

3/27/2018

# Dam Safety Inventory System

## User Guide



DCR DIVISION OF SOIL AND WATER & DIVISION OF DAM  
SAFETY

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## User Accounts

To begin using the application, users will need to log into the system using a user name and password.

The screenshot shows a login form with the following elements:

- A header image of a dam in a landscape.
- A "User Name" label above a text input field containing the placeholder "User Name".
- A "Password" label above a text input field containing the placeholder "Password".
- A blue "Sign In" button located below the password field.

If the username and password combination are authenticated, then the user is taken to the application landing page.

If the user and password combination are not authenticated, then the user is prompted that the login attempt failed and they will remain on the login page.

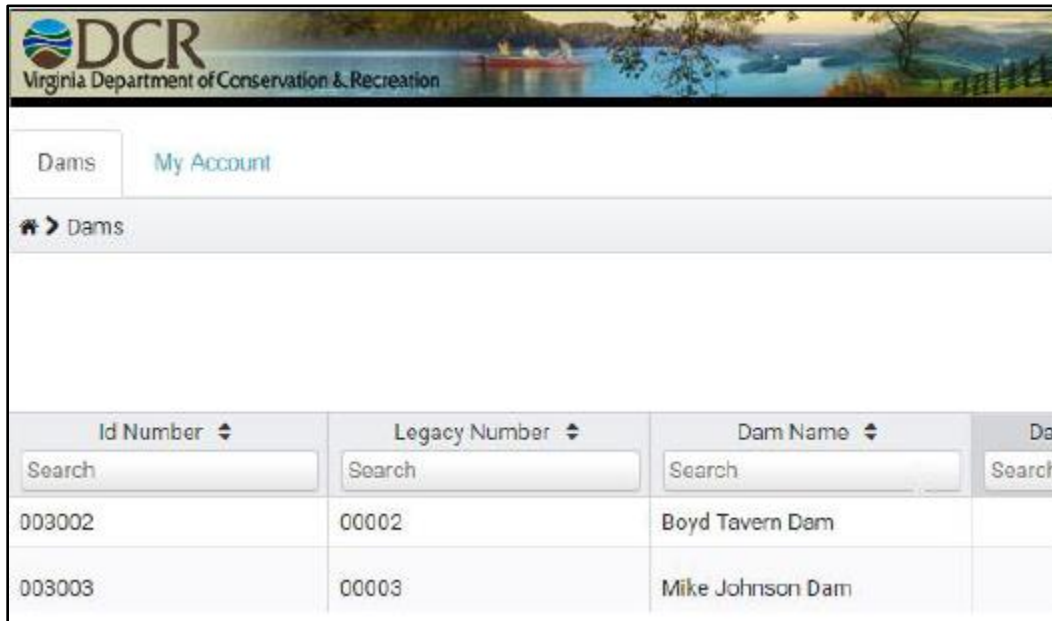
After 10 failed login attempts the user's account will be locked and the user will be prompted to contact the site administrator.

After a successful login, users will be taken to the main dam grid page. Users will be able to view or edit dams on this grid based on their user roles and permissions.

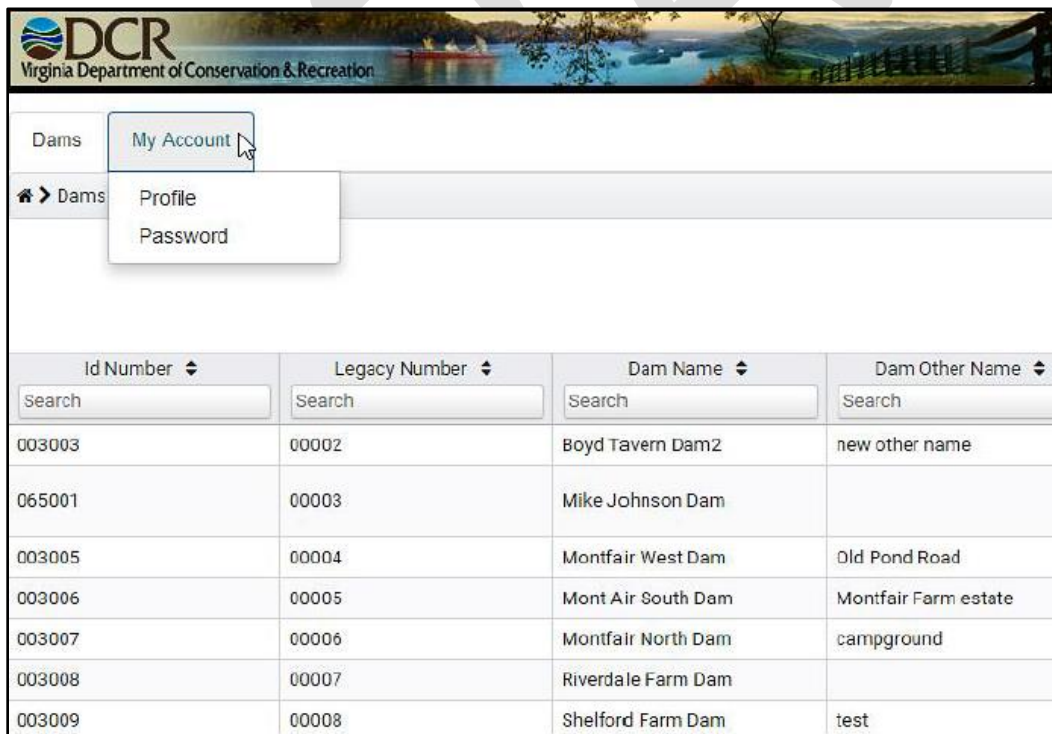
The screenshot displays a table with the following columns and data:

ID Number	Legacy Number	Dam Name	Dam Other Name	Owner Name	Dam Region	City/County	Regional Engineer	Hazard Class	Dam Type
00002	00002	Boyd Tavern Dam		Ms. Grissinger	5	Albemarle County	Mark Kildgore	Unknown	Earth
00003	00003	Mike Johnson Dam		Johnson, Mike	5	Albemarle County, Fluvanna County		Unknown	Earth
00004	00004	Montfar West Dam	Old Pond Road	Mary B. Sheridan Trust	5	Albemarle County		Low	Earth
00005	00005	Montfar South Dam	Montfar Farm estate		5	Albemarle County		Unknown	Earth
00006	00006	Montfar North Dam	campground	Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00007	00007	Riverside Farm Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00008	00008	Sheford Farm Dam		Brooks, John	5	Albemarle County		Unknown	Earth
00010	00010	Samuel Walker		Walker, Samuel Starhope II or Janice M.	5	Albemarle County		Unknown	Earth
00011	00011	UVA Polo Club - West		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00012	00012	UVA Polo Club - East		Minor, Janine Sue	5	Albemarle County		Unknown	Earth
00013	00013	Founding Brook Dam		Founding Brook LLC	5	Albemarle County		Unknown	Earth
00014	00014	Van Cliff Dam	new other name	Van Cliff, Barry R., Daniel G. Van Cliff, Jr., Barry, Bank of America Co.-TRS etal	5	Albemarle County	Michael Wang	Unknown	Earth
00015	00015	Killoch Farm Pond		Robert Aron	5	Albemarle County		Unknown	Stone
00016	00016	Starfield Drive Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00017	00017	Campbell Road Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00018	00018	Healed Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00019	00019	Saddlepond Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00020	00020	Old Free Union Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00021	00021	Belair at Wellington Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00022	00022	Editha Drive Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00023	00023	Wellington Drive		Virginia Polo Inc.	5	Albemarle County		Unknown	Earth
00025	00025	Pagebrook Farm Dam		Garnett, Edgar N. Jr., or Patricia Carter G.	5	Albemarle County		Unknown	Earth
00026	00026	Martha Jefferson Rutherford Basin Dam		Martha Jefferson Hospital	5	Albemarle County		Significant	Earth

Using the tabs at the top of the page, users can either navigate back to the dam grid, or go to their account settings.



By selecting "My Account," users have a choice of selecting between editing their profile or their password.



By selecting “profile,” users can update the following information in their user profile by clicking the “edit” button, changing information, and then selecting “save”:

- First and last name
- Email Address
- 24-hr Access Phone Number for Dam Safety Staff Users
- VA PE license Number

The screenshot shows a web browser window with a navigation bar containing 'Dams' and 'My Account'. The user is logged in as 'Welcome, "mrsstaff"'. The main content area is titled 'Profile' and contains a form for 'dcr staff Profile'. The form has the following fields:

- First Name: dcr
- Last Name: staff
- Email: amy.zech@worldviewsolutions.com
- 24 Hour Phone Number: (999) 999-9999
- VA PE license Number: (empty)

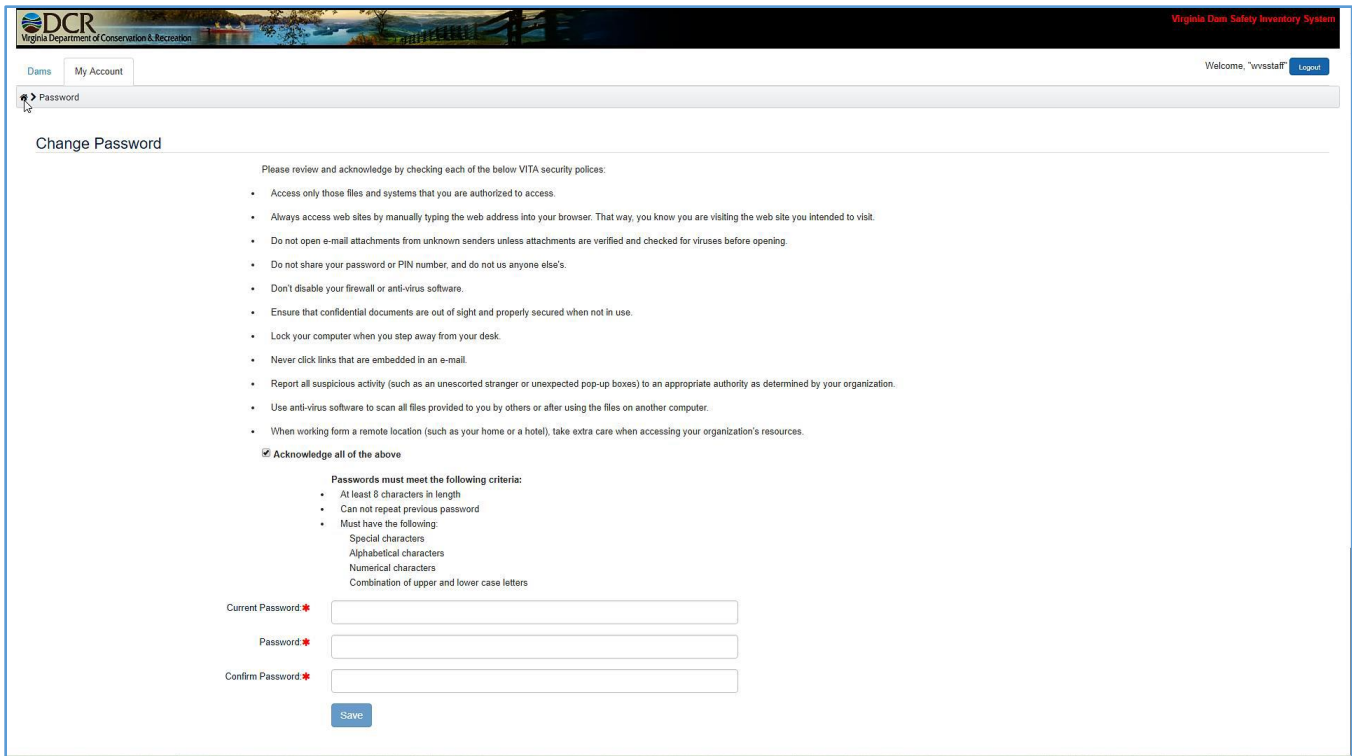
There are 'Save' and 'Cancel' buttons at the top right and bottom right of the form area.

**NOTE:** In this section and all parts of the application going forward – any field that has a red asterisk next to it is required to be filled out before saving. If there are specific guidelines for how the entry should be formatted in that field, the application will alert the user with a message in red.

This close-up view highlights the required fields in the profile form. Each field label is followed by a red asterisk:

- First Name:\*
- Last Name:\*
- Email:\*
- 24 Hour Phone Number:\*
- VA PE license Number: (no asterisk)

If the user selects “Password” in the “My Account” drop down, they will be taken to this screen where they can update their password. Before updating the password, users must review and acknowledge VITA security policies by clicking the check box, and enter in their current password, as well as desired password in the appropriate fields.



Passwords must meet the following criteria:

- Minimum 8 characters long
- Cannot repeat previous passwords
- Must have the following
  - Special character
  - Alphabetical characters
  - Numeric characters
  - Combination of upper and lower-case letters

Passwords have a 90-day life span. After 90 days, users will be prompted to change their password when they attempt to log in.

## Searching for Dams

When a user logs in to the application, they will see the list of dams that they have permissions to view. Users can search for dams through filtering or through sorting.

### Sorting

All columns on the dam grid can be sorted by clicking on the arrows at the top of the column. Text columns will be sorted based on alphabetical order, while number columns will be sorted numerically. Clicking the arrows again will reverse the sort.

Id Number	Legacy Number	Dam Name	Dam Other Name	Owner Name	
003002	00002	Boyd Tavern Dam		Ms. Grissinger	5
003003	00003	Mike Johnson Dam		Johnson, Mike	5
003004	00004	Montfair West Dam	Old Pond Road	Mary B. Sheridan Trust	5
003005	00005	Mont Air South Dam	Montfair Farm estate		5
003006	00006	Montfair North Dam	campground	Virginia Polo Inc.	5
003007	00007	Riverdale Farm Dam		Virginia Polo Inc.	5
003008	00008	Shelford Farm Dam		Birdsall, John	5
003010	00010	Samuel Walker		Walker, Samuel Stanhope II or Janice M.	5
003011	00011	UVA Polo Club - West		Virginia Polo Inc.	5
003012	00012	UVA Polo Club - East		Minor, Jennie Sue	5
003013	00013	Pounding Brook Dam		Pounding Brook LLC	5
003014	00014	Van Clief Dam	new other name	Van Cliff, Barry R.; Daniel G. Van Cliff Jr. & Bank of America Co.-TRS etal	5
003015	00015	Kinloch Farm Pond		Robert Aron	5

### Filtering

All columns on the dam grid can be filtered by typing into the search boxes at the top of the columns. Users can enter text that will filter the grid, and the application allows for more than one column to be filtered. In the example below, the grid was first filtered by Dam Region = 5, and then by Dam Name contains "Sugar." Users do not have to do anything other than enter text into the search boxes to initiate a filter. There is a 5 second delay on filtering to allow users to complete entries.

Dam Name	Dam Other Name	Owner Name	Dam Region	City/County
Sugar	Search	Search	5	Search
Sugar Hollow Dam	Moormans River Storage	Rivanna Water and Sewer Authority	5	Albemarle County
Sugarloaf Farm Dam		Gray Ferguson	5	Augusta County

To clear a filter, either remove the text that was entered into the search bars, or click the “Reset Filters” button.

**Virginia Dam Safety Inventory System**

Welcome, "wvsstaff" [Logout](#)

[Add New Dam](#) [Reset Filters](#)

Export a Summary Report of a dam, right click on a record and select Report.

Report	Hazard Class	Dam Type
	Unknown	Earth
	Unknown	Earth

Dams are automatically listed on the grid page in pages of 50 dams. Users can change the number of dams appearing on the page by using the drop-down list at the bottom of the screen. Also, users can view other pages by using the pagination arrows at the bottom of the grid.



	Pounding Dick Woods Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Eart
	Windsor Farm East Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Eart
	Chestnut Grove Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Eart
	Cool Stream East Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Eart
	Cool Stream Farm West Dam		Virginia Polo Inc.	5	Albemarle County		Unknown	Eart
	Murcielago Exempt Dams (11)		Murcielogo LLC	5	Albemarle County		Unknown	Eart
	Murcielago Boomerang Dam		Murcielogo LLC	5	Albemarle County, Fluvanna County		Unknown	Eart
	Murcielago Southwest Dam		Murcielogo LLC	5	Albemarle County, Fluvanna County		Unknown	Eart
	Cedar Fork Dam			2	Caroline County		Low	Eart
	Trahos Dam	DeJarn		2	Caroline County		Low	Eart
	Upper Tanyard Run Dam		Virginia Polo Inc.	2	Caroline County		Unknown	Eart
	Burnette Lower Pond Dam		George V Burnette	4	Pittsylvania County		Unknown	Eart
	Fresh Water Pond(Quarry Area)		Martin Marietta Aggregates	2	Chesterfield County		Unknown	Eart

## Summary Report

Users can download a PDF summary report for all dams they have access to by right-clicking on the dam row on the grid, and selecting “Report.”

Legacy Number	Dam Name	Dam Other Name	Owner Name	Dam Region	City/County
	Boyd Tavern Dam2	new other name	Craig Kaderavek test 2	5	Albemarle County
	Mike Johnson Dam		Johnson, Mike	5	Albemarle County, Fluvanna County
	Montfair West Dam	Old Pond Road	Mary B. Sheridan Trust	5	Albemarle County
	Mont Air South Dam	Montfair Farm estate		5	Albemarle County
	Montfair North Dam	campground	Virginia Polo Inc.	5	Albemarle County
	Riverdale Farm Dam		Virginia Polo Inc.	5	Albemarle County
	Shelford Farm Dam	test	Birdsall, John	5	Albemarle County
	Samuel Walker		Walker, Samuel Stephens II or Janice M.		Albemarle County
	UVA Polo Club - West		Virginia Polo Inc.	5	Albemarle County
	UVA Polo Club - East		Minor, Jennie Sue	5	Albemarle County
	Pounding Brook Dam	new other name	Deangelis, Robert N.,Pounding Brook	5	Albemarle County
	Van Clief Dam		Van Cliff, Barry R.; Daniel G. Van Cliff Jr. & Bank of America Co.-TRS etal	5	Albemarle County
	Kinloch Farm Pond		Robert Aron	5	Albemarle County
	Starfield Drive Dam		Virginia Polo Inc.	5	Albemarle County
	Friesland Dam		Virginia Polo Inc.	5	Albemarle County

The user will then be prompted, depending on the browser they are using, to save the report.

## Events

By clicking on the row of a dam, the user will be taken into the details of that dam. Throughout the subsequent tabs within the dam, users will be able to view pertinent dam information through the header at the top of the screen.

The screenshot shows the top navigation bar with the DCR logo and 'Virginia Department of Conservation & Recreation'. Below it are tabs for 'Dams' and 'My Account'. A breadcrumb trail reads 'Dams > 003010'. The main content area displays dam information: Dam Name: Samuel Walker, Dam Inventory Number: 003010, Legacy Number: 00010, Dam Region: 5, Hazard Classification: High, County: Albemarle, Owner Name: Walker, Samuel Stanhope II or Janice M., Regional Engineer: Michael Wang, Inundation Study Date: 08-17-2017, Certificate Type: No Certificate, Certificate Expiration Date: 08-17-2018, and EAP Expiration Date: 08-10-2018. A blue 'Events' button is visible. Below it is a section titled 'Upcoming Expirations' with a table showing an expiration date of 08-2018, type of Certificate, and sub-type of No Certificate.

Additionally, users can use the breadcrumbs at the top of the header to navigate between pages within the dam record, or to get back to the main dam grid.

This screenshot is similar to the previous one but highlights the breadcrumb trail 'Dams > 003010' with a red circle. The 'Events' button is also highlighted with a yellow box. The 'Upcoming Expirations' table shows the expiration date '08-2018'.

The first page the user will be taken to when clicking on a dam from the dam grid will be the Events tab.

The screenshot displays the VDSIS interface for dam 003010. The 'Events' tab is selected in the left-hand navigation menu. The main content area is divided into two sections:

**Upcoming Expirations**

Expiration Date	Type	Sub Type
08-2018	Certificate	No Certificate
08-2018	Emergency Plan	EAP
08-2018	Permit	Construction Permit

**Upcoming Inspections**

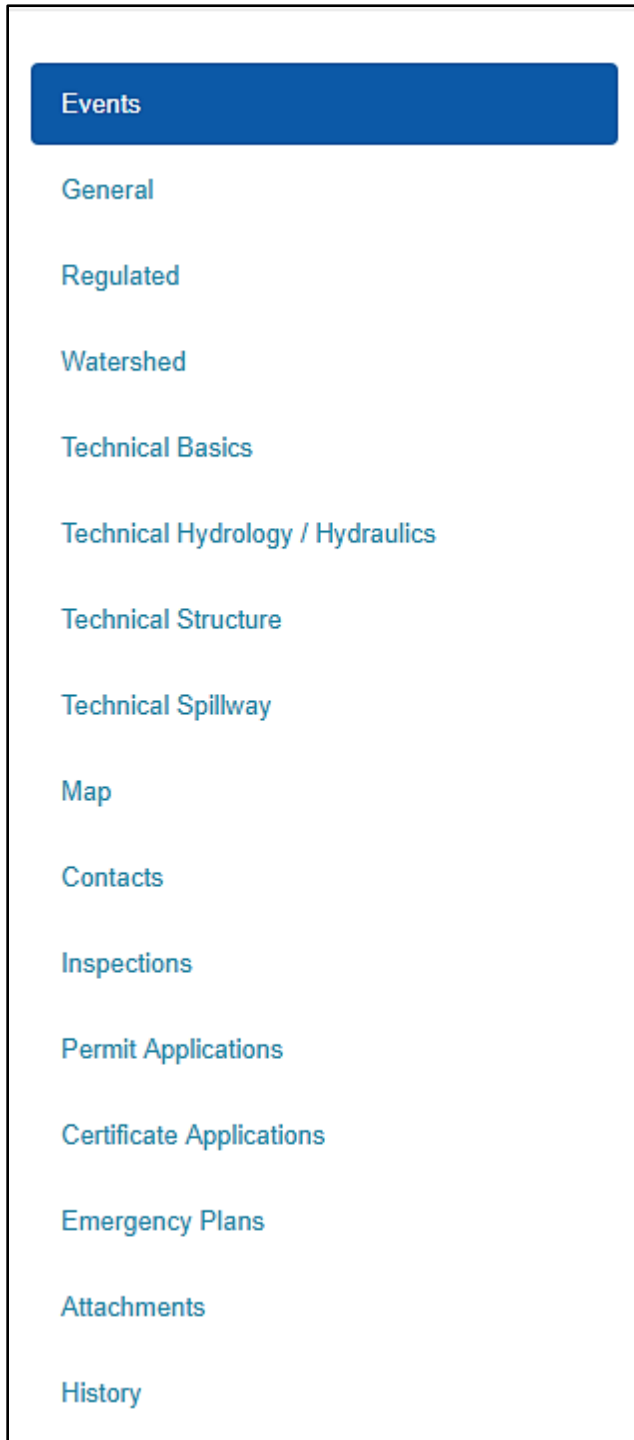
Inspection Type	Last Inspection Date	Next Inspection Date	Overall Condition
Engineer	08-2017	08-2019	Poor

This tab shows user's upcoming expiration dates for Certificates, Emergency Plans and Permits. It also shows users the previous Engineer or Owner inspection dates, as well as the date for when the next inspection should occur. Those dates are based on the dam's hazard class:

- High Special - PE inspection once a year
- High - PE inspection every 2 years
- Significant - PE inspection every 3 years
- Low - PE inspection every 6 years
- Owner inspection every year a PE inspection is not required
- Low Special - no future inspection required

## General Dam Information

The left-hand side of the page once the user has clicked on a dam contains sub-tabs, with “Events” at the top. The following sections of the user guide reference these tabs. This section covers tabs “General” through “Technical Spillway.”



General

Under the “General” tab, users can view and edit general dam information, depending on their permissions associated with the dam.

General		
Inventory Number:	003010	
Legacy Number:	00010	
Dam Name:	Samuel Walker	
Other Dam Name:	nwar	
Hazard Classification:	High	
Dam Size:	Medium (1,000-50,000 ac. ft., 40-100')	
Date Constructed:	8/1/2017	
Construction Date Estimated:	No	
Reservoir Purpose:	<u>Purpose</u> Recreation	<u>Level of Importance</u> Primary
Dam Types:	<u>Type</u> Earth	<u>Level of Importance</u> Primary
Regional Engineer:	Michael Wang Region 1	
Design By:	Test Time - test	
Constructed By:	Yule Hale - Yule Hale	
Comments:	nwrRWV	

To edit any of the details, select the “Edit” button in the top or bottom right, change information as necessary, then select “Save” in the top or bottom right to save edits, or select “Cancel” to not save edits and return to viewing the dam details.

Save Cancel

**General**

Inventory Number: 003010

Legacy Number: 00010

Dam Name:

Other Dam Name:

Hazard Classification:

Dam Size:

Date Constructed:

Construction Date Estimated:  Yes  No

Reservoir Purpose:

+ Add Reservoir Purpose

Dam Types:

+ Add Dam Type

Regional Engineer:

Design By:

Constructed By:

Comments:

\*Required Fields

Save Cancel

Spatial Data Summary

### Multi-Add

This page also gives users the ability to add, edit or delete multiple entries for one piece of information. In this example, users would add a new entry by selecting "Add Reservoir Purpose" and filling out the purpose and level of importance. Users can delete entries by selecting the trash can that lines up with the entry.

The screenshot shows a web form with two main sections: "Reservoir Purpose" and "Dam Types".

- Reservoir Purpose:** Includes a "Purpose" dropdown menu with options "Recreation", "Fish & wildlife or small farm pond", and a "+ Add Reservoir Purpose" button circled in red. To the right is a "Level of Importance" dropdown menu with options "Primary" and "Secondary". A trash can icon is circled in red next to the "Secondary" option.
- Dam Types:** Includes a "Type" dropdown menu with the option "Earth" and a "+ Add Dam Type" button. To the right is a "Level of Importance" dropdown menu with the option "Primary".
- Regional Engineer:** A dropdown menu showing "Michael Wang Region 1".

Additionally, the Spatial Data Summary is located at the bottom of the general tab. This information is read-only, and is populated by a spatial query that occurs on the dam location. If the dam location is changed, this information is updated automatically.

Spatial Data Summary	
Dam Safety Region:	5
City/County:	Albemarle County
Hydrologic Unit Code 12:	020802040402
HUC 12 Watershed Name:	Moore's Creek
VAHU 6 Watershed Code:	JR15
Soil & Water Conservation Districts:	THOMAS JEFFERSON
VA House District:	59
VA Senate District:	25
US Congressional District:	5105
USGS Topo Quads:	ALBERENE
FEMA Flood Plain:	A,X

## Regulated

The next tab is where users can view and edit regulated information, based on their permissions associated with that dam.

Dam Region: 5 Hazard Classification: High County: Albemarle	Owner Name: Walker, Samuel Stanhope II or Janice M. Regional Engineer: Michael Wang Inundation Study Date: 08-17-2017	Certificate Type: No Certificate Certificate Expiration Date: 08-17-2018 EAP Expiration Date: 08-10-2018
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**Regulated** Edit

Dam Regulated: Regulated

Regulatory Agencies: Department of Conservation and Recreation

Private Dam on Federal Property:

Phase 1 Report:

Federal Involvement Funding:

Federal Involvement Other:

Edit

## Watershed

The next tab is the watershed tab, where users can view and edit this information based on their permissions associated with that dam.

**Watershed**

---

Nearest City:

Nearest City Distance (Miles):

River Or Stream: trib. Biscuit Run

Reservoir Name:

Technical Basics

The next tab is "Technical Basics," where users can view or edit information based on their permissions associated with that dam.

Technical Basics	
Dam Length (Feet):	490
Normal Pool Area (Acres):	5
Normal Pool Capacity (Acre-feet):	40
Normal Pool Elevation (Feet):	0
Normal Pool Height (Feet):	22
Top Capacity (Acre-Feet):	56
Top Elevation (Feet):	0
Top Height (Feet):	25
Top Surface Area (Acres):	6
Maximum Discharge (CFS):	
Hydraulic Height (Feet):	
Structural Height (Feet):	
Crest Width (Decimal-Feet):	
Upstream Slope (Horizontal to Vertical):	
Downstream Slope (Horizontal to Vertical):	



Next, users can view or edit "Technical Hydrology / Hydraulics" information based on their permissions associated with that dam.

Technical Hydrology / Hydraulics		
6 hour PMP (Inches):	0	
12 hour PMP (Inches):	0	
24 hour PMP (Inches):	0	
Controlling PMP:	Unknown	
Drainage Area (Sq Miles):	0	
Time of Concentration (Minutes):		
Weighted Curve number:		
Available Spillway Design Flow or Capacity:	<a href="#">Measure</a>	<a href="#">Units</a>
Required Spillway Design Flow or Capacity:	<a href="#">Measure</a>	<a href="#">Units</a>
IDA Spillway Reduction:	<a href="#">Measure</a>	<a href="#">Units</a>

### Technical Structure

The next section allows the users to view or edit technical structure information based on their permissions associated with that dam.

## Technical Structure

Core Position:	Core
Core Type:	Concrete
Core Certainty:	Estimated
Foundation:	Rock
Foundation Certainty:	Estimated

### Technical Spillway

Finally, users can view or edit technical spillway data based on their permissions associated with that dam.

**\*Required Fields**

#### Technical Spillway

Save Cancel

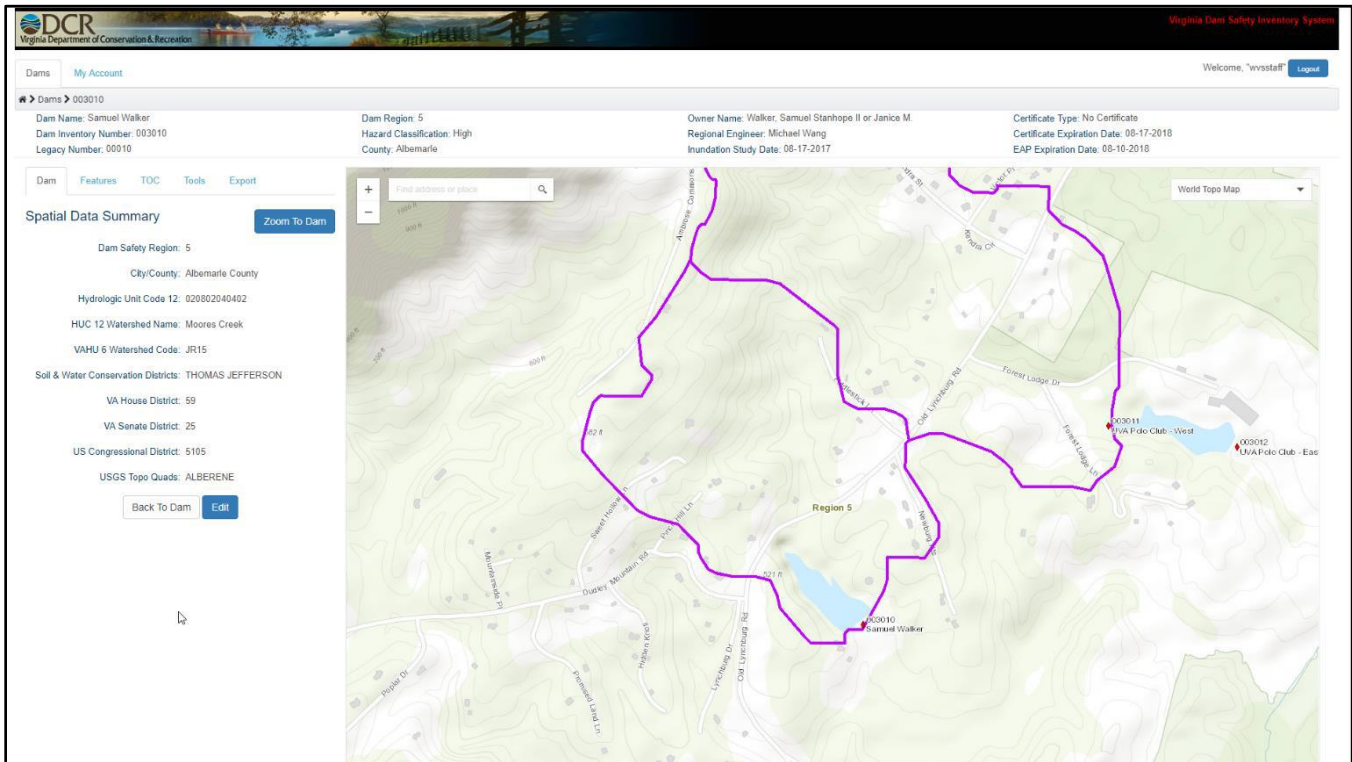
Volume (cubic yards) *	<input type="text" value="22.2"/>	
Number of Locks *	<input type="text" value="65"/>	
Length of Locks (feet) *	<input type="text" value="5.5"/>	
Locks Width (feet) *	<input type="text" value="156.2"/>	
Spillway: Types *	Width (feet) *	Outlet Gates *
<input type="text" value="None"/>	<input type="text" value="156"/>	<input type="text" value="Needle"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<a href="#">+ Add Another Spillway</a>		
Auxiliary Spillway: Types *	Width (feet) *	Outlet Gates *
<input type="text" value="Uncontrolled"/>	<input type="text" value="156"/>	<input type="text" value="Needle"/>
<a href="#">+ Add Auxiliary Spillway</a>		

**\*Required Fields**

Save Cancel

## Spatial Data

By clicking the “Map” tab, users will be taken to the mapping portion of the application where they can view, edit and delete spatial data depending on their permissions.

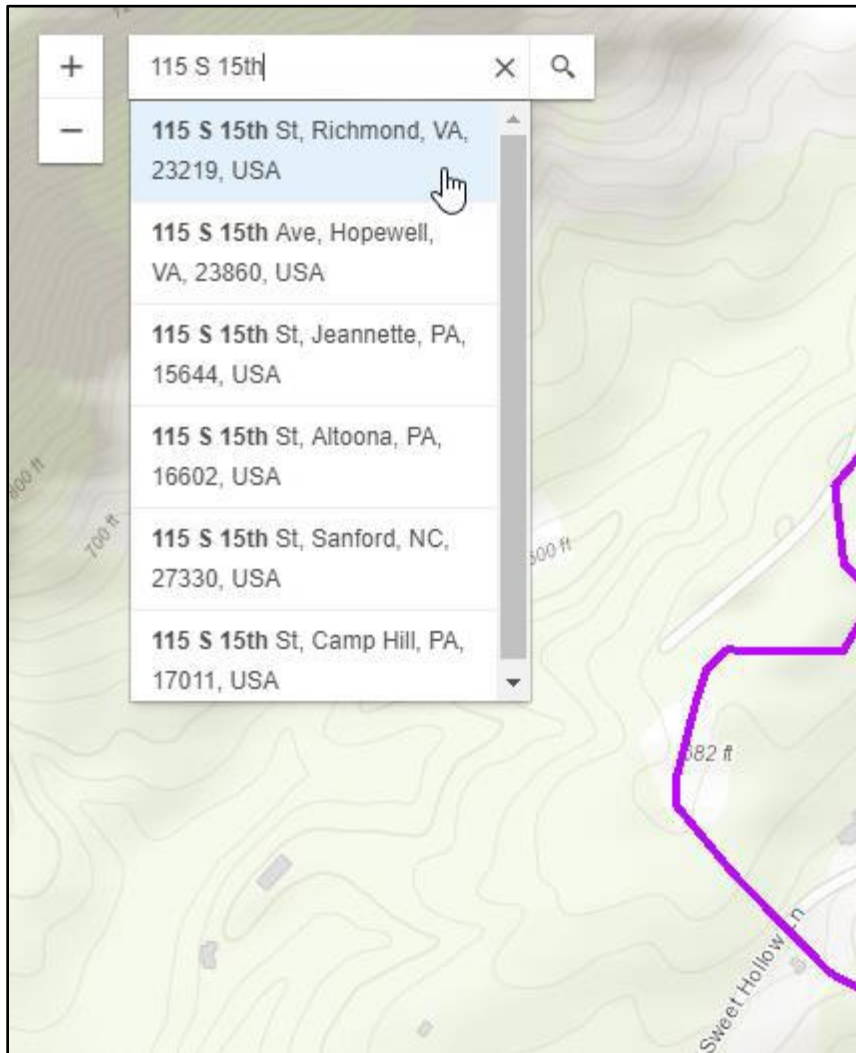


The first sub-tab users are taken to is the “Dam” tab that shows users the spatial data summary for the dam, and shows them a map of the dam point and watershed by default.

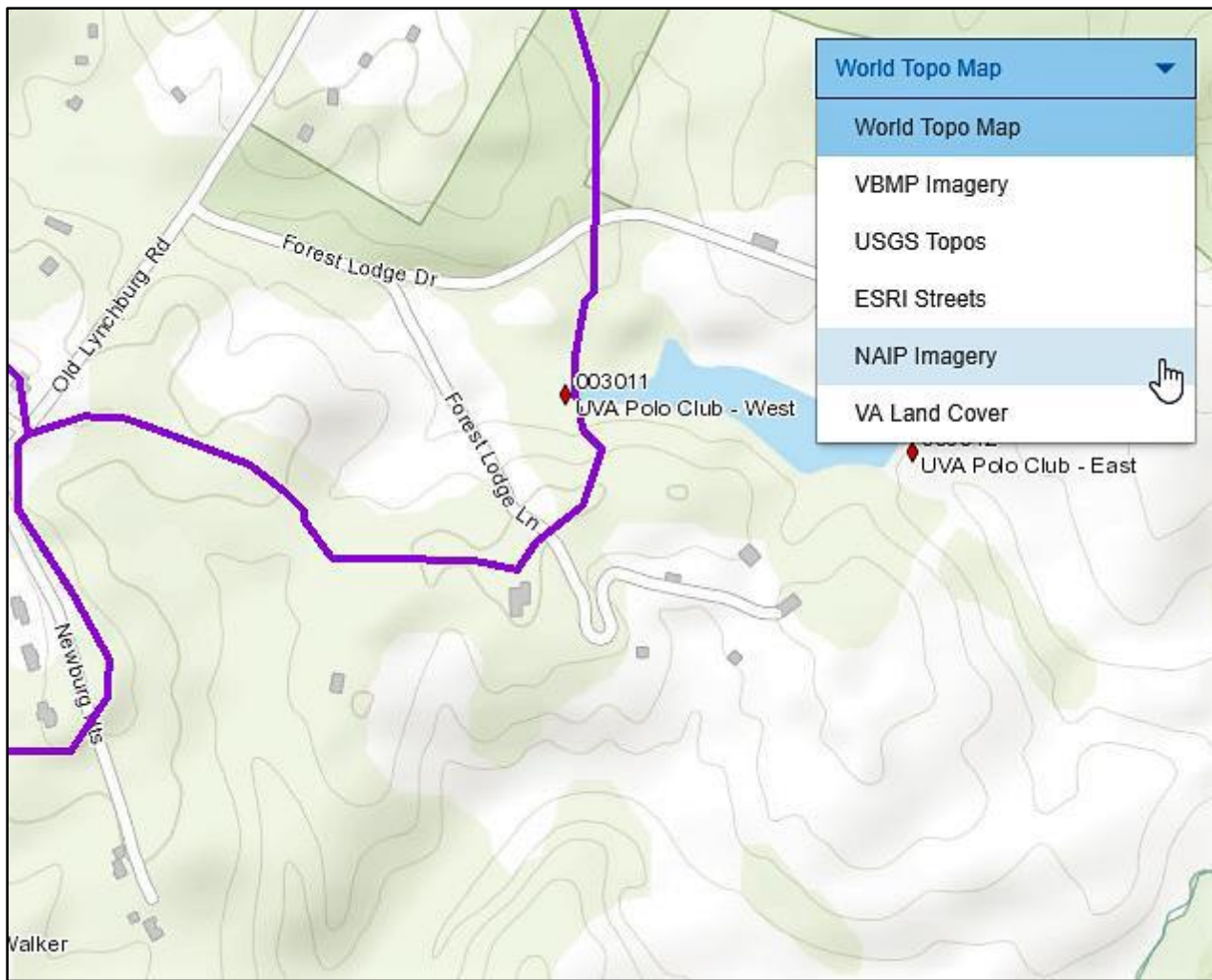
### Basic Map Functionality

Users can click the plus or minus buttons in the top left corner to zoom in and out of the map, or use the scroll wheel on a mouse. To pan from side to side, users can left click on the map and drag in the direction they choose.

Also, users can search for an address by typing into the search box in the top left corner. Address options will automatically populate below the search box based on what the user entered, and selecting a choice or hitting enter will zoom the map to that location. Users can clear that location search by clicking the x in the search box.

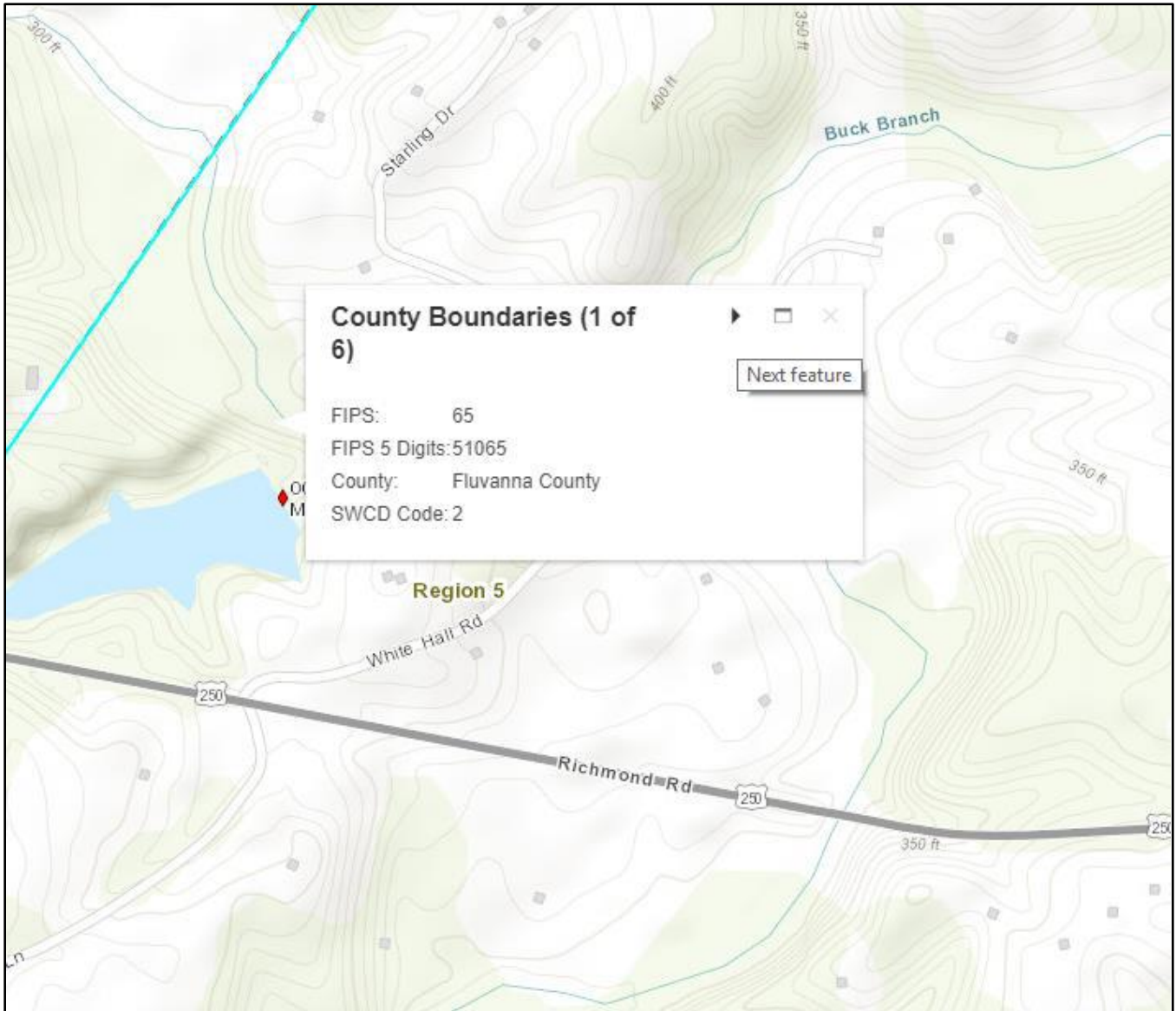


Users can change the base map by selecting the drop down on the top right of the map and choosing another base map.



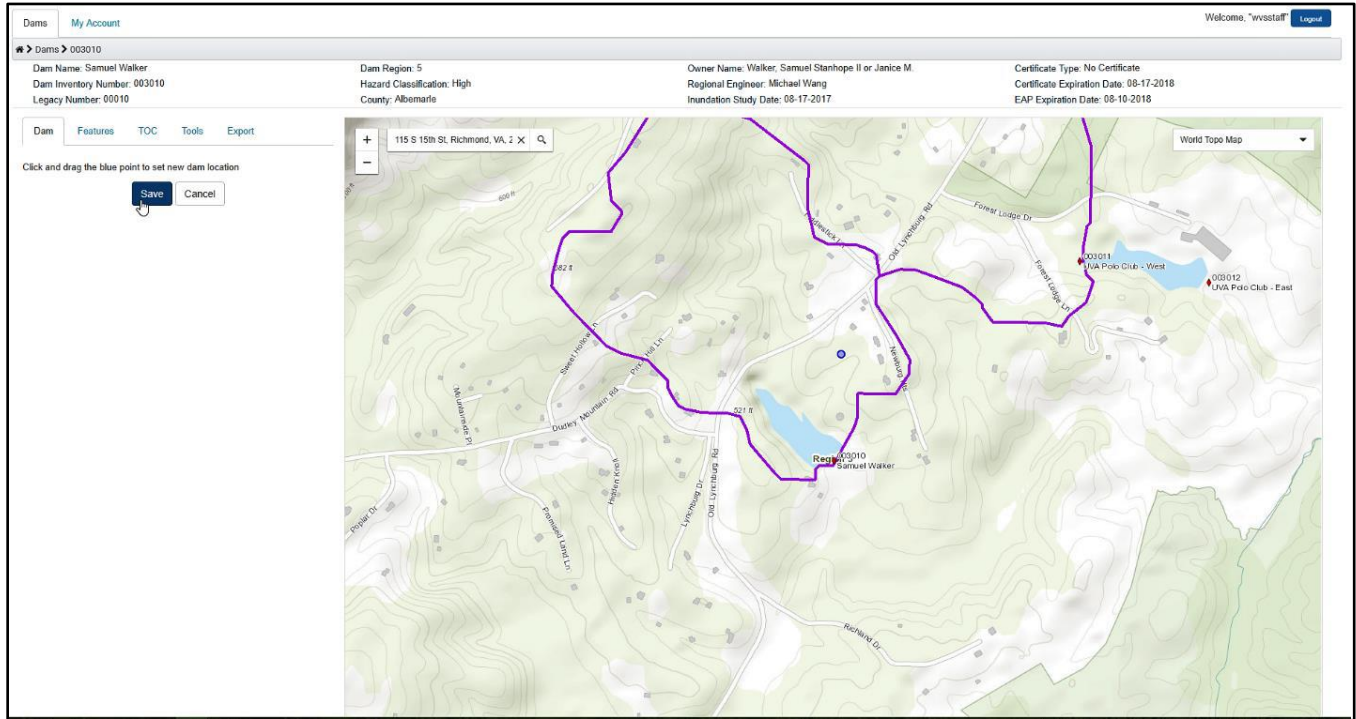
### Identify

Users can identify layers on the map by simply clicking on the map within features they wish to identify. A small window will pop up in the map, which contains information about all layers that were turned on, and are identifiable underneath where the user clicked. Users can scroll through the layers by using the right and left arrows in the top right of the window, and close out of it by clicking the x in the top right.



### Editing Dam Location

Depending on permissions, users can edit the location of the dam by selecting “Edit” underneath the “Spatial Summary” on the “Dam” tab. The dam location will then have a blue circle appear over top the existing location point. Users can drag and drop the blue circle to the desired location, and select “Save” to move the dam. The spatial summary will update accordingly.



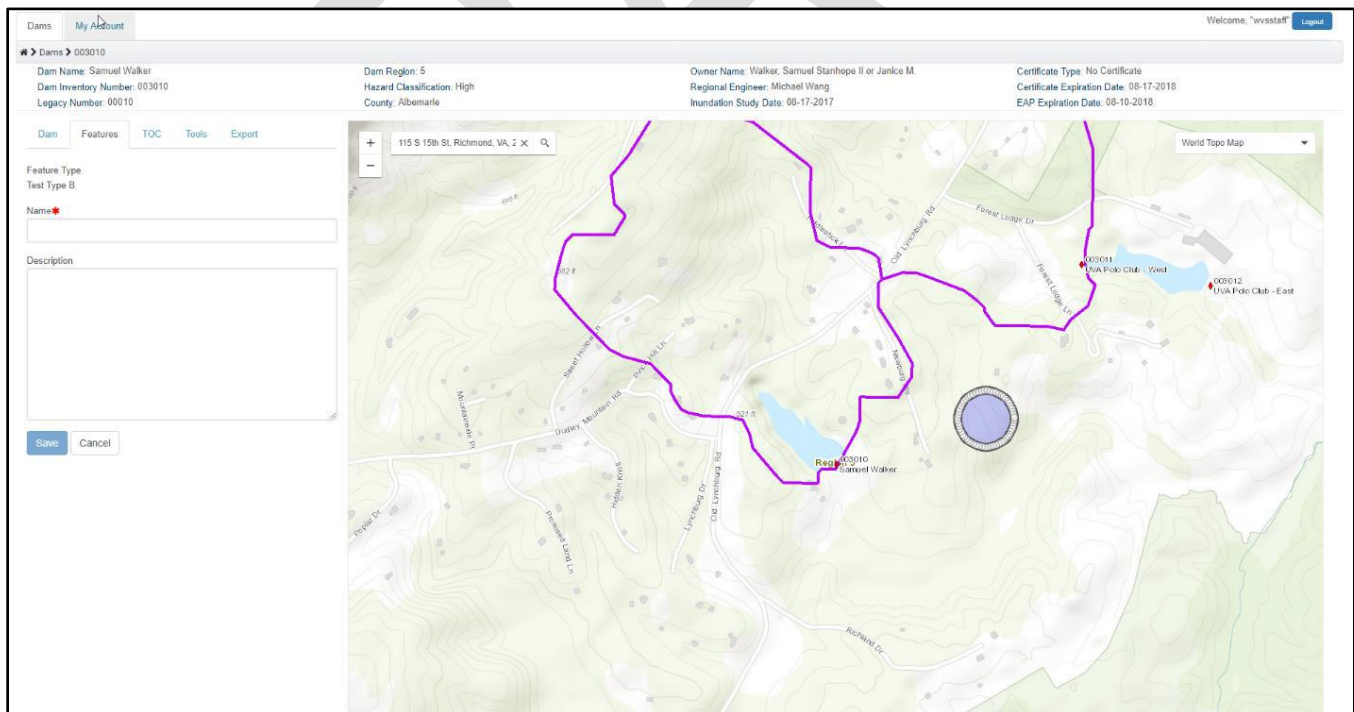
## Dam Features

On the dam map, users can create dam features that are associated with the current dam by going to the ‘Features’ sub-tab on the mapping page. Here, they can select a dam feature from the drop-down list.

When adding a new feature, the user will be able to choose from one or more shape types available for the dam feature type, and then should select “draw” in order to start drawing in their feature. The drawing instructions for each feature type are as follows:

- Point – Click once on the map to drop the point.
- Line – Click once on the map to start the line, click for each desired vertex, and double click to finish the line.
- Polygon – Click once on the map to start the polygon, click for each desired vertex, and double click to finish the polygon.
- Circle – Click once on the map where the desired center of the circle would be, hold the click and drag to desired diameter. Release the click to finish the circle.
- Buffer – After selecting buffer from the drop-down list, enter in the desired buffer distance in the “Distance” field and then select “Draw.” The buffer distance will apply to each side of the line that the user draws. For example, if the user enters a distance of 10 feet, the resulting shape will be 20 feet in width. Users can draw the same as they would with a line, and double click to finish the draw.
- Vertices can be dragged after the initial shape drawing, to create the desired shape.

After drawing the shape, users must enter in a name, may enter a description, and then select “Save” to complete the creation process.



After saving, users can edit or delete the features through the grid on the top of the features sub-tab.



# DSIS User Guide 03/21/2018

Dam Name: Samuel Walker      Dam Region: 5      Owner Name: Walker, Samuel Stanhope II or Janice W.      Certificate Type: No Certificate  
Dam Inventory Number: 003010      Hazard Classification: High      Regional Engineer: Michael Wang      Certificate Expiration Date: 08-17-2018  
Legacy Number: 00010      County: Albemarle      Inundation Study Date: 08-17-2017      EAP Expiration Date: 08-10-2018

Dam    Features    TOC    Tools    Export

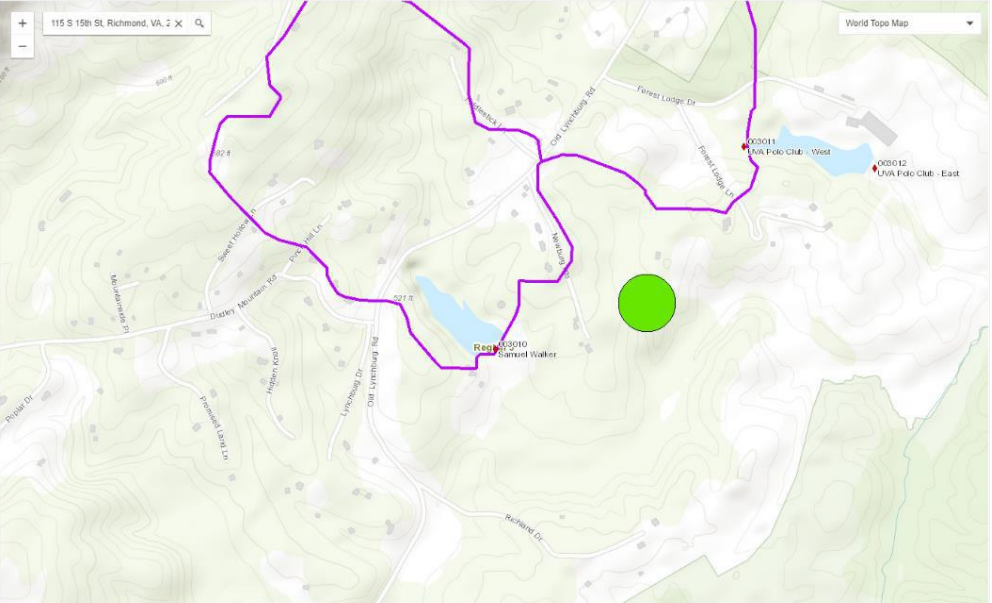
**Dam Features**      [Zoom To Dam](#)

Name	Type	Action
Test Circle	Test Type B	Edit   Delete

**New Feature**

Feature Type:

[Back To Dam](#)    [Draw](#)



DRAFT

TOC

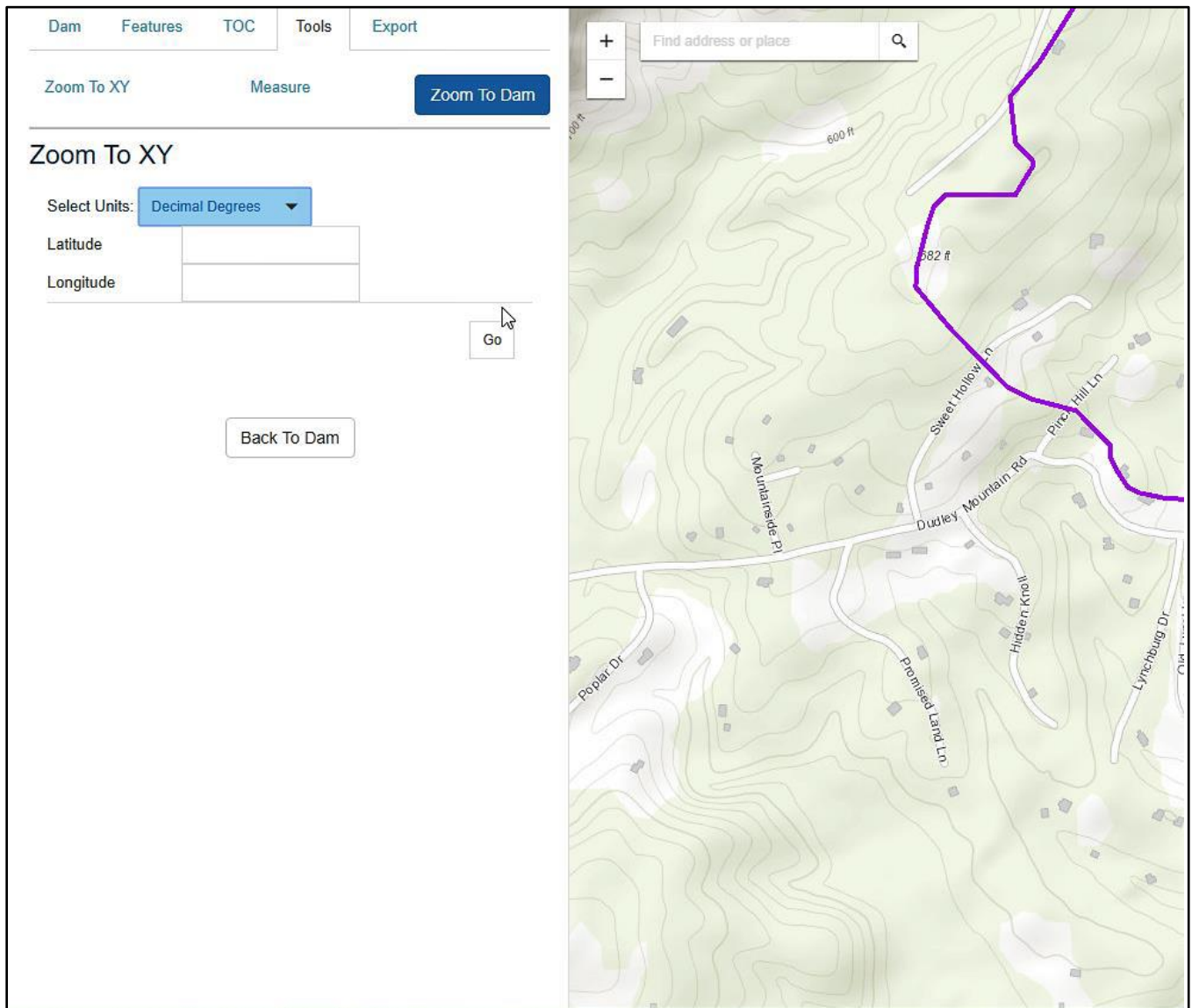
Users can turn on or off layers on the map through the "TOC," or Table of Contents, sub-tab on the mapping page. Checking the box turns the layers on, un-checking turns them off.

The screenshot shows a web-based interface for managing map layers. At the top, there are navigation tabs: "Dam", "Features", "TOC" (which is selected), "Tools", and "Export". Below the tabs is the "Map Layers" section, which includes a "Zoom To Dam" button. The layers are organized into several groups, each with a collapse/expand icon and a checked/unchecked status box. The "Dam Layers" group is expanded, showing sub-groups like "All Dams" and "All Dam Features". The "Boundaries" group is also expanded, showing various boundary types. A mouse cursor is visible over the "Virginia Address Point" layer.

- Dam Layers
  - All Dams
    - Dam Labels
    - Dam Locations
  - All Dam Features
    - Dam Features (Point)
    - Dam Features (Polygon)
    - Dam Features (Line)
  - DamWatersheds
- InundationZones
- Virginia Parcels
- Virginia Address Point
- Virginia Building
- Reference Layers
  - Roads
  - Contours
  - Hydrology/TMDL
- Boundaries
  - Topo Quad Grid
  - County Boundaries
  - VADamGIS\_Test.GISADMIN.NationalWeatherService
  - VA Senate Districts
  - VA House Districts
  - US Congressional Districts
  - Dam Safety Regions
  - Soil and Water Conservation Districts

## Tools

There are two mapping tools under the "Tools" sub-tab on the mapping page- "Zoom to X:((" and "Measure." "Zoom to XV" allows user to select a unit of measurement and enter in X andY coordinates. Selecting "Go" will take the user to the entered coordinates.



"Measure" allows users to draw a line or a polygon and get the distance of the line in a variety of units, or the area of the polygon in a variety of units. Users should follow the same drawing guidelines for each shape as in the dam "Features" section.

Dam Features TOC Tools Export

Zoom To XY Measure **Zoom To Dam**

**Measure**

Distance Area

Segment Length: N/A  
Total Length: 0.33 Miles

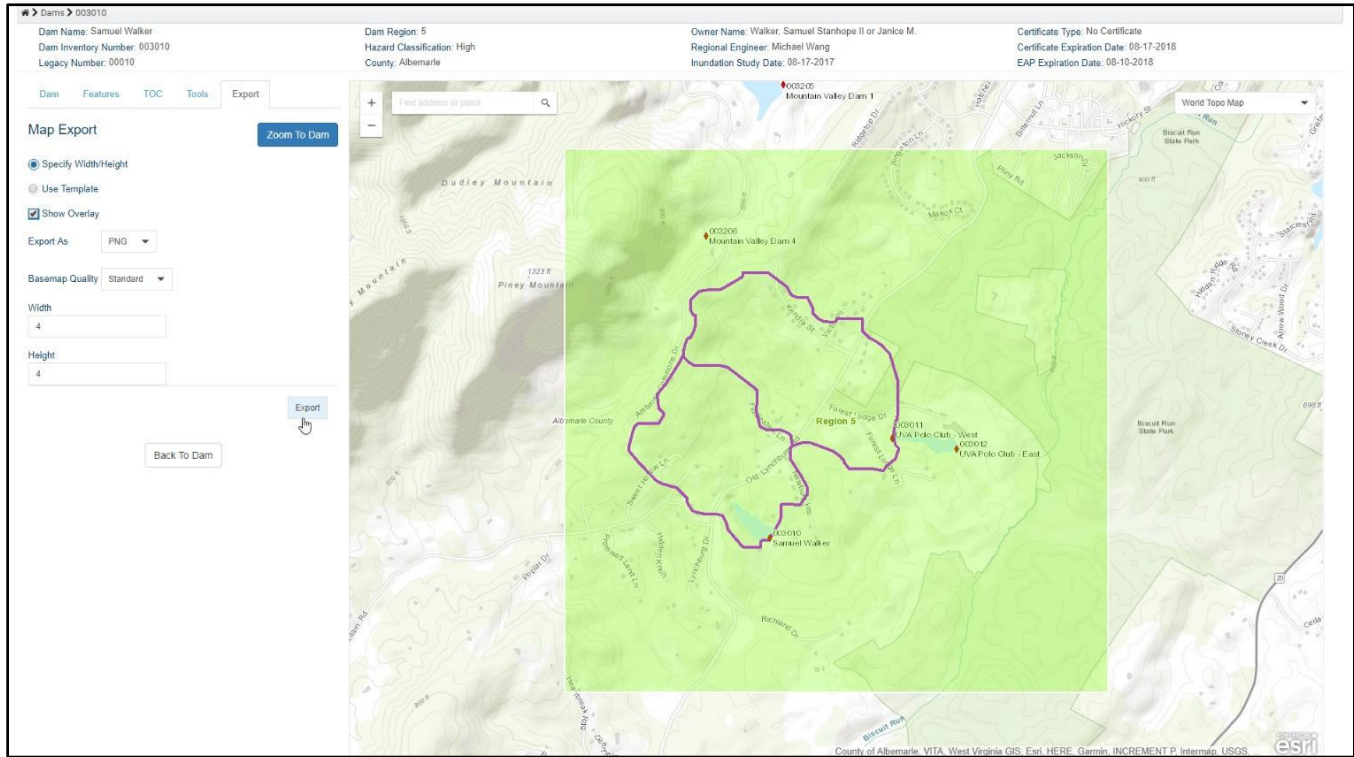
Back To Dam

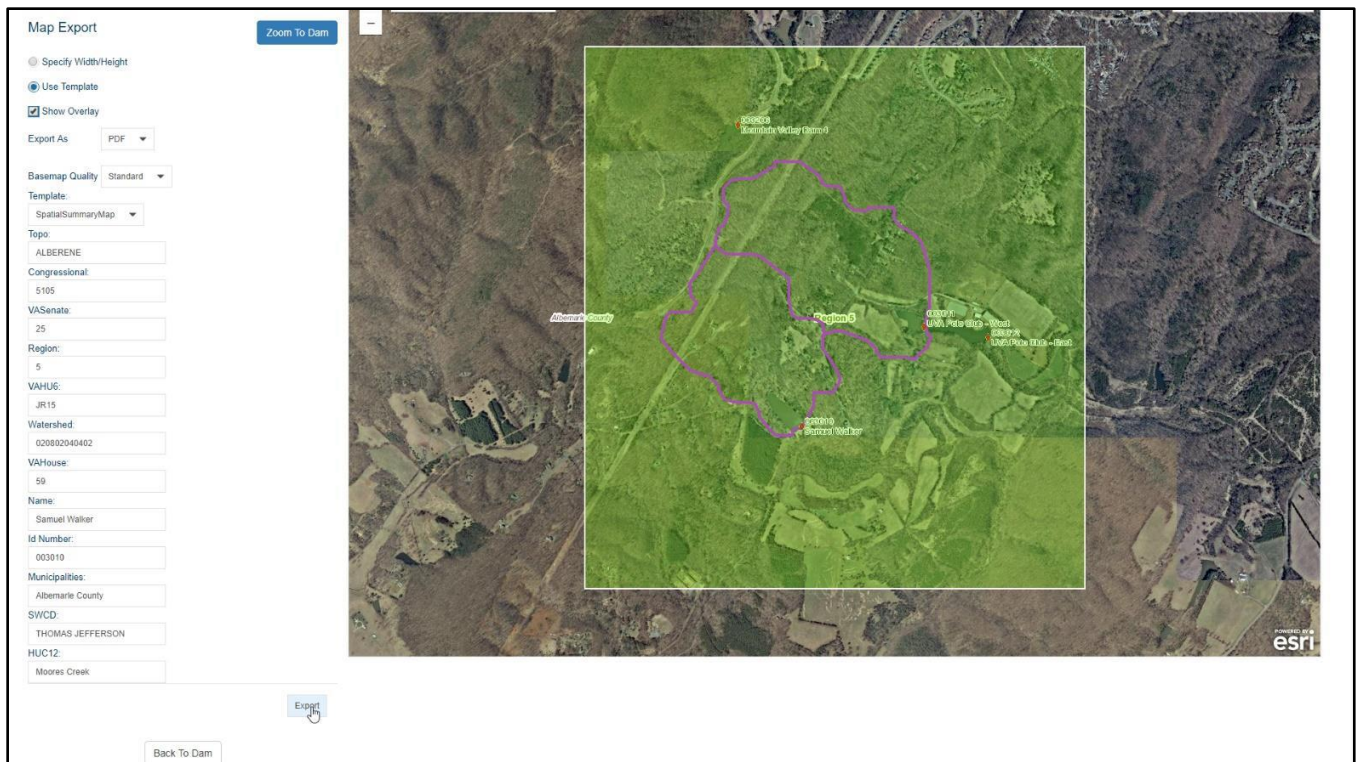
The image shows a software interface for measuring a path on a topographic map. The map displays contour lines, roads, and a lake. A purple line traces a path through the terrain, with elevation markers of 821 ft and 822 ft. A blue line segment is drawn between two points on the map. The interface includes a search bar at the top, navigation controls, and a 'Measure' panel on the left with options for 'Distance' and 'Area', and a 'Zoom To Dam' button.

DRAFT

## Map Export

Users can export images of the map through the “Export” sub-tab on the mapping page. Users can export the map as is through the “Specify Height and Width” option, or choose the “Use Template” option to export the map within a choice of two pre-designed templates. Once the user’s desired options are set, select “Export” and choose where to save the export.





To get back to the dam details pages, select “Back to Dam” on any of the mapping screen sub-tabs, or select the inventory number in the breadcrumbs at the top of the page.

DRAFT

## Contacts

Users may enter contacts in for a dam by going to the “Contacts” tab. By adding, editing or deleting contacts on this tab, users affect what names will be populated for drop down lists elsewhere throughout the application.

The screenshot shows the 'Contacts' tab for dam 003010. The interface includes a navigation menu on the left with tabs like 'General', 'Regulated', 'Watershed', 'Technical Basics', 'Map', 'Contacts', 'Inspections', 'Permit Applications', 'Certificate Applications', 'Emergency Plans', 'Attachments', and 'History'. The 'Contacts' tab is currently selected. The main content area displays a table of contacts with columns for Contact Type, Contact Name, Email, Phone Number, Organization, and Primary. A sidebar on the right contains a list of tabs: 'Events', 'Add Contact To Dam', 'General', 'Regulated', 'Watershed', 'Technical Basics', 'Technical Hydrology / Hydraulics', 'Technical Structure', 'Technical Spillway', 'Map', 'Contacts', 'Inspections', 'Permit Applications', 'Certificate Applications', 'Emergency Plans', 'Attachments', and 'History'. The 'Contacts' tab is highlighted in blue.

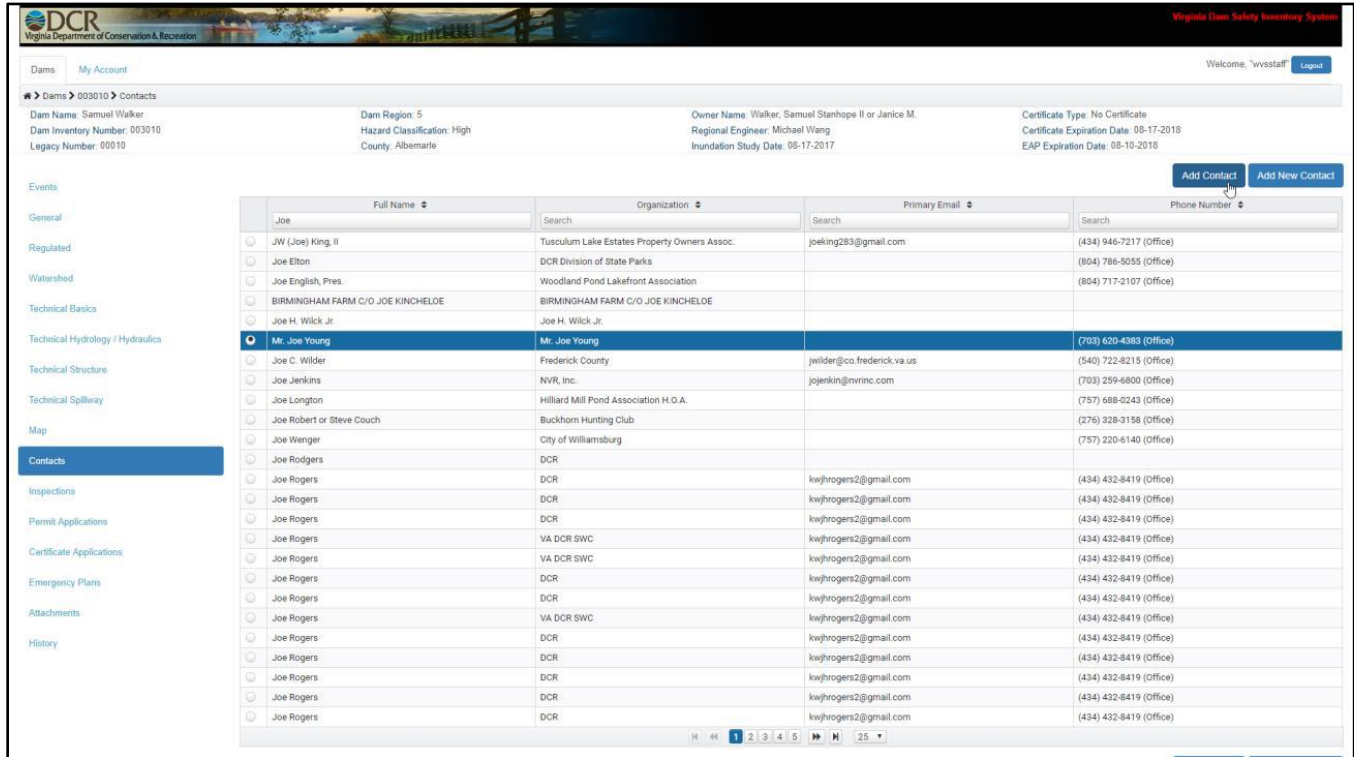
Contact Type	Contact Name	Email	Phone Number	Organization	Primary
Owner	Samuel Stanhope II or Janice M Walker			Walker, Samuel Stanhope II or Janice M	yes
Design Engineer	Yule Hale			Yule Hale	no
IP - Fee Simple	Test Time	test@email.com	(888) 888-8888(Home)	test	no

The grid the users first see lists the current contacts associated with the dam. If they have permissions, users can right click on one of the rows and disassociate a contact from the dam.

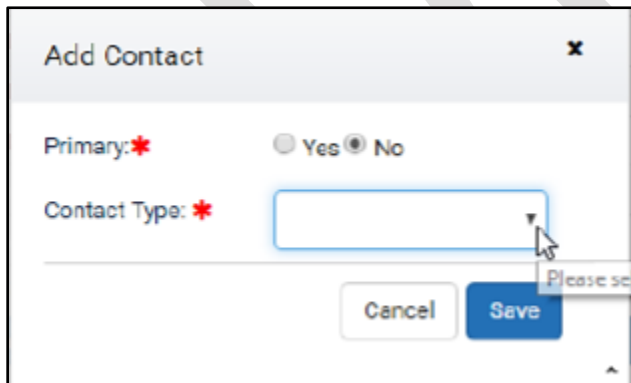
Note – this does not delete the contact’s record, but merely removes them from being associated with that particular dam. Also, by left clicking on a row, users can view or edit details for that contact.

Add an Existing Contact to a Dam

To add a contact to a dam, users should select “Add Contact to Dam” in the top right corner of the contacts tab. From here, they can search for an existing contact using the same search tools they can use on the dam grid. Once they find the contact they are looking for, the user can select the contact and choose “Add Contact.”



A window will then show up asking the user if this contact should be set as a primary contact and what type of contact they should be for this dam. There can only be one primary contact per dam, so if the user selects "Yes" for this contact, it will be set as primary and any contact that was set as primary before will be set as not primary. Selecting "Save" will add the contact to the dam.





### Add a New Contact to a Dam

If the user wants to add a contact that is not already in the system to a dam, they can select "Add New Contact" and enter in the required information for that contact. Selecting "Save" will save that contact into the database and add it to the dam.

The screenshot shows the 'New Contact' form within a web application. At the top, there is a header with metadata: Dam Inventory Number: 093010, Legacy Number: 00010, Hazard Classification: High, County: Albemarle, Regional Engineer: Michael Wang, Inundation Study Date: 08-17-2017, Certificate Expiration Date: 09-17-2018, and EAP Expiration Date: 08-10-2016. A sidebar on the left contains a list of categories: Events, General, Regulated, Watershed, Technical Basics, Technical Hydrology / Hydraulics, Technical Structure, Technical Spillway, Map, Contacts (highlighted), Inspections, Permit Applications, Certificate Applications, Emergency Plans, Attachments, and History. The main form area is titled 'New Contact' and includes a 'Required Fields' indicator. The form fields are: Title, First Name, Last Name, Organization, Primary Contact (radio buttons for Yes/No), Contact Type (dropdown), VA PE license Number, Email Address (with a 'Primary' checkbox and '+ Add Another Email' link), Street Address, Street Address 2, City, State (dropdown with 'VA' selected), Zip, Phone Number, and Phone Type (with a 'Primary' checkbox). 'Add' and 'Cancel' buttons are located at the top right of the form area.

## Inspections

Users can add, view, edit and delete inspections to a dam through the “Inspections” tab. The first grid the user will encounter is a list of all of the recorded inspections for the dam. If they have permissions, users can right click on one of the rows and delete an inspection record from the dam. Also, by left clicking on a row, users can view or edit details for that inspection.

The screenshot displays the VDSIS interface for dam 003010. The left sidebar contains a navigation menu with the following items: Events, General, Regulated, Watershed, Technical Basics, Technical Hydrology / Hydraulics, Technical Structure, Technical Spillway, Map, Contacts, **Inspections**, Permit Applications, Certificate Applications, Emergency Plans, Attachments, and History. The main content area shows the following information:

- Dam Name:** Samuel Walker
- Dam Inventory Number:** 003010
- Legacy Number:** 00010
- Dam Region:** 5
- Hazard Classification:** High
- County:** Albemarle
- Owner Name:** Walker, Samuel Stanhope II or Janice M.
- Regional Engineer:** Michael Wang
- Inundation Study Date:** 08-17-2017
- Certificate Type:** No Certificate
- Certificate Expiration Date:** 08-17-2018
- EAP Expiration Date:** 08-10-2018

The 'Inspections' table is as follows:

Inspection Date	Condition	Inspection Type	Organization	Inspector Name
8/6/2017	Poor	Engineer	test	Test Time

An 'Add Inspection' button is located in the top right corner of the main content area. A note at the bottom right of the table area reads: 'Note: Right click to view actions'.

If users would like to add a new inspection, they can select "Add Inspection" in the top right-hand corner of the page, enter in the required information for the inspection, and select "Save." This will set the inspection to a status of "Development" by default.

Legacy Number: 00010 County: Albemarle Inundation Study Date: 06-17-2017 EAP Expiration Date: 08-10-2016

Details Attachments

**Inspection Details**

Status: Development

Inspection Date: 08/08/2017

Inspection Type: Engineer

**Embankment**

Has Embankment?: Yes No

**Upstream Slope**

Woody vegetation discovered?: Yes No

Additional Comments:

Rodent burrows discovered?: Yes No

Additional Comments:

Remedial work performed?: Yes No

Additional Comments:

**Intake Structure**

Has Intake Structure?: Yes No

**Abutment Contacts**

Any Seepage?: Yes No

Additional Comments (estimate the flow rate and describe the location of the seep or damp areas (describe any turbidity and observed color within the flow)):

**Earthen Emergency Spillway**

Has Earthen Emergency Spillway?: Yes No

To change the status to "Submitted," all data fields must be populated, and a PE I Owner signature. To change the status to "Approved," all requirements for "Submitted" must be there and a OCR Approval Signature must be uploaded through the attachments tab under inspections.

DCR Virginia Department of Conservation & Recreation

Virginia Dam Safety Inventory System

Welcome, 'wvstaf' Logout

Dams My Account

Dams > 003010 > Inspections > 2017-08-08

Dam Name: Samuel Walker Dam Region: 5 Owner Name: Walker, Samuel Stanhope II or Janice M. Certificate Type: No Certificate

Dam Inventory Number: 003010 Hazard Classification: High Regional Engineer: Michael Wang Certificate Expiration Date: 06-17-2018

Legacy Number: 00010 County: Albemarle Inundation Study Date: 06-17-2017 EAP Expiration Date: 08-10-2016

Details Attachments

**Inspection Details**

Status: Submitted

Inspection Date: [blank]

Inspection Type: Engineer

**Embankment**

Has Embankment?: Yes No

**Upstream Slope**

Woody vegetation discovered?: Yes No

Additional Comments:

Rodent burrows discovered?: Yes No

Additional Comments:

Remedial work performed?: Yes No

Additional Comments:

**Intake Structure**

Has Intake Structure?: Yes No

**Abutment Contacts**

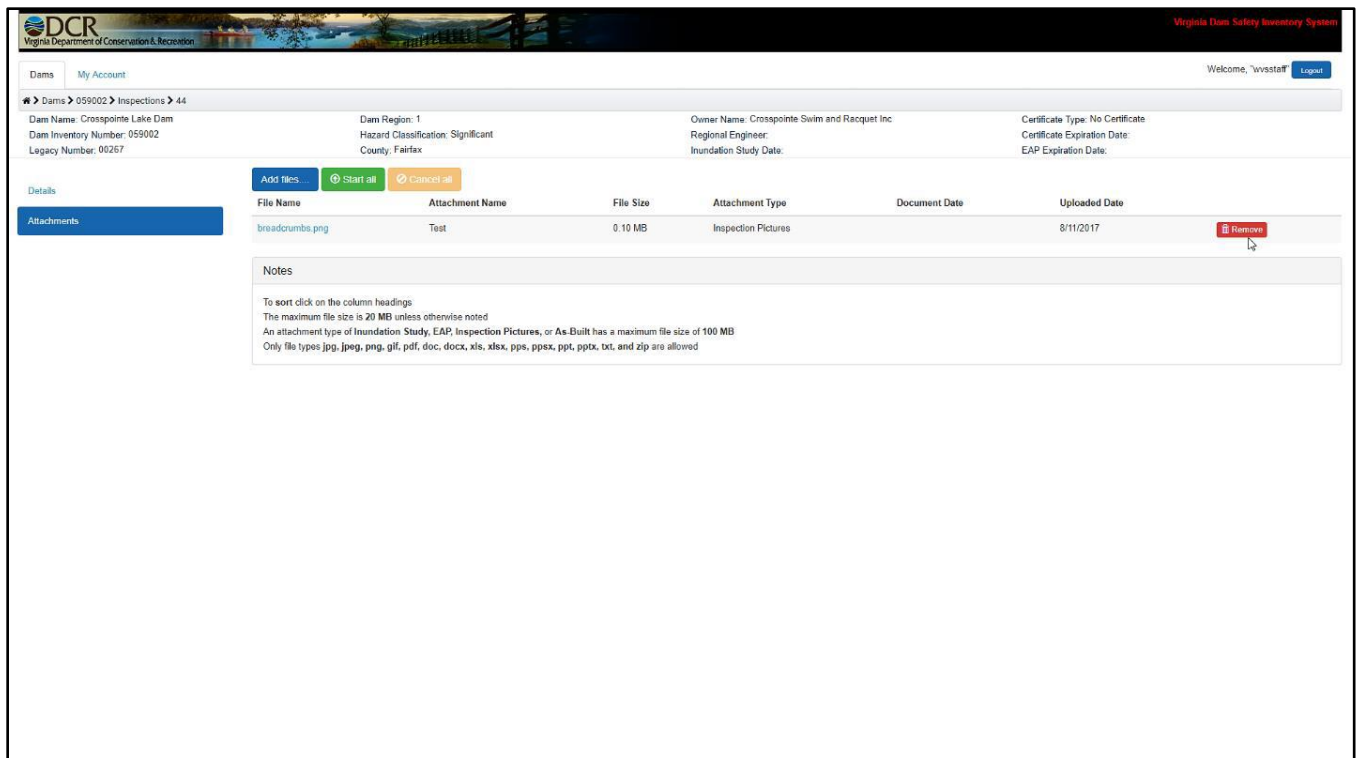
## Attachments

To add an attachment, select the “Attachments” sub-tab, and then select “Add Files.” Users can then navigate to the attachment they are attempting to upload, select it, enter in an attachment name and select an Attachment Type, and then select “Upload” to upload the document or “Cancel” to cancel the upload of that document.

The screenshot shows the DCR (Virginia Department of Conservation & Recreation) web application interface. At the top, there is a navigation bar with 'Dams' and 'My Account' tabs. Below this, a breadcrumb trail indicates the current location: 'Dams > 059002 > Inspections > 44'. The main content area displays dam details for 'Crosspointe Lake Dam', including its inventory number (059002), legacy number (00267), region (1), hazard classification (Significant), and county (Fairfax). There are three buttons: 'Add files...', 'Start all', and 'Cancel all'. Below these is a table with columns for 'File Name', 'Attachment Name', 'File Size', and 'Attachment Type'. A 'Notes' section provides instructions: 'To sort click on the column headings', 'The maximum file size is 20 MB unless otherwise noted', 'An attachment type of Inundation Study, EAP, Inspection Pictures, or As-Built has a maximum file size of 100 MB', and 'Only file types jpg, jpeg, png, gif, pdf, doc, docx, xls, xlsx, pps, ppsx, ppt, pptx, txt, and zip are allowed'.

To satisfy the requirement of adding a PE I Owner Signature to set the inspection status as "Approved," users must select the attachment type "PE I Owner Signature."

This screenshot shows the same DCR web application interface, but with a file being added to the attachments table. The table now has one row with the following data: File Name: 'breadcrumbs.png', Attachment Name: 'Test', File Size: '0.10 MB', Attachment Type: 'Inspection Pictures'. The 'Upload' button is highlighted with a mouse cursor. The 'Notes' section remains visible below the table, providing the same instructions as in the previous screenshot.



The attachment file requirements for the application are:

- Only the following files types can be uploaded
  - jpg, jpeg, png, gif, pdf, doc, docx, xls, xlsx, pps, ppsx, ppt, pptx, txt, and zip
- Only files under a size of 20MB can be uploaded unless otherwise noted:
  - Attachment Type - 100 MB
    - Inundation Study
    - EAP
    - Inspection Pictures
    - As-Built

Users can download a previously uploaded attachment by clicking on the file name on the grid, and choosing where to save it.

## Permit Applications

Users can add, view, edit and delete permit applications to a dam through the “Permit Applications” tab. The first grid the user will encounter is a list of all of the recorded permit applications for the dam. If they have permissions, users can right click on one of the rows and delete a permit application record from the dam. Also, by left clicking on a row, users can view or edit details for that permit application.

The screenshot displays the VDSIS interface for the Crosspointe Lake Dam. The top navigation bar includes the DCR logo and a user welcome message. The main content area is divided into a metadata section and a table of permit applications. The metadata section lists details such as Dam Name, Dam Region, Owner Name, and Hazard Classification. The table below shows a single permit application with the following data:

Status	Permit Type	Approval Date	Expiration Date
Development	Construction Permit	11/28/2016	8/30/2018

The interface also features a sidebar with various tabs like 'Events', 'General', 'Regulated', 'Watershed', and 'Permit Applications' (which is currently selected). A table navigation bar is located below the table, and a note indicates that users can right-click to view actions for each row.

If users would like to add a new permit application, they can select “Add Permit” in the top right-hand corner of the page, enter in the required information for the permit application, and select “save.” This will set the permit application to a status of “Development” by default.

Dams > 059002 > Permit Applications > 21

Dam Name: Crosspointe Lake Dam Dam Inventory Number: 059002 Legacy Number: 00267	Dam Region: 1 Hazard Classification: Significant County: Fairfax	Owner Name: Crosspointe Swim and Racquet Inc Regional Engineer: Inundation Study Date:	Certificate Type: No Certificate Certificate Expiration Date: EAP Expiration Date:
--	--	--	--

Details

Permit Details

Edit

---

Attachments

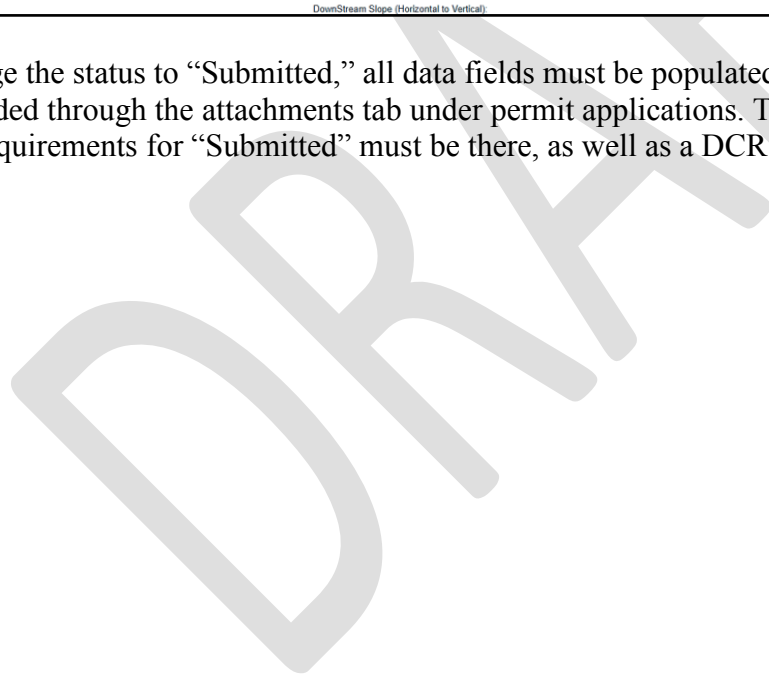
<b>Status:</b>	Development
<b>Permit Type:</b>	Construction Permit
<b>Permit Approval Date:</b>	11/28/2016
<b>Permit Expiration Date:</b>	8/30/2018
<b>Date entered:</b>	8/11/2017
<b>Issued By:</b>	
<b>Designed By:</b>	Bob Schultz, Manager - Crosspointe Swim and Racquet Inc
<b>Constructed By:</b>	Bob Schultz, Manager - Crosspointe Swim and Racquet Inc
<b>Proposed Construction/Alteration:</b>	Installation of aquatic bench, minor grading on upstream slope to create bench for aquatic plants.
<b>Federal Involvement Design:</b>	
<b>Federal Involvement Construction:</b>	
<b>Datum used for elevations:</b>	

---

Impounding Structure Data

<b>Type of material:</b>	Reinforced Concrete
<b>Description of other:</b>	
<b>Design</b>	
<b>Top of Dam Elevation (Decimal):</b>	0
<b>Streambed Elevation at Toe (Lowest Decimal):</b>	0
<b>Height of Impounding Structure (Decimal-Feet):</b>	0
<b>Crest Length (Decimal-Feet):</b>	0
<b>Crest Width (Decimal-Feet):</b>	0
<b>Upstream Slope (Horizontal to Vertical):</b>	
<b>DownStream Slope (Horizontal to Vertical):</b>	

To change the status to “Submitted,” all data fields must be populated, and a PE / Owner signature must be uploaded through the attachments tab under permit applications. To change the status to “Approved,” all the requirements for “Submitted” must be there, as well as a DCR Approval Signature attachment.



## Certificate Applications

Users can add, view, edit and delete certificate applications to a dam through the “Certificate Applications” tab. The first grid the user will encounter is a list of all of the recorded certificate applications for the dam. If they have permissions, users can right click on one of the rows and delete a certificate application record from the dam. Also, by left clicking on a row, users can view or edit details for that certificate application.

The screenshot displays the DCR Virginia Dam Safety Inventory System interface. At the top, there is a navigation bar with the DCR logo and the text "Virginia Dam Safety Inventory System". Below this, there are tabs for "Dams" and "My Account". The main content area shows details for Dam 059002, including the dam name "Crosspointe Lake Dam", dam inventory number "059002", legacy number "00267", dam region "1", hazard classification "Significant", county "Fairfax", owner name "Crosspointe Swim and Racquet Inc.", regional engineer, and inundation study date. A table titled "Certificate Applications" is visible, with columns for Status, Certificate Type, Approval Date, Effective Date, and Expiration Date. The table contains one row with Status "Development" and Certificate Type "No Certificate". A blue button labeled "Add Certificate" is located in the top right corner of the table area. A sidebar on the left contains a list of navigation options, with "Certificate Applications" highlighted in blue.

If users would like to add a new certificate application, they can select “Add Certificate” in the top right-hand corner of the page, enter in the required information for the certificate application, and select “save.” This will set the certificate to a status of “Development” by default.

To change the status to “Submitted,” all data fields must be populated, and a PE / Owner signature must be uploaded through the attachments tab under certificates. To change the status to “Approved,” all the requirements for “Submitted” must be there, as well as a DCR Approval Signature attachment.



Details
Certificate Details
Edit

---

Attachments

Status: Development

Certificate Type: No Certificate

Certificate Approval Date:

Certificate Expiration Date:

Certificate Effective Date:

Federal Involvement Operation:

---

Operating Plan & Schedule

Operation of Control Gates & Spillways:

Operation of Impoundment Drain:

---

Maintenance Plan & Schedule

Earthen Embankment Impounding Structures

Embankment:

Principal Spillway:

Emergency Spillway:

Low Level Outlet:

Impoundment Area:

Downstream Channel:

Staff Gages:

Other Maintenance Actions:

---

Concrete Impounding Structures

Upstream Face:

Downstream Face:

## Emergency Plans

Users can add, view, edit and delete emergency plans to a dam through the “Emergency Plans” tab. The first grid the user will encounter is a list of all of the recorded emergency plans for the dam. If they have permissions, users can right click on one of the rows and delete an emergency plan record from the dam. Also, by left clicking on a row, users can view or edit details for that emergency plan.

Virginia Dam Safety Inventory System

Dams My Account
Welcome, "vvasstaff" Logout

➤ Dams ➤ 059002

Dam Name: Crosspointe Lake Dam	Dam Region: 1	Owner Name: Crosspointe Swim and Racquet Inc	Certificate Type: No Certificate
Dam Inventory Number: 059002	Hazard Classification: Significant	Regional Engineer:	Certificate Expiration Date:
Legacy Number: 00267	County: Fairfax	Inundation Study Date:	EAP Expiration Date: 08-01-2018

Events

General

Regulated

Watershed

Technical Basics

Technical Hydrology / Hydraulics

Technical Structure

Technical Spillway

Map

Contacts

Inspections

Permit Applications

Certificate Applications

Emergency Plans

Attachments

History

Add EAP

Note: Right click to view actions

Status	EAP Type	Approval Date	Expiration Date
Development	EPP	8/1/2017	8/1/2018

Emergency Plans function much the way that Permit Applications, Certificates and Inspections do, however, they also have an additional sub-tab called "Contacts," in which users can assign Emergency Plan-specific contacts.

Dams > 059002 > EAPs > 5

Dam Name: Crosspointe Lake Dam	Dam Region: 1	Owner Name: Crosspointe Swim and Racquet Inc.	Certificate Type: No Certificate
Dam Inventory Number: 059002	Hazard Classification: Significant	Regional Engineer:	Certificate Expiration Date:
Legacy Number: 00267	County: Fairfax	Inundation Study Date:	EAP Expiration Date: 08-01-2018

Details

EAP Details

Edit

---

Contacts

Attachments

Status: Development

E911 Address: 115 S Main Street  
Richmond, VA 23129

E911 Address Description: WorldView Solutions office

Plan Type: EPP

Dam Deficiencies:

Methods of Notification and Warning:

Methods of Notification and Warning Description:

Downstream Dam in Inundation Zones (5-Digit ID):

EAP Required By Submitting Agency:

Submitted To VDEM:

Submitted To EOC:

Plan Approval Date: 8/1/2017

Plan Expiration Date: 8/1/2018

Total Depth in Emergency Spillway Before Overtopping (Decimal-Feet): 155

Discuss the procedures for timely and reliable detection, evaluation, and classification of emergency situations considered to be relevant to the project setting and impounding features. Each relevant emergency situation is to be documented to provide an appropriate course of action based on the urgency of the situation.

Once the local government has been notified of a condition requiring evacuation, the dam owner/operator and local government are mutually responsible for effecting evacuation.

The Dam Owner/Operator Will:

Local Emergency Services Will:

The Amount of Flow In The Emergency Spillway That Will Initiate (Decimal-Feet)

Stage I Conditions:

Stage II Conditions:

Stage III Conditions:

Under the Emergency Plans "Contacts" sub-tab, users can add existing or new contacts to the Emergency Plan, just as they would use the regular "Contacts" tab. However, the Emergency Plans' "Contacts" sub-tab has different grids separating out EP Contacts, Supply and Resource Contacts, and general Dam Contacts.

DCR Virginia Department of Conservation & Recreation

Virginia Dam Safety Inventory System

Welcome, "vvsstaff" Logout

Dams My Account

Dams > 059002 > EAPs

Dam Name: Crosspointe Lake Dam Dam Region: 1 Owner Name: Crosspointe Swim and Racquet Inc. Certificate Type: No Certificate  
 Dam Inventory Number: 059002 Hazard Classification: Significant Regional Engineer: Certificate Expiration Date:  
 Legacy Number: 00267 County: Fairfax Inundation Study Date: EAP Expiration Date: 08-01-2018

Details Add Contact To EAP

Contacts

Attachments

**EAP Contacts** Note: Right click to view actions

Contact Type	Name	Email	Organization	Phone Number	Primary
24-Hour Dispatch Center	Todd Johnson		Fairfax County Park Authority	(703) 324-8591(Office)	no
Alternate Dam Operator	Robert N. Deangelis		Deangelis, Robert N.		no
Consulting Engineer	Springfield Golf and Country Club Inc.		Springfield Golf and Country Club Inc.	(703) 451-0069(Office)	no
Dam Operator	Paul, Diblasio, Selma A Diblasio	sz@here.com	Diblasio, Paul, Diblasio, Selma A	(876) 123-9876(Home)	no

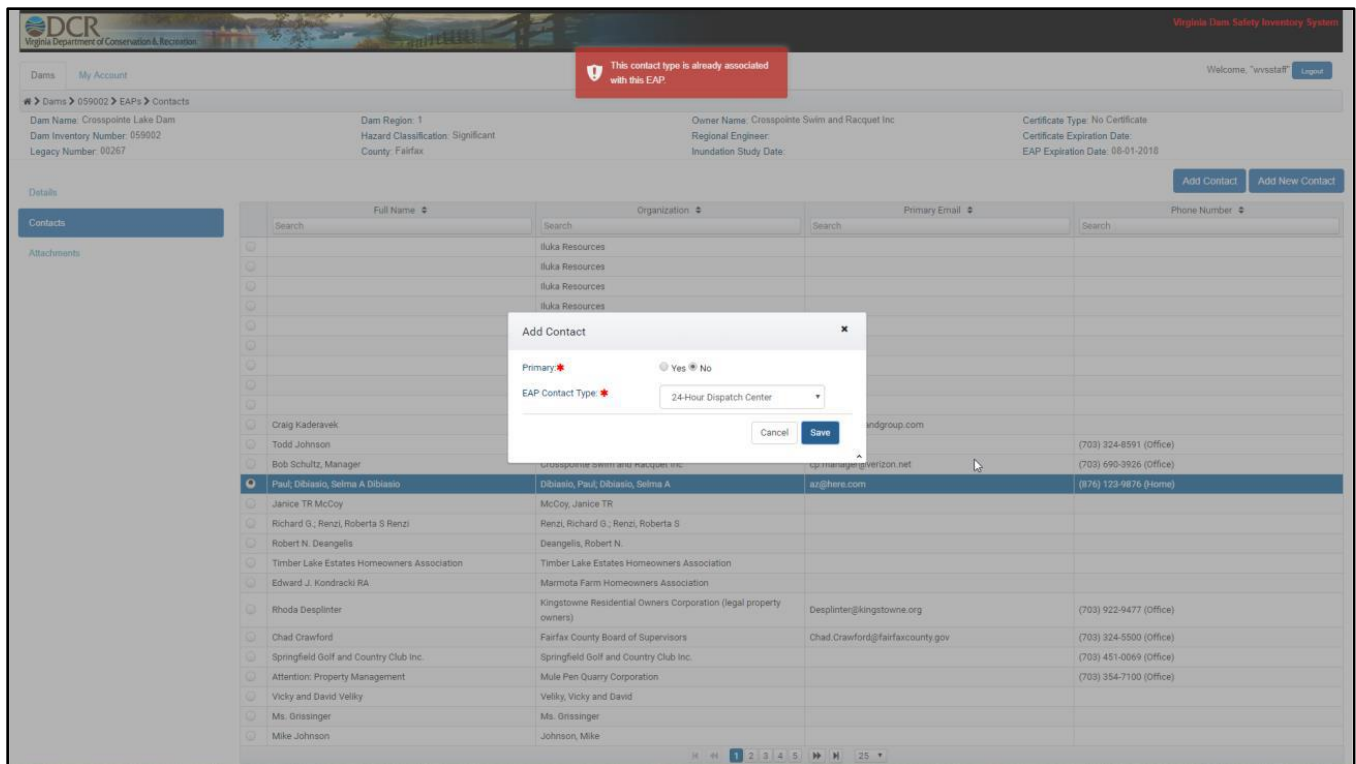
**Supply & Resource Contacts** Note: Right click to view actions

Contact Type	Name	Email	Organization	Phone Number	Primary
Laborers	Springfield Golf and Country Club Inc.		Springfield Golf and Country Club Inc.	(703) 451-0069(Office)	no

**Dams Contacts**

Contact Type	Name	Email	Organization	Phone Number	Primary
Owner	Bob Schultz, Manager	cp.manager@verizon.net	Crosspointe Swim and Racquet Inc	(703) 690-3926(Office)	yes

Additionally, for EP Contacts and Supply and Resource Contacts, only one type of contact can be associated per emergency plan. If users attempt to add more than one 24-Hour Dispatch Center, as in the example below, they will get the error that that contact type is already associated with that Emergency Plan.



When adding an Emergency Plan, the status will default to "Development." To change the status to "Submitted," all data fields must be populated, aPE and Owner Signature must be uploaded, and all EP contact types must be added. To change the status to "Approved," all the requirements for "Submitted" must be there, as well as a OCR Approval Signature attachment.

## Attachments

The “Attachments” tab functions the same way as the “Attachments” sub-tabs that were covered under the “Inspections” section of this manual. Users can upload, download and delete attachments to the dam through this tab. In addition, if a user chooses the attachment type “Inundation Study” they must enter the document date for the study. Uploaded dates are automatically added for each attachment.

The screenshot displays the DCR (Virginia Department of Conservation & Recreation) Dam Safety Inventory System interface. The top header includes the DCR logo and the text "Virginia Dam Safety Inventory System". Below the header, there are navigation tabs for "Dams" and "My Account", and a user welcome message "Welcome, 'rvsstaff'" with a "Logout" button.

The main content area shows details for Dam 059002, Crosspointe Lake Dam. Key information includes:
 

- Dam Name: Crosspointe Lake Dam
- Dam Inventory Number: 059002
- Legacy Number: 00267
- Dam Region: 1
- Hazard Classification: Significant
- County: Fairfax
- Owner Name: Crosspointe Swim and Racquet Inc.
- Regional Engineer
- Inundation Study Date
- Certificate Type: No Certificate
- Certificate Expiration Date
- EAP Expiration Date: 08-01-2018

The "Attachments" tab is active, showing a table with columns: File Name, Attachment Name, File Size, Attachment Type, Document Date, and Uploaded Date. A form is present for adding a new attachment:
 

- File Name: Book1.xlsx
- Attachment Name: Book 1
- File Size: 0.01 MB
- Attachment Type: Inundation Study
- Document Date: A date picker is open, showing the month of August 2017. The date 2017-8-25 is selected.
- Buttons: Add files..., Start all, Cancel all, Upload, Cancel

Below the form, there is a "Notes" section with the following text:
 

To sort click on the column headings  
 The maximum file size is 20 MB unless otherwise noted  
 An attachment type of Inundation Study, EAP, Inspection Pictures, or As-Built has a maximum file size of 100 MB  
 Only file types jpg, jpeg, png, gif, pdf, doc, docx, xls,xlsx, pps, ppsx, ppt, pptx, txt, and zip are allowed

## History

The application will track any changes made to the “General,” “Regulated,” “Watershed,” “Technical Basics,” “Technical Hydrology / Hydraulics,” “Technical Structure” and “Technical Spillway” tabs. The logs of these changes are read only, and can be viewed under the “History” tab.

The screenshot displays the VDSIS interface for Dam 059002. The left sidebar contains a navigation menu with the following items: Events, General, Regulated, Watershed, Technical Basics, Technical Hydrology / Hydraulics, Technical Structure, Technical Spillway, Map, Contacts, Inspections, Permit Applications, Certificate Applications, Emergency Plans, Attachments, and History (which is currently selected). The main content area shows the 'Dam History' table with the following data:

Item	User	Update Date	Previous Value	New Value	Action
Private On Federal Land Name	dcr staff	8/11/2017		Unknown	Change
Is Phase I Report Name	dcr staff	8/11/2017		Unknown	Change
Regional Engineer Name	dcr staff	8/11/2017		Michael Wang	Change
Date Constructed	dcr staff	8/11/2017		08/02/2017	Change
Is Construction Date Estimated	dcr staff	8/11/2017		True	Change
Federal Involved Funding	dcr staff	8/11/2017		Fish and Wildlife Services	Add
Federal Involved Other	dcr staff	8/11/2017		National Park Service	Add
Federal Involved Funding	dcr staff	8/11/2017		Federal Energy Regulatory, IsFederal Commission	Add
Federal Involved Funding	dcr staff	8/11/2017		Fish and Wildlife Services	Remove

The user can sort on any column on this grid to view the change that they are looking for.

## Add a New Dam

Users can add a new dam by going to the dam grid page and selecting “Add New Dam.”

A window will open up and allow users to search for the location of their new dam. They can search through XY coordinates, address, or by simply visually finding the location on the map.

The screenshot displays the VDSIS web application. At the top, the DCR logo and navigation tabs are visible. A 'New Dam' modal window is open, featuring a search bar with a dropdown list of addresses, a map of Virginia divided into regions (Region 1-4), and a 'Zoom To XY' section with input fields for latitude and longitude. Below the map, there is an 'Add Dam Location' section with 'Cancel' and 'Set Location' buttons. The background shows a table of existing dam records with columns for Id Number, Legacy Number, Dam Name, Engineer, Hazard Class, and Dam Type.

Id Number	Legacy Number	Dam Name	Engineer	Hazard Class	Dam Type
003002	00002	Boyd Tavern Dam			
003003	00003	Mike Johnson Dam			
003004	00004	Montfair West Dam			
003005	00005	Mont Air South Dam			
003006	00006	Montfair North Dam			
003007	00007	Rivendale Farm Dam			
003008	00008	Shefford Farm Dam			
003010	00010	Samuel Walker			
003011	00011	UVA Polo Club - West			
003012	00012	UVA Polo Club - East			
003013	00013	Pounding Brook Dam			
003014	00014	Van Clief Dam			
003015	00015	Kinloch Farm Pond			
003016	00016	Starfield Drive Dam			
003018	00018	Friesland Dam			
003019	00019	Saddlepond Dam			
003020	00020	Old Free Union Dam			
003021	00021	Belair at Wellington Dam	Virginia Polo Inc.	5	Albemarle County
003022	00022	Ednam Drive Dam	Virginia Polo Inc.	5	Albemarle County
003023	00023	Wellington Drive	Virginia Polo Inc.	5	Albemarle County
003025	00025	Pagebrook Farm Dam	Garnett, Edgar N. Jr., or Patricia Carter G.	5	Albemarle County
003026	00026	Martha Jefferson Retention Basin Dam	Martha Jefferson Hospital	5	Albemarle County
003027	00027	Paradise Lake Dam	Keswick Corporation	5	Albemarle County

Once they are at the desired the location, users can select "Set Location." Then, users should click on the map where the new dam point should go.

The screenshot shows a 'New Dam' dialog box overlaid on a software interface. The dialog contains a satellite map of a region with a blue circle indicating a dam location. To the right of the map are input fields for 'Latitude' and 'Longitude', a 'Go' button, and an 'Add Dam Location' section with 'Cancel' and 'Set Location' buttons. A table of dam records is visible in the background.

Dam Name	Search	Engineer	Ha		
Boyd Tavern Dam			Unknown		
Mike Johnson Dam			Unknown		
Montfair West Dam			Low		
Mont Air South Dam			Unknown		
Montfair North Dam			Unknown		
Riverdale Farm Dam			Unknown		
Shelford Farm Dam			Unknown		
Samuel Walker			Unknown		
UVA Polo Club - Wes			Unknown		
UVA Polo Club - Eas			Unknown		
Pounding Brook Dar			Unknown		
Van Clief Dam			Unknown		
Kinloch Farm Pond			Unknown		
Starfield Drive Dam			Unknown		
Friesland Dam			Unknown		
Saddlepond Dam			Unknown		
Old Free Union Dam			Unknown		
Belair at Wellington Dam		Virginia Polo Inc.	5	Albemarle County	Unknown
Ednam Drive Dam		Virginia Polo Inc.	5	Albemarle County	Unknown
Wellington Drive		Virginia Polo Inc.	5	Albemarle County	Unknown

When the user clicks, a blue circle will appear and the Latitude and Longitude will automatically fill out based on where the point was dropped. Users can then move the point around if necessary, and once it is in the desired location, select "Next."



Note: To export a Summary F

Dam Name	Search	Engineer			
Boyd Tavern Dam			Unknov		
Mike Johnson Dam			Unknov		
Montfair West Dam			Low		
Mont Air South Dam			Unknov		
Montfair North Dam			Unknov		
Riverdale Farm Dam			Unknov		
Shelford Farm Dam			Unknov		
Samuel Walker			Unknov		
UVA Polo Club - Wes			Unknov		
UVA Polo Club - East			Unknov		
Pounding Brook Dar			Unknov		
Van Clief Dam			Unknov		
Kinloch Farm Pond			Unknov		
Starfield Drive Dam			Unknov		
Friesland Dam			Unknov		
Saddlepond Dam			Unknov		
Old Free Union Dam			Unknov		
Belair at Wellington Dam		Virginia Polo Inc.	5	Albemarle County	Unknov
Edham Drive Dam		Virginia Polo Inc.	5	Albemarle County	Unknov
Wellington Drive		Virginia Polo Inc.	5	Albemarle County	Unknov
Pagebrook Farm Dam		Garnett, Edgar N. Jr., or Patricia Carter G.	5	Albemarle County	Unknov

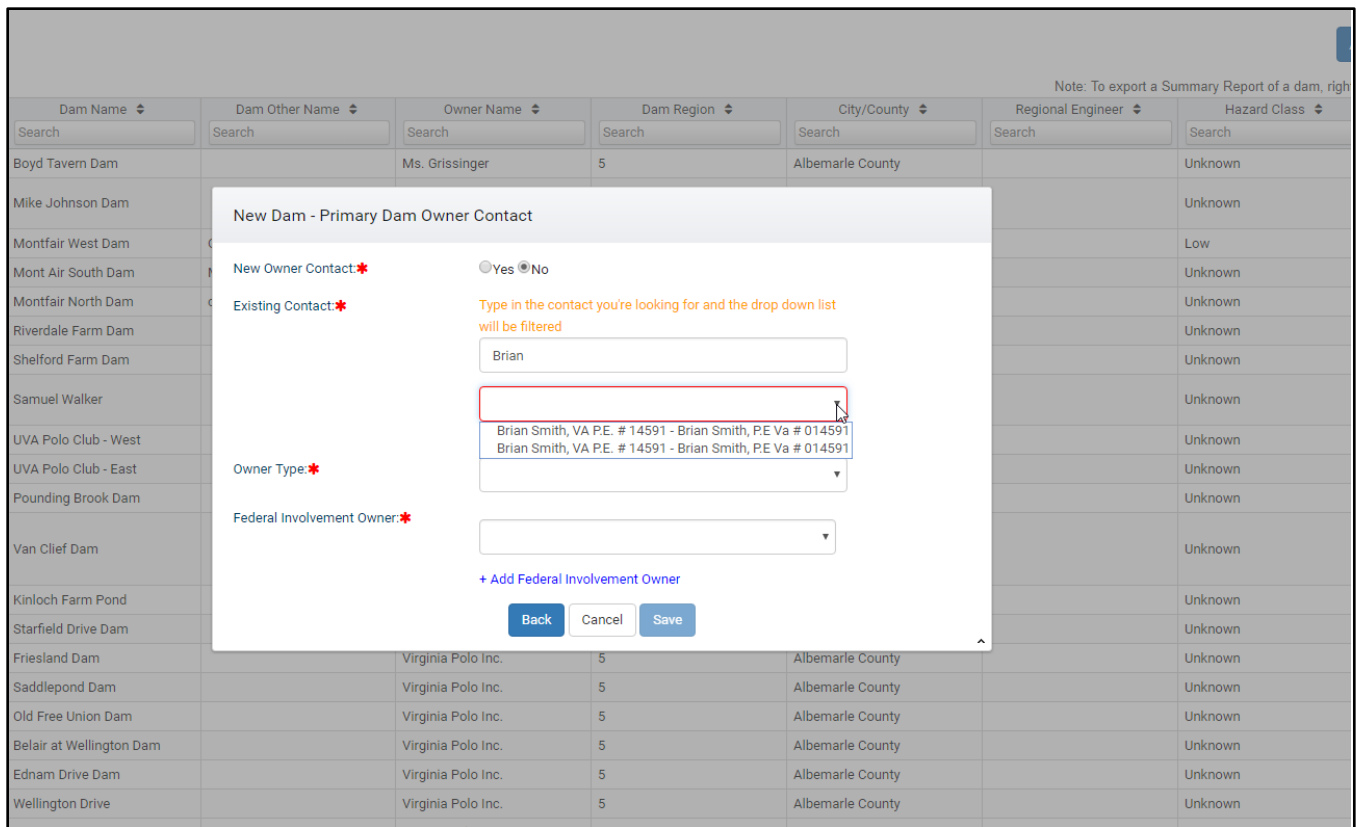
Users will then be taken to a data entry screen to fill out required dam details. Once the required data is filled in, they can select "Next."

The screenshot shows a 'New Dam - Dam Details' modal form. The form contains the following fields and options:

- Dam Name:** Text input field.
- Dam Size:** Dropdown menu.
- Date Constructed:** Text input field.
- Is Date Constructed Estimated:** Radio buttons for 'Yes' and 'No'.
- Regional Engineer:** Dropdown menu.
- Reservoir Purpose:** Two dropdown menus labeled 'Purpose' and 'Level of Importance'. Below them is a '+ Add Another Reservoir Purpose' link.
- Dam Type:** Two dropdown menus labeled 'Type' and 'Level of Importance'. Below them is a '+ Add Another Dam Type' link.

At the bottom of the form are three buttons: 'Back', 'Cancel', and 'Next'. The background shows a table with columns for Dam Name, Dam Other Name, Owner Name, Dam Region, City/County, and Regional Engineer. The table contains several rows of dam information, including 'Virginia Polo Inc.' as the owner for multiple dams in Albemarle County.

The next screen users must complete is contact information. Users can filter the drop-down list of available contacts by typing text into the search box. In the example below, the name “Brian” was entered, and the subsequent drop down list contained only contacts that contained the name “Brian.”



Additionally, if the contact the user is attempting to add to the dam is not available, users can enter new contact information by selecting “Yes” under “New Owner Contact,” and enter in all pertinent contact information.

After all required fields are entered, users can select “Save” to successfully add the dam, and will be directed to the Events Page of their new dam.

### Logging Off

To log out of the application, users can either close their browser, or select the "Log Out" button at the top right of the screen. Users will be locked out after 1hour of inactivity, but can enter in their username and password to get back to the screen they were on. All users will be logged off nightly at 3 AM.