



National Dredging Quality Management Program

QUICK GUIDE: ACCESSING AND LOGGING IN TO THE DQM VIEWER Logging in with a CAC (USACE Users)

If you are already registered with DQM

If you have NOT registered with DQM

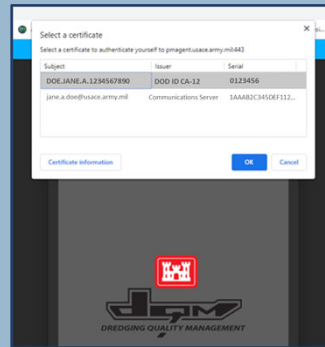
1

Using Google Chrome, go to: <https://dqm.usace.army.mil/DQM/Viewer2/>
Note: The DQM Viewer does not support Internet Explorer and Edge.



2

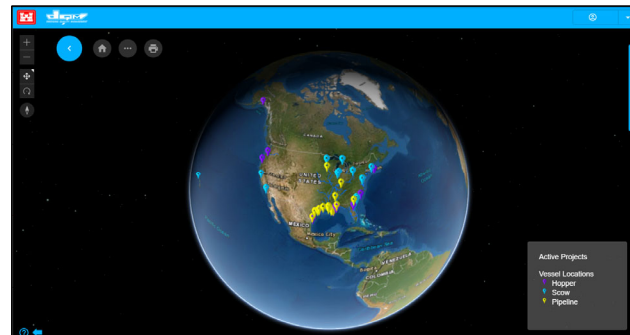
- When prompted, select your authentication certificate and click **OK**.
- Enter PIN.
- Agree to terms.



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- To register, call or send an encrypted e-mail to the DQM Center: Include your 10-digit CAC number, email address, and phone number. Send e-mail to: DQMCenter@usace.army.mil or call the DQM Center at: (877) 840-8024
- DQM will send an e-mail notifying you that you have been registered. Go back to **1**.

Once your credentials have been validated, you are taken to the DQM Viewer.





National Dredging Quality Management Program

QUICK GUIDE: ACCESSING AND LOGGING IN TO THE DQM VIEWER Logging in with an I-PASS account (Non-USACE Users)

If you are already registered with DQM

If you have NOT registered with DQM

1



Using Google Chrome, go to: <https://dqm.usace.army.mil/DQM/Viewer2/>
Note: The DQM Viewer does not support Internet Explorer and Edge.



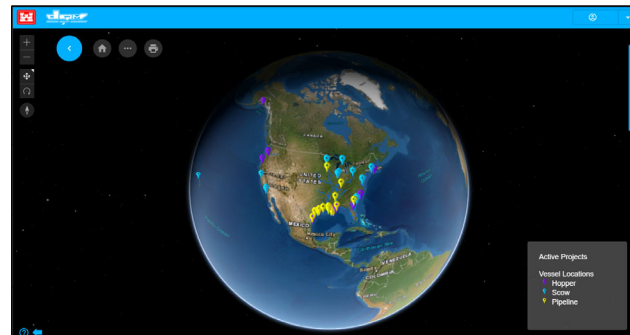
2

- When prompted, enter your I-PASS username and password and click **Log In**
- Agree to terms.

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- To register, call or send an encrypted e-mail to the DQM Center: Include your email address, and phone number...
Send e-mail to: DQMCenter@usace.army.mil 
or
call the DQM Center at: (877) 840-8024 
- DQM will send an e-mail notifying you that you have been registered. Go back to **1**.

Once your credentials have been validated, you are taken to the DQM Viewer.





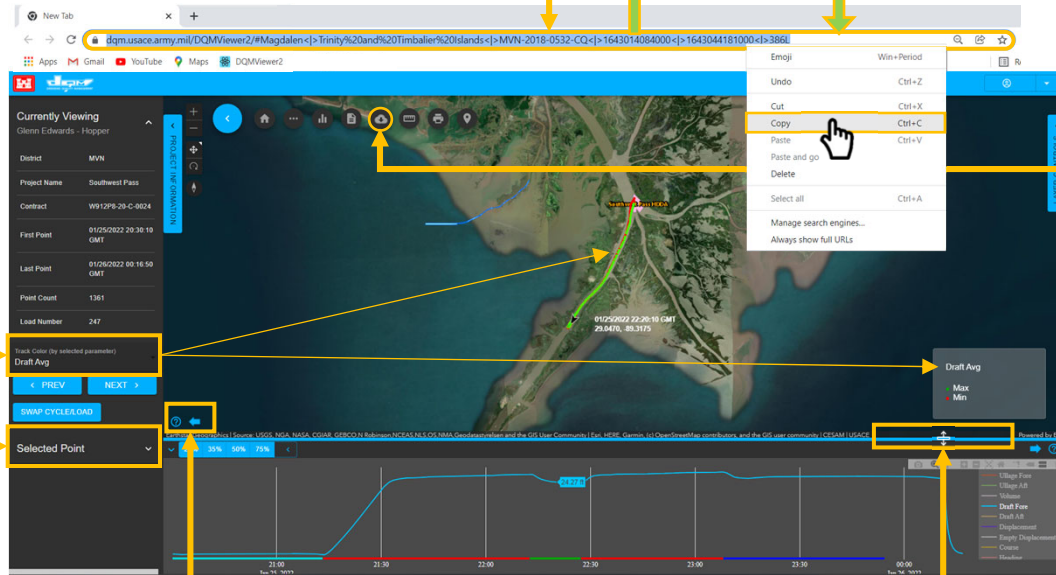
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QUICK GUIDE: DQM VIEWER – New Updates in January 2022



1 Share Hyperlink to View Track
User can now select the hyperlink in the address bar, copy, and paste into a message to share a track view.

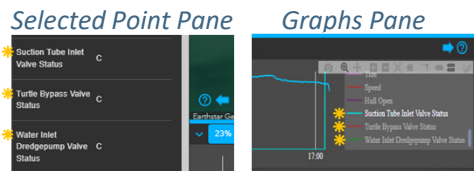
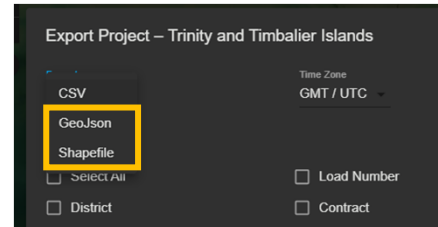
Switch Dredge being Viewed
User can now enter the name of the desired dredge in the address bar. Case Sensitive.



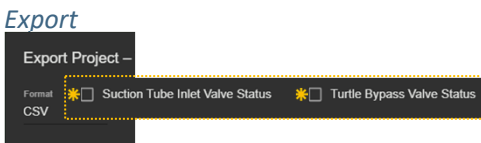
2 Track Color (by selected parameter)
Draft Avg
Track Color by Parameter
When clicked, displays a dropdown menu allowing user to redraw the track on the map, color-coded based on the min and max of the selected parameter.

3 Selected Point
Valve Name and Status
When available, lists additional valve names and corresponding status in Point Pane, Graphs and Data Export.

6 Data Formats
User can now export data in GeoJSON and Shapefile formats.



4 Online Data Viewer Guide
Displays a short video tutorial about current screen or dialog. Newly available How-To Quick Guides for navigating the Viewer.



5 Graph Pane Dynamically Resizable
The user can now click and drag the top line of the graphs pane to resize the window.





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QUICK GUIDE: DQM VIEWER – HOME PAGE

Show/Hide Buttons
Home, Select Data, & Print.

Home
Return to Home view shown here.

Select Data
Displays the Selectron to select and view data.

Print
Exports map to JPG.

Basemap
Displays all active hopper dredges, scows, & pipelines.

View Active Project
Click on a location icon on the map to view current project information.

About
Displays User Agreement.

Zoom in
Click **+**, scroll mouse wheel up.

Zoom out
Click **-**, scroll mouse wheel down.

Pan/3D View
Acts as a single toggle button: The small triangle displays in the active button.

Pan
Click **+**, position pointer, press and hold down left mouse button, and drag the map.

3D
Click **3D**, position pointer, press and hold down left mouse button, and drag:
Up = 3D, Down = 2D
Left/Right = change map orientation

Reset Map Orientation
Reset orientation to north.

Viewer Guide
Plays a short, looping video that provides basic information about current screen or task.

Layer Controls
Displays the list of available map layers.

Map Legend
Identifies colors used for each dredge plant type.

Layer Type	Color
Hopper	Purple
Scow	Light Blue
Pipeline	Yellow

Active Projects

Vessel Locations	
Hopper	Purple
Scow	Light Blue
Pipeline	Yellow

Hopper - XXXXXX

Project Name	Houston Ship Channel
Contract	XXXXXXXX-XX-X-XXXX
Contract Start	2/25/2020 17:56:40 PM GMT
Last Data Recorded	3/10/2020 17:13:51 PM GMT
Last Load	225
Position Lat/Lng	29.347460, -94.754193

Browse Project
View Current Track

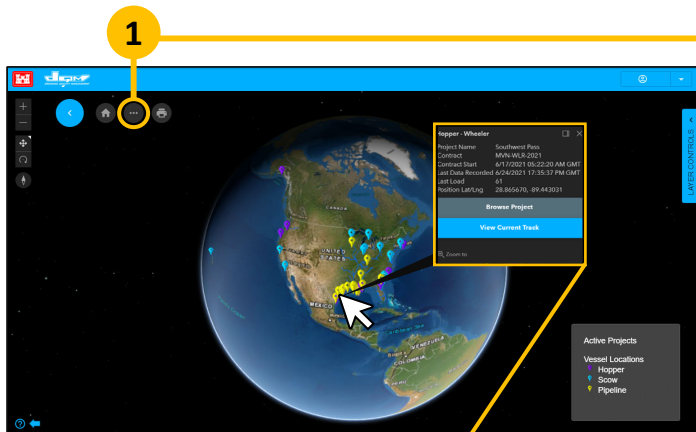
Other Layers
Default Layers
LRL Layers
NAE Layers
SAC Layers
SAJ Layers
SAM Layers
SAS Layers
Dredge Health

FILTER POINTS - ON



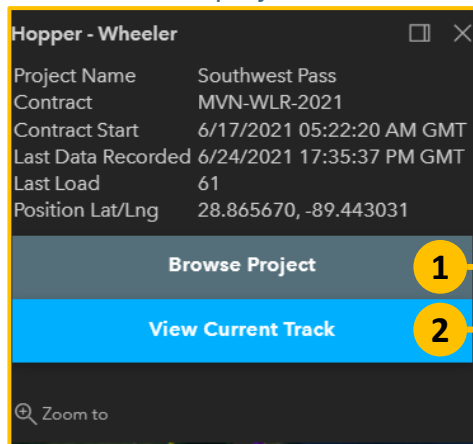
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QUICK GUIDE: DQM VIEWER – VIEWING PROJECT DATA

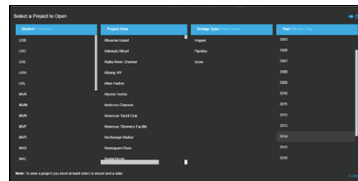


View Active Project

Click on a location icon on the map to view current project information.



Select Data
Displays the Selectron to select and view data.

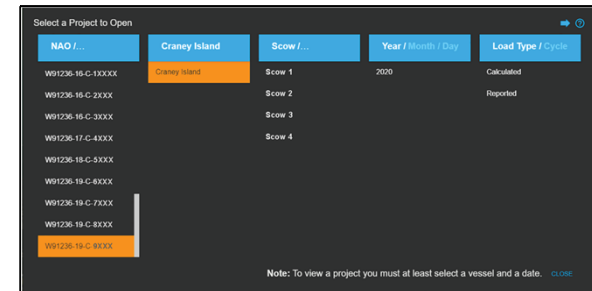


- Sort and Select by:
1. District/Contract
 2. Project Area
 3. Dredge Type/Plant Name
 4. Year/Month/Day

Note: You can change the filter order of the results by dragging and dropping the columns in any order. Selections are typically made from left to right to filter results in the remaining columns, but column selections can be made in any order.

Select Data/View All or Specific Tracks

Click **Browse Project** to select a specific track. The Select Data screen (Selectron) displays, with the contract and project area pre-selected.



Next, Select:

1. The Plant Name
2. The Date: Year, Month, and Day
3. If the dredge type is a pipeline, double click on the desired day. If the dredge type is a hopper or scow:
 - a. Select either Cycle (calculated) or Load (reported).
 - b. Double click on desired cycle/load.

View Plant's Latest Track

Click **View Current Track** for the latest track. The Select Data screen (Selectron) displays, with the contract and project area selected.

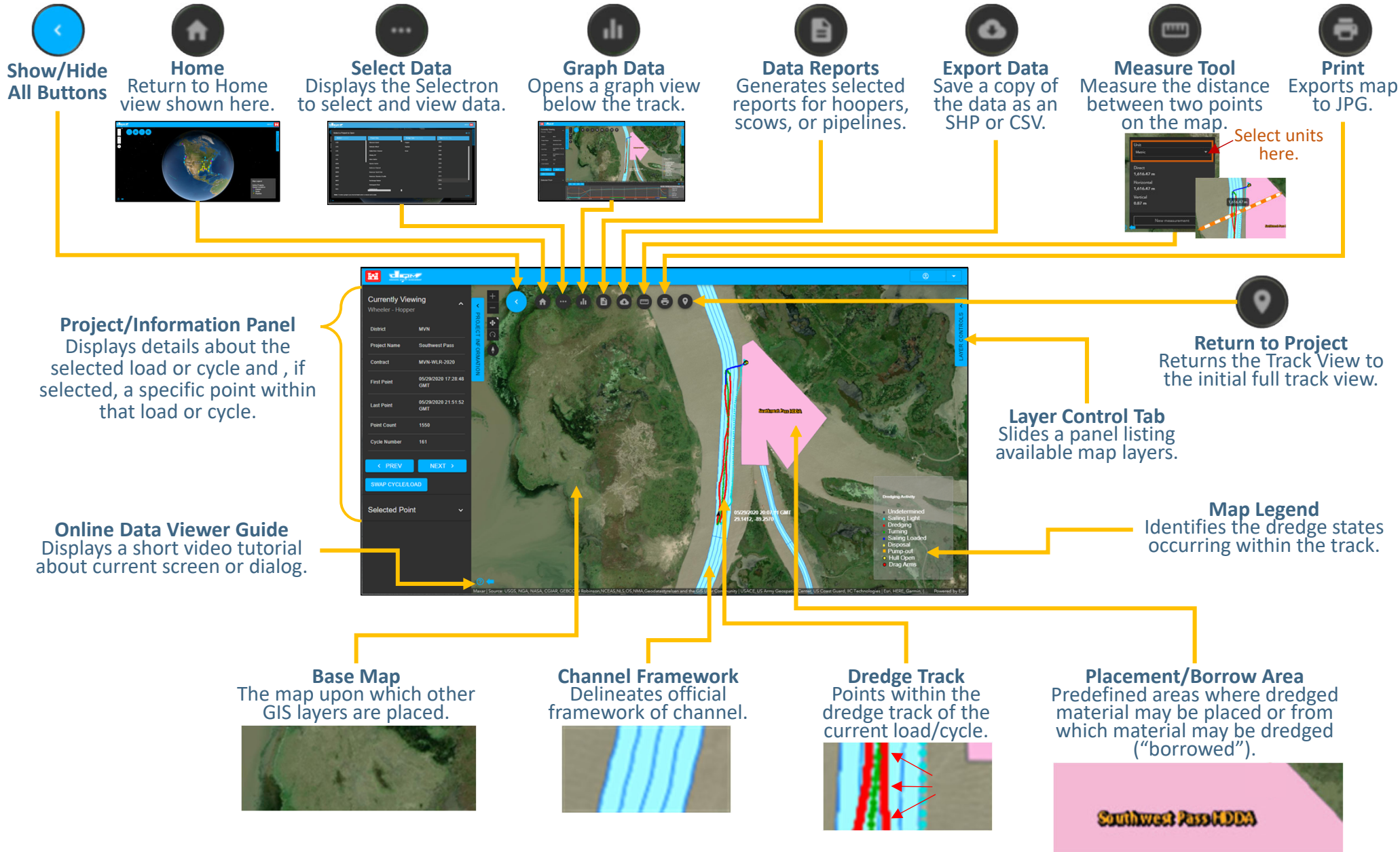


Selected Load



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QUICK GUIDE: DQM VIEWER – UNDERSTANDING the TRACK VIEW





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QUICK GUIDE: DQM VIEWER – The TRACK VIEW Project/Information Panel

Dredge Name – Dredge Type

The name of the dredge and type of dredge whose track is displayed.

District

USACE District in which the dredging project is located.

Project Name

Descriptor of the area/project where dredging is occurring or, in the case of a beach nourishment job, where dredged material is being placed.

Contract

Contract or permit for the dredging project.

First Point

Date/time of the first point of the displayed track.

Last Point

Date/time of the last point of the displayed track.

Cycle Number or Load Number

Cycle/Load number of the displayed track.

Prev

Displays the track of the previous Cycle/Load (if any).

Swap Cycle/Load

Switches between calculated Cycle Number and reported Load Number.

Next

Displays the track of the next Cycle/Load (if any).

Currently Viewing	
Wheeler - Hopper	
District	MVN
Project Name	Southwest Pass
Contract	MVN-WLR-2020
First Point	05/29/2020 17:28:48 GMT
Last Point	05/29/2020 21:51:52 GMT
Point Count	1550
Cycle Number	161

Selected Point

Note: Clicking on this icon (⌵) hides the top half of the panel, so more Selected Point details can be displayed.

Selected Point

If a point is selected on the track, details about that point display in the bottom half of the Project/Information Panel.

Selected Point details document the data received from the dredge's sensors. Therefore, the number of details available depend on the type of plant for which the track is being displayed.

Selected Point	
Point Time	05/29/2020 20:07:11 GMT
Latitude	29.141221 °
Longitude	-89.257043 °
Heading	9.2 °
Course	7.6 °
Cycle Number	161
Displacement	17983.3 LT
Draft Alt	27.75 ft
Draft Fore	28.39 ft
Empty Displacement	11430.7 LT
Hull Open	0
Load Number	161
Port Density	1 g/cc
Port Depth	1.8 ft



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QUICK GUIDE: DQM VIEWER – The TRACK VIEW Graphs

Close
Closes the Graph View.

Graph Size
Set % of the screen to be filled by graphs.

Hide/Display
Hide/display graph size options.

Date/Time
Shows date/time increments.

Graph
Visual plot of each metric selected in the legend.

Graph Toolbox
Tools to manipulate the graph.

Legend
Allows selection of metric(s) to be graphed and identifies colors of each selection.

Online Data Viewer Guide
Displays a short video tutorial about current screen.

Cursor will lock when a point is selected, indicated here. Follow instructions to unlock.

Map Cursor Locked
Click track on map to unlock or right click on graph

Select scaling here.

23% 35% 50% 75%

Dredge State*
Color-coded; Scroll down in legend to view dredge states.

- ACS Unknown
- ACS Sailing Light
- ACS Dredging
- ACS Towing
- ACS Sailing Loaded
- ACS Disposing

Download Plot as PNG
Select specific area of graph

Zoom
Select specific area of graph

Pan
Scroll graph left/right.

Zoom In
Shows less time.

Zoom Out
Shows more time.

Autoscale
Resets to time of full load/cycle.

Reset Axes
Reserved for future use.

Toggle Spike Lines
Displays modified crosshairs from the cursor.

Show Closest Data
Displays date, time, value at cursor.

Compare Data
Displays all values at cursor.

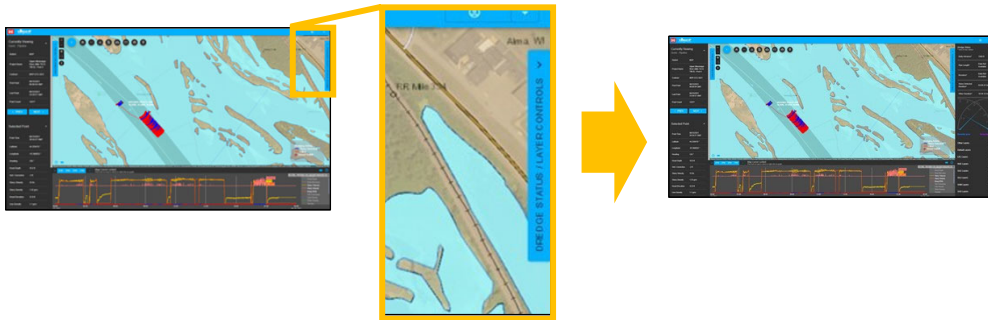
*If dredge state is not plotted, DQM has not yet processed the dredge state for that swath of data.



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QUICK GUIDE: DQM VIEWER – Viewing Pipeline Dredge Status Details

- 1 Open the Dredge Status/Layer Panel**
Click the Dredge Status/Layer tab to slide it open from the right side of the Viewer. To close the panel, click the tab again.



- 2 Viewing Pipeline Dredge Status Details**
When a pipeline is displayed on the Track View screen, the Layer Controls tab changes to Dredge Status/Layer, and dredge status details for the pipeline display at the top of the panel.

Note: Values displayed represent end-of-day status, therefore “Data Not Available” might display when viewing the track of a pipeline during the day while it is actively dredging.

Dailey Advance (ft)

Total forward progress of the dredge relative to the centerline of the cut (ft).

Pipe Length (to the nearest ft)

Leverman’s estimate of the length of pipe downflow from the dredge.

Boosters

Number of booster pumps.

Slurry Detected Duration (hrs)

Length of time during which slurry was detected.

Other Duration (hrs)

Length of time during which slurry was not detected.

Density (g/cc)

Slurry density of the material being moved to the nearest 0.01 gram/cubic centimeter (g/cc).

Velocity (ft/s)

Slurry density of the material being moved to the nearest 0.01 gram/cubic centimeter (g/cc).

Note: As you move the cursor over points on the track or if you click a point, the velocity gauge displays the specific velocity rather than the average.

The screenshot shows the Dredge Status/Layer panel with the following data:

Dredge Status	* end of day status
Daily Advance*	1560 ft
Pipe Length*	Data Not Available
Boosters*	Data Not Available
Slurry Detected Duration*	04:00:41 hrs
Other Duration*	19:59:12 hrs

Below the table is a velocity gauge showing a needle pointing to approximately 1.5 ft/s. Below the gauge is a list of layer controls:

- Other Layers
- Default Layers
- LRL Layers
- NAE Layers
- SAC Layers
- SAJ Layers
- SAM Layers
- SAS Layers



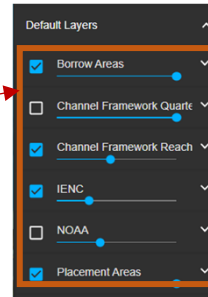
National Dredging Quality Management Program

QUICK GUIDE: DQM VIEWER – Displaying Additional Map Layers

- 1 Open the Layer Controls Panel**
Click the Layer Controls tab to slide it open from the right side of the Viewer. To close the panel, click the tab again.



Use slider bars to control transparency of each layer.



- 2 Working with Layers**
Use the following techniques to work with the Layer Controls panel:

Expand a Layer Category

All layer categories are collapsed by default. Click the icon to expand and display a list of included layers.

Example: Default Layers includes seven layers: Borrow Areas, Channel Framework, IENC, NOAA, Placement Areas, Vessel Path, and World Boundaries.

Collapse a Layer Category

Click the icon to collapse the category.

Display a Layer

Click the icon to display a layer. The icon changes to .

Hide a Layer

Click the icon to hide a layer. The icon changes to .

Display a List of Layer Features

Click the icon to display a list of layer features.

Collapse a List of Layer Features

Click the icon to collapse the list of layer features.

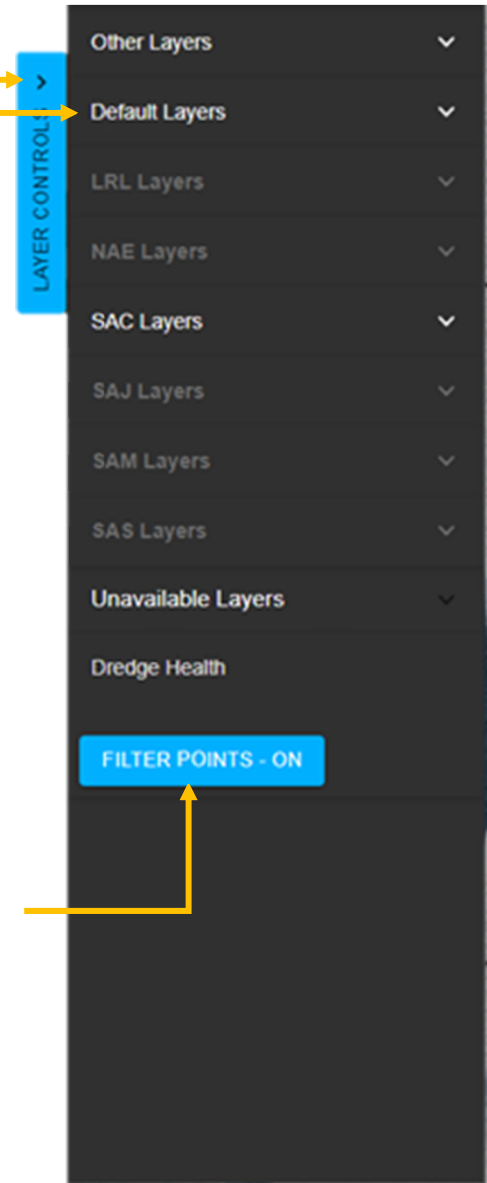
Display a Feature

Click the icon to display a feature on the map. The icon will change to .

Hide a Feature

Click the icon to hide a feature on the map. The icon will change to .

Filtering Points
Under Dredge Health Category, click to filter positions reported as zeros (0). Click to turn filtering off.

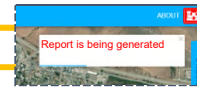
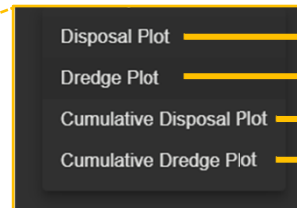
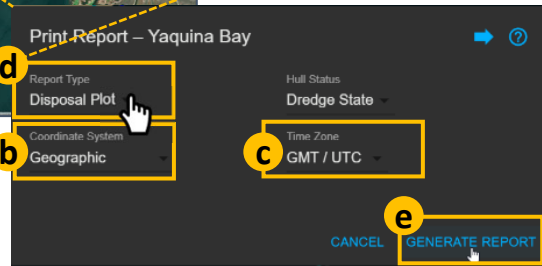
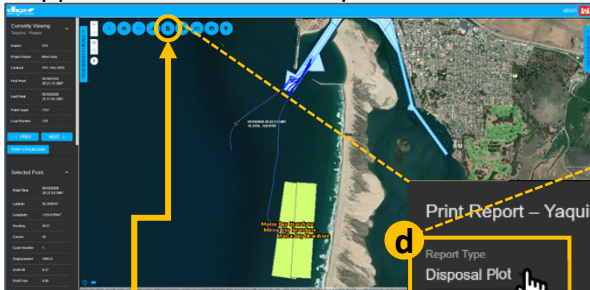




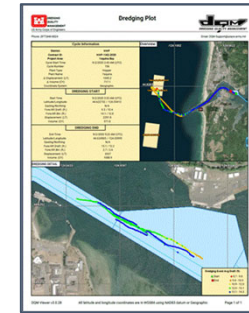
National Dredging Quality Management Program

QUICK GUIDE: DQM VIEWER – Generating Reports

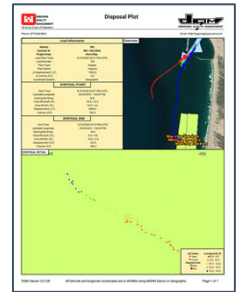
Hopper and Scow Data Reports



Dredging Plot



Disposal Plot

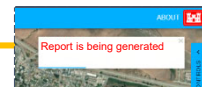
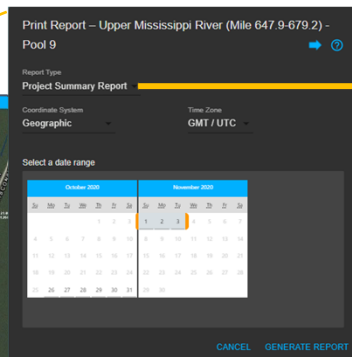
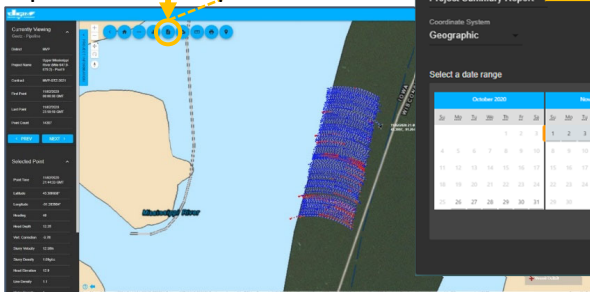


Data Reports

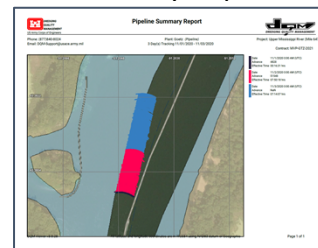
Generates selected reports for hoppers, scows, or pipelines.

- Click on Reports.
- Select Coordinate System
- Select Time Zone
- Select desired report type; If Cumulative, select date range, no more than 7 days per report.
- Click **GENERATE REPORT**.
- A Save As window displays; browse to a location to save the PDF.

Pipeline Data Reports



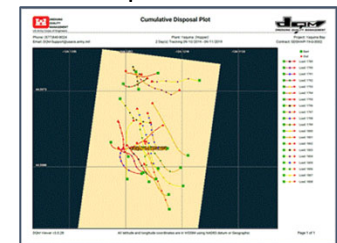
Pipeline Summary Report



Cumulative Dredging Plot



Cumulative Disposal Plot

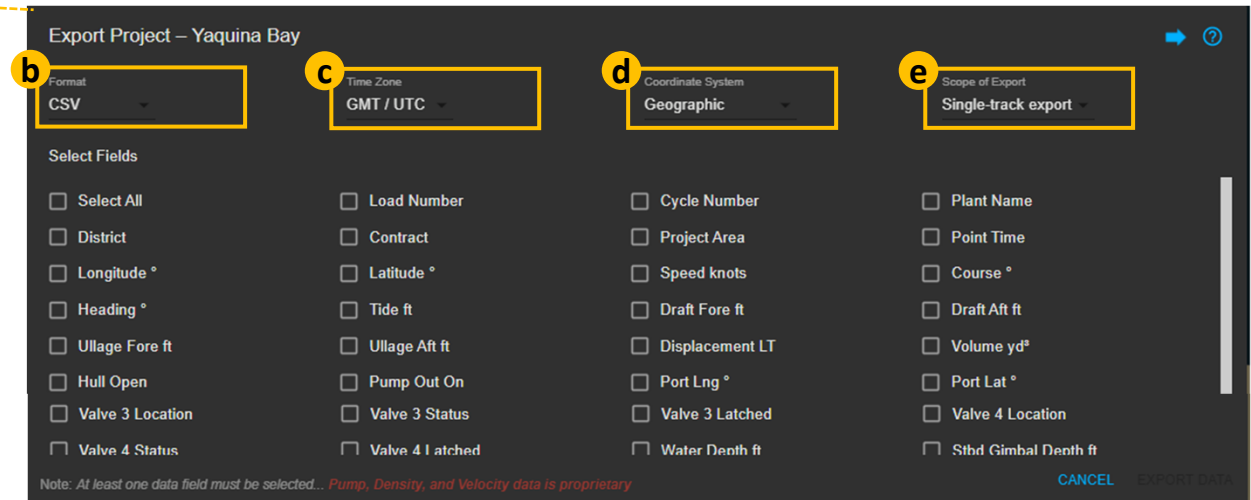




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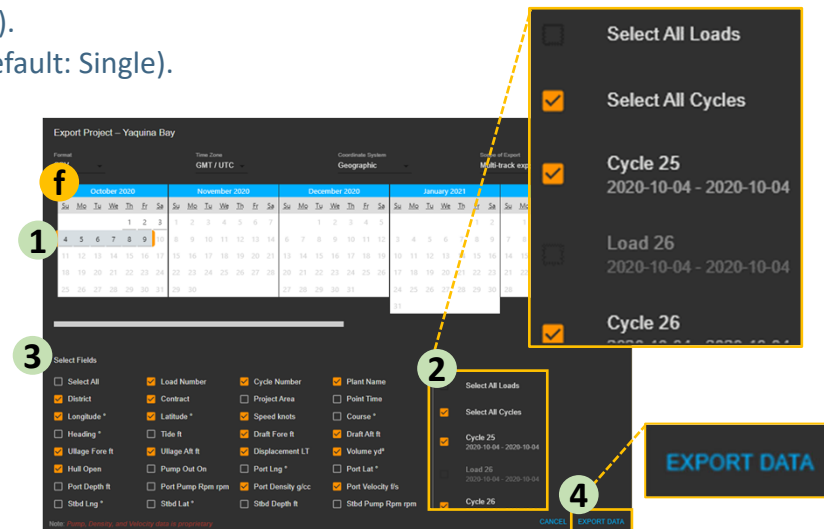
QUICK GUIDE: DQM VIEWER – Requesting a Data Export

The Export button allows you to save a local copy of the data as a shapefile (.SHP) or comma-delimited text file (.CSV).



Export Data
Save a copy of the data as an SHP or CSV.

- a. Click on Export.
- b. Format: from the drop-down menu, select CSV or Shapefile (default: CSV).
- c. Time Zone: select the appropriate time zone (default: GMT/UTC).
- d. Coordinate System: select a coordinate system (default: Geographic).
- e. Scope of Export: select Single-Track Export or Multi-Track Export (default: Single).
- f. If Multi-Track Export is selected, calendars will display:
 1. On the calendars, select a date range by clicking the first and last date in the range.
Note: Date ranges are limited to 14 days.
 2. Select the desired loads or cycles.
Note: You can select All Loads, All Cycles, or one or more loads or cycles.
 3. Select Fields: select the desired data parameters.
 4. Click Export Data.
 5. A Save As window displays; browse to a location to save the report, enter a file name in the File Name field, then click Save.





National Dredging Quality Management Program

QUICK GUIDE: DQM VIEWER – Adding a Geospatial Map Layer

Note: The following are required to complete these procedures:

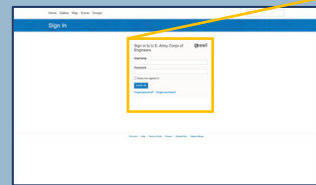
1. The map layer must be published from your local GIS server with a valid secured certificate.
2. You must have an account on the USACE Geospatial Platform and be a member of the DQM group.
3. You must have a DQM Viewer account.

1

Log in to the USACE Geospatial Platform

- a. In web browser, go to the USACE Geospatial Platform (<https://usace.maps.arcgis.com>).
- b. Enter your username and password, click **SIGN IN**.

NOTE: To set up a new account for the USACE Geospatial Platform, contact the DQM Center.



Sign in to U.S. Army Corps of Engineers

a Username

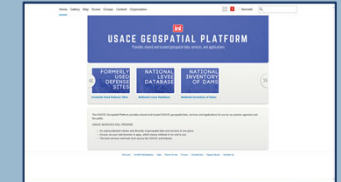
Password

Keep me signed in

b **SIGN IN**

[Forgot password?](#) [Forgot username?](#)

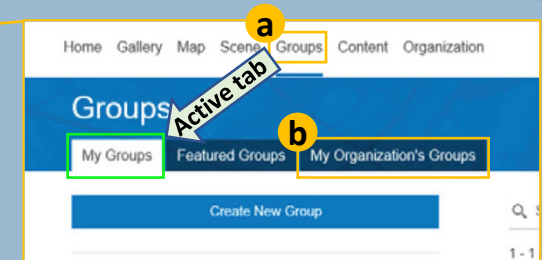
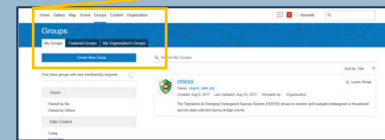
The home page displays.



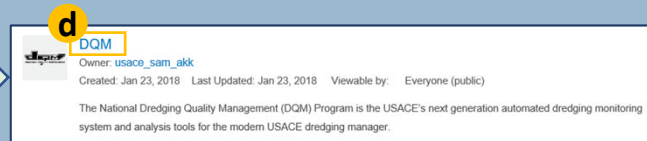
2

Join the DQM Group

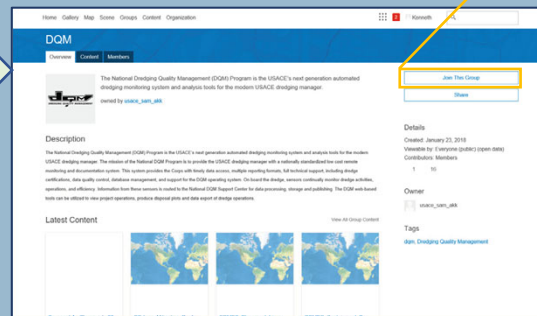
- a. On the Geospatial Platform toolbar, click **Groups** for **My Groups**. If DQM (**DQM** Owner: usace_sam_akk Created: Jan 23, 2018) is included in the group list, skip to “Adding a Geospatial Map Layer to the DQM Viewer”; Otherwise:



- b. Click the **My Organization's Groups** tab.
- c. Locate the DQM group.
- d. Click the DQM link.
- e. Click the Join this Group button.
- f. Click Submit Request.



e **Join This Group**



f **Submit Request**

Join a group

Your request for membership will be sent to the group administrator for review. You can check the status of your membership by viewing your notifications.

Submit Request **Cancel**

NOTE: The DQM Center will review the request and you will be notified upon approval.



National Dredging Quality Management Program

QUICK GUIDE: DQM VIEWER – Adding a Geospatial Map Layer

3 Adding a Geospatial Map Layer to the DQM Viewer

- On the Geospatial Platform toolbar, click **Content** for **My Content**.
- On the My Content toolbar, click **Add Item**.
- From the **Add Item** drop-down, select **From the web**: *The Add an Item window displays.*
- Ensure **ArcGIS Server web service** radio button is selected.
- Enter the URL of the web service to add to the DQM Viewer.
NOTE: You must use a fully qualified domain name and remove the port number from the URL.
- Enter a title for the new layer. **NOTE:** Prefix name with your District's 3-letter acronym (e.g., SAM ODMSD Berm)
- Enter keywords that users can use to search for the layer. Include your USACE District acronym (e.g., "CESAM) as one of the tags.
- Click **Add Item**. *The layer screen displays.*
- Click **Share**. *A Share dialog displays.*
- Check the **DQM** box.
- Click **OK**.
- Contact the DQM Support Center to request that the layer be reviewed and approved for viewing by the public.

! Email: DQM-Support@usace.army.mil
Telephone: (877) 840-8024

Note: Sharing data with the public requires approval by the USACE Geospatial Platform District Administrator. Once the layer is shared and approved, it is available for visualization in the DQM Viewer.

EXAMPLE:
For <https://coesamgsp01sam.sam.ds.usace.army.mil:6443/arcgis/rest/services/Placement/MapServer>
Use <https://coesamgsp01sam.sam.ds.usace.army.mil/arcgis/rest/services/Placement/Mapserver>

4 Displaying a Geospatial Map Layer to the DQM Viewer

See the DQM **QUICK GUIDE: DQM VIEWER – Displaying Additional Map Layers** for details.

- In the DQM Viewer, click the **LAYER CONTROLS** tab.
- Click your District layer or **Other Layers**.
- In the drop-down menu, select (check) the layer you just added (layer displays).
- Drag the opacity slider to adjust the opacity as desired.
- Click the **LAYER CONTROLS** tab again to hide menu.

Use slider bars to control transparency of each layer.