

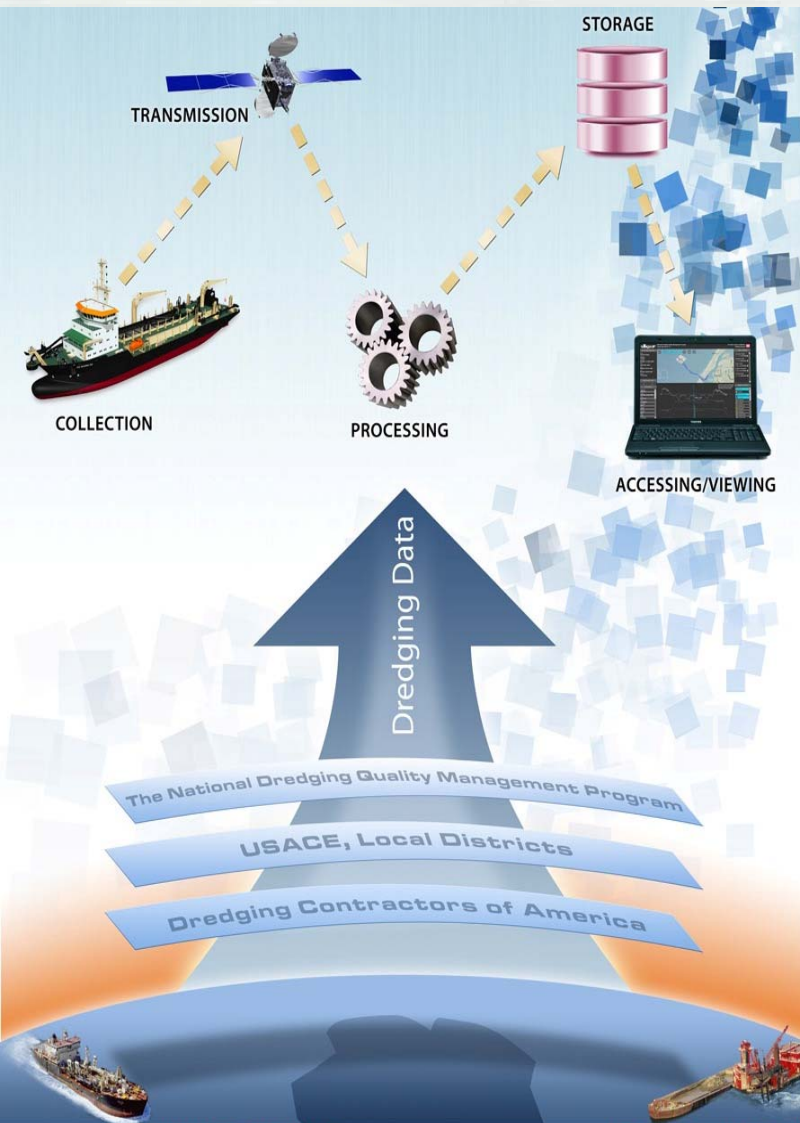
NATIONAL DREDGING QUALITY MANAGEMENT (DQM) PROGRAM

2012 WEDA PACIFIC CHAPTER
SEWARD, ALASKA
7 SEPTEMBER 2012

VERN GWIN
NATIONAL DQM CENTER



NATIONAL DREDGING QUALITY MANAGEMENT (DQM) PROGRAM



WHAT'S NEW IN 2012

- V2.5 RELEASE
- DATABASE UPDATES
- NEW ON-BOARD SOFTWARE
- DYNAMIC WEB SITE
- CUTTERHEAD PDT
- MECHANICAL DEMO

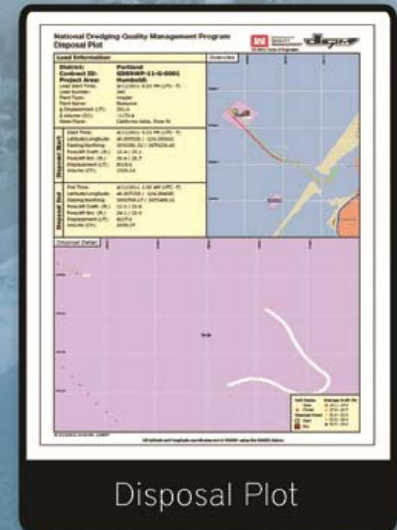
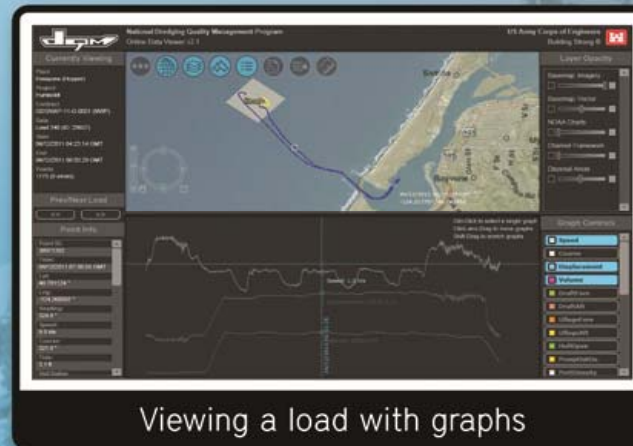
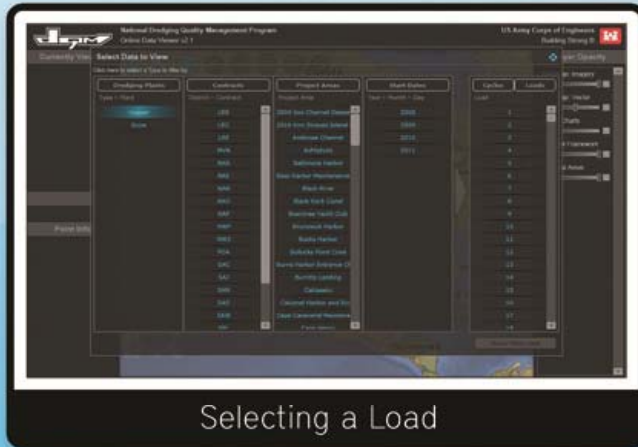


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DQM TOOLS

The DQM Viewer is the latest and greatest addition to the USACE dredging tools collection, providing an interactive Silverlight application for selecting dredging projects, graphing load data, managing and requesting disposal plot information, as well as providing data exports.



COMING SOON

- ▶ Email alerts for compliance issues
- ▶ Viewing/exporting multiple loads
- ▶ Dredge plots





DQM CONSOLE



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Below is the list of tools available for viewing and interacting with DQM dredging data. The newest versions of the tools are found under the version 2.5 header.

DQM Console Tools (version 2.0)

- [Online Data Viewer](#)

DQM Console Tools (version 2.5)

- Online Data Viewer
- Multi-Load Data and Disposal Plots

NOTE: The version 2.5 links above have been temporarily disabled.

Last updated 14 August 2012



Currently Viewing

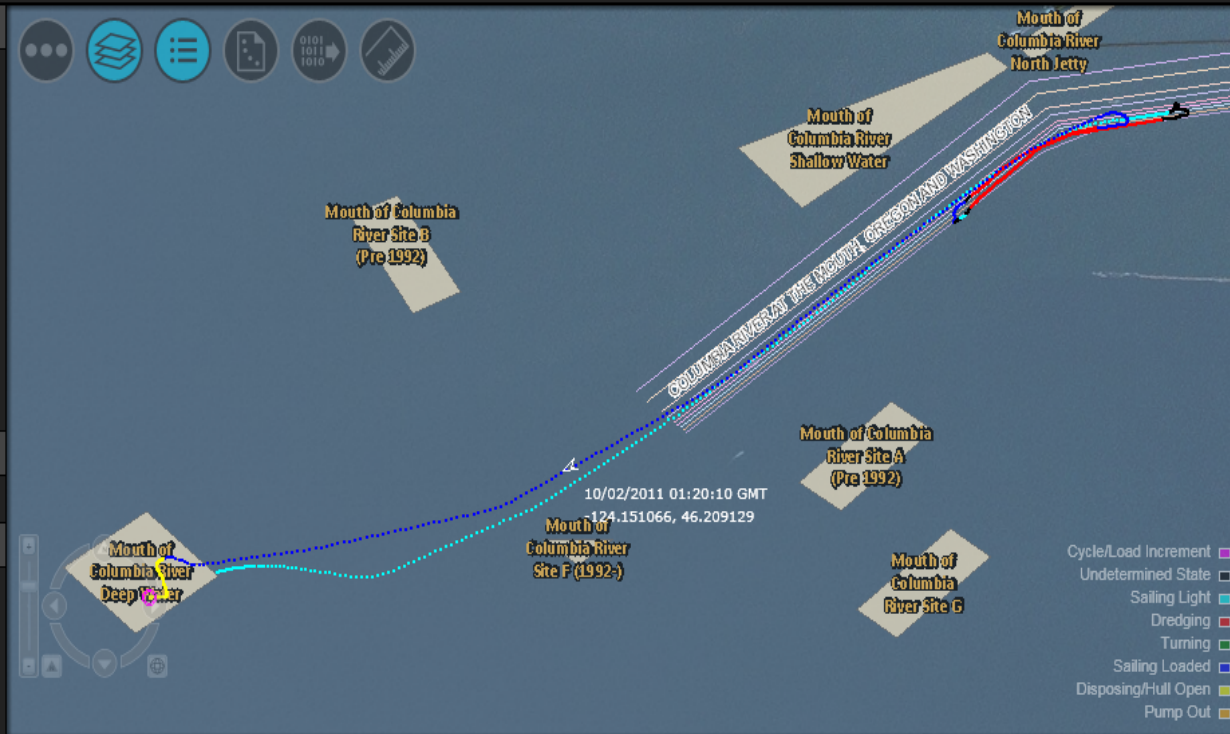
Plant
Essayons (Hopper)
Project
Columbia River
Contract
GDSNWP-12-G-0001 (NWP)
Data
Cycle 2 (ID: 71019)
Start
10/01/2011 22:23:21 GMT
End
10/02/2011 01:52:54 GMT
Points
2639

Prev/Next Cycle

<<

>>

Point Info



Layer Opacity

Basemap: Imagery
☐

Basemap: Vector
☐

NOAA Charts
☐

Channel Framework
☐

Disposal Areas
☐



Ctrl-Click to select a single graph
Click-and-Drag to move graphs
Shift-Drag to stretch graphs

Graph Controls

☐ DraftAft
☐ UllageFore
☒ UllageAft
☐ HullOpen





National Dredging Quality Management Program

Online Data Viewer (ver. 2.5.3)

US Army Corps of Engineers
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Currently Viewing

Plant
Yaquina (Hopper)
Project
Suisun
Contract
GDSNWP-12-G-0002 (NWP)
Data
Cycle 927 (ID: 199134)
Start
08/10/2012 06:16:30 GMT
End
08/10/2012 07:21:07 GMT
Points
389

Prev/Next Cycle

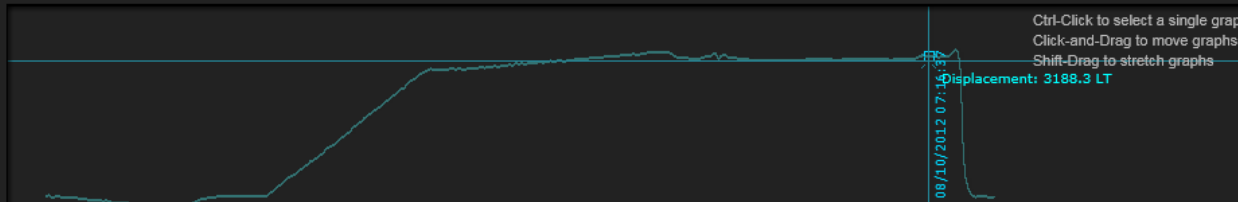
<<

>>

Point Info



- Cycle/Load Increment
- Undetermined State
- Sailing Light
- Dredging
- Turning
- Sailing Loaded
- Disposing/Hull Open
- Pump Out



Ctrl-Click to select a single graph
Click-and-Drag to move graphs
Shift-Drag to stretch graphs

Layer Opacity

Basemap: Imagery

Basemap: Vector

NOAA Charts

Channel Framework

Disposal Areas

Graph Controls

Course

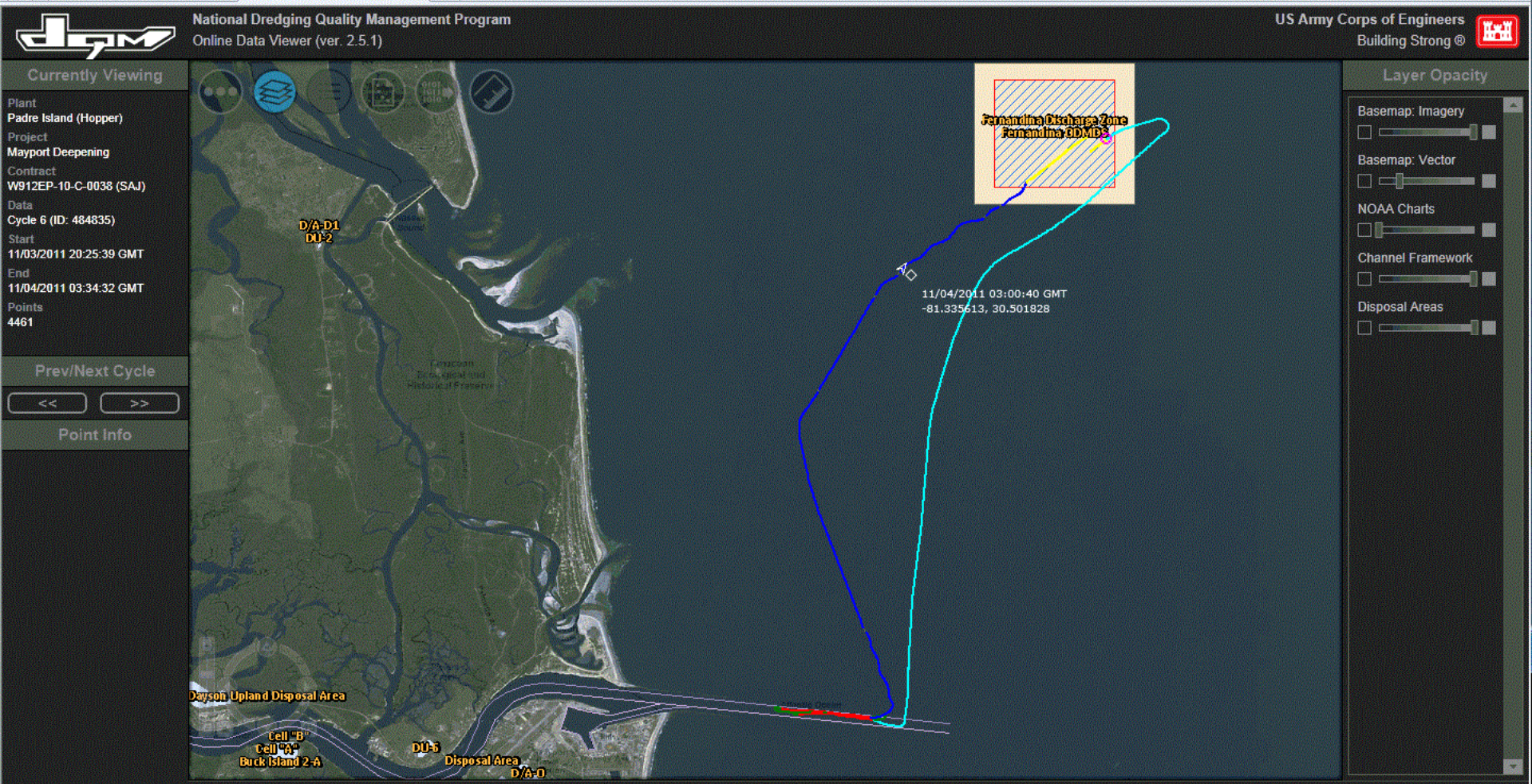
Displacement

Volume

DraftFore



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Done





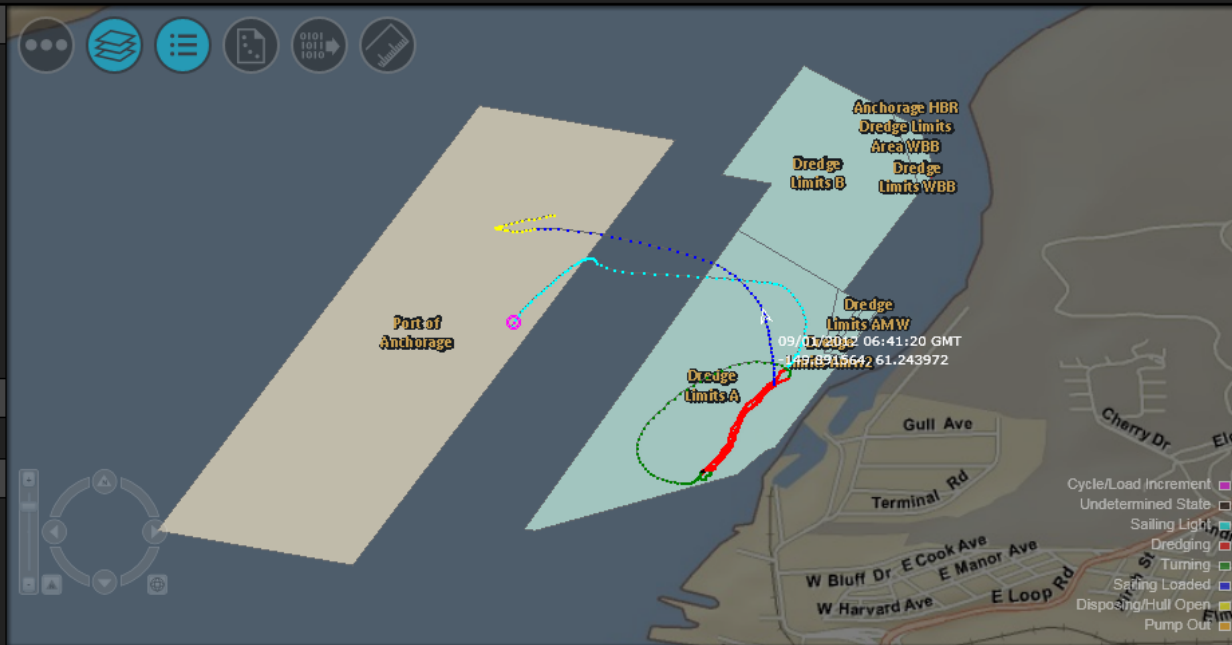
Currently Viewing

Plant
Westport (Hopper)
Project
Port of Anchorage
Contract
W911KB-12-C-0004 (POA)
Data
Cycle 493 (ID: 234374)
Start
09/01/2012 03:16:00 GMT
End
09/01/2012 06:51:10 GMT
Points
1292

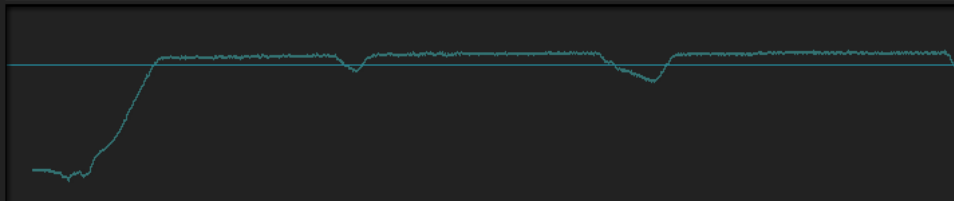
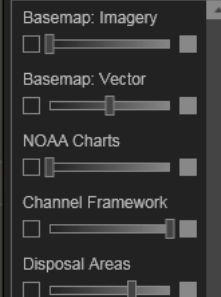
Prev/Next Cycle

<< >>

Point Info



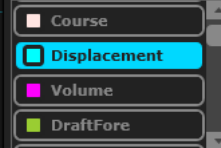
Layer Opacity



Ctrl-Click to select a single graph
Click-and-Drag to move graphs
Shift-Drag to stretch graphs


Displacement: 2075.6 LT

Graph Controls





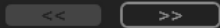
National Dredging Quality Management Program
Online Data Viewer (ver. 2.5.3)

US Army Corps of Engineers
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Currently Viewing

Plant
Essayons (Hopper)
Project
Coos Bay
Contract
GDSNWP-12-G-0001 (NWP)
Data
Cycle 1004 (ID: 235474)
Start
09/03/2012 03:12:52 GMT
End
09/03/2012 06:51:26 GMT
Points
2152

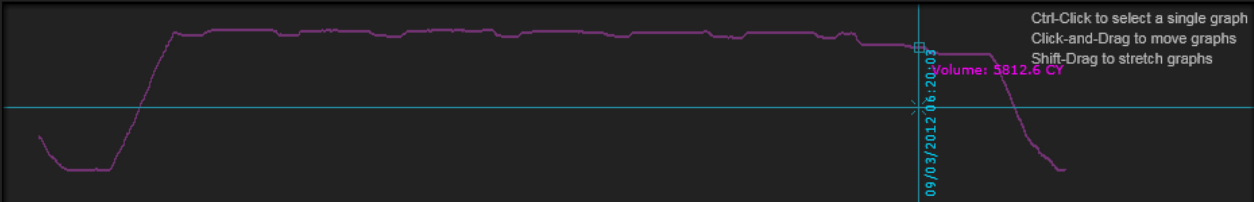
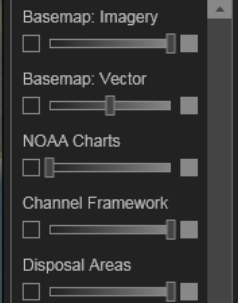
Prev/Next Cycle



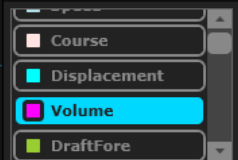
Point Info



Layer Opacity



Graph Controls



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National Dredging Quality Management Program Online Data Viewer (ver. 2.5.3)

US Army Corps of Engineers
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Currently Viewing

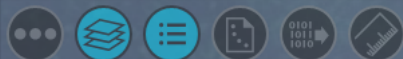
Plant
Yaquina (Hopper)
Project
San Francisco Bay
Contract
GDSNWP-12-G-0002 (NWP)
Data
Cycle 1033 (ID: 230623)
Start
08/26/2012 13:03:42 GMT
End
08/26/2012 14:45:42 GMT
Points
613

Prev/Next Cycle

<<

>>

Point Info



Layer Opacity

Basemap: Imagery

Basemap: Vector

NOAA Charts

Channel Framework

Disposal Areas

Ctrl-Click to select a single graph
Click-and-Drag to move graphs
Shift-Drag to stretch graphs

Graph Controls

Volume

DraftFore

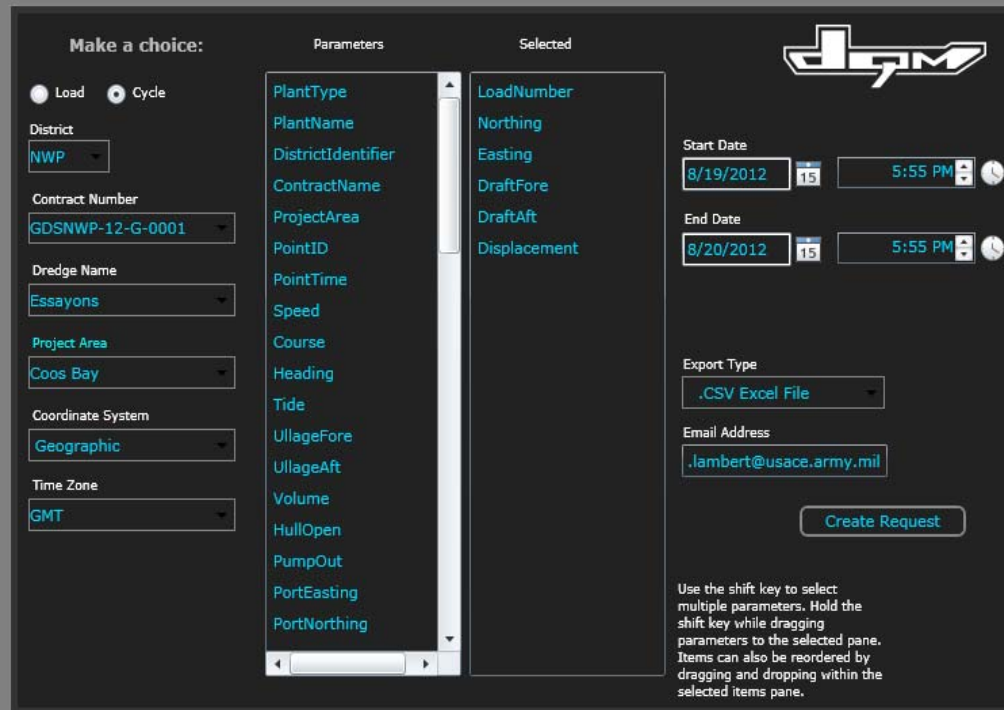
DraftAft

UllageFore



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CUSTOMIZED DATA EXPORT



Make a choice:

☐ Load ☒ Cycle

District
NWP

Contract Number
GDSNWP-12-G-0001

Dredge Name
Essayons

Project Area
Coos Bay

Coordinate System
Geographic

Time Zone
GMT

Parameters

- PlantType
- PlantName
- DistrictIdentifier
- ContractName
- ProjectArea
- PointID
- PointTime
- Speed
- Course
- Heading
- Tide
- UllageFore
- UllageAft
- Volume
- HullOpen
- PumpOut
- PortEasting
- PortNorthing

Selected

- LoadNumber
- Northing
- Easting
- DraftFore
- DraftAft
- Displacement

Start Date
8/19/2012 5:55 PM

End Date
8/20/2012 5:55 PM

Export Type
.CSV Excel File

Email Address
.lambert@usace.army.mil

[Create Request](#)

Use the shift key to select multiple parameters. Hold the shift key while dragging parameters to the selected pane. Items can also be reordered by dragging and dropping within the selected items pane.



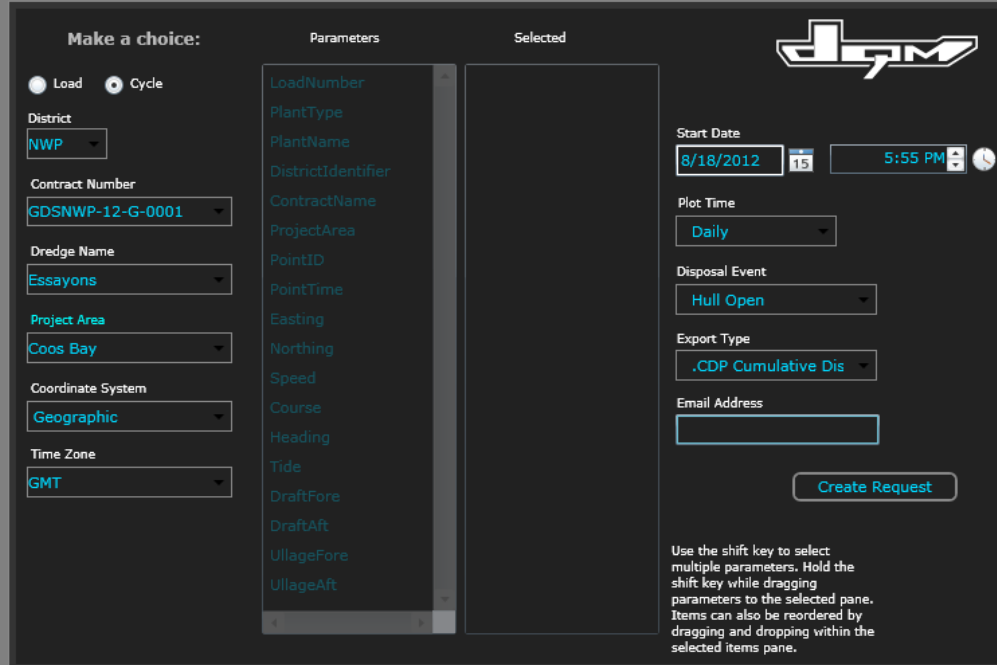
dqm_007ceba3680a4767a6543dd0a9d7d058.csv - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	CycleNumber	Lat	Long	DraftFore (ft)	DraftAft (ft)	Displacement (LT)												
2	938	43 373886	-124 346478	13.06	23.64	8467.35												
3	938	43 37401	-124 346489	13.22	23.39	8472.26												
4	938	43 374137	-124 346525	12.9	24.35	8549.07												
5	939	43 374266	-124 346587	13.03	23.84	8495.03												
6	939	43 374396	-124 346671	13.05	23.68	8471.44												
7	939	43 37452	-124 346781	13.13	23.77	8512.9												
8	939	43 374631	-124 346919	12.97	24.14	8530.51												
9	939	43 374724	-124 347083	13.15	23.61	8488.56												
10	939	43 374798	-124 347266	13.09	23.7	8485.71												
11	939	43 374845	-124 347469	13.12	23.66	8488.13												
12	939	43 374851	-124 3477	13.05	23.68	8475.3												
13	939	43 374829	-124 347958	12.93	24.31	8547.57												
14	939	43 374774	-124 348243	13.03	23.71	8467.1												
15	939	43 374691	-124 348557	12.76	24.15	8458.62												
16	939	43 374597	-124 348917	12.89	23.64	8404.32												
17	939	43 374496	-124 34931	12.71	23.95	8383.4												
18	939	43 374386	-124 349738	12.95	23.31	8347.86												
19	939	43 374282	-124 350146	12.61	24.16	8391.91												
20	939	43 37415	-124 350675	12.69	23.65	8326.29												
21	939	43 374026	-124 351183	12.77	23.72	8353.9												
22	939	43 373893	-124 351724	13.12	22.59	8258.03												
23	939	43 373755	-124 352284	12.62	23.55	8275.82												
24	939	43 373613	-124 352871	12.93	22.76	8222.95												
25	939	43 37347	-124 353473	12.64	23.32	8232.54												
26	939	43 373321	-124 354091	12.8	22.72	8167.74												
27	939	43 37317	-124 354724	12.77	22.63	8147.67												
28	939	43 373021	-124 355367	12.66	22.86	8148.68												
29	939	43 372848	-124 356009	12.64	22.95	8160.69												
30	939	43 372658	-124 35665	12.72	22.78	8153.49												
31	939	43 37245	-124 357287	12.45	23.04	8112.09												
32	939	43 372228	-124 357918	12.58	22.66	8084.07												
33	939	43 371992	-124 358546	12.69	22.44	8076.98												
34	939	43 37175	-124 359169	12.18	23.51	8113.18												



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MULTI-LOAD DISPOSAL PLOTS



The screenshot displays a web-based application for creating disposal plots. The interface is organized into several sections:

- Make a choice:** Contains radio buttons for "Load" (selected) and "Cycle". Below are dropdown menus for "District" (NWP), "Contract Number" (GDSNWP-12-G-0001), "Dredge Name" (Essayons), "Project Area" (Coos Bay), "Coordinate System" (Geographic), and "Time Zone" (GMT).
- Parameters:** A list of parameters including LoadNumber, PlantType, PlantName, DistrictIdentifier, ContractName, ProjectArea, PointID, PointTime, Easting, Northing, Speed, Course, Heading, Tide, DraftFore, DraftAft, UllageFore, and UllageAft.
- Selected:** An empty box for parameters that have been moved from the Parameters list.
- Right Panel:** Includes a logo, a date/time picker (8/18/2012 5:55 PM), a "Plot Time" dropdown (Daily), a "Disposal Event" dropdown (Hull Open), an "Export Type" dropdown (.CDP Cumulative Dis), an "Email Address" input field, and a "Create Request" button.
- Instructions:** A note at the bottom right states: "Use the shift key to select multiple parameters. Hold the shift key while dragging parameters to the selected pane. Items can also be reordered by dragging and dropping within the selected items pane."





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US Army Corps of Engineers

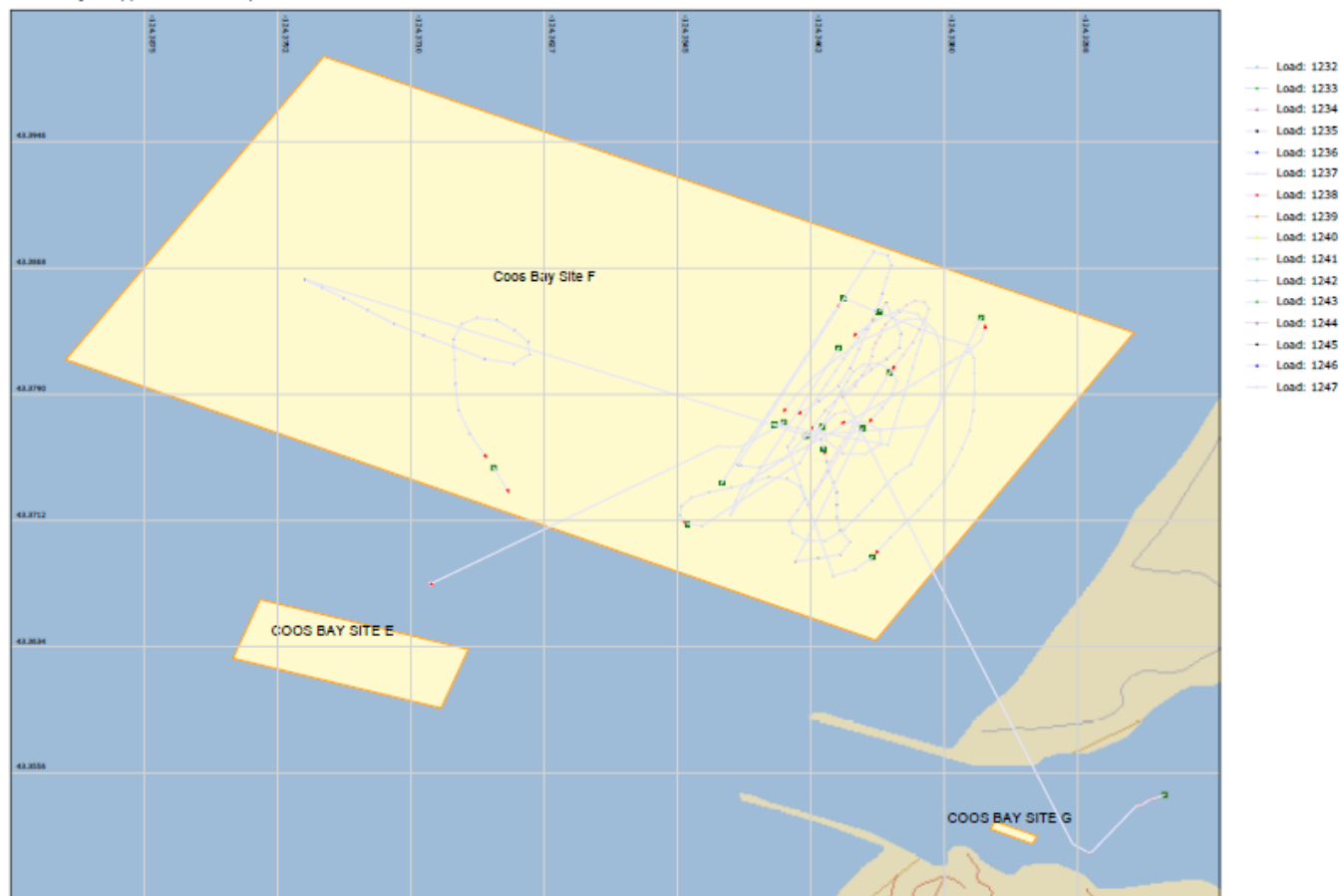
Phone: (877)840-8024

Email: DQM-Support@usace.army.mil

Cumulative Disposal Plot

Plant: Essayons
7-Day Tracking: 8/26/2012 - 9/1/2012

Project: Coos Bay
Contract: GDSNWP-12-G-0001



All latitude and longitude coordinates are in WGS84 using NAD83 datum or Geographic.



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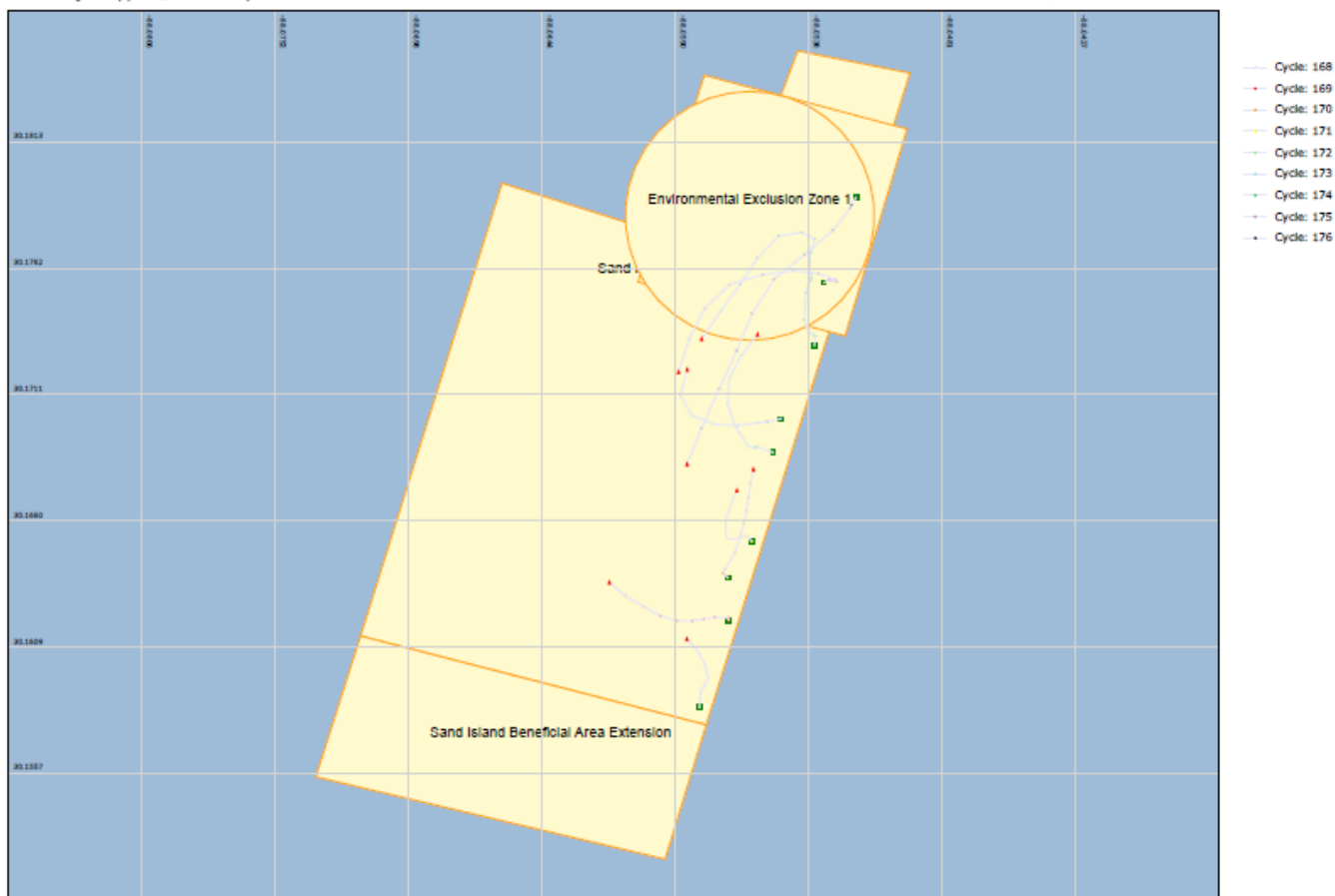
US Army Corps of Engineers
Phone: (877)840-8024
Email: DQM-Support@usace.army.mil



Cumulative Disposal Plot

Plant: GL 63
7-Day Tracking: 6/7/2010 - 6/13/2010

Project: Mobile Harbor
Contract: W91278-09-D-0057-0001



All latitude and longitude coordinates are in WGS84 using NAD83 datum or Geographic.



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Make a choice:

☐ Load
 ☒ Cycle

District

SAM

Contract Number

W91278-09-D-0057-0001

Dredge Name

GL 63

Project Area

Mobile Harbor

Coordinate System

Geographic

Time Zone

GMT

Parameters

LoadNumber

PlantType

PlantName

DistrictIdentifier

ContractName

ProjectArea

PointID

PointTime

Easting

Northing

Speed

Course

Heading

Tide

DraftFore

DraftAft

UllageFore

UllageAft

Selected

Start Date

6/7/2010

15

12:00 AM

End Date

9/29/2009

15

12:00 AM

Export Type

.SHP ESRI Shapefile

Email Address

Create Request

Use the shift key to select multiple parameters. Hold the shift key while dragging parameters to the selected pane. Items can also be reordered by dragging and dropping within the selected items pane.



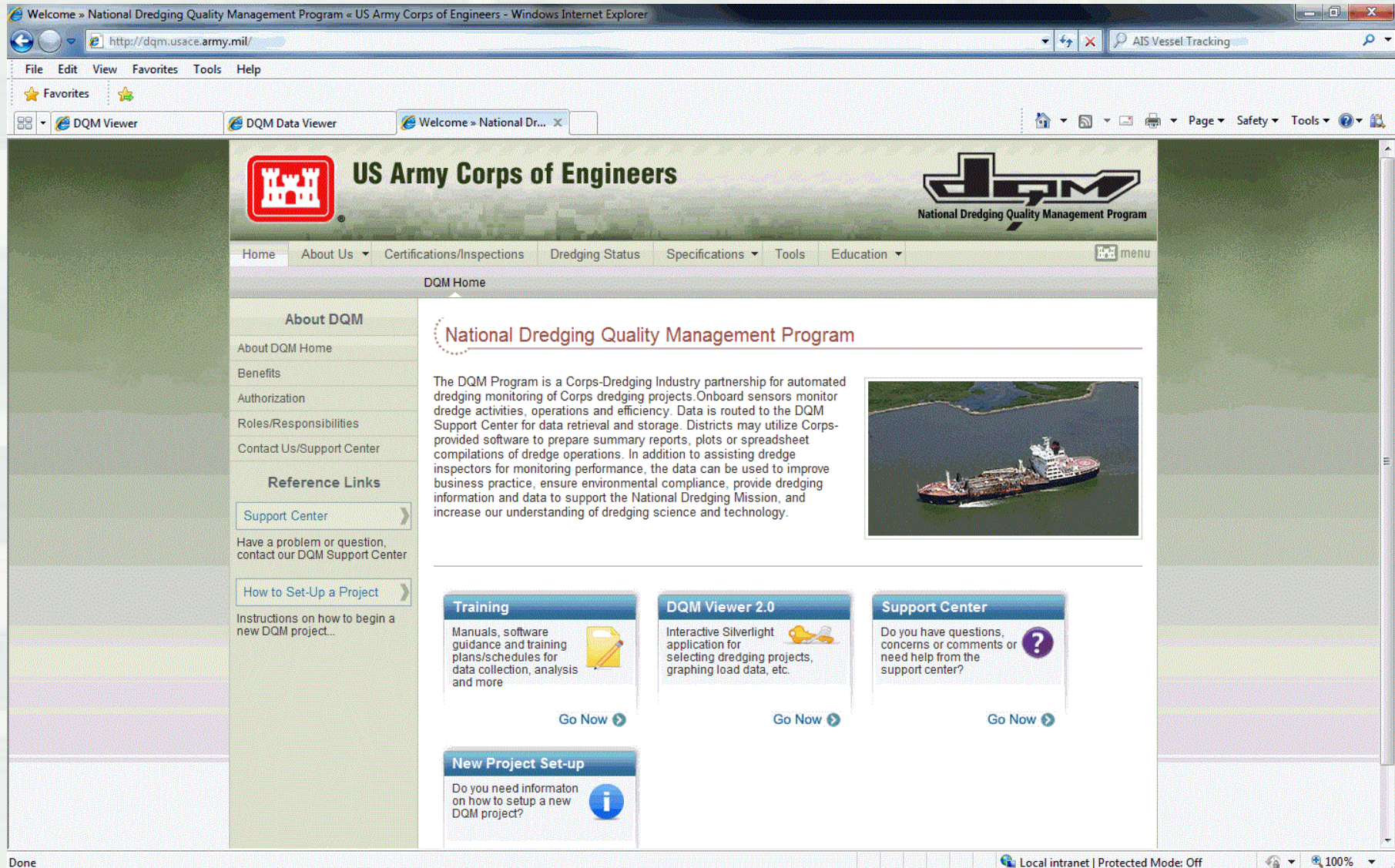
DQM ON-BOARD SOFTWARE (DQMOBS)



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NEW DQM DYNAMIC WEBSITE



The screenshot shows the DQM Dynamic Website in a Windows Internet Explorer browser window. The address bar displays <http://dqm.usace.army.mil/>. The website header features the US Army Corps of Engineers logo and the DQM logo. A navigation menu includes links for Home, About Us, Certifications/Inspections, Dredging Status, Specifications, Tools, and Education. The main content area is titled "National Dredging Quality Management Program" and includes a description of the program, a photo of a dredger, and several quick links: Training, DQM Viewer 2.0, Support Center, and New Project Set-up. The left sidebar contains links for About DQM, Reference Links, and a Support Center link. The bottom status bar shows "Local intranet | Protected Mode: Off" and "100%".

Welcome » National Dredging Quality Management Program » US Army Corps of Engineers - Windows Internet Explorer

<http://dqm.usace.army.mil/> AIS Vessel Tracking

File Edit View Favorites Tools Help

QDM Viewer QDM Data Viewer Welcome » National Dr...

US Army Corps of Engineers **DQM** National Dredging Quality Management Program

Home About Us Certifications/Inspections Dredging Status Specifications Tools Education menu

DQM Home

About DQM

- About DQM Home
- Benefits
- Authorization
- Roles/Responsibilities
- Contact Us/Support Center

Reference Links

- [Support Center](#)
- Have a problem or question, contact our DQM Support Center
- [How to Set-Up a Project](#)
- Instructions on how to begin a new DQM project...

National Dredging Quality Management Program

The DQM Program is a Corps-Dredging Industry partnership for automated dredging monitoring of Corps dredging projects. Onboard sensors monitor dredge activities, operations and efficiency. Data is routed to the DQM Support Center for data retrieval and storage. Districts may utilize Corps-provided software to prepare summary reports, plots or spreadsheet compilations of dredge operations. In addition to assisting dredge inspectors for monitoring performance, the data can be used to improve business practice, ensure environmental compliance, provide dredging information and data to support the National Dredging Mission, and increase our understanding of dredging science and technology.

Training

Manuals, software guidance and training plans/schedules for data collection, analysis and more

[Go Now](#)

DQM Viewer 2.0

Interactive Silverlight application for selecting dredging projects, graphing load data, etc.

[Go Now](#)

Support Center

Do you have questions, concerns or comments or need help from the support center?

[Go Now](#)

New Project Set-up

Do you need information on how to setup a new DQM project?

[Go Now](#)

Done Local intranet | Protected Mode: Off 100%

<http://dqm.usace.army.mil/>

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CUTTERHEAD PDT AGENDA

MAY 2012

- Purpose: HQ has directed DQM with implementing the monitoring of cutterhead pipeline dredges. The purpose of this initial PDT meeting is to formalize an implementation plan. Discuss the details of monitoring which include data, data transmission, specifications, pilot projects, contractor coordination, etc.

- DQM Overview
- Review Past Evaluations
 - ▶ Illinois – Folly Beach, SC
 - ▶ Goetz – Fountain City, WI
- Review Surveys - Data Parameters
- Discuss Draft Specification
- Future Evaluations (PDT Discussion)
- Implementation Plan



Standardized Environmental Protection Agency (EPA) Reporting

EPA Vessel Monitoring Data

Project Information

Contract:
Placement Area: Example Norfolk Site Type: 102
* Profile: Monitoring
Coordinate Type: LL
** State Plane Datum:

- * Optional field, data may not be required for project.
** State Plane Datum not required when Coordinate Type is LL

Load Number: 62

Vessel Name: * Type: Hopper * Technique: Bottom Dump
* Tow Vessel Name:
* Vessel Captain:
Estimated Volume: 10850
Material Description: sand
Material Source: North Turning Basin
Disposal Start Time: 03/08/10 00:07:13
Disposal End Time: 03/08/10 00:10:09
Disposal Start X: -79.757454
Disposal Start Y: 32.645969
Disposal End X: -79.757896
Disposal End Y: 32.64558
* Observed Water Depth:
* Comments:

Position/Sensor Data

Sample Date Time	Vessel X	Vessel Y	*Fore Draft	Aft Draft	*Avg Draft	*Vessel Speed	*Vessel Heading	*Vessel Course	*Hull Status
03/07/10 00:00:04	-79.754631	32.6549	23.55	25.28		5.4	191	181	Closed
03/07/10 00:00:15	-79.754684	32.654633	23.56	25.28		5.3	191	193	Closed
03/07/10 00:00:26	-79.754745	32.654366	23.53	25.32		5.3	192	190	Closed

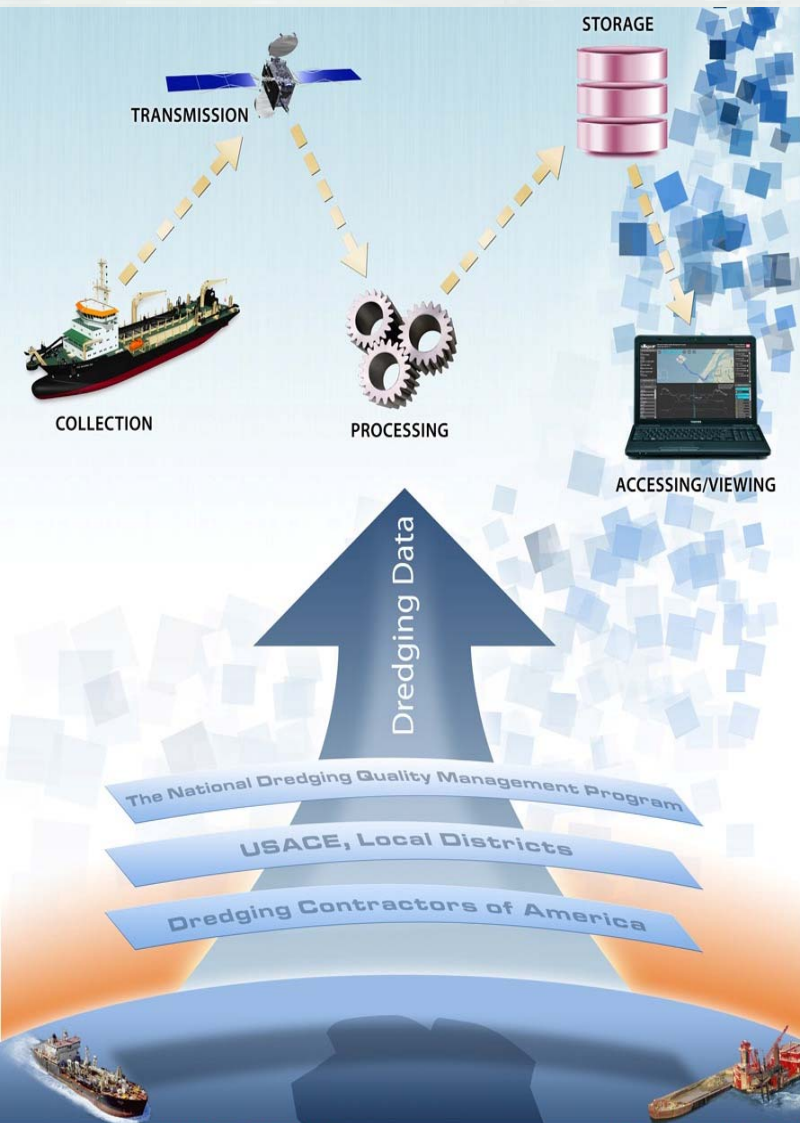
QC Legend: OK, Error, Range Error, Suspect, QC



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NATIONAL DREDGING QUALITY MANAGEMENT (DQM) PROGRAM



PLANS FOR 2013

- CUTTERHEAD MONITORING
- DESK-TOP TOOLS
- TDS TESTING
- NEAR REAL-TIME SCOW TELEMETRY



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THE NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM

The DQM Program is a partnership between the Corps and the dredging industry for automated monitoring of dredge activities.

Onboard sensors provide near-real-time data that allows for immediate response to emerging situations.

Districts can use the web-based DQM software to view, analyze, report on, and export dredging data.

The data can be used to improve business practice, ensure environmental compliance, and increase our understanding of dredging science and technology.







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Thanks Allen....
for a great
meeting and
being a
wonderful host!

