

OLMSTED LOCKS & DAM

Olmsted Locks and Dam
Project Update
Inland Waterways Users Board
Meeting No. 92
MR. Stephen G. Durrett, PE
Programs Director
Great Lakes and Ohio River Division

12 September 2019



US Army Corps
of Engineers

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OLMSTED BOTTOM LINE UP FRONT



✓ Current Schedule: **Ahead of Schedule**

Operational Milestone

1 Oct 2022 (80% cert. (PACR))

1 Oct 2018 Scheduled

6 Sep 2018 Actual

Completion Milestone

2026 (80% cert. (PACR))

2021 Scheduled

✓ Current Cost: **Under Budget**

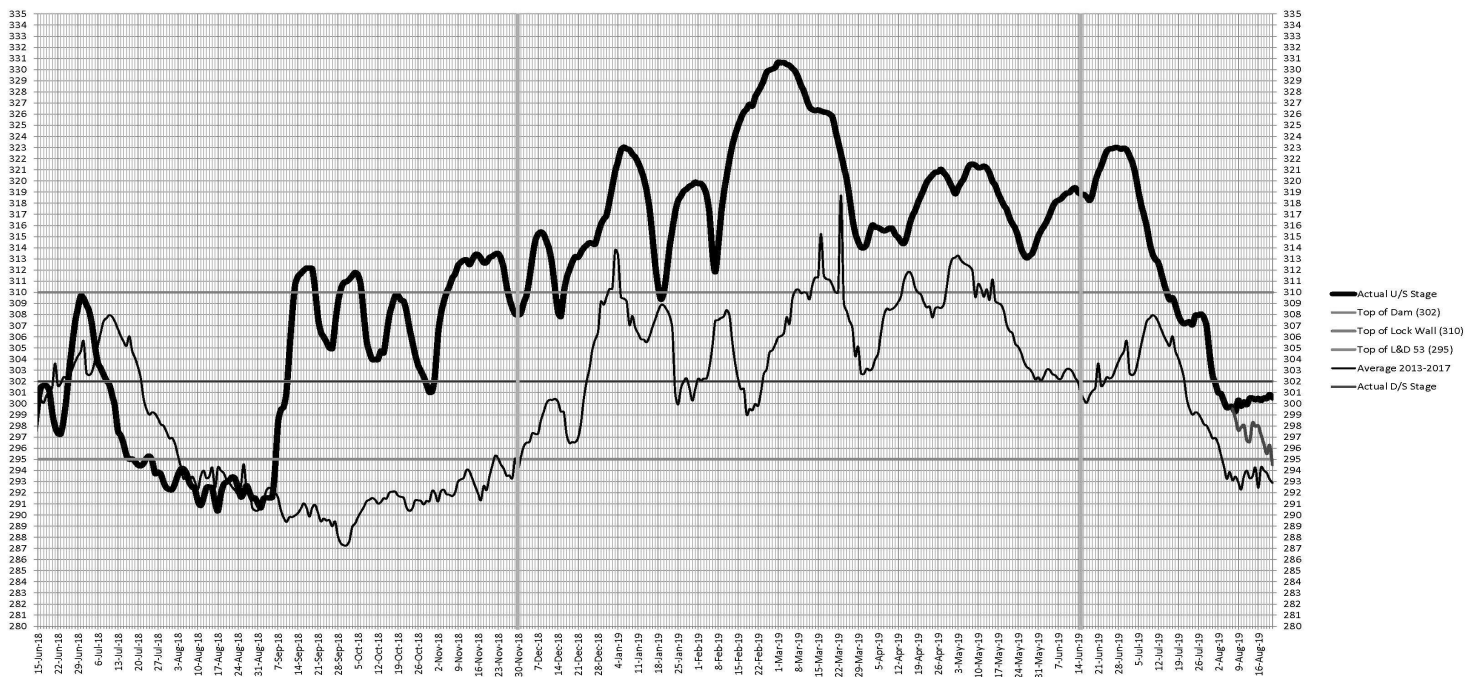
TEP (Total Estimated Price) = \$2.828B vs. \$3.1B (80% certainty)

Savings = \$271M (FY19 Allocation = \$50M)

✓ Keys:

1. Efficient funding (annual capability) has allowed the PDT to effectively plan and execute our annual work plan.
2. Advantageous river conditions have allowed the work to expand beyond the contractual low water season (15 Jun – 30 Nov).

2018-2019 Stage versus 2013-2017 Average Stage



2018 LWS COMPLETION ITEMS IMPACTED BY HIGH WATER



- Concrete Spall Repair
- TG Bays and Nav Pass Shells
- Isolation Joint Bracing and Grouting
- Three locations
- Complete Grouting
- Several locations
- Left Boat Abutment/Fixed Weir
- U/S Mooring Cells
- Wicket 32 Repair
- L&D 53 Phase I Demo

All these items require Water Elevation control and other Operational requirements to complete



2019 EXECUTION RECOVERY PLAN

5



- Extend Cost-Reimbursement contract to complete all remaining key features of work on the dam and L&D 53 Demo Phase I.
- This requires deferring work originally planned for FY19 execution to provide adequate funding for the above. These include
 - L&D 53 Demo Phase II
 - Landside Demo of 52 and 53
 - County Road resurfacing
 - Site Restoration and Close out
 - Z- drive work boat procurement
- Overall impact to the current budget is estimated at \$63M (\$3M FY19, \$35M FY20 and \$25M FY21)



OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY

6



	ARRA	CG	IWTF	Total
Total Project Cost:				*\$2,867,296,000
Allocations through FY2014:	\$29,515,929	\$943,838,592	\$861,338,594	\$1,834,693,115
FY15 Allocation:	\$0	\$180,803,500	\$31,906,500	\$212,710,000
FY16 Allocation:	NA	\$227,800,000	\$40,200,000	\$268,000,000
FY17 Allocation:	NA	\$212,500,000	\$37,500,000	\$250,000,000
FY18 Allocation:	NA	\$148,750,000	\$26,250,000	\$175,000,000
FY19 Budget:	NA	\$29,750,000	\$5,250,000	\$ 35,000,000
FY19 Allocation:		\$12,750,000	\$2,250,000	\$ 15,000,000
Total Allocations to Date:	\$29,515,929	\$1,756,192,092	\$1,004,695,094	\$2,790,403,115
Remaining TPC Balance:		\$65,384,452	\$11,528,433	\$76,922,885
Remaining Balance Change From Last Meeting				\$0

Note: * Cost and Schedule data reflective of the latest Certified Cost Estimate (01 OCT 2017 price levels) completed May 2018.

Next Certified Cost Estimate (01 OCT 2019 price levels) expected APR 2020.

Remaining TPC Balance is difference between Total Project Cost and Total Allocations to date.

Changes

- \$30K CG returned from Soo Reprogramming

Funding Overview

• Original Authorized Cost:	\$ 775.0M
• 902 Limit:	\$3,559.0M
• ARRA Funding (FY09-11):	\$ 29.5M
• Engineering & Design Cost:	\$ 168.5M
• Supervision & Admin Cost:	\$ 131.0M
• Mitigation:	\$ 16.0M

Current Status of the Project

- L&D in full operation
- Remaining dam features under construction
- L&D 52 marine demo progressing
- L&D 53 Ph I demo progressing

Next Steps

- Award Demo 53 Marine Ph II
- Award L&D 52 and 53 Landside demolition
- Award Workboat
- Award final site restoration
- Complete property disposal



OLMSTED LOCKS AND DAMS, OHIO RIVER, IL & KY



7

Schedule of Remaining Work	Design Initiated	Contract Award	Construction Complete	Project Benefits	Capitalized Cost Closeout
Dam	26-Aug-96	28-Jan-04	30-Nov-19	6-Sep-18	31-Mar-20
Wicket Lifter	1-Jan-15	2-Sep-16	21-Dec-17	19-Feb-18	30-Dec-20
Building & Grounds	1-Dec-15	2-Feb-17	28-Sep-18	1-Oct-18	30-Jun-19
Demolition L&D 52	1-Feb-17	26-Sep-18	31-Dec-20	N/A	31-May-21
Demolition L&D 53 (Nav Lane)	15-Oct-16	1-Nov-17	31-Dec-19	N/A	31-Mar-20
River Dikes	12-Feb-15	12-Aug-16	1-Feb-20	1-Feb-20	1-Feb-20
NOTE: Green highlighted dates are actual dates. Red highlighted dates are changes. Wicket Lifter Keen placed in service 27 Apr 2018.					



OLMSTED PROJECT - TIME AND COST SCORECARD



8



Expenditures (thru Jul)

Planned (BCWS)	\$2.521B
Earned (BCWP)	\$2.908B
Actual (ACWP)	\$2.644B

BCWP: Reports the value (based on % complete) of the work performed to date.

Target:

Actual as compared to Planned: (<1% = Green) (>1% and <3% = Yellow) and (>3% = Red)



Safety

Green: 1.04 or less Amber: 1.05 – 1.39 Risk: 1.40 +

Hours/Rate	FY 17	FY 18	FY 19
Hours:	1,216,798	862,592	586,372
# DART:	5	1	1
Rate:	0.82	0.23	0.34

High Risk Activities quarter

- Dive Operations
- Crane Operations

Focus areas for next

- L&D 52 and 53 Demo
- Equipment disposition
- Site restoration

Schedule (thru Jul)

(PACR)/(Current)

Project Complete	April 2026/Dec 2021
Dam Operational	Oct 2022/Oct 2018

Measures: Planned project completion and Dam contract operational dates

Target:

Green: Current = PACR-12 months
Yellow: Current = PACR-11 months to PACR-7 months
Red: Current = PACR-6 months to after PACR date



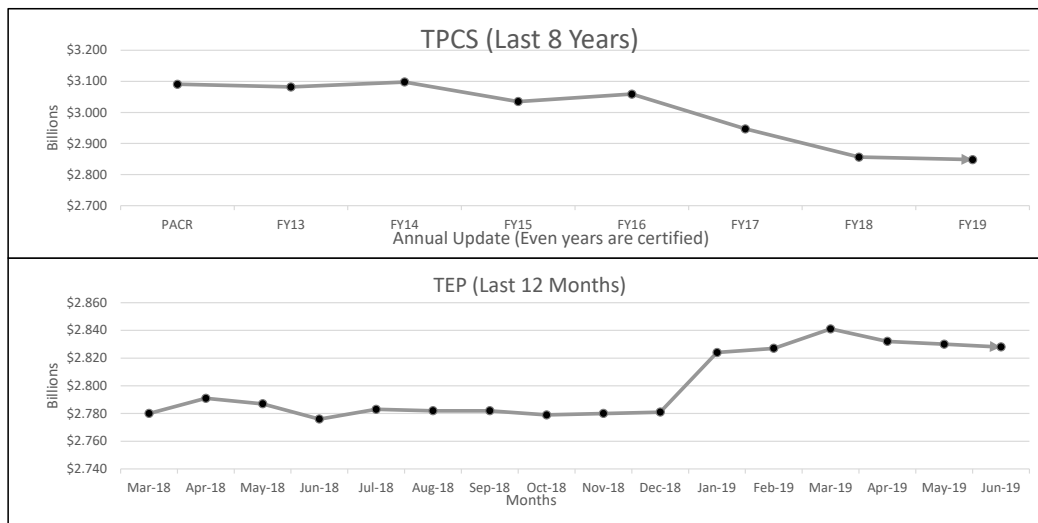
Major Activity Schedule

Activity	Baseline	Current
Spall Repair	30 Sep 2019	30 Oct 2019
Isolation Joint Bracing	28 Sep 2019	29 Oct 2019
Grouting	30 Sep 2019	30 Oct 2019
LBA/Fixed Weir	30 Aug 2019	25 Oct 2019
Wicket #32 Repair	30 Aug 2019	24 May 2019(A)
L&D 53 Phase I Demo	30 Nov 2019	30 Nov 2019



12 MONTH TEP & 8 YEAR TPCS COST TRENDS

9



OLMSTED SUMMARY AND CHALLENGES

10



- High river levels have impacted completion of several features of work on the dam and demolition at L&D 53. This risk was identified and has now been recognized.
- Funding of \$63M from within current contingency balance of \$317M will be required for completion of the above.

FY 2019	FY 2020	FY 2021	Total
\$3.0M	\$35.0M	\$25.0M	\$63.0M



QUESTIONS

11



Olmsted Locks and Dam August 2019

GSA SALE PROCEEDS of Contractor Acquired Equipment	
Entry #	DESCRIPTION
1	P55Y0184 300T Mobil Truck Crane
	Scissor lift and table to SAJ
2	Scissor lift and table to SAJ
3	1989 Ford Passenger Bus
4	Lot - Ingersoll_rand Diesel Generator
	Lot - Ingersoll_rand Diesel Generator
	Lot - Ingersoll_rand Diesel Generator
5	Lincoln Welder Model Invertec V-350 Pro
	2 Each 2015 Evinrude 250 HP Outboard Motors Model BR P E250ZAGA
6	Crane, 100 ton Terex RT1000
7	John Deere 744 Bucket Tilt Cylinder
	1984 45 Ft Flatbed Utility Trailer GWR: 90000
	Eight Four Superior Rubber D7 Truck Pads
8	2004 Chevrolet Silverado, White V6
9	1997 Barret Forklift, Stand up Electric 3,000lb capacity
	2004 Johnson Outboard Motor 25 HP
	Three Cisco Aironet 1300 Series Access Points
10	Four Manitowoc Ice Machines
11	B11, Tru-Itt Brace Length 25'6 to 40'0, 505 lbs, One Lot 400 braces
	B11, Tru-Itt Brace Length 25'6 to 40'0, 505 lbs, One Lot 405 braces
12	4 Cranes, Abell Howe, moterized pillar jib crane,
13	One Lot 22 Parker Hydraulic Cylinders
	One lot 12 Cunningham Hydraulic Cylinders
	1984 45 Ft Flatbed Utility Trailer GWR: 90000
14	One Lot of 2005 MTM Hot Water Pressure Washer and One 2009 Act Power Washer
	One Lot of 10 Cunningham Hydraulic Cylinders and 4 Peninsular Hydraulic Cylinders
15	1992 48 FT Fturfau Flatbed Trailer
	Two 2008 Star Electric Golf Carts
	One Allstate Tower 120 Ft. Catwalk
	One Allstate Tower 120 Ft Catwalk
	13 Rotating Office Chairs, 5 Guest Chairs, 6 Office Dividers, 1 Dry erase board, 2 Office Desk, 1 metal bookcase, 1 drafting table, 7 folding table.
	One Allstate Tower 120 Ft Catwalk
	2014 Kubota Diesel Generator
16	1lt Misc concrete vibraotor parts
17	One Lot of 14 Hydraulic cylinders
18	Catamaran Barge, 4500 Ton Vessel
19	Generac Disel Generator 50KY Model
20	Twin Disc Marine Transmission Modeg MD5222
21	2 Gar-Bro Concrete Hoppers, Projector Screen, 6 tf extensionstick for JD350
22	Misc Office furniture. 2006 Ingersoll Rand Air Compressor
23	Ingersol Rand Rotary Screw Air Compressor
24	Dorman Long Strand Jack System Major Componets
25	Dorman Long Strand Jack System Major Componets
26	Concord Pump/Mack Truck 60 Meter Concrete Boom
27	1 LT of Misc Waco Skyjack Scaffolding System

GSA SALE PROCEEDS of Contractor Acquired Equipment

Entry #	DESCRIPTION
28	Dorman Long Strand Jack System Major Componets
29	Misc Light Fixtures, Wells Cargo Trailer 8x16, outboard motor lower units
30	6 rolls of 2014 custom made ASP enterprised grout mats
31	Ingersol Rand Air Compressor, Misc office furniture
32	Misc Pandijiris rollers and idlers
33	Generator 2 Cylinder
34	hagglunds hydraulic motor
35	1 Lt 75 Ton Snatch blocks, 1 ea 2014 taylor power systems prower control module. 1 lt of 28 misc load moment indicator parts
36	1 Lt 10 K shoring system pieces
37	1LT of Misc throttel parts for link belt, 1lt mckissick 75 ton snatch blocks, 2 ea 2008 dellner brakes, 1 ea 2009 custom fabrication chain wheel plate anchor test frame
38	One Lot Hollow Structural Sections and Pipe steel
39	LRS purchase of 500T Lifting Beam with 4 Crosby shackle from Olmsted Contractor Acquired Property.
40	1 EA 2008 KLS Hydraulics Diesel HPU w /Remote Control
41	1 EA 2008 KLS Hydraulics Diesel HPU w /Remote Control
42	1 LT Hagglunds hyraulic industrial compact CB motor
43	1 Lot 2010 Putzmeister Pedestal concrete boom
44	1 Lt Misc Contur Scaffolding System Pieces, 1 LT 2 EA 2014 Load Cell units
45	1 EA 2007 Atlas Manufacturing Clamshell Bucket with 7 Cubic Yard Capacity
46	Multiple itms
47	1 Lot 976 used Aluma Beams
48	LRB Purchase of 18011 Mule Vehicle, Customer Order W81EU682299236
49	Removing Duplicate payment
50	1 Lt of 1179 used Aluma Beams
51	1 Lt Misc 25K Shoring Parts and Pieces
52	1 Lt Misc 25K Shoring Parts and Pieces
53	1 LT Misc symons formwork pieces
54	Dorman Long Strand Jack System Major Componets
55	1 Lt of 1008 used Aluma Beams
56	1 Lt of 2618 used Aluma Beams
57	1 Lt of 1001 used Aluma Beams
58	1 Lt Misc Hoses
59	2011 Ruud Self Contained 6 ton Heat Pump
60	1 Lt Misc 25K Shoring Parts and Pieces
61	1 Helac Power Tilt Knuckle, 1 ECOA Lift Table, 1 Lt 4 EA Utility Poles w/galv cross arms, 1 lot of Kubota Generators, 1 Atlas Manuf Clamshell Bucket
62	LRL Purchase of Mule for Cave Run
63	LRL Purchase of Mule for McAlpine
64	Misc items
65	LRC purchase of Mule
66	1 lt of 1 pair of 10 ft loader forks
67	Multiquip concrete mixer, steel beams, and other misc items
68	Graco Viscount II High Pressure Injection Pump Assemblies
69	2 Kawasaki mules, HP tonder cartridges, 25 Pieces Eaton B Line Channel Strut

GSA SALE PROCEEDS of Contractor Acquired Equipment

Entry #	DESCRIPTION
70	Jetstream Trailer Mounter PSA Water Blaster
71	Nord Moter Model
72	Multiple items
73	Multiple items
74	Multiple items
75	2005 Cooper Power Systems oil filled transformer
76	1IOT Symons Soldier Beams
77	1 each IHC S-150 Hydraulic Impact hammer
78	Lot of Mis corrugated steal culverts
79	Lot of 34 items
80	Los of 24 schedule 40 2 in diameter steel pipe
81	2012 Schwing Diesel concrete group pump
82	2008 Schwing diesel concrete gout pump
83	Lot of Steel pipe and plate with msc diamerts
84	Two 250 HP Cummins V8 Diesel engins and generators, Versabar 250 ton WLL type T2 turnbuckle and two 250 ton WLL master links
85	1 Lot of 300 misc pipe braces
86	1 lot of 2 2009 Nelson Electric Stud Welders
87	1 es 2014 Lincoln Electric Vantage 500 Welding Machine
88	Rebar spiraling station, Eaton Transformer, Emerson ASCO 30 Series
89	Rebar Shearing Station, other items
90	2009 Excel Bridge access gangway
91	Misc Items
92	1 lot Consisting of Two EX Docks
93	Misc CAP Items
94	Mench Hydraulic Underwater Impact hammer
95	Misc CAP Items
96	Misc CAP Items
97	Misc CAP Items
98	Misc CAP Items
99	Misc CAP Items
100	2015 JCB 12,000lb forlift model 512-56
101	Misc CAP Items
102	2014 Titan Office Trailer
103	Eight Anchors
104	SPANCO Model WD3M 15 ton gantry crane
105	1974 Manitowoc 350 ton lattice boom crawler crane; 1 lot of 8 2009 McMillan Design model Sea Catch Toggle Releases
106	Lot includes approx 220 filters of 20 CONEX
107	Lot of Bil-Jax Contur Ring Scaffolding System pieces
108	Lot of reinforcement bar of various sizes
109	Misc CAP Items
110	190153 Grove RT530 Crane to R3F
111	Misc CAP Items - email 4/23/2019
112	Misc CAP Items - email 4/23/2019
113	Misc CAP Items - email 4/23/2019

GSA SALE PROCEEDS of Contractor Acquired Equipment	
Entry #	DESCRIPTION
114	Misc CAP Items - email 4/23/2019
115	Misc CAP Items - email 4/23/2019
116	Misc CAP Items - email 4/30/19
117	Crane Parts, Machining ribbon - email 5/2/19
118	Misc CAP items - email 6/4/19
119	Misc Electrical CAP items - email 6/4/19
120	Misc CAP items - email 6/6/19
121	Float Assembly - email 6/13/2019
122	Misc CAP items - email 6/18/2019
123	Misc CAP items - email 6/20/2019
124	Outboard motors - email 7/5/19
125	190184 Hopper Barge ING 1602 to R3F
126	190186 Hopper Barge ING 1612 to R3F
127	190187 Hopper Barge ING 1623 to R3F
128	3 used transformers - email 8/16/2019
129	Misc CAP items - email 8/12/2019
130	Misc CAP items - email 8/12/2019
131	2009 Mack 2.5 cubic yard clamshell bucket model
132	1979 Ingram Barge Company Hopper Barge serial 602B
Total Sales Proceeds as of August 28, 2019 = \$5,996,942.88	

Olmsted Planned Disposal Actions

AssetID	Barcode	Equip #	FY19	FY20	AssetDescription	Manufacturer
			Q4	Q1		
15529	45750039	4575-0039	X		Hydraulic Power Unit	John Henry Foster
22	100027			X	Buildings, 100 Main Office	Ge
2087	1000376	1894-0008		X	Boat, Tow, Kalli C	Eymard Boatbuilders
2107	1000397	4135-0003		X	Crane, Crawler, 4100 (OLM-0034)	Manitowoc
14767	1001867	1891-0167		X	Barge, 120'x30'x7' Flat Deck	Washburn Marine
14772	1001868	1891-0163		X	Barge, 195'x35'x12' Flat Deck	Washburn Marine
14770	1001869	1891-0169		X	Barge, 120'x30'x7' Flat Deck	Washburn Marine
14768	1001871	1891-0166		X	Barge, 120'x30'x7' Flat Deck	Washburn Marine
14771	1001872	1891-0170		X	Barge, 120'x30'x7' Flat Deck	Washburn Marine
8081	18950005	1895-0005		X	Winch, Anchor Double Drum (20 barge)	Skagit
3468	3000158	4005-0006		X	Crane, Platform Ringer, 60ft	Manitowoc
3481	3000188	4015-0021		X	Manlift, 120' Telescoping Boom	JLG
3482	3000197	4135-0005		X	Crane, Crawler, 4100 (OLM-0020)	Manitowoc
3493	3000212	1891-0021		X	Barge, Deck, 250' X 72' X 16'	Garyville Ventures
3550	3000287	4135-0004		X	Crane, Crawler, 4600 S3	Manitowoc
3561	3000307	1119-0016		X	Truck, Fuel/lube Service Truck	Sterling
3793	3000580	3347-0008		X	Excavator, John Deere	John Deere
3878	3000693	4105-0015		X	Crane, Hyd 49 Ton Rough Terrain	New Link-belt
3961	3000801	4015-0024		X	Manlift, 80' Telescope Boom	Genie
3963	3000803	4015-0025		X	Manlift, 80' Telescope Boom	Genie
3972	3000814	1891-0034		X	Barge, 240' X 72' X 14'	J S Parson
3973	3000815	1894-0032		X	Boat, Tow, Genie Cenac	Cenac Towing Co. Inc
3985	3000828	4015-0026		X	Manlift, 120' Telescoping Boom	JLG
4076	3000924	1895-0003		X	Winch, Anchor Double Drum	Skagit
8082	3000925	1895-0004		X	Winch, Anchor Double Drum (20 barge)	Skagit
1154	300141	4015-0027		X	Manlift, 120' Telescoping Boom	JLG
1185	300172	4015-0028		X	Manlift, 120' Telescoping Boom	JLG
1222	300215	4105-0016		X	Crane, Hyd 49 Ton Rough Terrain	Grove
13856	3006669	4561-0007		X	Generator, Diesel Gen Set	Caterpillar
14302	3006979	1891-0153		X	Barge, Hopper 35' X 200'	Ingram Barge Co.
5133	4000132	4015-0017		X	Manlift, 80' Telescope Boom	Genie
5138	4000142	4974-0005		X	Hammer, Vibratory Pile Underwater	Ape
5142	4000146	1894-0034		X	Boat, Tow, Gordon Stevens	Caterpillar
5145	4000149	1891-0033		X	Barge, Excavator (aquadigger)	Todd Pacific Shipyar
5146	4000150	3361-0001		X	Aquadigger	Komatsu
5155	4000159	1894-0035		X	Boat, Survey 28' V-hull Aluminum	Emc Inc
5161	4000165	9800-0026		X	Grapple, 6 Yard, 2 Rope, 4 Tine	Atlas Mfg. Co. Inc.
5167	4000171	1895-0009		X	Winch, Double Drum, Hydraulic (ringer)	Timberland
5168	4000172	1895-0010		X	Winch, Double Drum, Hydraulic (ringer)	Timberland
5169	4000173	4575-0003		X	Hydraulic Power Unit, Diesel (Ringer)	Timberland
5170	4000174	1895-0011		X	Winch, Double Drum, Hydraulic (34 barge)	Timberland
5171	4000175	1895-0012		X	Winch, Double Drum, Hydraulic (34 barge)	Timberland
5172	4000176	4575-0004		X	Hydraulic Power Unit, Diesel (OLM-0034)	Timberland
5173	4000177	1891-0035		X	Barge, Deck, Ringer Crane	Horizon Ship Builders
5253	4000257	4015-0043		X	Manlift, 120' Telescoping Boom	JLG
5254	4000258	4015-0044		X	Manlift, 120' Telescoping Boom	JLG
5255	4000259	4015-0045		X	Manlift, 120' Telescoping Boom	JLG
5256	4000260	4015-0046		X	Manlift, 120' Telescoping Boom	JLG
5257	4000261	4015-0047		X	Manlift, 120' Telescoping Boom	JLG
5300	4000307	4015-0048		X	Manlift, 120' Telescoping Boom	JLG
5301	4000309	5082-0009		X	Pump, Submersible Dredge	Toyo
8993	4000611	4015-0049		X	Manlift, 120' Telescoping Boom	JLG

Olmsted Planned Disposal Actions

AssetID	Barcode	Equip #	FY19	FY20	AssetDescription	Manufacturer
			Q4	Q1		
14542	4001039	4135-0047		X	Crane, Crawler, 230 Ton	Terex
14555	4001054	5105-0012		X	Pump, Centrifugal Trailer Mounted	Conmaco
14621	4001125	4818-0074		X	Forklift, Telehandler	JCB
14622	4001129	4818-0075		X	Forklift, Telehandler	JCB
14626	4001135	4875-0021		X	Forklift, Telehandler	JCB
14785	4001272	1894-0046		X	Boat, Survey 26'	Armstrong Marine
14837	4001275	1894-0054		X	Boat, 36' Crew	Viking Welding & Fab
5503	5000121	4974-0004		X	Hammer, Vibratory Pile Underwater	Ape
5504	5000122	1895-0008		X	Winch, Spud Double Drum, Air Opera	Amcon Hoist
5530	5000149	4575-0008		X	Hydraulic Power Unit	Perkins diesel
13399		4747-0017		X	Winch, Hydraulic/electric (aquadigger barge)	Allied Power Products
13400		4747-0018		X	Winch, Hydraulic/electric (aquadigger barge)	Allied Power Products