



# Olmsted Locks & Dam

## Inland Waterways Users Board

**MR. DAVID DALE, PE, PMP, SES**

**DIRECTOR, Programs**

**Great Lakes & Ohio River Division**

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**US Army Corps of Engineers**

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# Agenda

- Status
  - ▶ Financials
  - ▶ Project Overview
  - ▶ Dam Re-Baseline Plan
  - ▶ 2014 LWS Milestone Update
  - ▶ 2014 LWS Images
  - ▶ 2015 LWS Milestone Identification
  - ▶ Scorecard
  - ▶ Deferred Demolition L&D Nos. 52/53
  - ▶ Future Challenges
  
- Discussion



# Olmsted Locks and Dam, Ohio River, IL & KY

Total Project Cost: \$3,098,573,000*	CG	IWTF	Total
FY13 Allocation:	\$71,856,000	\$71,856,000	\$143,712,000
FY14 Allocation:	\$124,106,000	\$41,606,000	\$165,712,000
FY15 Allocation:	\$174,250,000	\$30,750,000	\$205,000,000
FY16 Budget:	\$153,000,000	\$27,000,000	\$180,000,000

Remaining Balance:	\$900,048,000	\$158,832,000	\$1,058,880,000
Remaining Balance Change From Last Meeting			\$ 45,000,000

Note \*: Cost and Schedule data reflective of the latest Certified Cost Estimate (01 OCT 2013 price levels) completed in JUL 2014.

## Changes

- Adjustment to FY15 allocation; reprogramming of discretionary funds.

## Funding Overview

- Original Authorized Cost: \$775M
  - 902 Limit: TBD \*\*
- ARRA Funding (FY09-11): \$ 29.5M
- Engineering & Design Cost: \$157.4M
- Supervision & Admin Cost : \$131.5M
  - Mitigation: \$16.0M

\* 902 Limit will be based on latest Certified Cost Estimate

LWS – Low Water Season (contractually 15 Jun – 30 Nov)

NP – Navigable Pass

PB – Paving Block

RBA – Right Boat Abutment

## Next Steps

- Set 7 shells in 2015 LWS – NP 3-5 and PB 5-8
- Complete master and sheet pile through NP-9
  - Install Tainter Gate 2 in 2015 LWS

## Current Status of the Project

- NP-2 set 29 Jan 2015
- Precast yard work on shells NP 3-6 and PB 5-8
- Pile driving activities as river conditions allow
  - CG / IWTF (85/15) beginning FY15



# Olmsted Locks and Dam, Ohio River, IL & KY

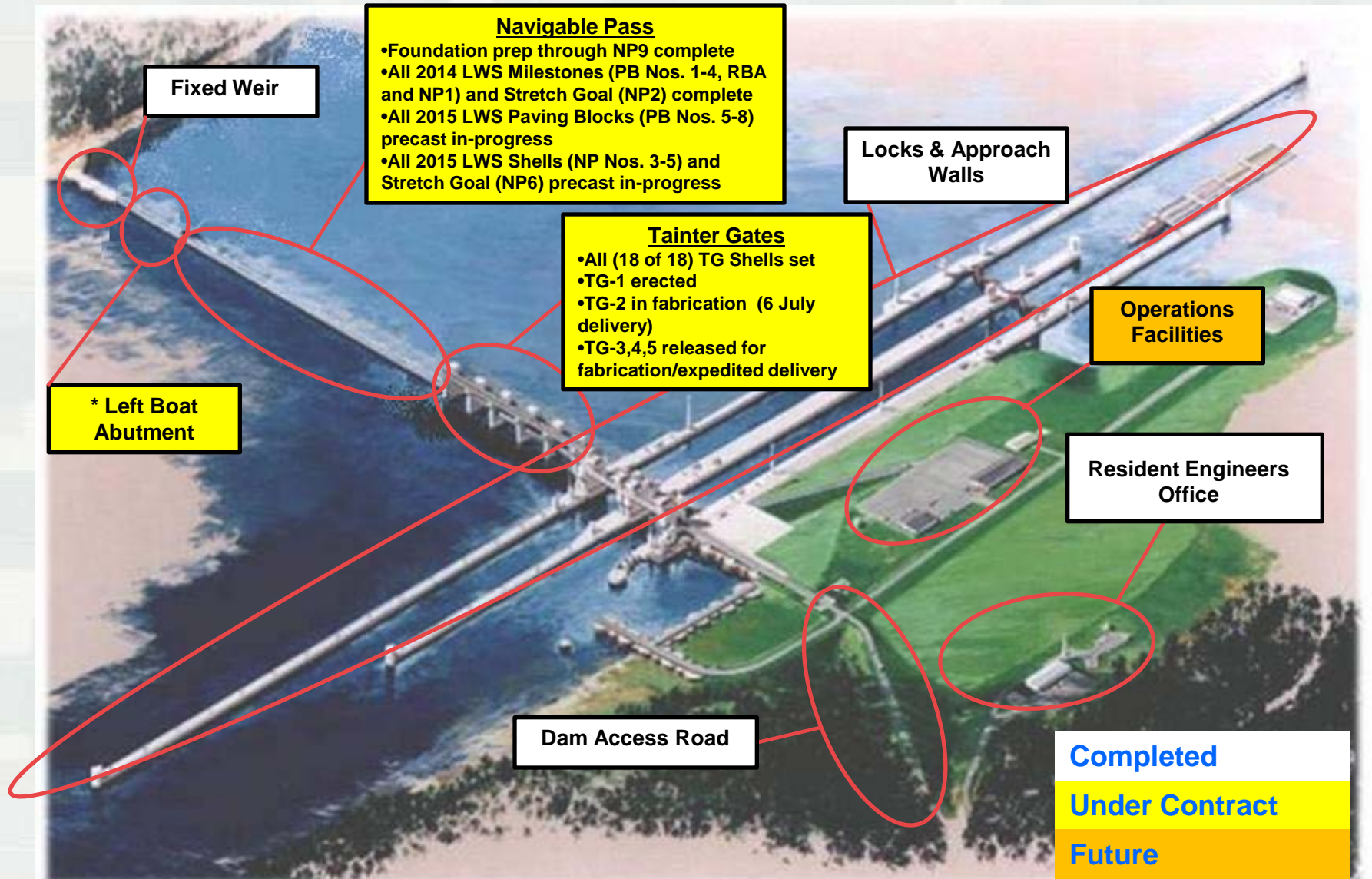
Schedule of Remaining Work	Design Initiated	Contract Award	Construction Complete	Project Benefits	Capitalized Cost Closeout
<b>Dam</b>	26-Aug-96	28-Jan-04	30-Jun-21	1-Jul-21	30-Dec-21
<b>Wicket Lifter</b>	1-Jan-15	9-Feb-16	13-Feb-18	14-Feb-18	30-Jun-18
<b>Building &amp; Grounds</b>	1-Oct-18	18-Jun-19	30-Apr-21	1-May-21	30-Sep-21
<b>Demolition L&amp;D 52</b>	1-Apr-19	18-Oct-21	16-Feb-24	N.A.	30-Jun-24
<b>Demolition L&amp;D 53</b>	1-Apr-19	1-Dec-21	1-Oct-23	N.A.	1-Jan-24
<b>River Dikes</b>	1-Oct-20	6-Jun-22	7-Jun-24	30-Jun-24	30-Sep-24

**NOTE:** Green highlighted dates are actual dates.

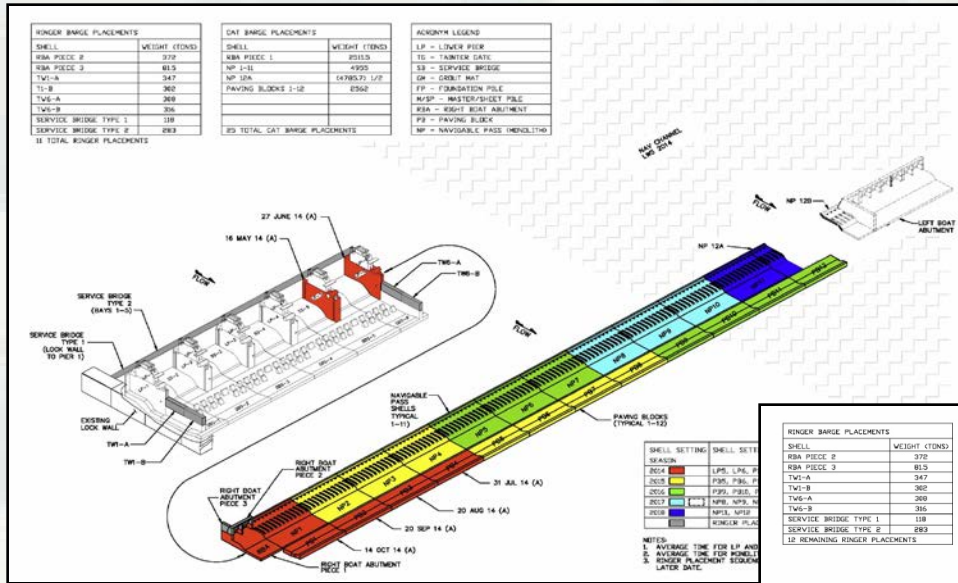




# Olmsted Project Overview

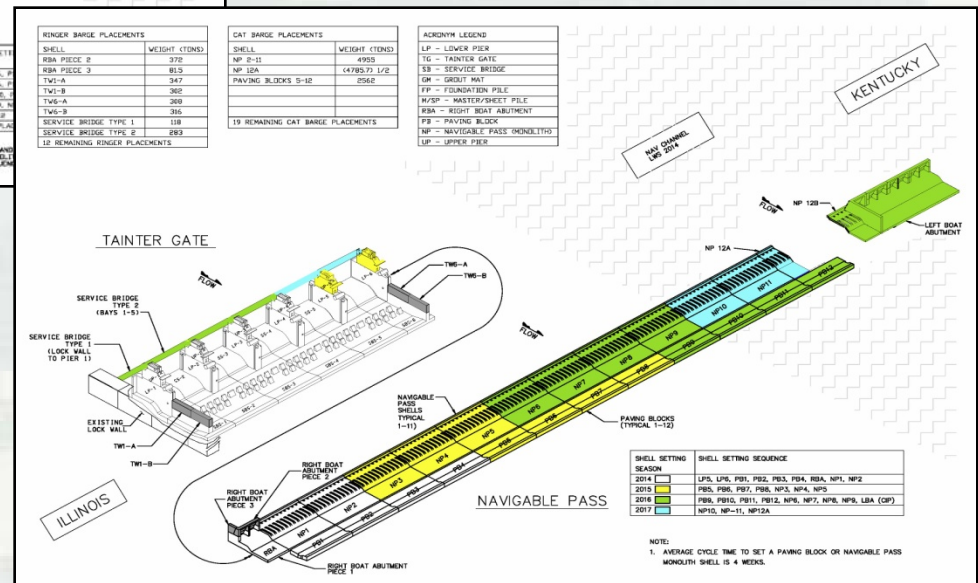


# Olmsted Dam – Plan



2014  
Plan to Complete  
Final two Shells  
scheduled set in  
LWS 2018

2015  
Plan to Complete  
Final **three** Shells  
scheduled set in  
**LWS 2017**



\* Nine shells set in LWS 2014 including two shells set outside historical LWS limits (15 Jun – 30 Nov)



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# 2014 LWS Milestones

- Scheduled Milestones

- Set LP-5 (complete)
- Set LP-6 (complete)
- Set PB # 1-4 (of 12) (complete)
- Erect TG #1 (complete)
- Set RBA (complete)
- Set NP #1 (of 12) (complete)

- Preparatory Milestones

- Install Grout Mat (complete thru NP #9)
- Drive Foundation Pile (complete thru NP #2)
- Drive M/S Pile (complete thru NP #2 U/S, NP #6 D/S)

- Stretch Goal Milestone

- **Set NP #2 (of 12) (complete)**

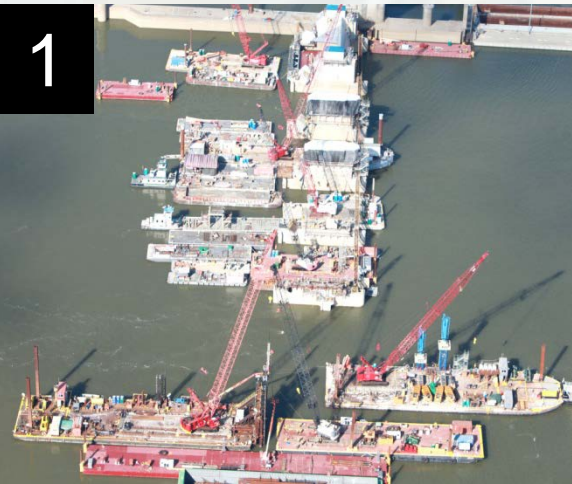
## Legend

LP – Lower Pier  
TG – Tainter Gate  
SB – Service Bridge  
GM – Grout Mat  
FP – Foundation Pile  
M/S – Master/Sheet  
RBA – Right Boat Abutment  
LBA – Left Boat Abutment  
PB – Paving Block  
NP – Nav Pass Shell (Monolith)





# 2014 LWS Images



1. Upper Pier Build-out (Nos. 1-6) 2. Dredging Boat Harbor 3. Deploying Diver  
4. TG-1 resting on dogging beams 5. NP-2 moving down skidway 6. NP-2 Tremie Placement





# 2015 LWS Milestones

- Scheduled Milestones

- Set NP #3-5 (of 12)
- Set PB # 5-8 (of 12)
- Erect TG #2 (of 5)

- Preparatory Milestones

- Install Grout Mat (thru NP #12/LBA)
- Drive Foundation Pile (thru NP #6)
- Drive M/S Pile (thru NP #6 U/S, NP #8 D/S)

- Stretch Goal Milestone

- Set NP #6 (of 12)
- **Drive Left Boat Abutment (LBA) Foundation Piling**

**Legend**

LP – Lower Pier  
TG – Tainter Gate  
SB – Service Bridge  
GM – Grout Mat  
FP – Foundation Pile  
M/S – Master/Sheet  
RBA – Right Boat Abutment  
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# Olmsted Project

## Time and Cost Scorecard – Dec 2014

### Expenditures

Planned (BCWS) 877B  
 Earned (BCWP) \$1.876B  
 Actual (ACWP) \$1.863B

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

### Schedule

Project Complete (PACR)/(Current) Sep 2024/Mar 2022  
 Dam Operational Sep 2020/Oct 2018

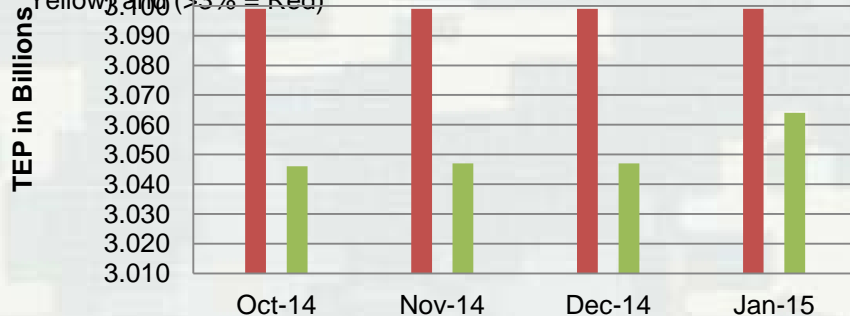
**Measures:** Planned project completion and Dam contract operational dates

**Target:**

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

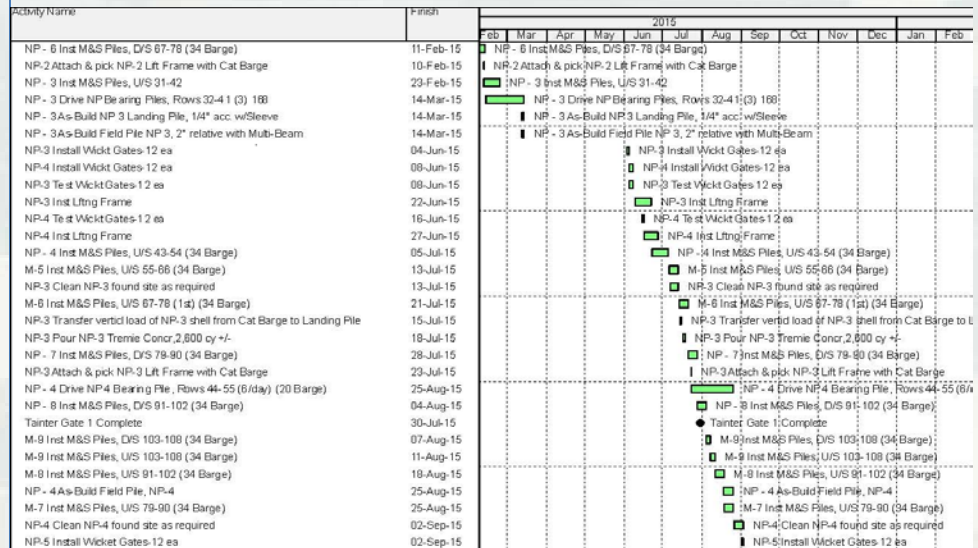
### Target: Olmsted Project TEP Trend

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



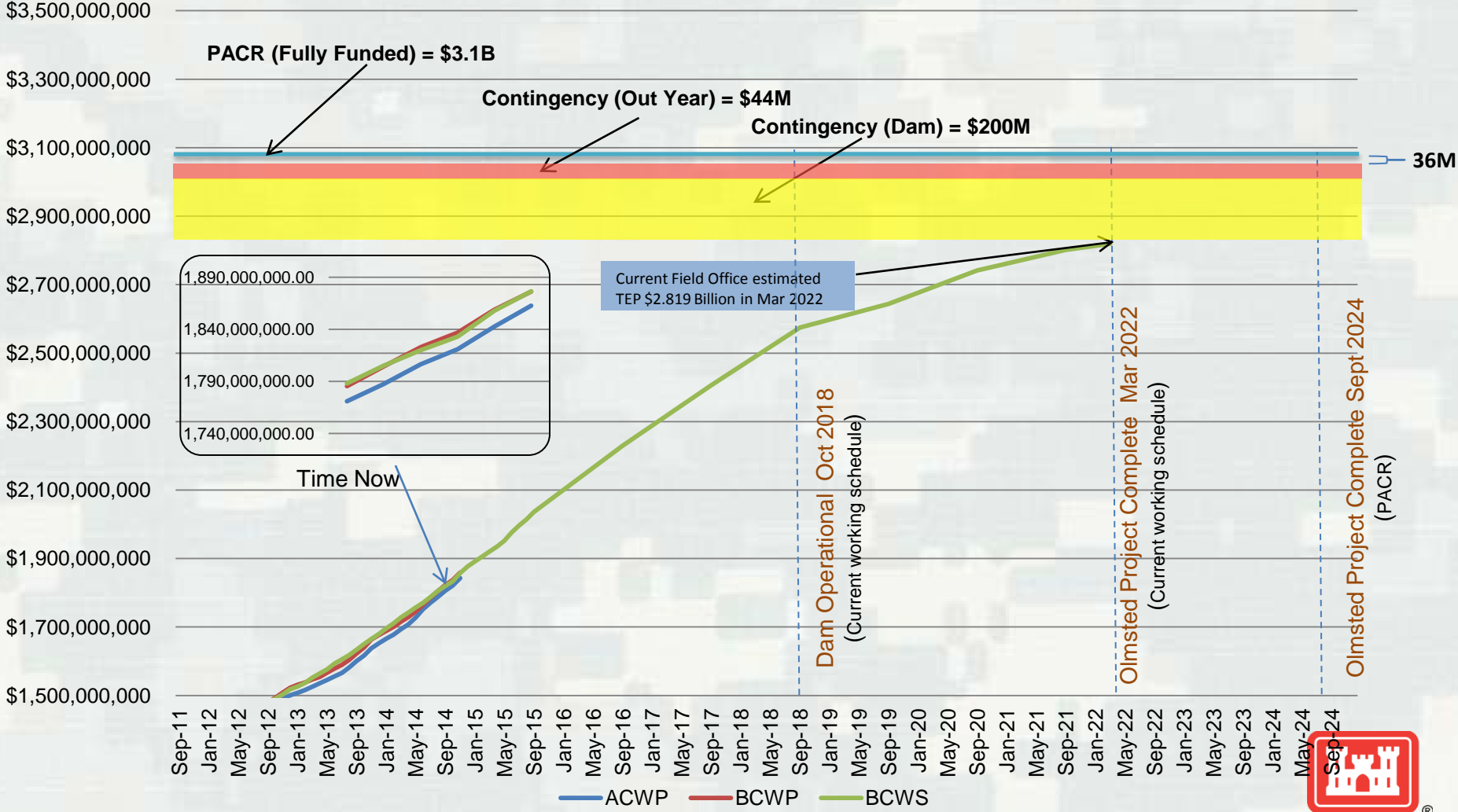
	Oct-14	Nov-14	Dec-14	Jan-15
■ PACR w/risk	3.099	3.099	3.099	3.099
■ Est. w/risk	3.046	3.047	3.047	3.064

### Olmsted Major Activity Schedule



# Olmsted L&D Project Earned Value Analysis (Based on DOD Gold Card)

Dec 2014





# L&Ds 52/53 Demolition Assessment

- Marine Demolition majority of demolition costs.
  - L&D 52 - \$67.5M; L&D 53 - \$47.7M
- US Coast Guard and Navigation Industry input – Jan 2015
  - Prefer majority of dam removed at each site
  - Remove Lock 53 in Olmsted approach
  - Lock 52 removal to be determined
- Maintains Safety of industry and recreational traffic
- Environmental impacts documented in original NEPA



# Future Challenges

- Efficient Funding Stream
  - Minimum of \$150M/year through 2020
  - Less than \$150M would have direct impact on the schedule
  - Capability Funding Level of **\$205M (FY15)**
- Passing Traffic as Work continues into the Navigable Pass Footprint

Default plan will be to continue providing a navigable channel past the project's construction footprint in 2015. Commercial traffic will be routed through locks by exception to address extreme low water elevation and short duration critical shell set down activities.



# Discussion



Olmsted Locks and Dam  
Wicket Lifter Barge



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