

# ST PAUL DISTRICT DREDGING YEAR IN REVIEW – 2020 PROJECTS

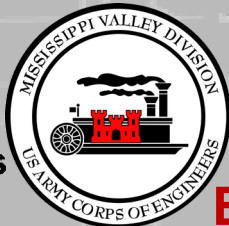
Presentation for the  
**MISSISSIPPI MANAGERS MEETING**

By Steve Tapp

4 February 2020



US Army Corps  
of Engineers®



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# OUTLINE



- Staff
- 2019 Dredging Summary
- 2019 Projects
- 2020 Dredging Projections
- 2020 Projects
- Impacts to Navigation



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# STAFF

Steve Tapp

Chief, Channels & Harbors

Dan Cottrell

Channel Manager

- \* Channel & Harbor Management
- \* Dredge Cut Layout

Paul Machajewski

Dredged Material Manager

- \* Long-term Placement Site Planning
- \* Placement Site Excavations

Zach Kimmel

Channel Maintenance Coordinator

- \* Placement Site Implementation/Management
- \* Real Estate Coordination

Al VanGuilder

Chief, Hydro-Survey Unit

- \* Hydrographic Surveys
- \* Topographic Surveys



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# 2019 DREDGING SUMMARY

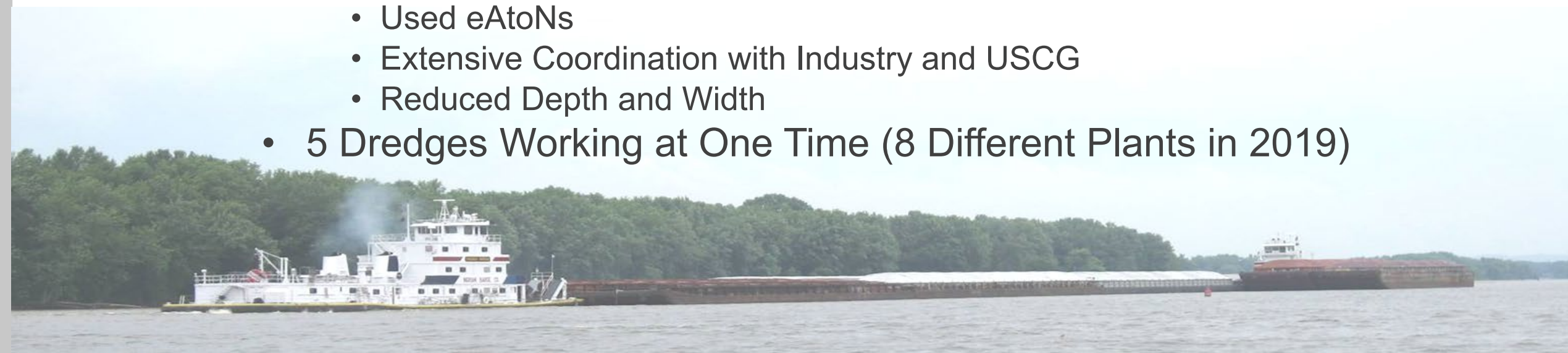
- Challenging





# 2019 DREDGING SUMMARY

- Early Start (Late April/Early May)
- First Job was Closure at Freeborn
- Very Poor Conditions Throughout Season
- Initiatives to Help
  - Help from MVR
  - Initiated use of Purchase Order Contracts in May
  - Started with Unloading Contractor in May
  - Started 24 Hour Operations in May
  - Use Sole Source Contract in July
  - Used eAtoNs
  - Extensive Coordination with Industry and USCG
  - Reduced Depth and Width
- 5 Dredges Working at One Time (8 Different Plants in 2019)





# 2019 DREDGING SUMMARY

**Total Dredged = 1,087,703 CY**

**38% Government      62% Contract**

**Jobs = 51**

**29% Government      71% Contract**

**Dredging Season 2019:**

**29 April – 14 November**

**(Dredging Season 2018: 23 May – 21 November)**



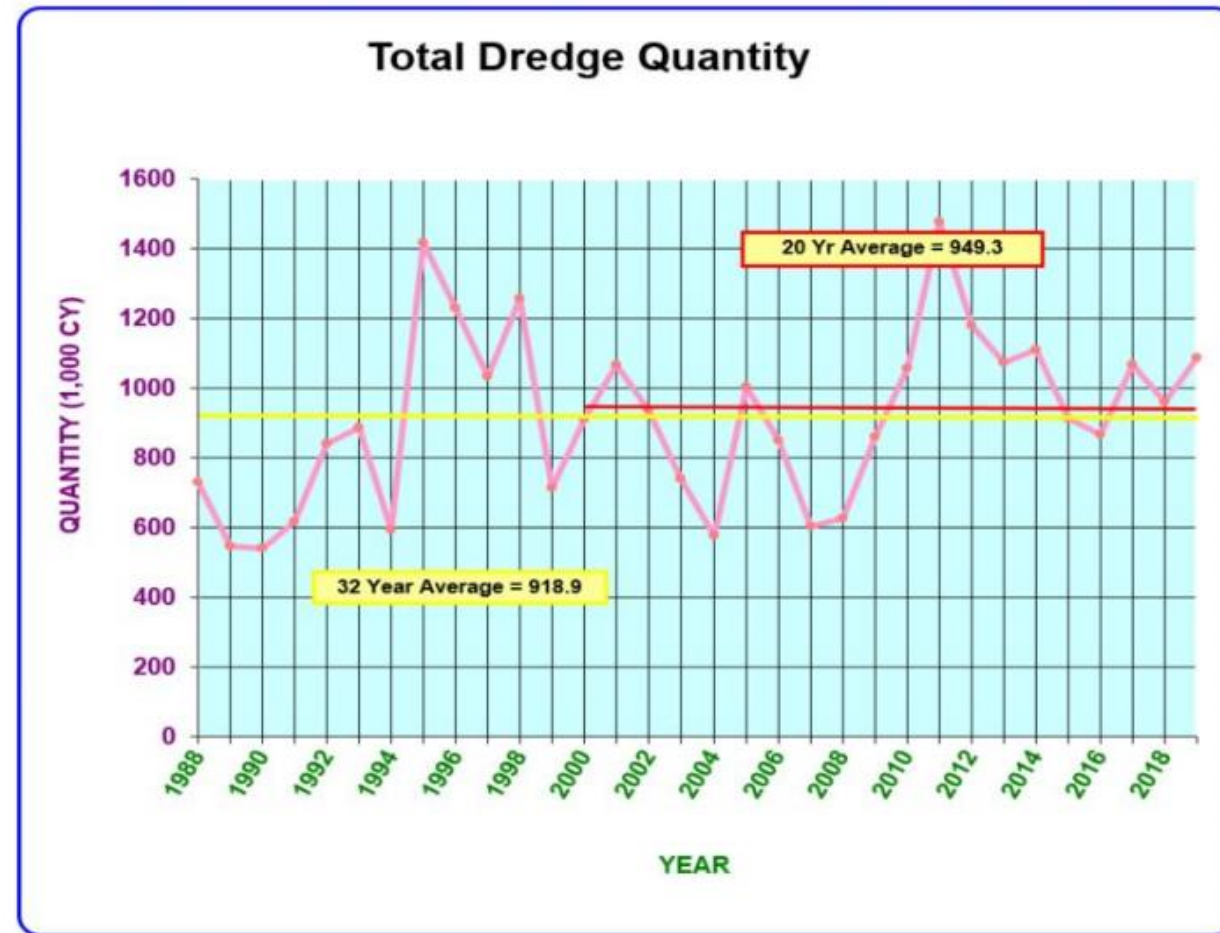


# 2019 DREDGING SUMMARY

## COMPARISON TO HISTORICAL QUANTITIES

YEAR	QUANTITY (1,000 CY)
1988	731.0
1989	548.6
1990	542.0
1991	618.1
1992	841.5
1993	888.0
1994	593.2
1995	1,417.4
1996	1,230.0
1997	1,033.9
1998	1,258.9
1999	715.3
2000	911.9
2001	1,066.5
2002	936.3
2003	740.2
2004	577.0
2005	1,003.2
2006	851.1
2007	604.1
2008	625.7
2009	860.9
2010	1,058.8
2011	1,479.0
2012	1,182.1
2013	1,075.2
2014	1,112.3
2015	915.5
2016	867.8
2017	1,068.1
2018	962.2
2019	1,087.7

Average 918.9  
20 yr Avg 949.3



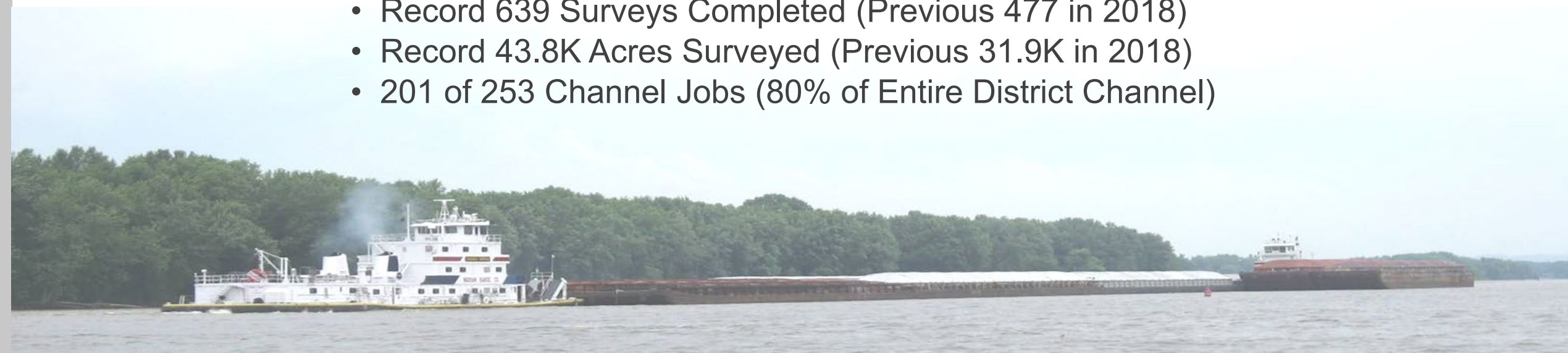
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# 2019 DREDGING SUMMARY

- Channel Availability
  - 93% Available
  - Closures (USCG Draft Restrictions or Closures)
    - Freeborn (10 days – April/May)
    - Diamond Bluff (4 days – August)
    - Below Winona RR Bridge (3 days – September)
- Groundings
  - 82 Reported with 40 Critical (Both Records)
- Surveys
  - Record 639 Surveys Completed (Previous 477 in 2018)
  - Record 43.8K Acres Surveyed (Previous 31.9K in 2018)
  - 201 of 253 Channel Jobs (80% of Entire District Channel)







# 2019 PROJECTS

- P2 – Pine Bend Unloading
  - Mechanical Unloading Contractor
  - Covers Entire St. Paul District (not MVR)
  - Exercised Option Year 1 in 2019
  - 57K CY to Southport
- P2 – Lower Pool 2 Channel Management
  - Completed Phase 1 Rock Contract (Both Structures)
  - Phase 2 Dredging (Placement Site Dependent)
- P3 – Corps Island Unloading
  - 495K CY to Prairie Island Indian Community
- P4 – Wabasha Gravel Pit Unloading
  - 363K CY Trucked to Private Pit





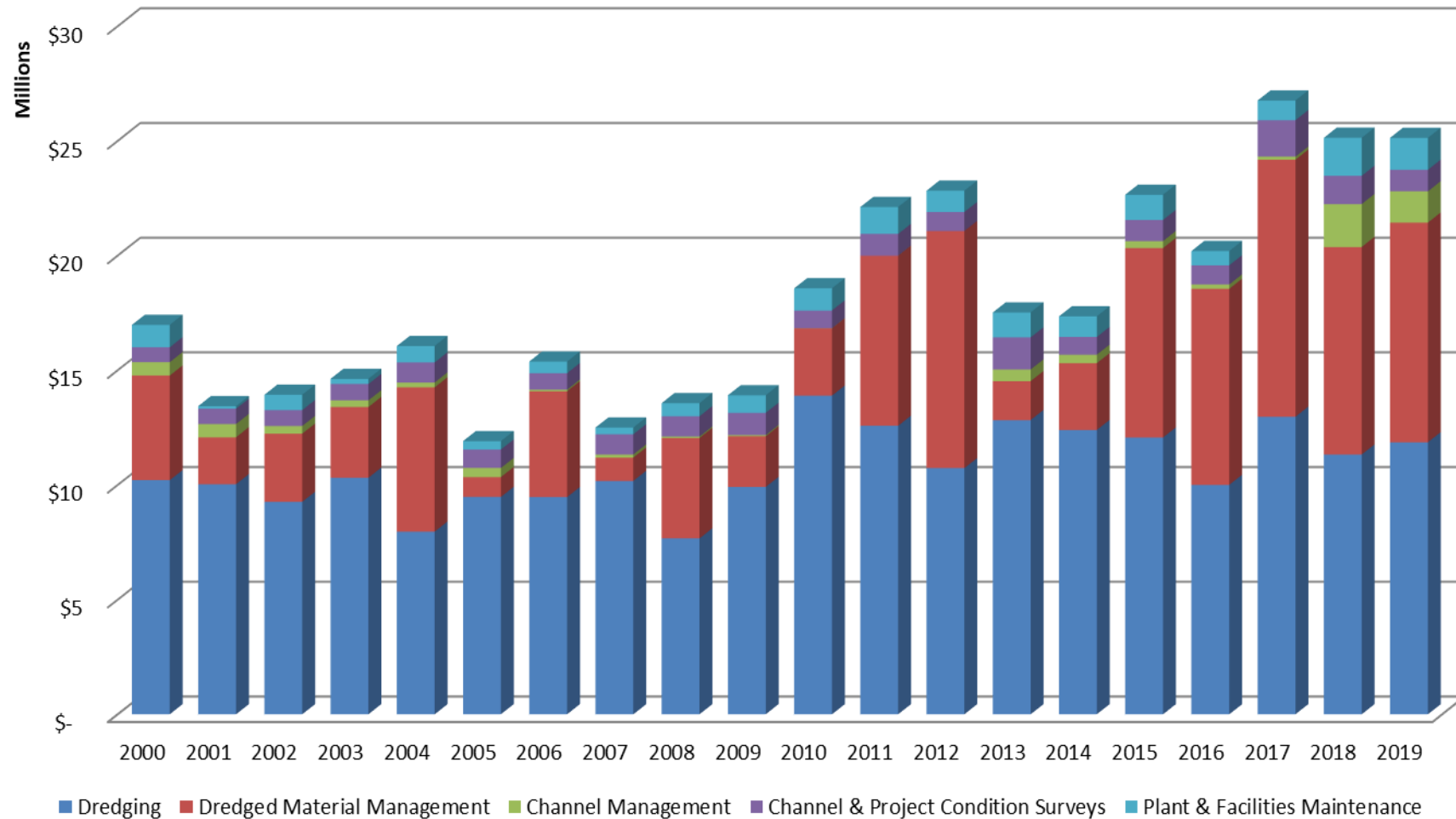
# 2019 PROJECTS

- P5 – Lost Island Unloading
  - 1.3M CY Removed, 200K CY Remaining
  - Must Complete by 31 October 2019
- P8 – Sand Slough
  - Mussel Surveys to Prepare for Dredging
- P10 – In-Water Placement at McMillan
- P10 – Lower Pool 10 Channel Management Study
  - Continued Study Initiated in 2017
  - Objectives
    - Reduce Channel Dredging
    - Improve Navigation Safety





## Channel Maintenance Expenditures Adjusted for 2% Annual Inflation



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# 2020 DREDGING PROJECTIONS

- Challenging





# 2020 DREDGING PROJECTIONS

Deferred 2019 Jobs					
Pool	Dredge Cut Name	River Mile		Depth & Est. Quantity	
2	St Paul Barge Terminal	837.3 - 837.6		12	41,475
2	Pine Bend Landing	824.1 - 824.7		11	6,836
2	Pine Bend	822.7 - 823.6		12	69,350
2	Boulanger Bend	820.5 - 821.4		12	76,388
2	Boulanger Bend Lwr Light	820.0 - 820.4		12	27,962
3	Lower Appr to LD 2	814.6 - 815.0		13	42,101
3	Four Mile Island	807.4 - 807.6		12	11,149
3	Morgans Coulee	802.2 - 802.4		12	4,108
3	Coulters Island	801.6 - 801.8		12	15,865
3	Diamond Bluff	799.7 - 800.7		12	31,835
4	Trenton	794.2 - 794.5		12	19,157
4	Head of Lake Pepin	784.2 - 785.2		12	91,857
4	Chippewa Delta	763.2 - 763.6		9	57,546
4	Reads Landing	762.2 - 762.6		12	11,454
4	Grand Encampment	755.8 - 756.8		12	58,054
5	Mule Bend	747.8 - 749.0		12	65,016
5	Below West Newton	746.4 - 746.6		12	14,654
5	Fisher Island	745.0 - 745.8		12	33,319
5	Above Mt Vernon Light	741.3 - 741.6		12	31,817
5	Below Mt Vernon Light	740.1 - 740.3		12	21,289
5A	Betsy Slough	731.0 - 732.0		13	83,275
6	Below Winona RR Bridge	723.0 - 723.6		12	24,820
6	Gravel Point	722.0 - 722.1		12	4,484
6	Homer	720.0 - 720.8		12	4,759
7	Head of Richmond Island	712.5 - 713.0		12	18,437
7	Richmond Island	711.5 - 711.7		12	11,101
7	Winters Landing	707.5 - 708.0		12	24,436
7	Dakota	705.8 - 706.4		12	35,248
7	Lower Dresbach Island	703.0 - 703.3		12	5,454
7	Upper Approach to LD 7	702.6 - 702.7		13	2,533
8	Below LaCrosse RR Bridge	698.8 - 699.1		12	10,876
8	Sand Slough	694.3 - 694.6		12	36,670
8	Root River	692.9 - 693.1		12	12,090
8	Picayune Island	690.6 - 691.5		12	52,809
8	Above Brownsville	689.9 - 690.2		12	13,795
8	Brownsville	688.7 - 689.1		12	7,816
8	Head of Raft Channel	687.6 - 688.1		12	31,126
9	Island 126	677.5 - 678.4		12	
9	Indian Camp Light	665.4 - 665.8		12	26,578
9	Lansing Upper Light	663.7 - 664.8		12	33,647
9	Above Atchafalaya Bluff	660.0 - 660.8		12	23,603
9	Capoli	658.2 - 658.6		12	26,588
10	Jackson Island	644.0 - 645.0		12	25,645
10	Mississippi Gardens	642.8 - 643.4		12	34,890
10	East Channel	635.7 - 636.1		12	17,780
10	Catfish Slough	626.0 - 626.5		12	22,286
10	Hovie Island	621.6 - 622.4		12	56,443
10	McMillan Island	617.0 - 619.0		12	35,000
Total quantity for jobs that have not been scheduled =				1,413,421	



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# 2020 PROJECTS

- District Wide
  - Early Start – All Equipment
    - Goetz
    - Government Mechanical
    - Contract Mechanical (3 Plants)
    - Unloading Contractor (1 Plant)
  - Typical Depth and Width
  - eAtoNs
- P2 – Lower Boulanger Unloading
  - Mechanical Unloading Contractor
  - Exercised Option Year 2 in 2020
  - 50K CY to Southport





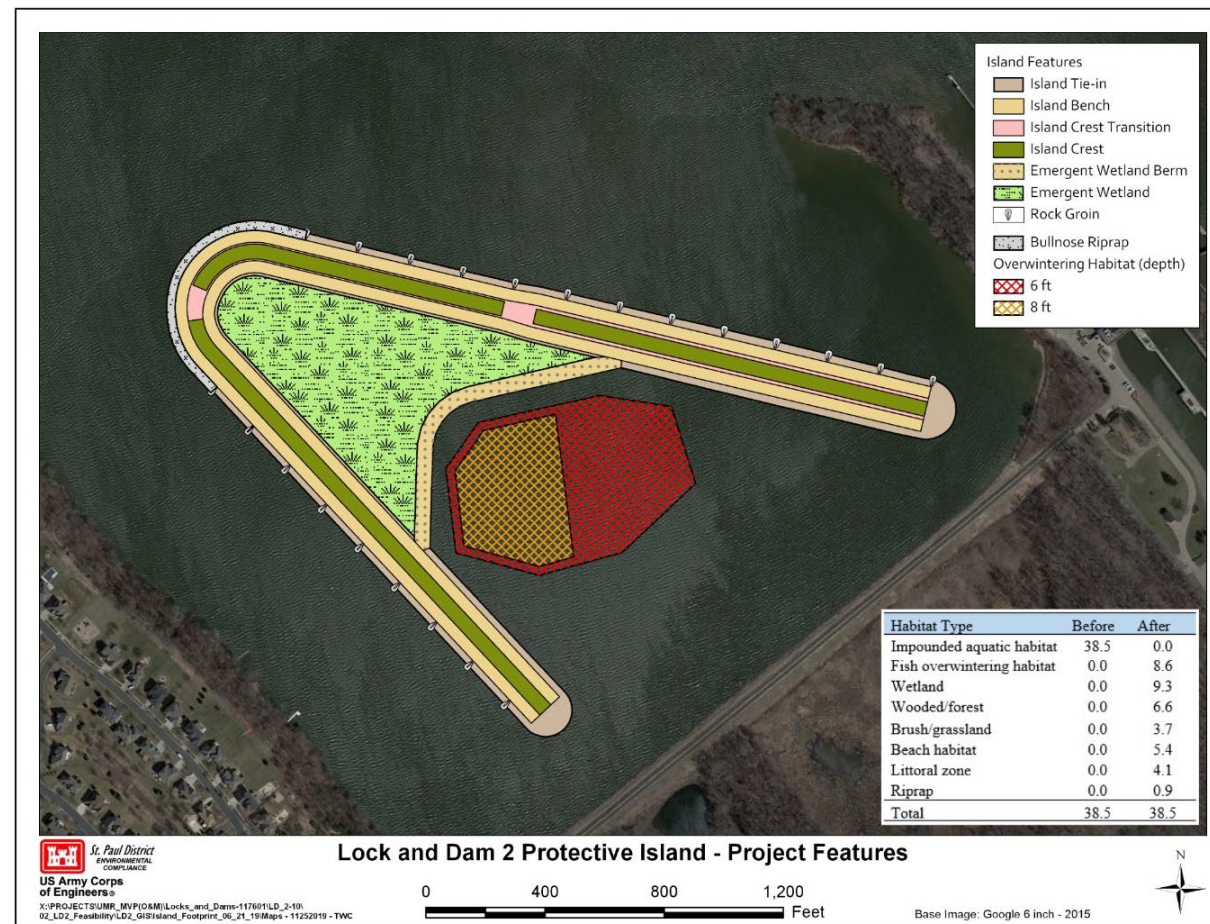


# 2020 PROJECTS

- P2 – Pigs Eye Lake Section 204
  - Ramsey County has Full Funding
  - Award Contract
  - Plan to use 384K CY from Lower Pool 2
  - Construction Beginning in 2021
- P2 – DMMP
  - Complete Report in 2020
- P2 – O&M Island at LD2
  - Potential Contract Award
  - 300K CY to Construct Island Upstream Side of LD2
- P3 – Prairie Island Project
  - 7K CY to Sturgeon Lake



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# 2020 PROJECTS

- P4– Lower Pool 4 DMMP
  - Complete Report in 2020
- P5 – DMMP
  - Complete Report in 2020
- P6 – DMMP
  - Complete Report in 2020
- P7 – LD7 Weir Structure
  - Monitor/Analyze/Coordinate/Adjust if Needed
- P9 – DMMP
  - Begin Planning



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# 2020 PROJECTS

- P10 – DMMP
  - Begin Planning
- P10 – McMillan Island Unloading
  - 125K CY to Buck Creek
  - Award
- P10 – McGregor Lake
  - 288K CY From Lower Pool 10 Channel / McMillan Island

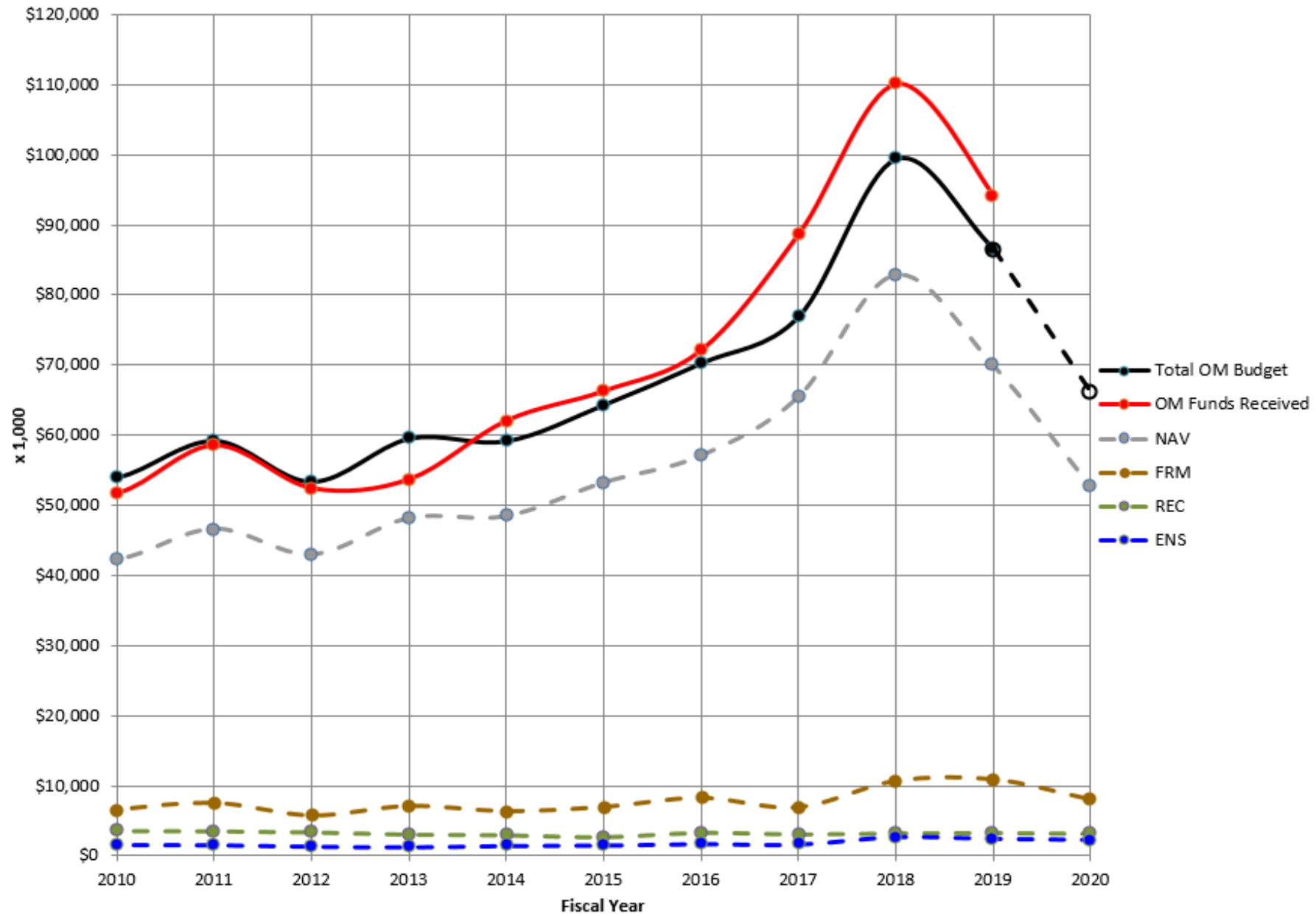


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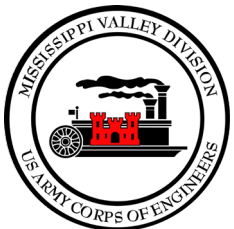




## O&M BUDGET OVERVIEW



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# IMPACTS TO NAVIGATION

- Budget
  - FY20 Down From FY18-19, Still Well Above 5-Year Average
  - Received Flood Damage Supplemental Funding
  - FY21 Presidents Budget and FY20 Work Plan Expected Mid-February
- Pool 2 Channel Improvement
  - Phase 1 Construction Completed in November
  - Need to Resolve Outfall Structure Issue
  - Phase 2 Dredging
- Unloading Contracts
  - Equipment Working in Pool 2 (Lower Boulanger)
  - Equipment Working in Pool 10 (McMillan Island)
- General Channel Conditions
  - High Winter Flows Projections for 2020 = More of the Same???



*The End*

