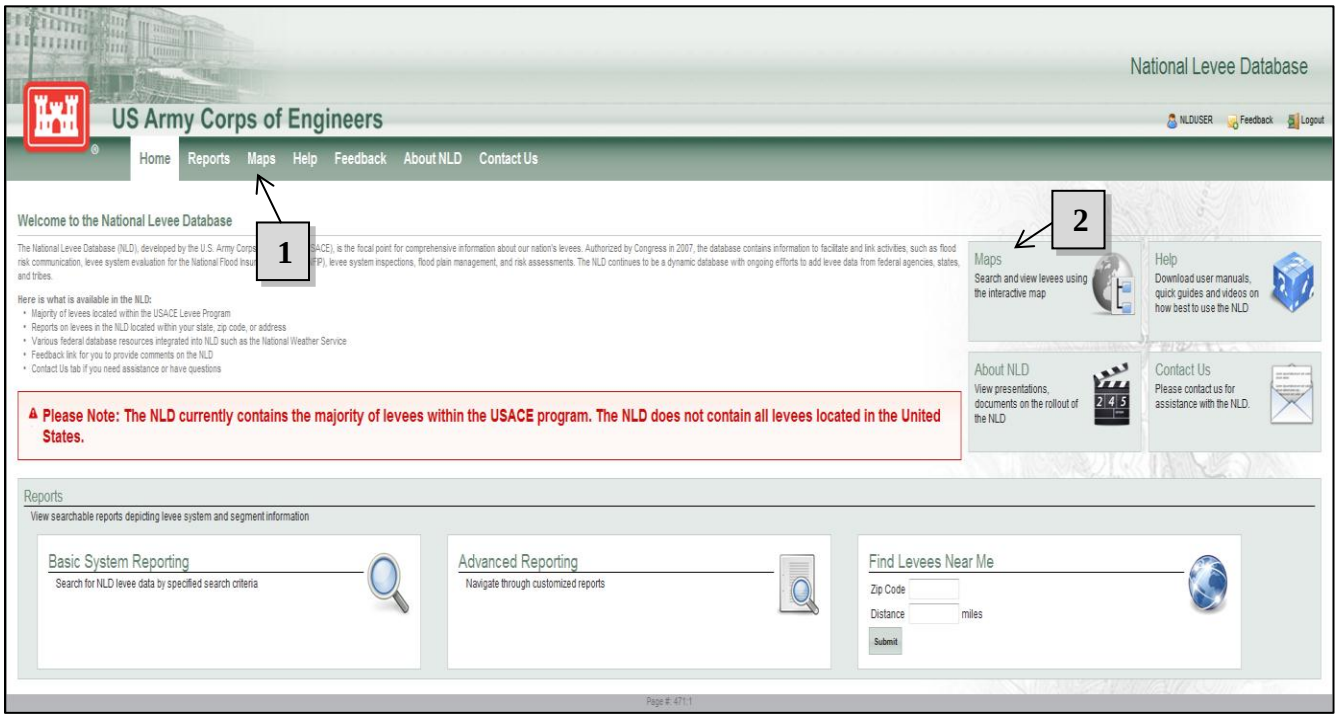


Figure 6-1: Maps Tab

1. The user can click on the “Maps” tab to navigate to the interactive map
2. Clicking the “Maps quick-link” button will also navigate to the interactive map

By clicking on either of these two “Maps” options you will be taken to the Maps screen shown below in Figure 6-2: Maps**.**

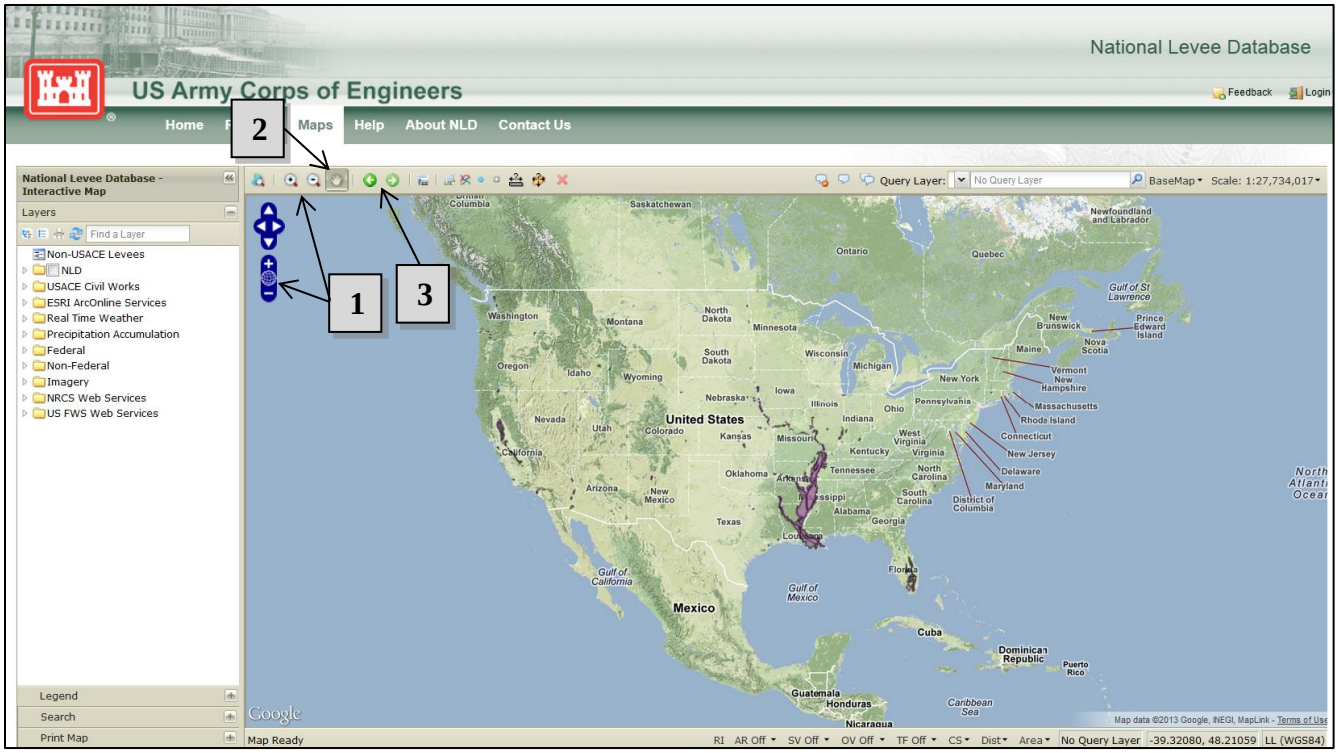


Figure 6-2: Maps

The Map navigation tools include:

1. Zoom in / Zoom out
2. Pan
3. Previous / Next view

All map tools contain "tool tips" which is identified by hovering the cursor over each toolbar item. A small pop-up box will display next to the curser that contains supplementary information regarding each item.

6.2 Map Utilities

Five BaseMaps are included in the map utilities; four Google maps (Hybrid, Streets, Satellite, and Terrain) and a USGS DRG Topographic map layer.

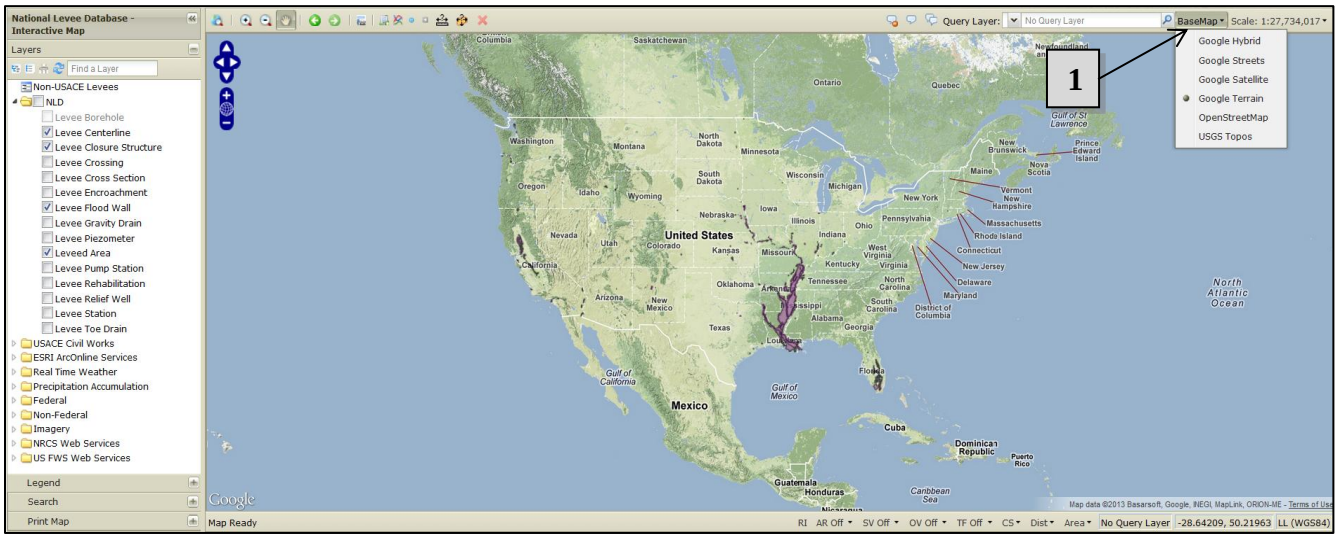


Figure 6-3: BaseMap Utilities

1. Click on the dropdown arrow in the “BaseMap” box to select a basemap

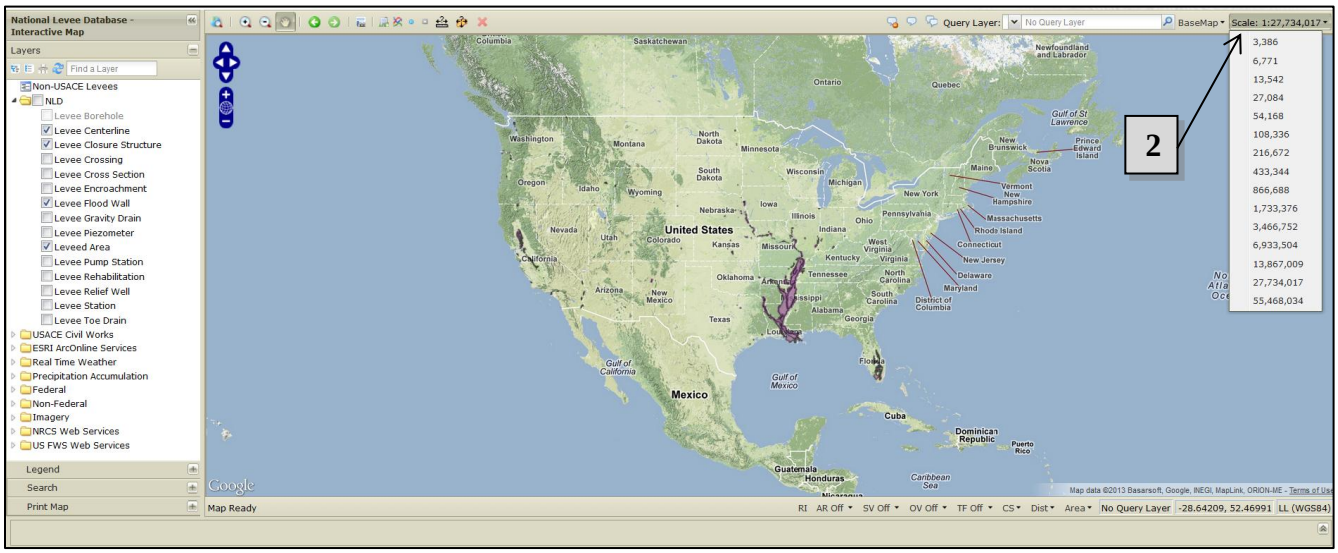


Figure 6-4: Map Scales

2. Click on the dropdown arrow in the Scale box. You can set the map to a fixed scale. The fixed scale choices are based on Google map tile scales

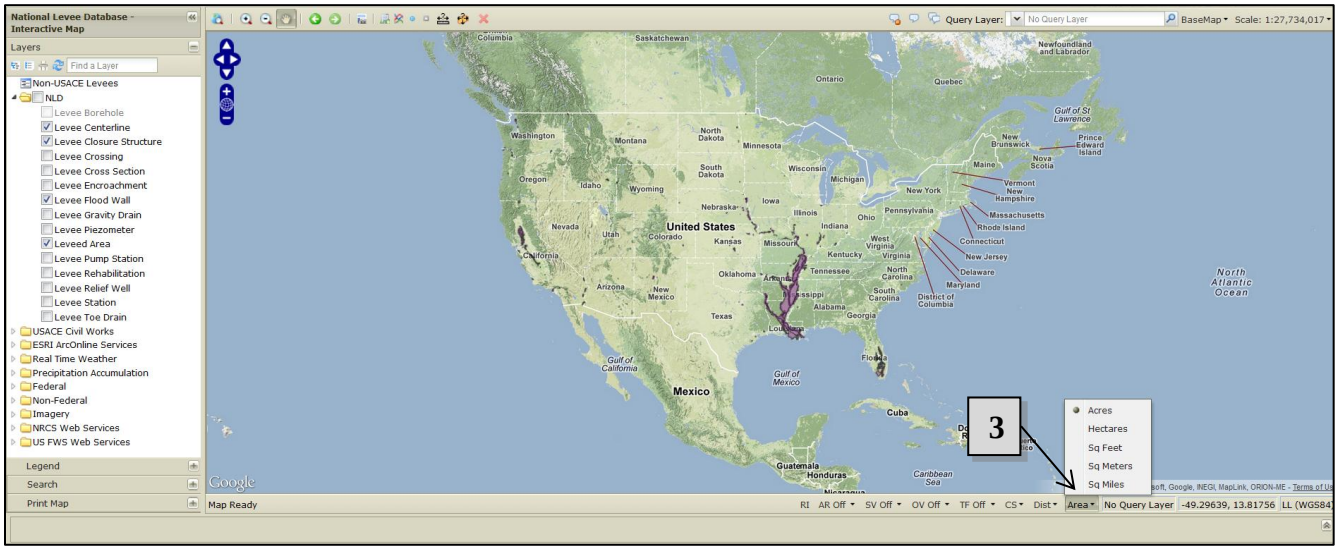


Figure 6-5: Area Units

3. Click the dropdown arrow in the “Area” box. Unit of measures are available for linear and area measurements

6.3 Search

You can search for a location on the map by any of the following five search methods: Coordinate, Address, Zip Code, County or Google Search.

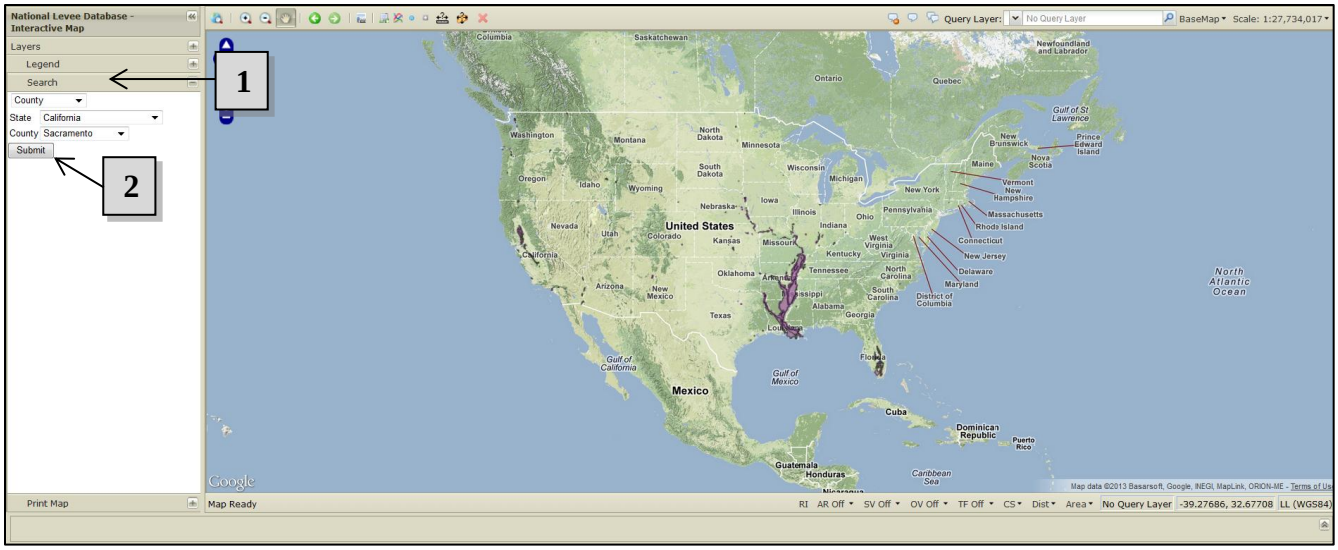


Figure 6-6: Search for Location

1. Select method of Search (Coordinate, Address, Zip Code, County or Google) and enter relevant information
2. Click the "Submit" button

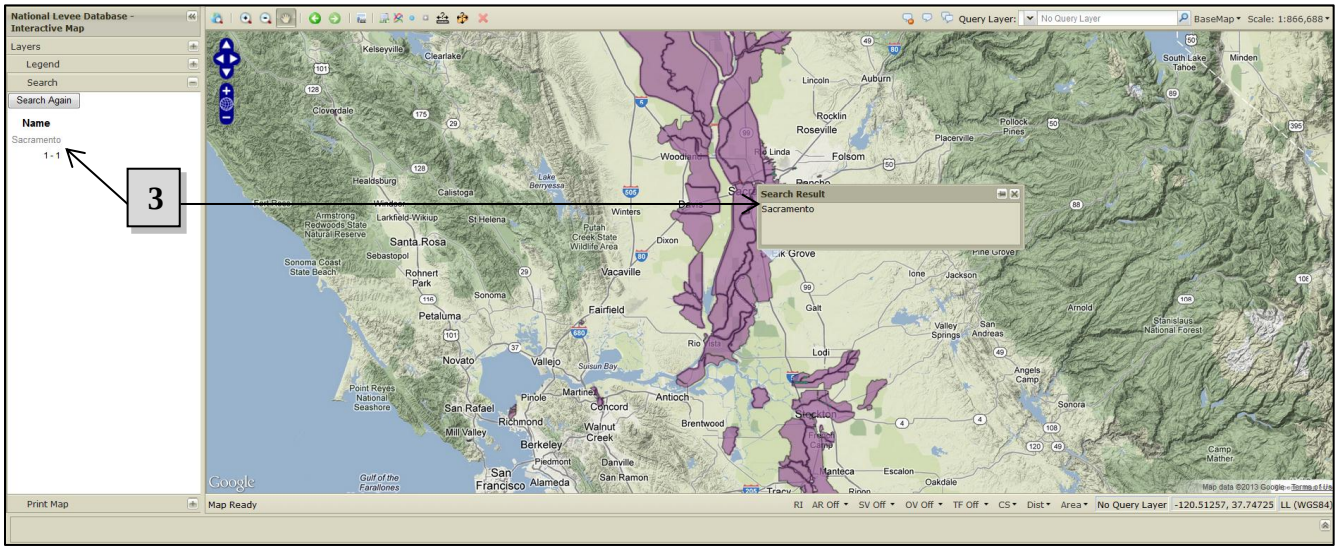


Figure 6-7: Search for Location

3. The system will display a link to confirm the search criteria. Click on the link and the system will put a pin on the map and zoom in to that location

6.4 Layers

The layers are located on the left panel of the map.

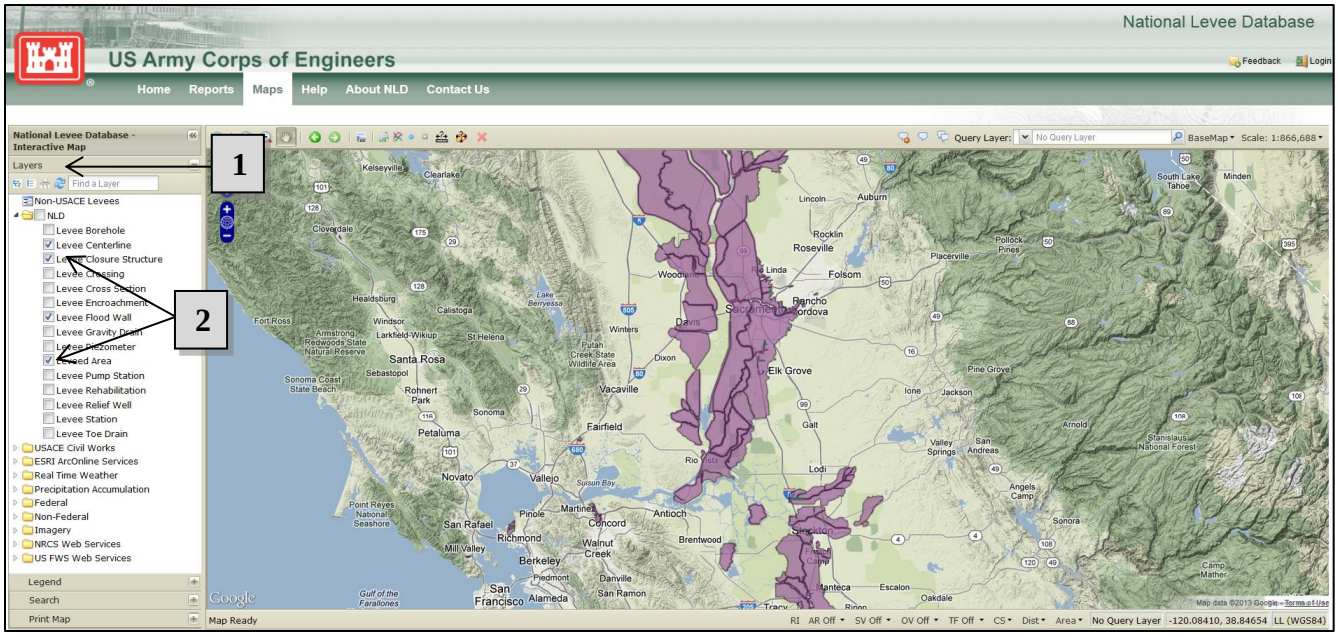


Figure 6-8: Map Layers

1. Click the "Layers" bar to expand the layer panel
2. Turn on individual layers by selecting the associated checkboxes

Note: The following layers will display by default: Levee Centerline, Levee Closure Structure, Levee Flood Wall and Leveed Area.

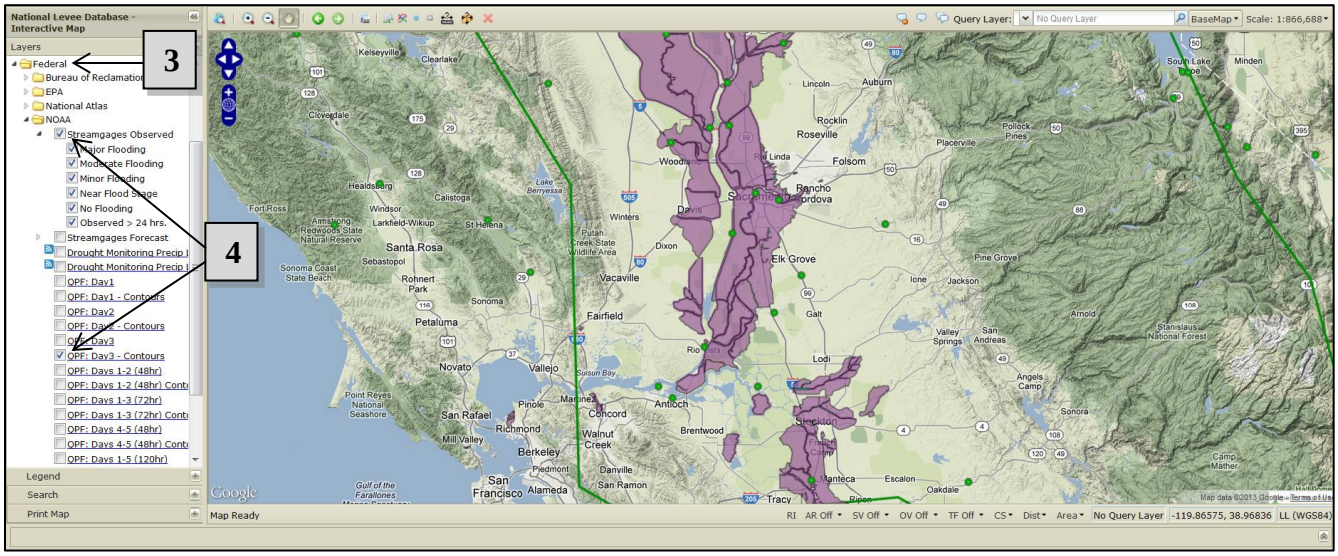


Figure 6-9: Multiple Map Layers

3. Expand the layer folder to see additional layer options and select multiple layers
4. Select the sub-layers by clicking the check boxes of the ones you want to display

To search the layers panel, enter the search criteria into the text area 'Find a Layer.' Results will display as text is entered.

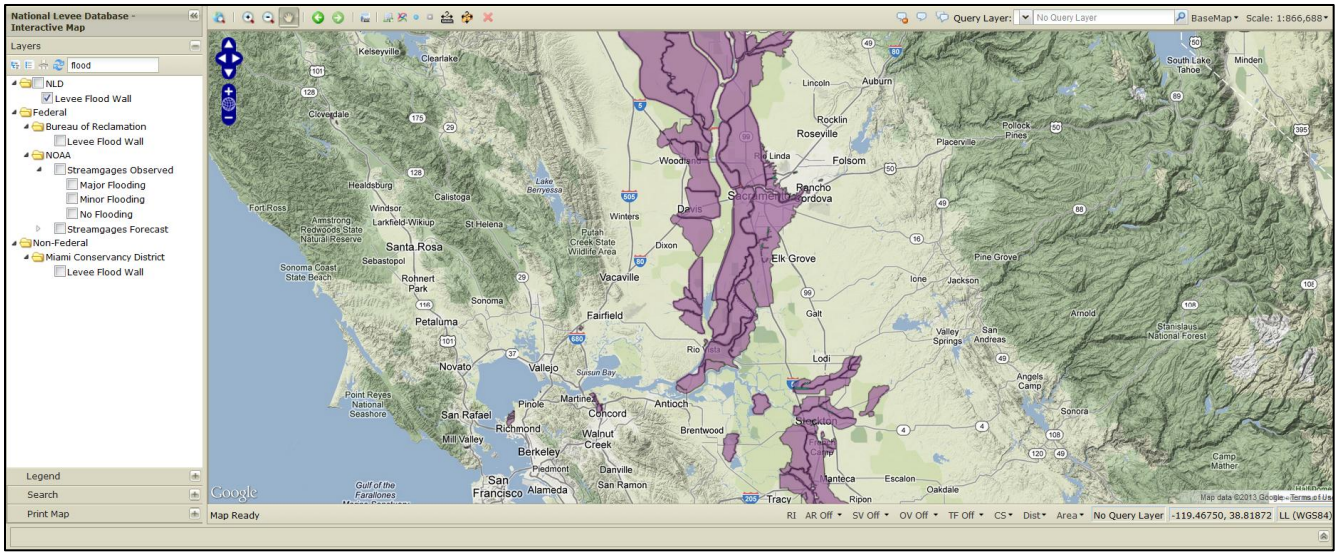


Figure 6-10: Find a Layer

6.5 Legend

The legend panel will help you decipher the various symbols generated on the map when displaying different layers.

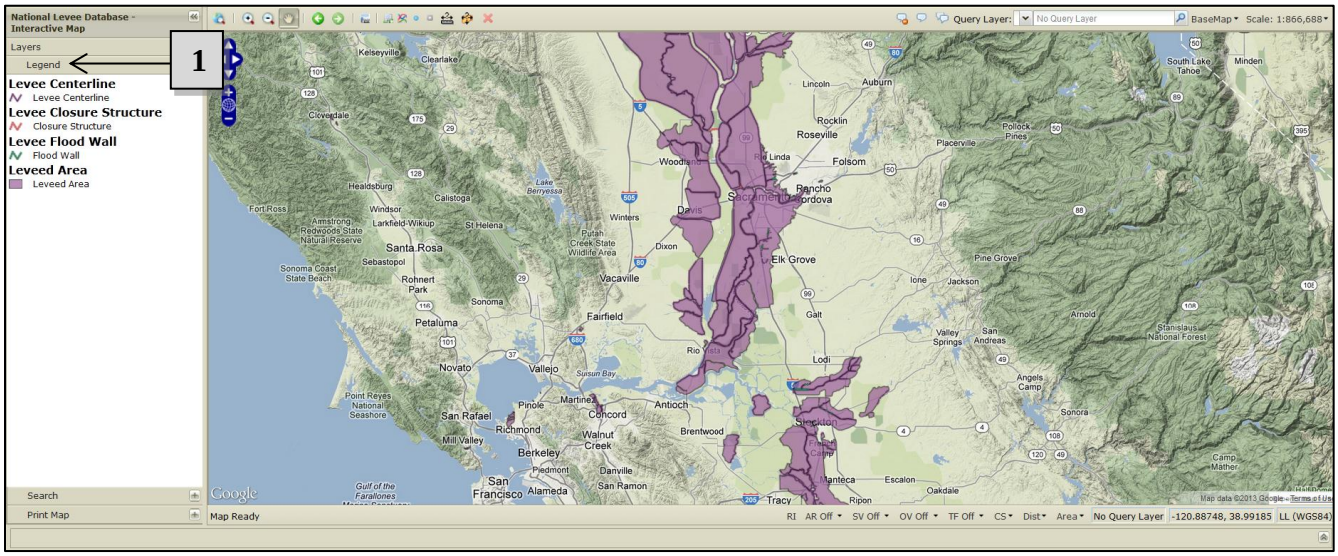


Figure 6-11: Legend

1. To access the legend, click on the “Legend” panel in the left hand navigation. The legend will only display the layers that have been selected in the “Layers” tab

6.6 Print Map

To view or print a PDF Map, open the Print Map panel.

1. Drag and resize the highlighted area on the map to select the region to be printed
2. Enter a title and comments, and select a layout, resolution, scale and rotation, if desired
3. Click ‘Create PDF’ and the map will display in a separate window

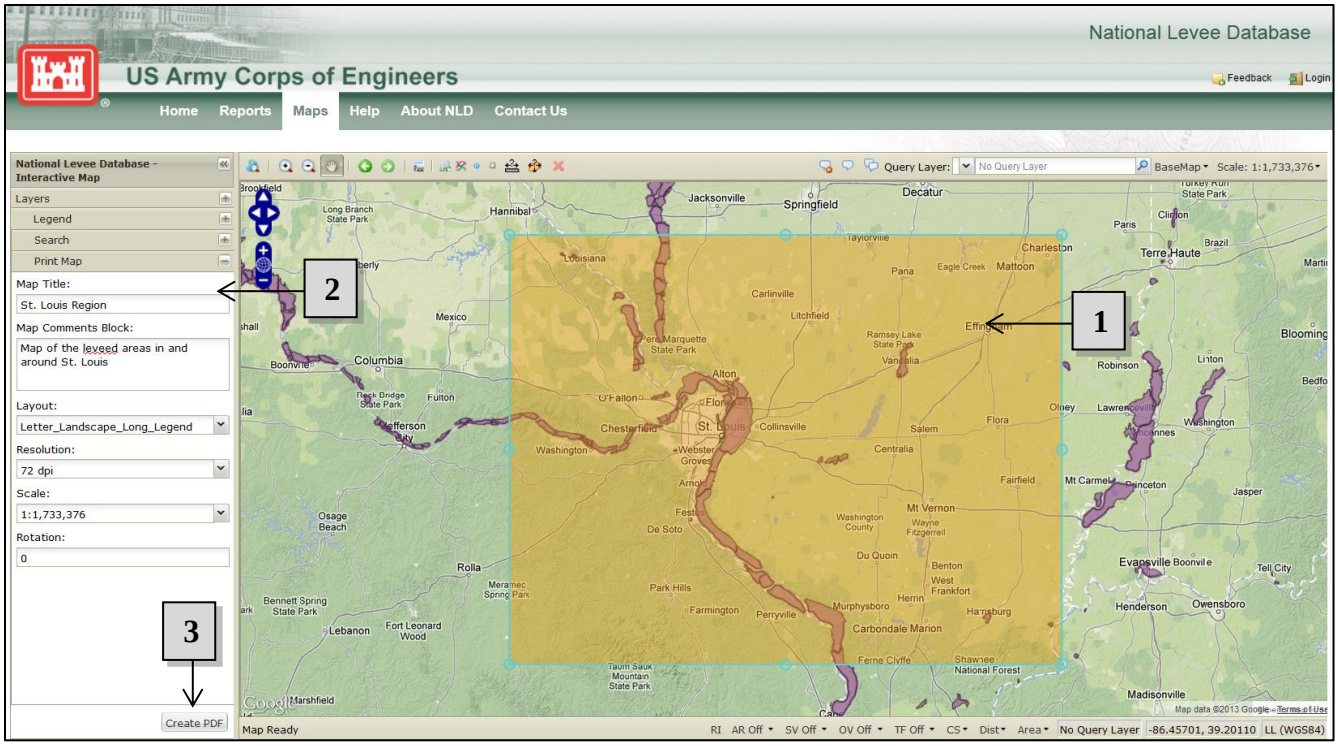


Figure 6-12: Print Map

6.7 Queries

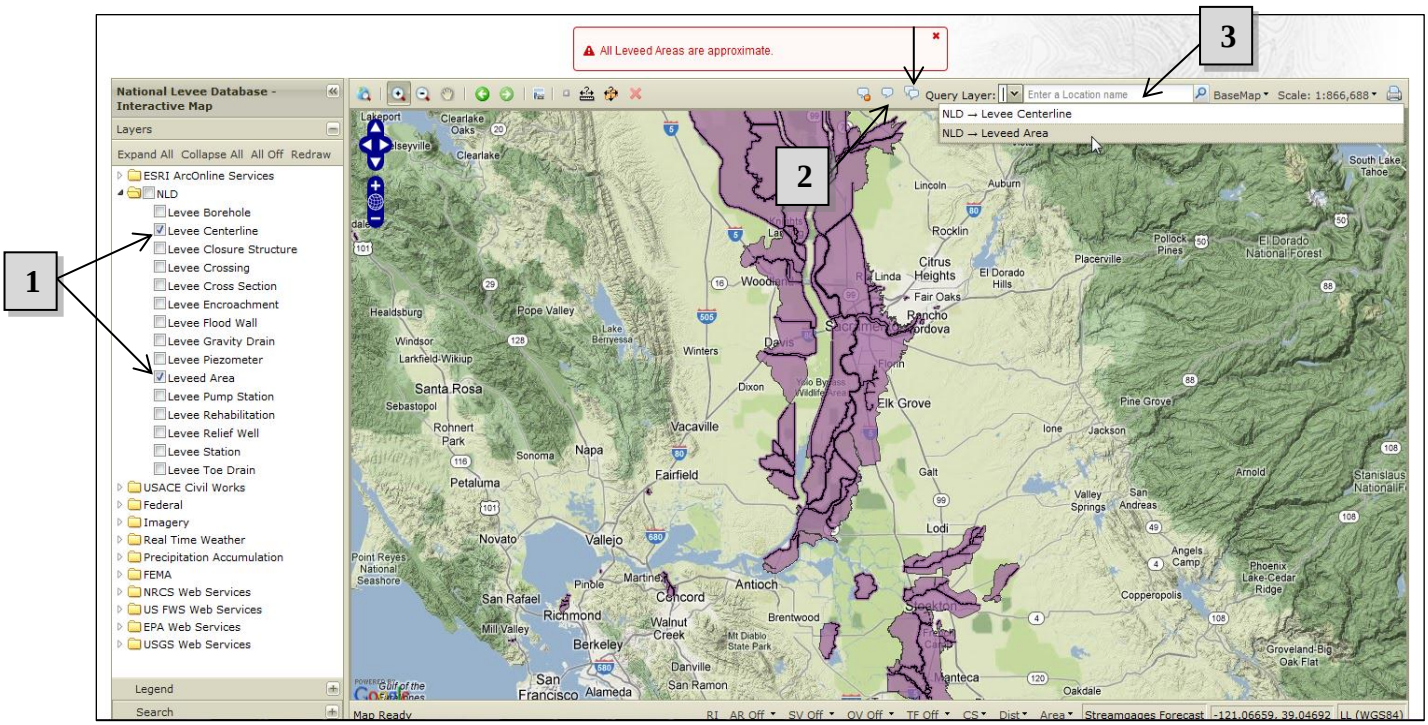


Figure 6-13: Queries

1. A user can query “Levee Centerline,” “Levee Flood Wall,” “Levee Closure Structure” and “Leveed Area” features on the map. To query one of these layers, it must be turned on in the layers panel
2. Select one of the query layers by clicking the dropdown arrow in the “Query Layer” box
3. Enter the query in the open text field

-OR-

4. Click the single conversation box tool titled “Popup Info Query.” After clicking the tool, you will be able to draw a red square on the map. The square you draw will determine the area that will be queried and a popup will display the results
5. Click the double conversation box tool titled “Table Info Query.” After clicking the tool, you will be able to draw a red square on the map. The square you draw will determine the area that will be queried and a table will display the results under the map

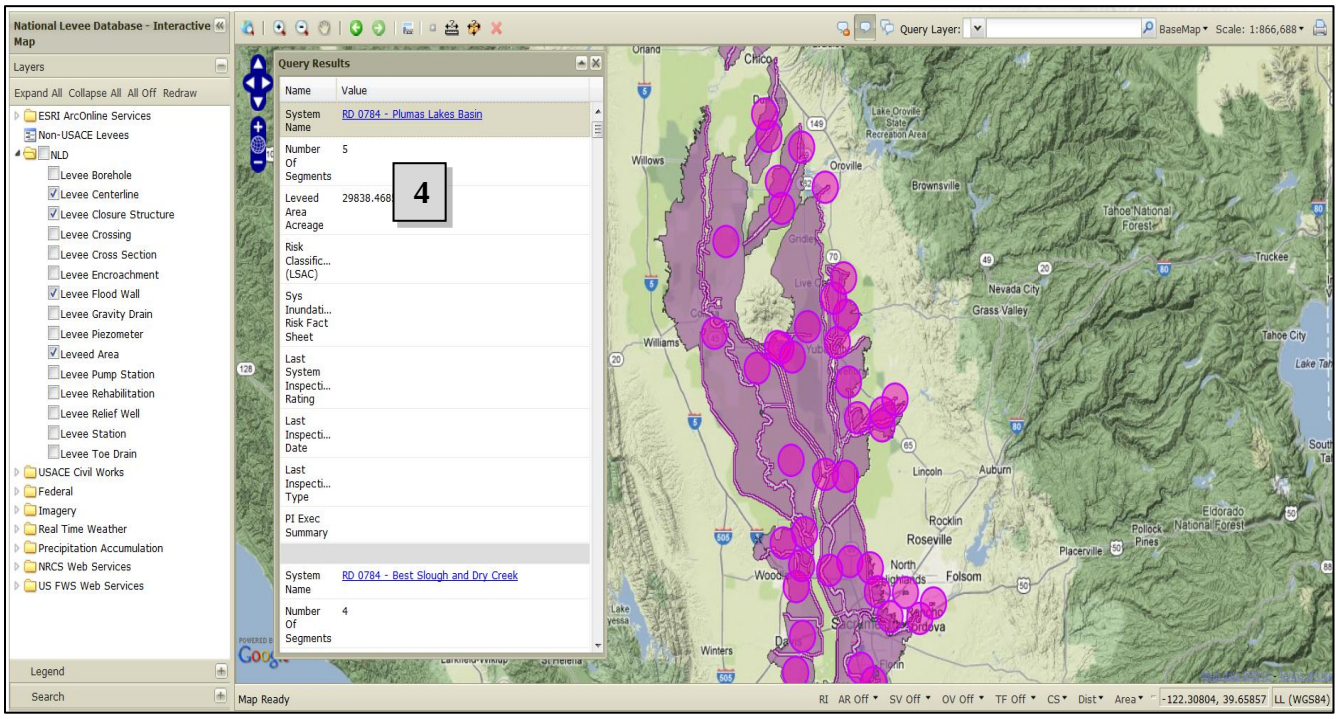


Figure 6-14: Popup Query Results

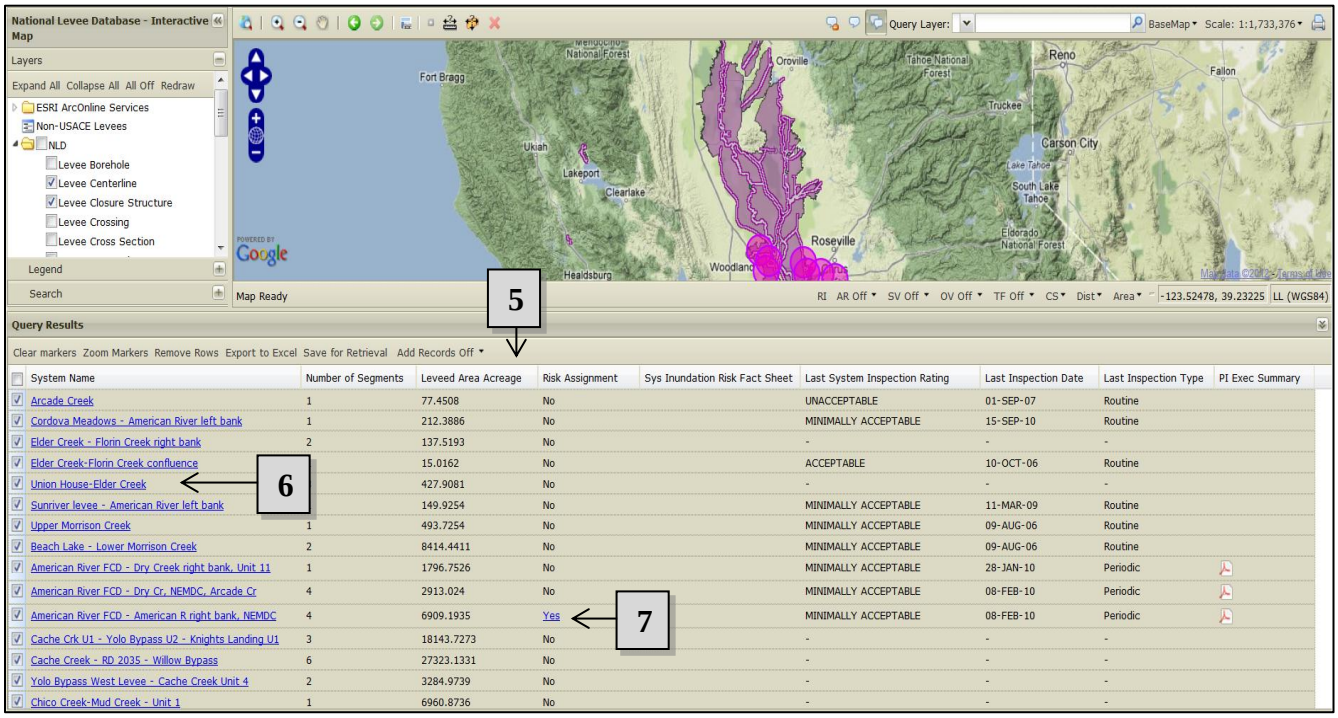


Figure 6-15: Table Query Results

6. Click on any of the System Name links to navigate to the System Detail report for the selected system
7. Click on any "Yes" values in the Risk Assignment column to navigate to the Detailed Risk Report for the selected system

6.8 Additional Map Tools

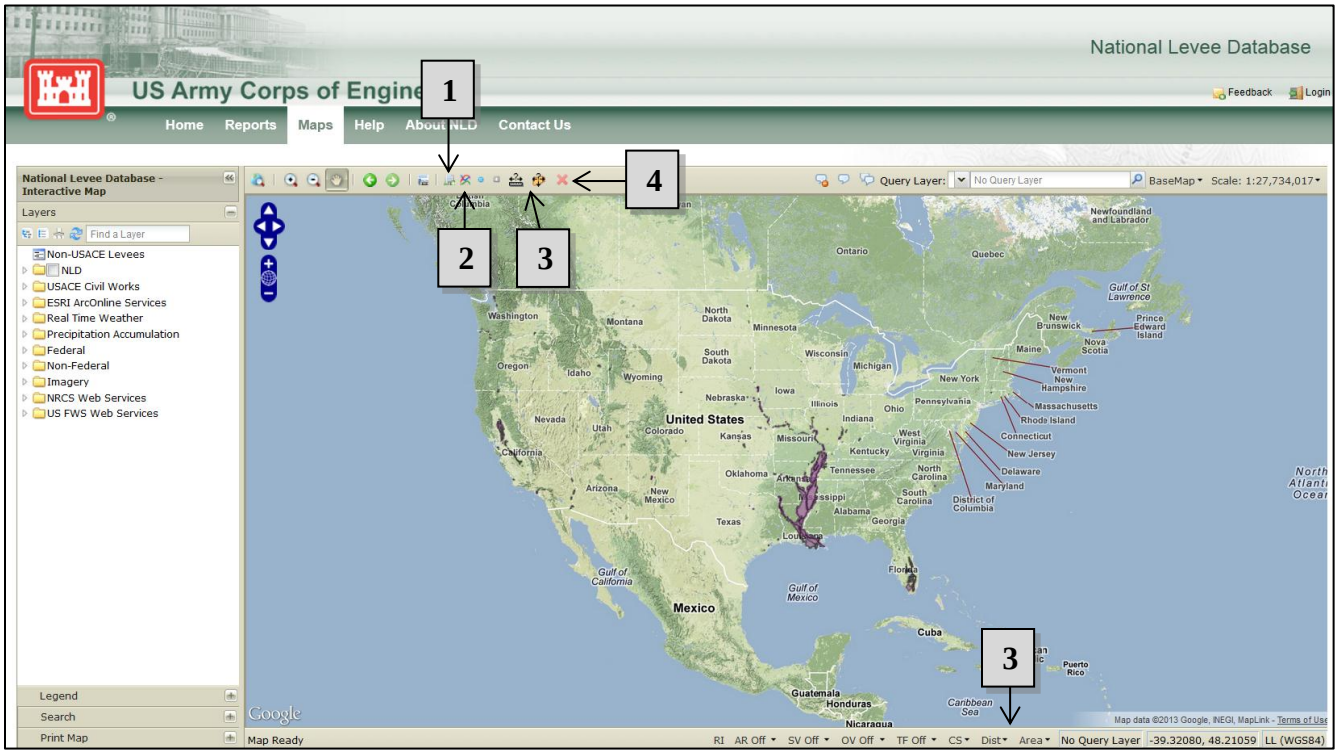


Figure 6-16: Additional Map Tools

1. Get Address at Point Click

To use the 'Get Address at Point Click' tool, click the icon in the Map navigation toolbar; the cursor will be replaced with a crosshair surrounded by a circle. Click on the map, and an Address Results dialog box will display with information about the selected location.

2. Get Elevation Profile

The 'Get Elevation Profile' tool provides a charted profile of the elevation of the line drawn on the map. Select the tool in the Map navigation toolbar; the cursor will be a crosshair surrounded by a circle. Click on the map to start drawing a line. Single click to add a point on the line, and double click to stop drawing the line and view the profile in a dialog box.

3. Distance / Area Measurements

The distance and area tools provide the capability to measure area and distance. To change the units the distance or area will be returned in, select the 'Dist' or 'Area' menus from the bottom of the map toolbar. Select the Measure Area icon or the Distance icon from the toolbar along the top of the map. Click on the map to begin digitizing. The line or polygon will define the area that is measured. Once complete, double click. The area and distance box will populate the measurement results.

4. Clear Current Measures

Click the ‘Clear Current Measures’ icon to clear any measurements from the map in order to generate another measurement.

7. Feedback

7.1 Submit Feedback

The feedback function allows you to submit feedback on any screen within the tool. The purpose of the feedback function is to enable all users to provide instantaneous input about the functionality of the application on any given screen.

The feedback function can be used:

- When there is an issue with the way the screen should work (e.g. “Nothing happened when I clicked on the Submit button.”)
- To make a suggestion for functionality in future versions of the tool. (e.g. “It would be beneficial to have a field on this screen displaying the date that the document was reviewed.”)

The page numbers are located on the bottom of each page (screen) and unique for each page. Page numbers are helpful to the NLD team to better relate feedback to a specific screen within the tool. As a result, it is recommended to provide a Page number when feedback is provided.

Figure 7-1: Feedback

To provide feedback about any portion of the NLD:

1. Click the “Feedback” link in the upper right corner

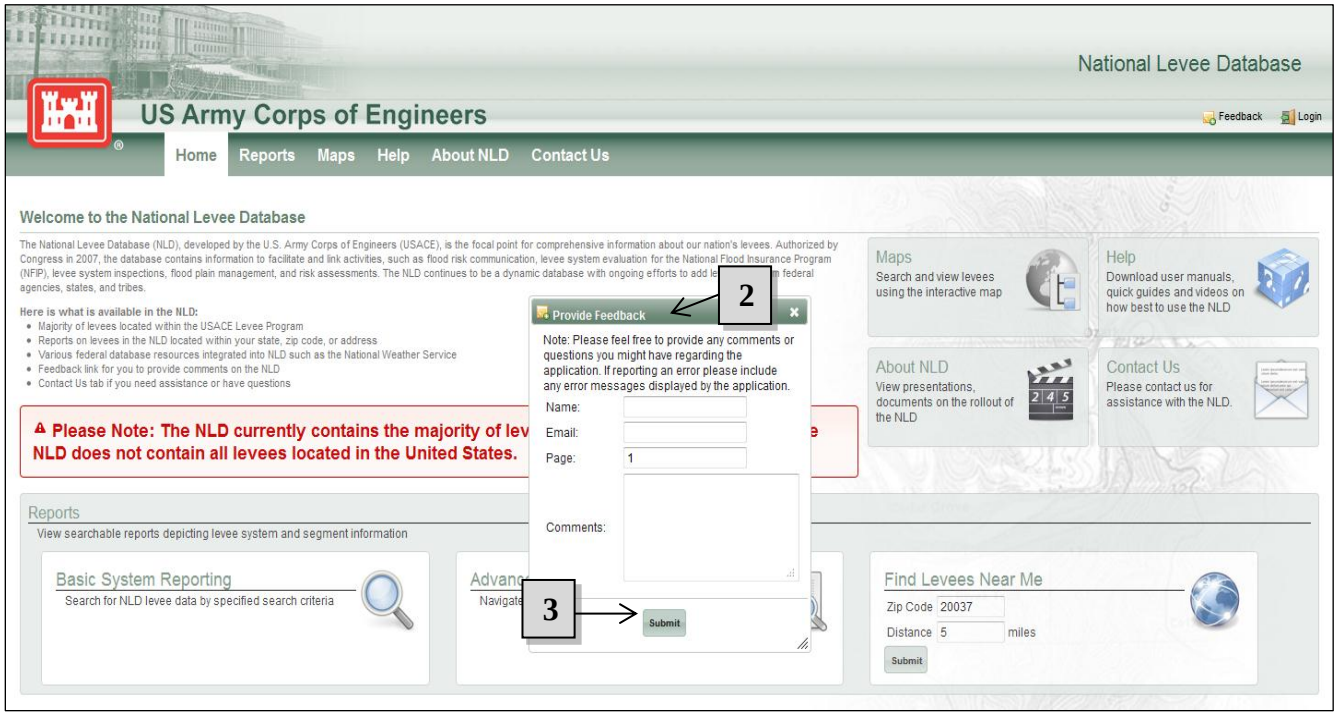


Figure 7-2: Provide Feedback Form

2. This will trigger a popup to display where you can enter your name, email, and a description up to 2,000 characters
3. When you click the “Submit” button, your feedback will be recorded

Appendix A – List of Acronyms

ASDSO	Association of State Dam Safety Officials
CRREL	Cold Regions Research and Engineering Laboratory
DoD	Department of Defense
DRG	Digital Raster Graphics
EM	Engineering Manual
ERDC	Engineer Research and Development Center
FC	Flood Control
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographic Information Systems
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEI	Initial Eligibility Inspection
NAFSMA	National Association of Flood & Stormwater Management Agencies
NLD	National Levee Database
NMAS	National Map Accuracy Standards
PAL	Provisionally Accredited Levee
PDT	Project Delivery Team
PGDB	Personal Geodatabase
RIP	Rehabilitation and Inspection Program
RS/GIS	Remote Sensing/GIS Center
USACE	United States. Army Corps of Engineers
USGS	United States Geologic Survey
VPN	Virtual Private Network