

ENTERPRISE DREDGING INFORMATION SYSTEM (DIS)

for WEDA Pacific
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for the IWR
Navigation Team

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US Army Corps
of Engineers®





USACE: STAYING WORLD CLASS NOW AND INTO THE FUTURE

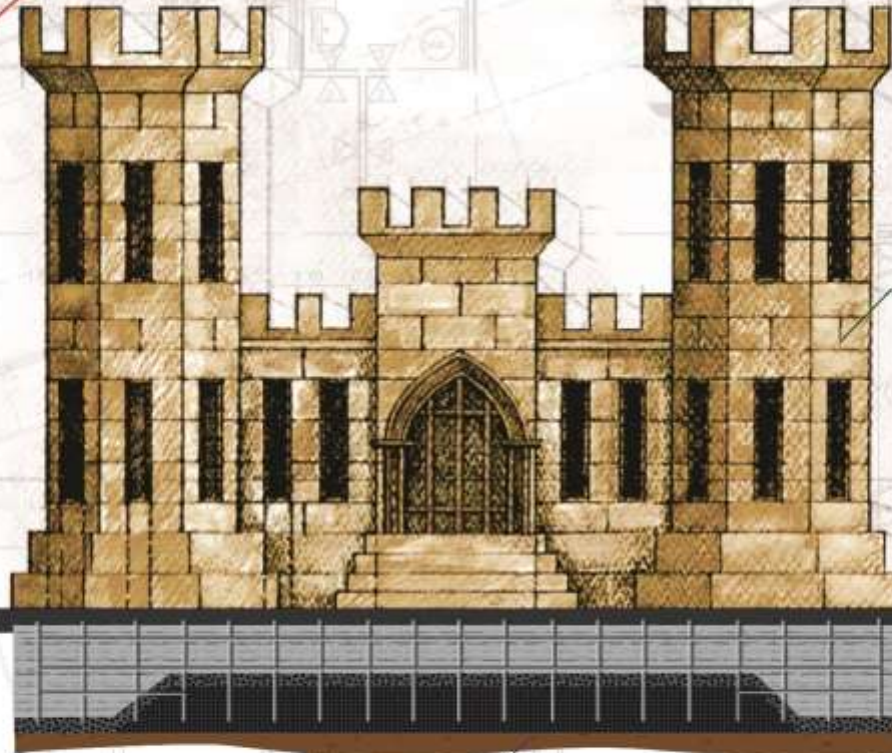


ACHIEVE OUR VISION

Anticipate future conditions; take actions today to always be ready come what may.

USACE VISION

Engineering Solutions for the Nation's Toughest Challenges



DELIVER THE PROGRAM

Our credibility is based on our ability to achieve desired results on time and on budget.

USACE MISSION

Deliver vital engineering solutions, in collaboration with our partners, to secure our Nation, energize our economy, and reduce risk from disaster.

STRENGTHEN THE FOUNDATION

Doing routine tasks to a high standard enables everything else. A strong foundation empowers leaders to think strategically.

MISSION AREAS

- Military Programs
- Civil Works
- Geospatial Support
- Contingency Operations
- Research and Development

We aspire to remain a WORLD-CLASS organization, now and into the future, by setting the professional standard and stepping-up as a reliable Federal option. Perhaps the MOST STRATEGIC thing we can do is to simply DELIVER OUR PROGRAM...with exceptional quality, on time, and on budget.



USACE Navigation Mission

Provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of national security needs, commerce, and recreation.





USACE NAVIGATION MISSION - DREDGING



- USACE is responsible for maintaining and improving:
 - ~12,000 miles of shallow draft (9'-14') inland and intracoastal waterways
 - ~13,000 miles of deep-draft (14' and greater) coastal channels
 - 400 ports, harbors, and turning basins
- Dredging is essential to keeping waterways and ports open
- Dredging phases
 - Project planning
 - Advertising
 - Bidding
 - Contract award
 - Post Performance – surveying and payment, etc.



DREDGING INFORMATION SYSTEM (DIS) OVERVIEW AND RELEVANCE



History...

- The Dredging Information System (DIS) is the USACE national database for all dredging data for over 25 years
- EP 1130-2-520, Navigation and Dredging Operations and Maintenance Guidance and Procedures

Today...

- DIS is the system of record that captures information including:
 - project name
 - quantity of dredged material
 - type of dredge
 - method of disposal or placement
 - government estimate
 - winning bid and bidder
 - small business status
- Used to meet WRDA 2016 reporting requirements
- Used for multiple GAO Reviews



DREDGING RESOURCES



Dredging
Project
Conception

Contract
Award

Dredge
arrives on
site

Project
Completion



DIS



RMS



NTNI



DQM





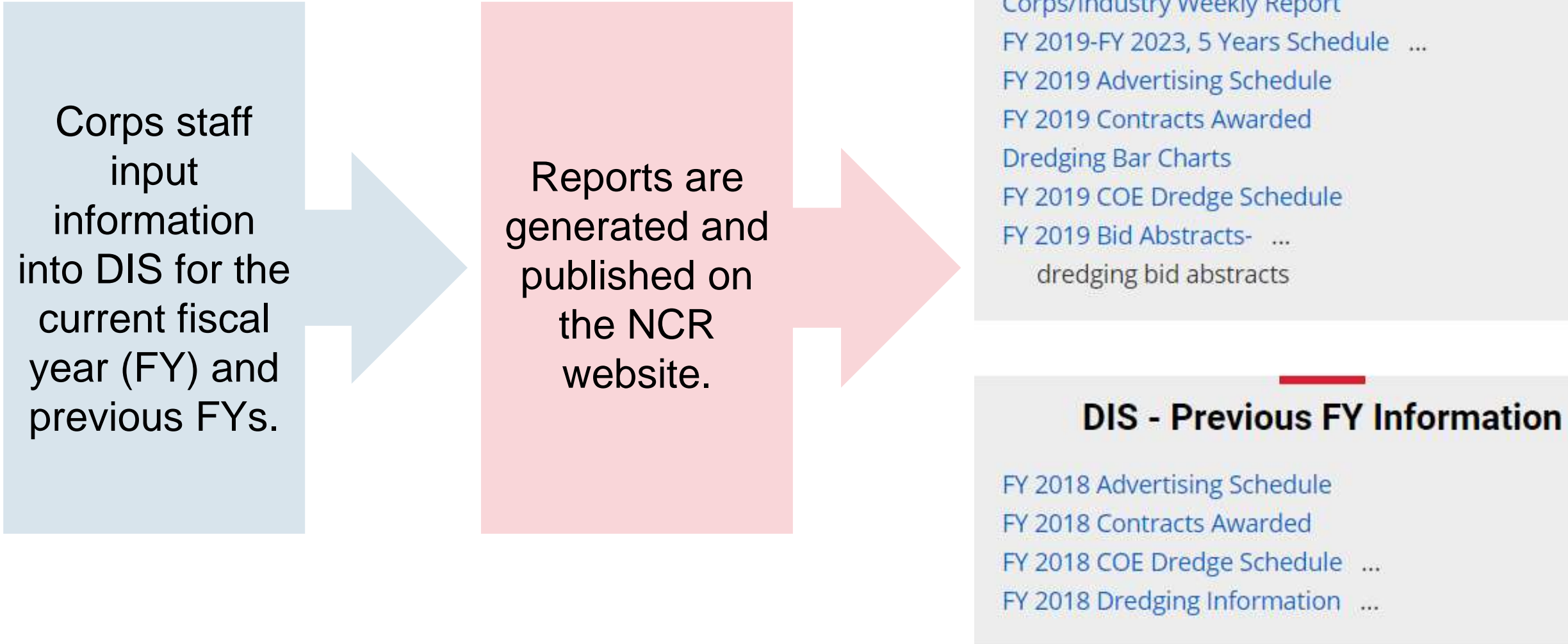
DIS AND DATA MANAGEMENT



- Resident Management System (RMS)
 - Captures contract award information and execution
- Dredge Quality Manager (DQM)
 - Tracks where a dredge is and how much material it is pulling from its specific location
- eHydro
 - Contains surveys for channel reaches (available depths)



POSTED INFORMATION





PREVIOUS CHANGES



New Job and Pre-bid Information Screen

Jobkey	Job Name
99NWP001	MCR, C&LW, COOS BAY ENTRANCE

Record 1 of 1

First Previous Next Last

ReQuery Count

[Add new Fulljobs record](#)

[Return to Main Menu](#)

Jobkey:	99NWP001
Job Name:	MCR, C&LW, COOS BAY ENTRANCE
Job Status:	Active
Multi CWIS?:	YES
CWIS:	003600
Input Date:	02/05/1998
Advertisement Date (mm/dd/yyyy):	02/16/1999
Bid open date (mm/dd/yyyy):	03/16/1999
Bid open time (hh24mm):	1400
Award date (mm/dd/yyyy):	04/15/1999

*** Indicates mandatory entry when creating a new record.**

*Jobkey:	99NWP001	Job Name:	MCR, C&LW, COOS BAY ENTRANCE
*Job Status:	Completed		
Multi CWIS/AMSCO:	YES	CWIS/AMSCO:	
Input Date:	02/05/1998		
Adv Date (MM/DD/YYYY):	02/16/1999		
Bid Open Date (MM/DD/YYYY):	03/16/1999		
Bid Open Time (24 hr HHMM):	1400		
Award Date (MM/DD/YYYY):	04/15/1999		



THE E-DIS PROJECT DELIVERY TEAM



- Recognizing that the current system does not provide internal and external stakeholders with everything that's needed, this effort is intended to create a group of dredging experts to identify what information is needed to complete the mission
- Idea first arose after discussions of a 5 year national dredging schedule in July 2018
- After assigning members for the PDT, the kickoff meeting outlining the effort took place in September 2018 and includes both Corps and Industry stakeholders



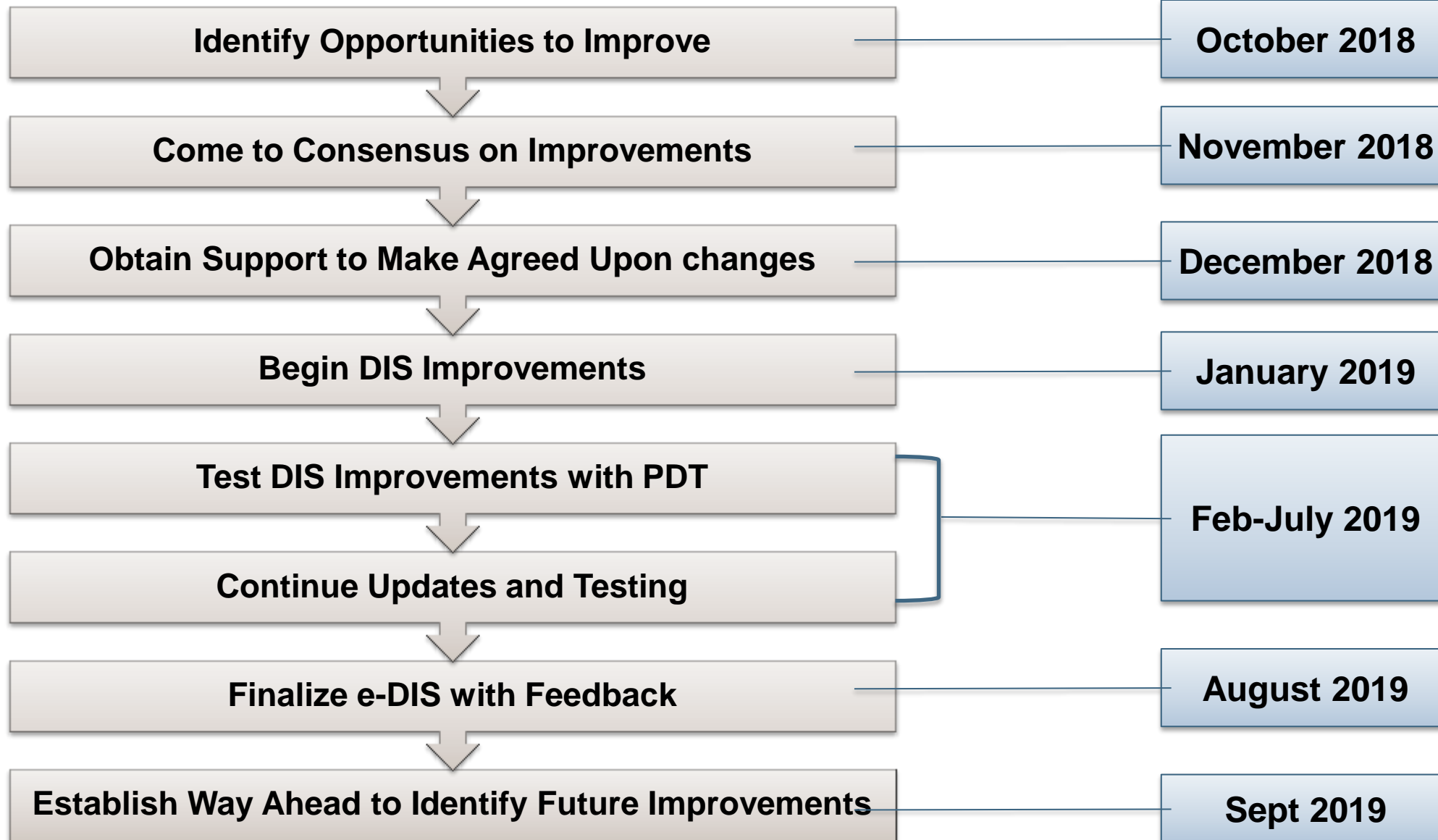
E-DIS PDT PURPOSE



- 1 Summarize issues and opportunities already identified (in meetings, by email, etc.)
- 2 Gather feedback to determine whether there are additional opportunities for improvements not yet identified (subject of our next few meetings)
- 3 Explore opportunities to link or combine DIS with other existing data information systems.
- 4 Explore ways to increase frequency of data updates
- 5 Identify and develop data visualization and reporting tools for internal and external stakeholders
- 6 Identify and develop methods for utilizing DIS data to drive decision support, instead of just data collection

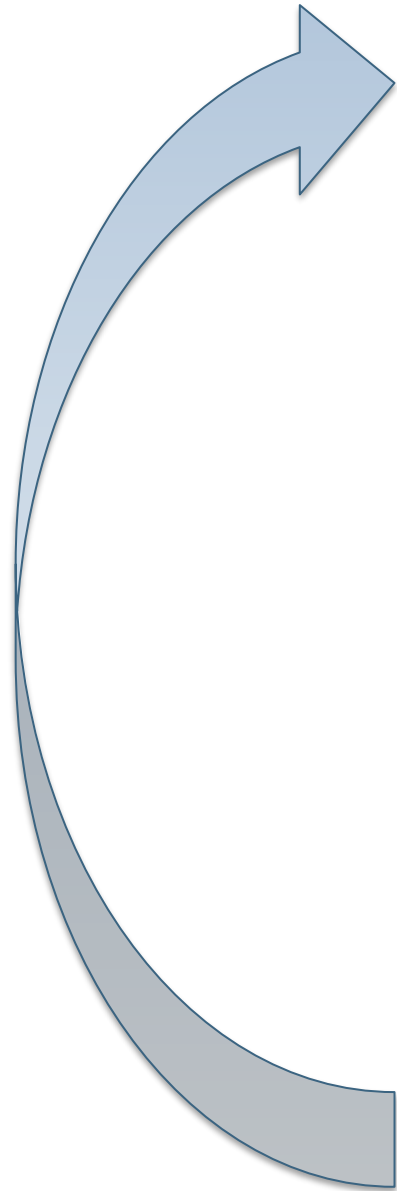


MILESTONES AND SCHEDULE





FY20 PDT ACTIVITIES





RECENTLY AWARDED CONTRACTS



- Connect DIS to RMS and others (DQM)
- Add lat/long or polygons ability to show where dredging is taking place on the pre-bid screen
- DIS Public Site – similar to Corps Locks
- New Fields
- New reports
- New data extracts
- New input methods
- Optional Task: Training material and User's Guides



DIS UPDATES



System Connections

Improve data management & ease of data entry:

- Link DIS to RMS
- Link DIS to DQM
- Link DIS to eHydro
- Link DIS to Regional Sediment Management Viewer

Providing additional guidance for users:

- Update SOP for field to understand what gets entered into DIS vs RMS vs DQM
- Create Comprehensive User's Guide

Data Entry

Improve data entry process:

- Change contract breakout - one job can have multiple districts and one contract can have multiple jobs.
- Include the full contract number
- Link all screens so jobs do not have to be reselected

Include more information to provide details on projects:

- Break out actual costs by funding type
- Add dredge subtype to capture additional information
- Work days field allows for two decimal points

Public Reporting

Create ways for longer term planning:

- Longer term schedule
- 5 Year Gantt Chart

Increase ability to track projects:

- Add solicitation number to public reports
- Jobs report to include tab for future, past, and TBD bids

Ongoing

Complete

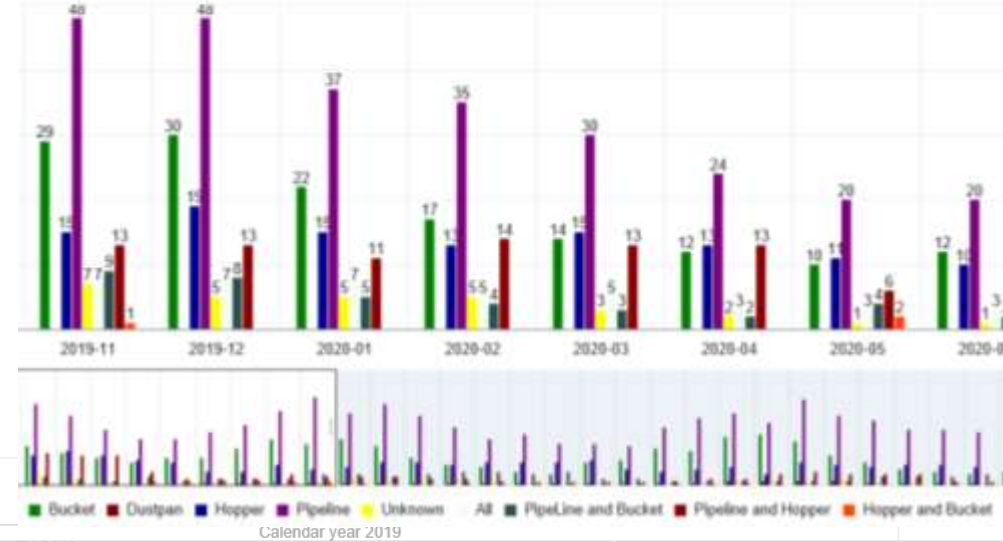


GANTT CHART / 5 YEAR SCHEDULE



- Scheduling assistance:
 - Capture dredge inventory and associate jobs to individual dredges
 - Building out 5 year plans
 - Added new Job Status entries – “Proposed Awaiting Budget” and “Proposed Awaiting Work Plan”

Anticipated Number of Jobs



Dredge Schedule

Job	District	Start time	Duration	Est. Quantity	2018												FY 2019											
					01 Jul	01 Aug	01 Sep	01 Oct	01 Nov	01 Dec	01 Jan	01 Feb	01 Mar	01 Apr	01 May	01 Jun	01 Jul	01 Aug	01 Sep	01 Oct	01 Nov	01 Dec	01 Jan					
Mississippi R Lease Dustpan	MVM	2018-10-01	253	15200000													Dustpan											
NY HARBOR - SANDY HOOK CH#	NAN	2018-10-01	92	300000													Bucket											
NY/NJ CHANNELS-AK - 35 FOOT	NAN	2018-10-15	77	60000													Bucket											
MATOC TAMPA HARBOR	SAJ	2018-10-15	76	500000													All											
MATOC JACKSONVILLE HBR O&I	SAJ	2018-11-01	59	500000													All											
MATOC PALM BEACH HARBOR C	SAJ	2018-11-01	59	500000													All											
TEST NEW JOB 1	MVS	2019-01-01	180	1500													Hopper											
MVR TEST 1	MVR	2019-01-01	180	1000													Hopper and Bucket											
MVR TEST 2	MVR	2019-05-01	152	2500													Bucket											
MVR TEST 5	MVR	2019-05-01	152	5000													Dustpan											
TEST NEW JOB 2	MVS	2019-05-01	152	5500													Bucket											
Norfolk Harbor, Channel to N	NAO	2019-05-15	60	150000													Pipeline											
MVR TEST 6	MVR	2019-06-01	121	2500													Bucket											



DATA ENTRY CHANGES



- Dredge Subtype
 - Purely for planning purposes
- Made POC info a mandatory field
- Added mission type field to indicate Navigation or FRM work.

Dredge Type	Dredge Subtype
Bucket	0-10 CY 10-20 CY 20+ CY Environmental Unknown
Hopper	Small 0-3000 CY Medium 3000-6000 CY Large 6000+ CY Unknown
Pipeline	0-10" 10-20" 20" + Ocean Certified Unknown



COMPLIANCE CHECK REPORT



Created a compliance check report to track when the district last logged in and updated DIS.

District	Last Login Date	Last Update Date
LRB	28-May-19	28-May-19
LRE	28-May-19	28-May-19
LRH	29-May-19	29-May-19
LRL	22-May-19	22-May-19
LRP	12-Mar-19	12-Mar-19
MVK	21-May-19	21-May-19
MVM	28-May-19	
MVN	29-May-19	29-May-19
MVP	20-May-19	
NAB	29-May-19	29-May-19
NAE	21-May-19	21-May-19
NAN	29-May-19	28-May-19
NAO	29-May-19	29-May-19
NAP	29-May-19	22-May-19
NWP	28-May-19	28-May-19
NWS	21-May-19	21-May-19
POA	20-May-19	20-May-19
POH	25-May-19	25-May-19
SAC	24-May-19	24-May-19
SAJ	28-May-19	28-May-19
SAM	29-May-19	29-May-19
SAS	17-May-19	17-May-19
SAW	29-May-19	29-May-19
SPL	29-May-19	29-May-19
SPN	23-May-19	9-May-19
SWG	23-May-19	6-May-19
SWL	21-May-19	21-May-19



PLACEMENT AREAS – IN PROGRESS



Beneficial Use?	Placement	Placement Sub-Type
Yes	Estuary	Beach Nourishment
		Island Nourishment
		Levee Construction
		Land Development
		Near Shore
		Thin Layer Placement
		Wetland Nourishment
		Other
	Inland	Beach Nourishment
		Island Nourishment
		Levee Construction
		Land Development
		Near Shore
		Thin Layer Placement
		Other
	Coastal	Beach Nourishment
		Island Nourishment
		Land Development
		Near Shore
		Thin Layer Placement
		Other
No	Ocean	ODMDS
		Confined Aquatic Disposal
		Riverine Placement
	Other	
	Upland	Confined Disposal Facility
		Landfill
		Partially Confined Disposal Facility
		Unconfined Disposal Facility
	Other	

- Update placement areas to better capture beneficial use of material
- Placement areas are focused on physically where the material is being placed, not intent of placement

Job Completion Disposal

Total Cubic Yards: ←

Site	Name	Quantity	Type	Subtype
<input type="text" value="Site A"/>	<input type="text" value="<Read-Only> Auto-Populated"/>	<input type="text" value="123456"/>	<input type="text" value="Type A"/>	<input type="text" value="Subtype A"/>
<input type="text" value="Site B"/>	<input type="text" value="<Read-Only> Auto-Populated"/>	<input type="text" value="123456"/>	<input type="text" value="Type B"/>	<input type="text" value="Subtype B"/>
<input type="text" value="Site C"/>	<input type="text" value="<Read-Only> Auto-Populated"/>	<input type="text" value="123456"/>	<input type="text" value="Type C"/>	<input type="text" value="Subtype C"/>
<input type="text" value="Select Site"/>	<input type="text" value="<Read-Only> Auto-Populated"/>	<input type="text" value="0"/>	<input type="text" value="Select Type"/>	<input type="text" value="Select Subtype"/>



ENVIRONMENTAL WINDOWS – IN PROGRESS



Incorporating Environmental Windows into DIS to improve scheduling

Environmental Windows

Search: All Text Columns Go Actions ▾ Edit Save Add Row

<input type="checkbox"/>	≡	District	Jobkey	Start Date	End Date	Species	Reason
<input checked="" type="checkbox"/>	≡	ROCK ISLAND	19MVR140	01-MAR-19	31-AUG-19	Species 1	Test Reason 1
<input type="checkbox"/>	≡	ROCK ISLAND		04-MAR-19	31-JUL-19	Species 2	Test Reason 2



CONTRACT AND SOLICITATION NUMBERS – IN PROGRESS



Linking DIS jobs to other agency systems (P2, CEFMS) and to the bid abstracts

***CWIS Codes**

Edit Save Add Row

<input checked="" type="checkbox"/>	☰	District	CWIS Code	Project Name
<input checked="" type="checkbox"/>	☰	SWG	001990	BRAZOS ISLAND HARBOR

1 rows selected

Bid Abstracts

Edit Save Add Row

<input checked="" type="checkbox"/>	☰	Solicitation
<input checked="" type="checkbox"/>	☰	

1 rows selected



RAISE THE FLAG – IN PROGRESS



Modified Raise the Flag section of DIS

Next Steps:

- Create a Raise the Flag Report
- Create a way to link the in-house job or what happened next with uncompleted contract job

READY-RESERVE DREDGE	FISCAL YEAR	RED FLAG CALLOUT EVENTS				READY-RESERVE EXERCISE DAYS	RED-FLAG CALLOUT DAYS	TOTAL DAYS
		1	2	3	4			
WHEELER	2010	SWP	SWP	SWP	SWP	28	136	164
WHEELER	2011	SWP	SWP			62	82	144
WHEELER	2012	SWP				70	59	129
WHEELER	2013	DRYDOCK - Repowering				70	0	70
WHEELER	2014					70	0	70
WHEELER	2015	SWP	SWP	SWP	CORPUS	13	140	153
WHEELER	2016	SWP	SWP			70	55	125
WHEELER	2017	SWP	CALCS			70	49	119
WHEELER	2018	SWP				70	66	136
WHEELER Average 2010-2018						58	65	123
McFARLAND	2010	SWP	SWP	First year of Ready Reserve Status		74	96	170
McFARLAND	2011					70	0	70
McFARLAND	2012	MOREHEAD				70	30	100
McFARLAND	2013	MOREHEAD				70	24	94
McFARLAND	2014	SWP				70	0	70
McFARLAND	2015	SWP				70	62	132
McFARLAND	2016	SWP	WILM HBR			70	59	129
McFARLAND	2017					70	0	70
McFARLAND	2018	MOREHEAD	BROWNSVL			70	73	143
McFARLAND Average 2010-2018						70	38	108



IMPROVEMENT IDEAS IDENTIFIED TO DATE



- Linking DIS jobs to data already entered into the Resident Management System (RMS) for a reduced data entry requirement. MOU Signed.
- Linking DIS to other USACE systems.
- Enhancing spatial awareness of **planned** dredging jobs utilizing existing assets: allow users to enter points and polygons instead of entering a latitude/longitude in degrees, minutes, and seconds.

RIBITS
Regulatory In-lieu Fee and Bank Information Tracking System

[Hide Google Maps] [Print] [Help on Page]

Home
Mitigation Concepts
Banks & ILF Sites
ILF Programs
Umbrella Instruments
Reporting
Bank & ILF Establishment
Assessment Tools
Credit Classifications
Related Sites
Find Credits
Help

Filter View

[Helpdesk]

USACE District
State
FWS Field Office

Reports: 1. Primary Report Rows: All

Actions Expand Report

1 - 96 of 96

Program Name	District List	Status
Arizona Game & Fish Dept ILF Mitigation Program	Los Angeles	Approved
Adams Salmon Restoration and Conservation Program	New England	Pending
Butte County ILF	Sacramento	Pending
Cashima State Coastal Conservancy ILF Program	Los Angeles	Approved
Coachella Valley In-Lieu Fee Program	Los Angeles	Approved
Connecticut In-Lieu Fee	New England	Approved

Google Map

Roads Borders Counties USACE Districts HUC 8 Service Areas

Virginia Aquatic Resources Trust Fund
CH-11 - Fortress - VARTF



FUTURE EFFORTS



- DIS Public Site – Better query and data display for external stakeholders
- Continue to Update: Data Collection, Reports and Collaboration with other Systems/Agencies/Stakeholders/etc.
- **First FY20 DIS PDT Meeting on 1 November 2019**

The screenshot shows the LPMS Public Web Home page. At the top, there is a blue banner with a gold castle icon and the text "US Army Corps of Engineers Lock Performance Monitoring System". Below the banner is a navigation bar with "LPMS Public Web - Home". The main content area starts with "Welcome to Corps Locks!" followed by a paragraph explaining that the site contains lock and vessel specific information derived from the LPMS, representing a 15-minute updated snapshot of FOIA data on U.S. flag vessels and foreign vessels operating in U.S. waterways. Below this is a grid of nine blue buttons: "Find a Vessel", "Lock Queue Report", "Lock Flotilla Report", "Lock Status Report", "Tonnage Report", "Data Web Services", "River at a Glance", "Glossary", and "Commodity Codes".

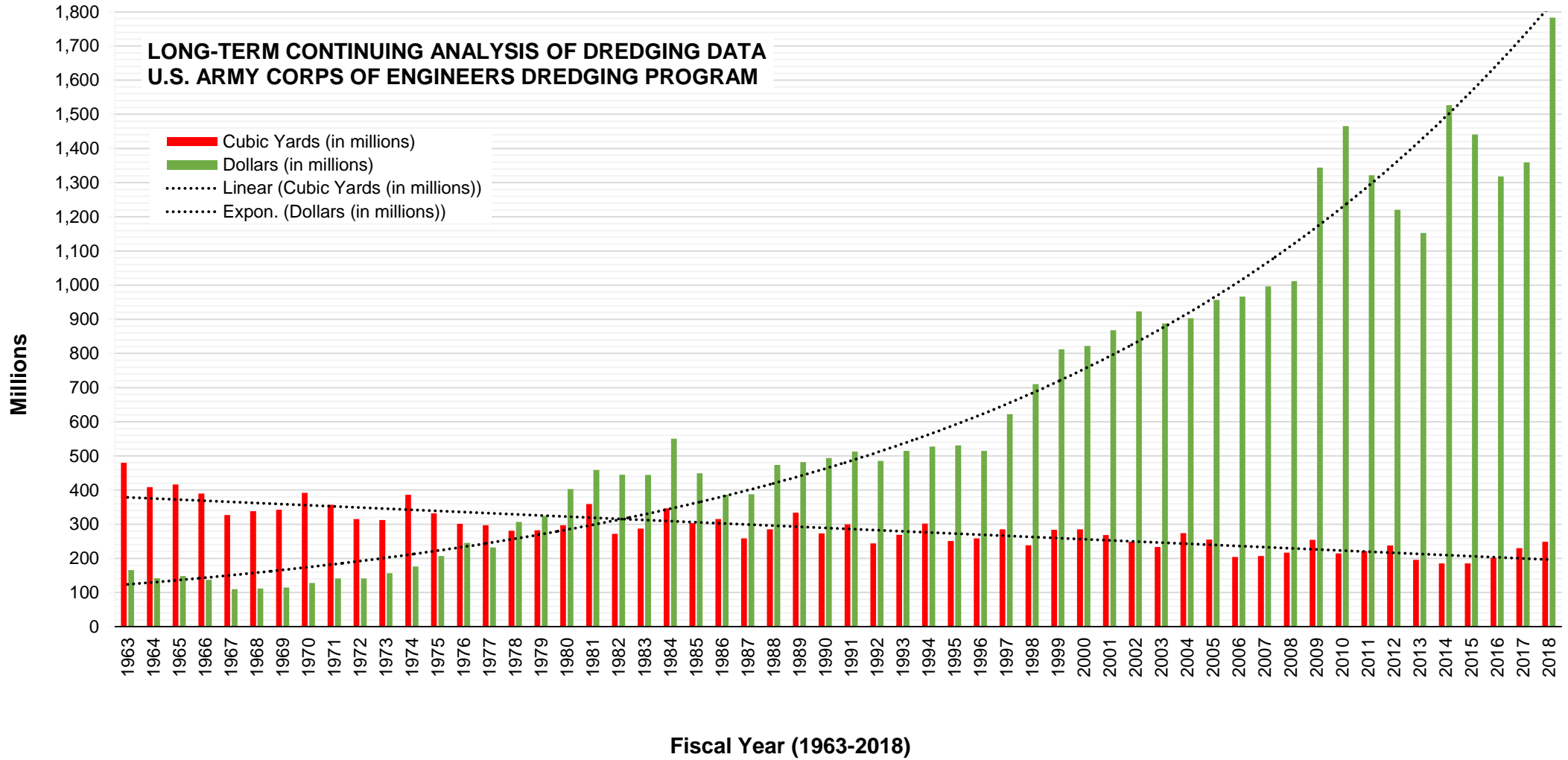
Find a Vessel	Lock Queue Report	Lock Flotilla Report
Lock Status Report	Tonnage Report	Data Web Services
River at a Glance	Glossary	Commodity Codes



Questions?
DIS Changes or Suggestions?
Need a POC?
PDT Member?
CEIWR-NDC.DIS@usace.army.mil
Alexandra.L.Schafer@usace.army.mil



CHALLENGES TO NAVIGATION DREDGING



Growing dredging requirements and increasing cost present strategic risk