



California High-Speed Rail: Operations Report

FY14-15, FY15-16, FY16-17 and Program Metrics

November 2016

Agenda

▶ Operations Report Metrics

- Executive Summary
- Right-of-Way (ROW)
- Project Development
- Third Party Agreements
- Contract Management
- Finance/Budget
- ARRA Schedule
- Risk

Executive Summary

ROW Acquisition

- ▶ The current report presents ROW acquisition progress relative to CPI thru CP4 through September 30, 2016. As of that date, the Authority has secured legal possession of 878 parcels, with 817 delivered to the design-builder (DB). There were 9 parcels delivered in CPIABC, 6 parcels delivered in CPID, 16 parcels delivered in CP2-3 and 3 parcels delivered in CP4 for a total delivery of 34 parcels during the month of September.
- ▶ The Authority continues to focus on delivery of key priority construction parcels through utilization of the Settlement Teams and partnering with the DB. Multiple locations have started construction and additional locations will start during the remainder of 2016. Partnering efforts continue to identify key parcels needed for meaningful construction.
- ▶ The CP2-3 ROW Acquisition plan is in the process of being rebaselined with the DB. The Authority has submitted a proposed rebaselining schedule for CP2-3 parcels and are awaiting a response from the DB. Once agreed, the rebaseline will set new delivery dates for new or modified parcel acquisition limits per the provisions of the contract.
- ▶ The Authority is working with TPZP to rebaseline the delivery schedule for the remaining parcels in CPI. The agreed upon dates will drive the construction schedule to provide substantial completion by June 2019, which aligns with the time extension granted.
- ▶ The CP4 rebaselining effort per the requirements of the contract is underway. ATC approved design changes are triggering adjustments to the appraisal mapping for a large percentage of parcels. Delivery dates for the affected parcels will be established when the appraisal mapping is complete.

Executive Summary

Project Development

Completed environmental re-examinations for electrical interconnection Sites 8 through 12 between Merced and Bakersfield, which enables PG&E to make electrical upgrades necessary for the test track. This approach saved over a year in the published schedule.

- ▶ Prepared for and participated in FRA quarterly review on September 26.
- ▶ Following the successful partner agency meeting on October 1, 2015, the Authority and FRA hosted a meeting between State and Federal agencies on September 27, 2016.
- ▶ Worked with right-of-way group on use of SharePoint for accelerating the permission-to-enter (PTE) approval process.
- ▶ Preparing administrative draft EIR/EIS for the Central Valley Wye (M-F) and for the Locally Generated Alternative (F-B).
- ▶ Continuing work by the San Francisco to San Jose, San Jose to Merced, Burbank to Los Angeles, and Los Angeles to Anaheim regional teams to complete project definition necessary for the EIR/EISs.
- ▶ Continuing work among the Authority, FRA, US Fish and Wildlife Service, CA Department of Fish and Wildlife, and resource agencies on a statewide regional conservation approach to meet future permitting requirements.
- ▶ Confirming the project footprints and preparing technical reports needed for the EIR/EISs for Bakersfield to Palmdale, Palmdale to Burbank, Burbank to Los Angeles, and Los Angeles to Anaheim project sections.
- ▶ Updating the impact avoidance and minimization features and standardized mitigation measures for program-wide use after meeting with project construction managers to incorporate additional feedback.

Executive Summary

Third Party Agreement Execution

- ▶ The current report presents Third Party Agreement execution progress relative to CPI, CP2-3, and CP4 and agreement execution progress relative to Central Valley (Non-CP), North and South through September 30, 2016.
- ▶ The plan for agreement execution within the CPs is based on the respective design-build contractor schedules and is updated monthly to reflect changes in the respective contractors schedule. In some instances a Third Party Agreement is not clearly defined in the schedule; therefore, other schedule information is used to determine agreement need by dates. The forecast for agreement execution is based on short-term historical trends for agreement process durations.
- ▶ All Master/Cooperative Agreements for CPI-4 are executed.
- ▶ For Railroads, the only agreements necessary that are pending are BNSF Relocation and Construction agreements for CPI, CP2-3, and CP4 which need 100% DB design to execute.

Executive Summary

Contract Management

- ▶ **CPI** - Construction activities continue to increase. TPZP continues to progress construction at multiple locations throughout the project. The following provides a summary of the major structure activities by location: Fresno River Viaduct - continued temporary formwork and structural concrete construction for the bridge superstructure; Cottonwood Creek – continued temporary formwork and for the bridge superstructure, completed bridge columns and placed precast girders; Fresno Trench - continued foundation work; State Route 180 – continued installation of temporary shoring; Tuolumne Street Overcrossing – continued structural concrete placement for bridge superstructure; Downtown Fresno Viaduct (North Avenue & SR-99) – continued constructing bridge columns and foundations, continuing to mobilize materials for formwork for the bridge superstructure; and San Joaquin River Viaduct (SR-99 On-Ramp) – continued with foundation work. The Authority and TPZP continue to jointly plan to maximize construction work at critical and near critical path structure locations in the coming months.
- ▶ **CP2-3** - The Joint Venture of Dragados/Flatiron continues to mobilize and plan the work, including developing and submitting various design and construction plans, meeting with third parties to understand their design requirements, and beginning building demolition activities. Field work continues with geotechnical exploration, utility location activities, and installation of delineators to identify the environmental footprint. Tulare County Resurfacing submittal approved-road improvements to begin mid-October. Other early start activities are being planned for, including clearing & grubbing and embankment construction in the north area of the project.
- ▶ **CP4** – The Authority awarded this contract to California Rail Builders (CRB) on February 29, 2016 and issued a Notice to Proceed on April 15, 2016. CRB has continued mobilization and preliminary design activities, including planning for environmental re-examinations, updating the risk register, utility identification work, meeting with third parties and early development of the Right-of-Way acquisition plan.
- ▶ **SR-99 Realignment** – The CMGC Contract between Caltrans issued the Notice to Proceed for the Main Package on August 8, 2016 with Granite Construction Company. Construction work continues on the Early Work Package, this includes retaining walls, grading and paving at various locations such as Ashlan Avenue off-ramp and State Route 99 (SR-99) mainline.

Executive Summary

Finance

- ▶ Capital outlay expenditures were \$108.0M for September-2016 as reported in the Capital Outlay report for November-2016, compared to \$51.4M for November-2015.
- ▶ Delays in Right-of-Way impacted construction schedules. Mitigation measures are in place to prioritize critical parcels required for major construction work. An analysis has been performed to verify that ARRA Federal Funds will not be at-risk even by using the Alternative Forecast.
- ▶ On the slides for ARRA expenditure by month (pages 89-91), orange trend lines have been added as of the November-2016 report to reflect ARRA spending for actuals and accruals. Through October 26, 2016, total ARRA actuals and accruals are \$1,990M.
- ▶ Total ARRA expenditures are \$2.007B or 78.6% of the \$2.553B grant as of November 1, 2016 including FRA paid, approved, and pending invoices plus invoices pending submittal to FRA, invoices received by HSRA, and Work-in-Progress.

Agenda

- ▶ Operations Report Metrics
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 - Risk

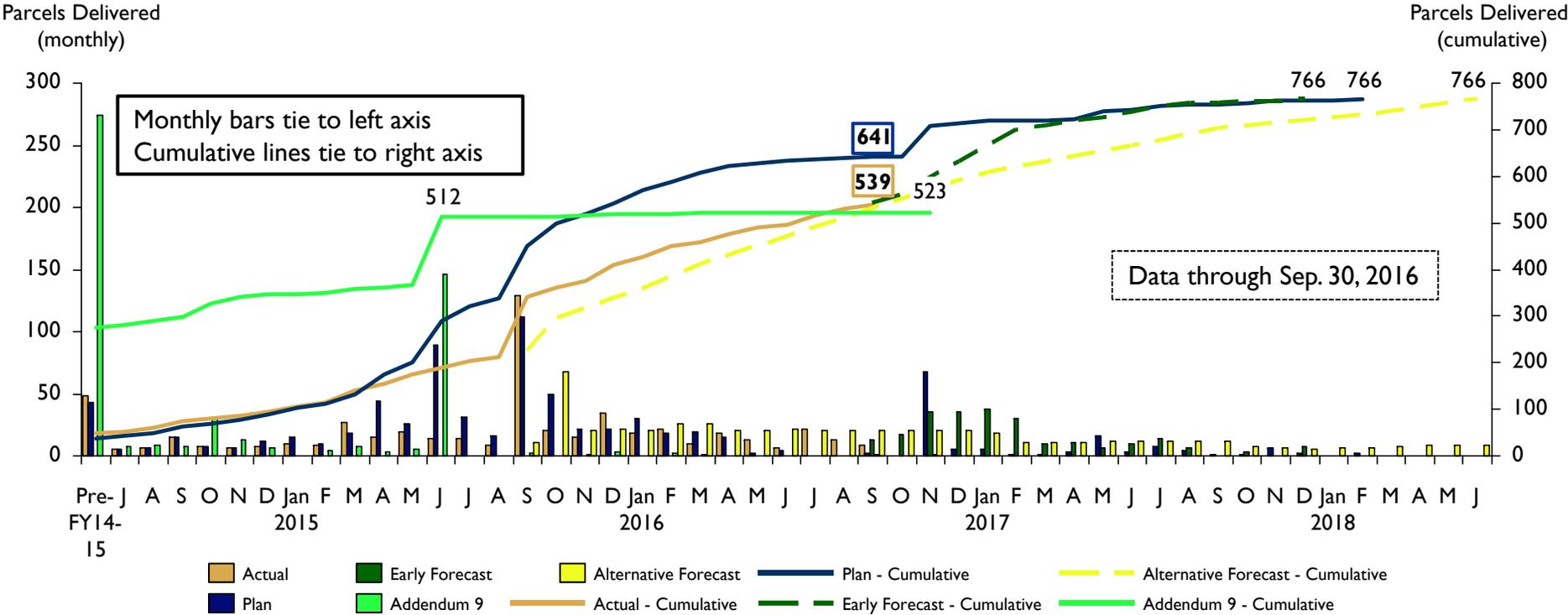
ROW Metrics - Context

- ▶ The following slides track parcels delivered to **design-builder (DB)**, which is the last step of the ROW process
 - Four metrics related to “delivered to DB” are tracked:
 - Plan: For CPI, the negotiated schedule of parcel delivery as of December 2014 plus additional public parcels and design changes; for CP2-3, planned delivery is currently a placeholder and will be rebaselined once the design builder completes the revised appraisal mapping for the proposed changes.
 - Actual: Actual parcels delivered each month.
 - Early Forecast: Refined every month based on future expected delivery.
 - Alternative Forecast: Forecast that anticipates additional delays for elements outside the control of the Authority and reflects rates more in line with historic delivery. Forecast is locked as of September 2015, except when new parcels are added due to design changes.
- ▶ Forecasts are based on inputs from the ROW Consultants and the Authority
- ▶ The total number of parcels needed for delivery has changed over time for two main reasons:
 - The number of public property parcels were based upon 15% designs; as the ROW Transfer Agreements were completed with the local agencies, the number of parcels has been refined.
 - As the DB refines the design, the ROW needs may also be changed. The number of parcels to be acquired can fluctuate up or down. In some cases, additional ROW may be required from previously completed acquisitions.
- ▶ For ROW expenditure analysis, this report presents:
 - Actual expenditures: reported each month.
 - Forecast: adjusted quarterly based on the Funding Contribution Plan.

ROW – CP1ABC Parcels Delivered to DB by Month

Plan vs. Actual vs. Forecast

CPIABC - Delivered to DB (number of parcels)



Notes:

1. "Plan": Negotiated schedule as of December 2014 plus public parcels, design changes and new parcels. Addition of new parcels extend full Plan delivery to later date.
2. "Early Forecast" and "Alternative Forecast": Early forecast is continually refined based on expected delivery schedule. The Alternative Forecast reflects potential delays.
3. CPIABC total parcels continually updated as design changes are approved.
4. "Addendum 9" refers to original contract schedule. The "Plan" superseded Addendum 9, thus it has not been updated to reflect the additional public parcels
5. Does not include CPID (North Extension) parcels.

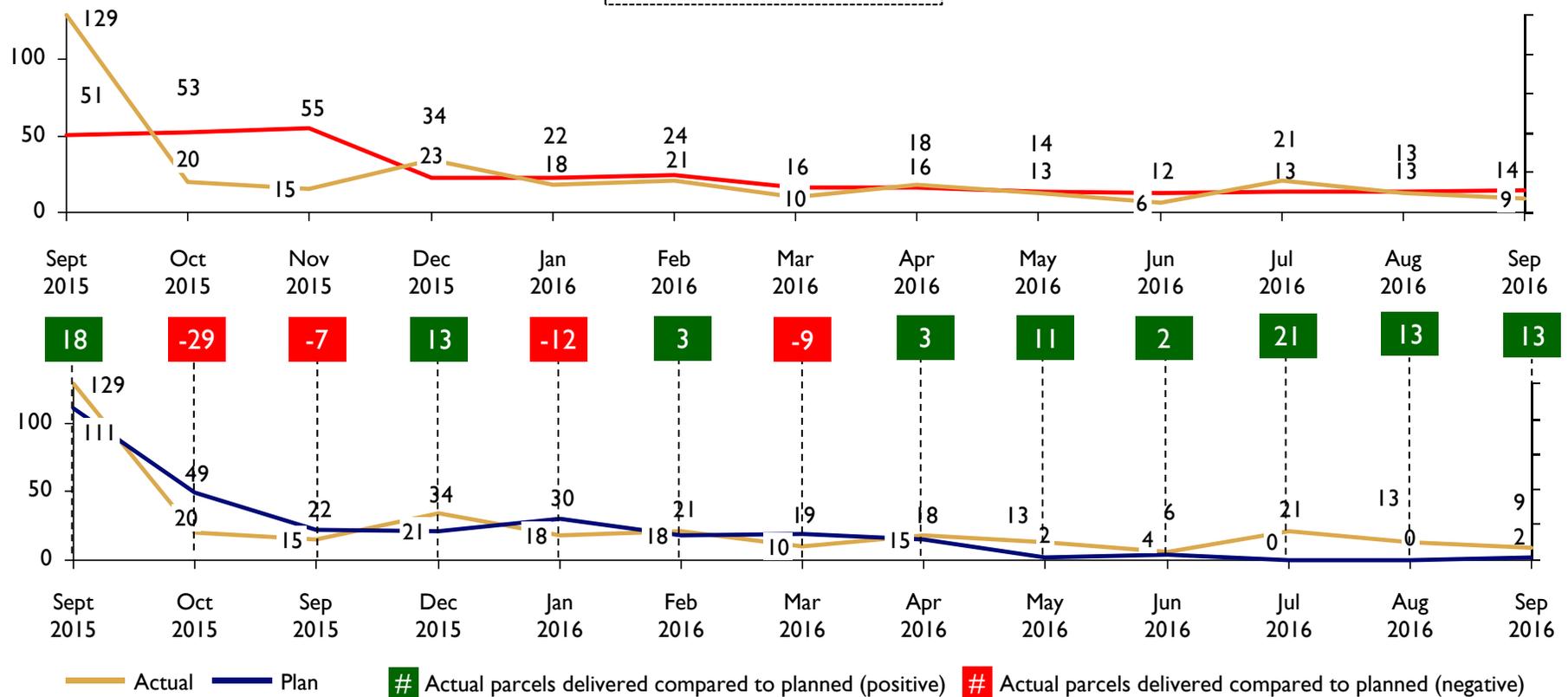
Source: October 7, 2016 ROW Weekly Report

ROW – CP1ABC Historic Performance

CPIABC Performance (in number of parcels)

— 3-Month Rolling Avg (3-month average)
— Actual

Data through Sep. 30, 2016



Notes:

1. "Plan": Negotiated schedule as of December 2014
2. Design changes and lag in data entry can cause slight changes to plan and actual counts

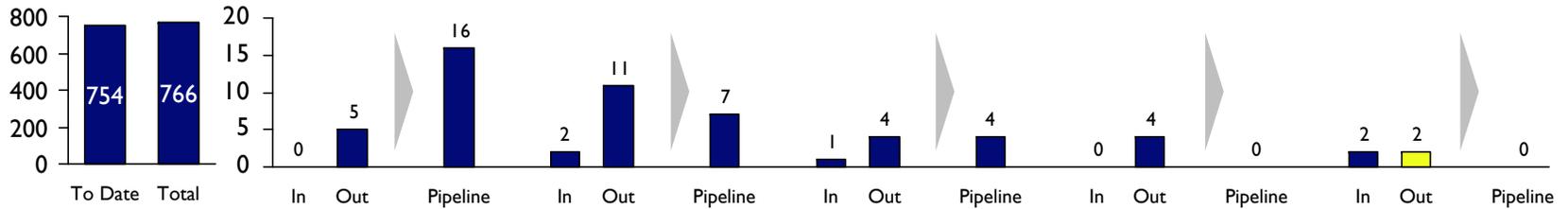
Source: October 7, 2016 ROW Weekly Report

ROW – CP1ABC Pipeline by Process (1 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

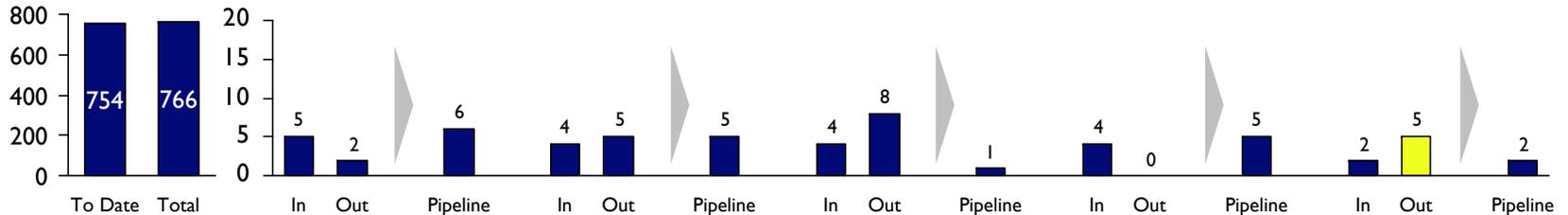
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Appraisal



- Parcels in pipeline are a function of pending design refinement submittals, reviews and approvals

Just Compensation



- Parcels in pipeline pending DGS setting Just Compensation

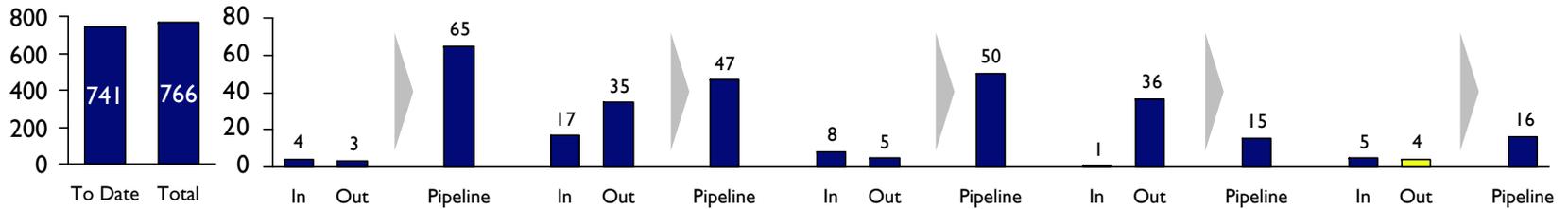
Source: October 7, 2016 ROW Weekly Report

ROW – CP1ABC Pipeline by Process (2 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

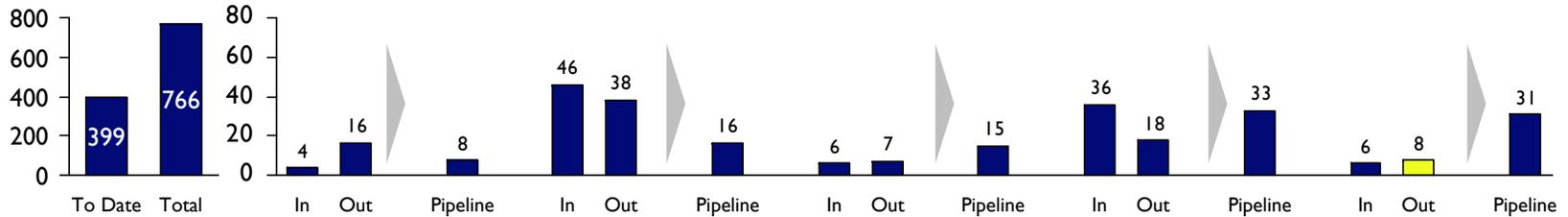
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

First Written Offer



- Pipeline consists of railroad parcels and non-railroad parcels

Negotiation Acquisition



- Pipeline consists of signed agreements being processed through escrow, pending offers at property owners' decision to sign or enter condemnation and pending revised First Written Offer (FWO).

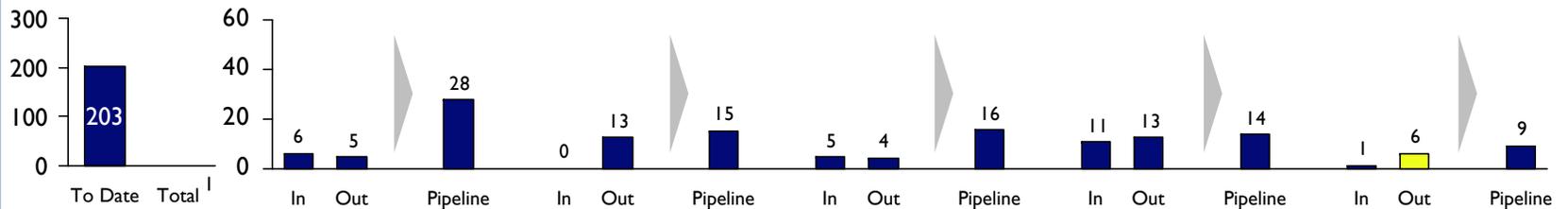
Source: October 7, 2016 ROW Weekly Report

ROW – CP1ABC Pipeline by Process (3 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

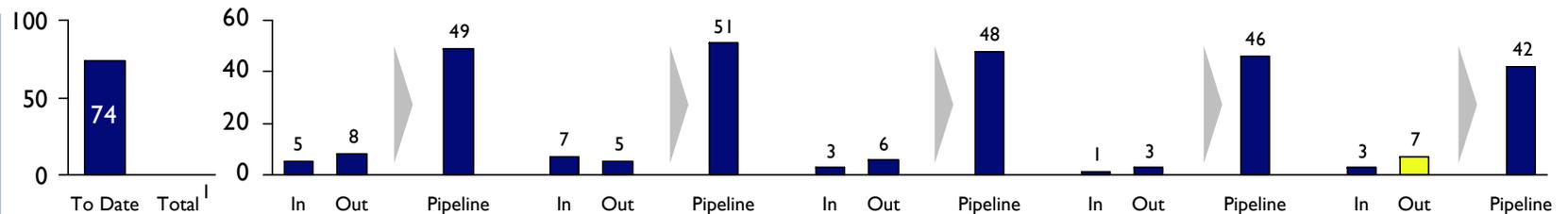


Condemnation



- Pipeline comprised of Resolution of Necessities (RONs) being processed by the Authority and ROW consultants and awaiting adoption by the Public Works Board (PWB). Also includes parcels being prepared by the Authority to transfer to Caltrans Legal.

Eminent Domain



- Pipeline illustrates total number of parcels in the Eminent Domain process with Caltrans legal and have lawsuits filed. An Ordered of Possession (OP) is the next step if a settlement is not reached.

(1) Total parcels that may take the condemnation route is unknown

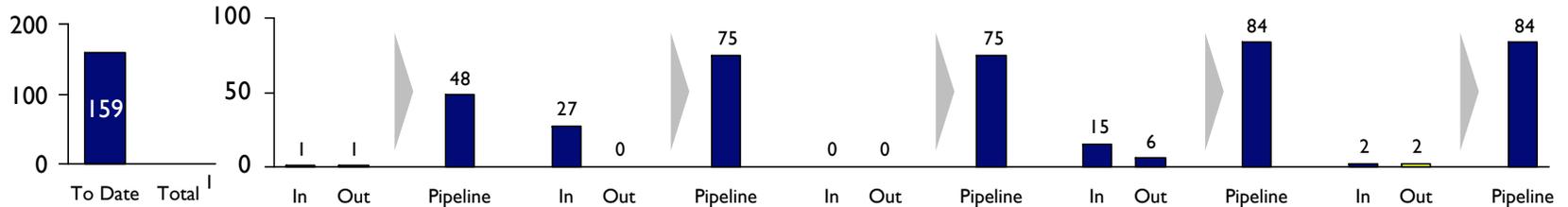
Source: October 7, 2016 ROW Weekly Report

ROW – CP1ABC Pipeline by Process (4 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

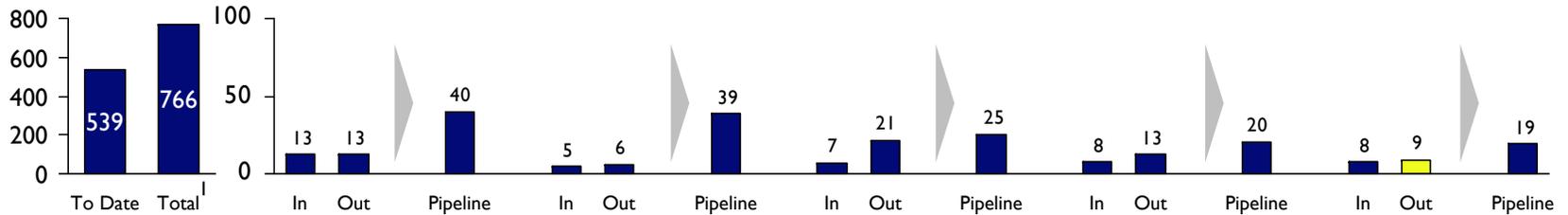


Public Agency / Railroad



- Comprised of railroad parcels and public parcels. Public parcels are being processed with Master Agreements before proceeding to individual utility relocations and acquisitions. Most railroad parcels are dependent on the DB completing designs so the railroad issues a construction and maintenance agreement.

Delivery



- Pipeline consists of parcels requiring relocation and parcels available to be transferred to DB.

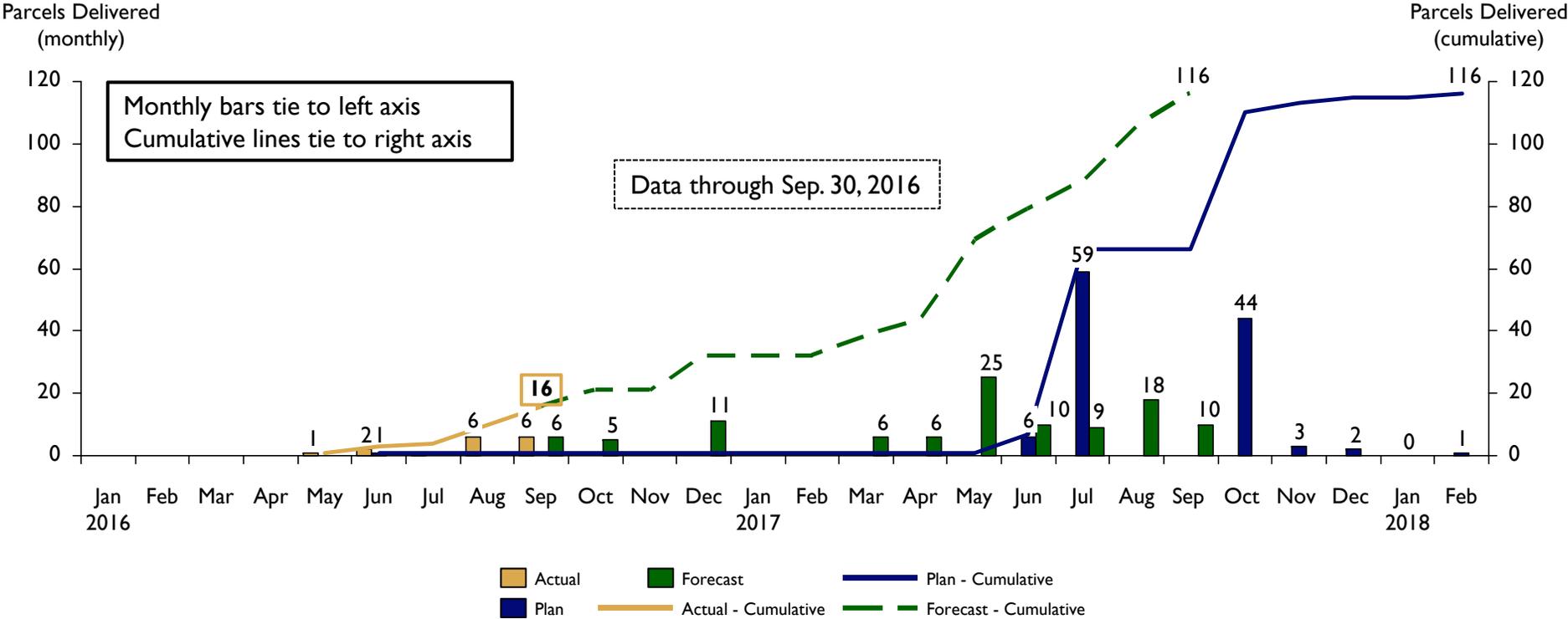
(1) Total number of public parcels to be identified

Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Parcels Delivered to Design-Build by Month

Plan vs. Actual vs. Forecast

CPID - Delivered to DB (in number of parcels)



Notes:

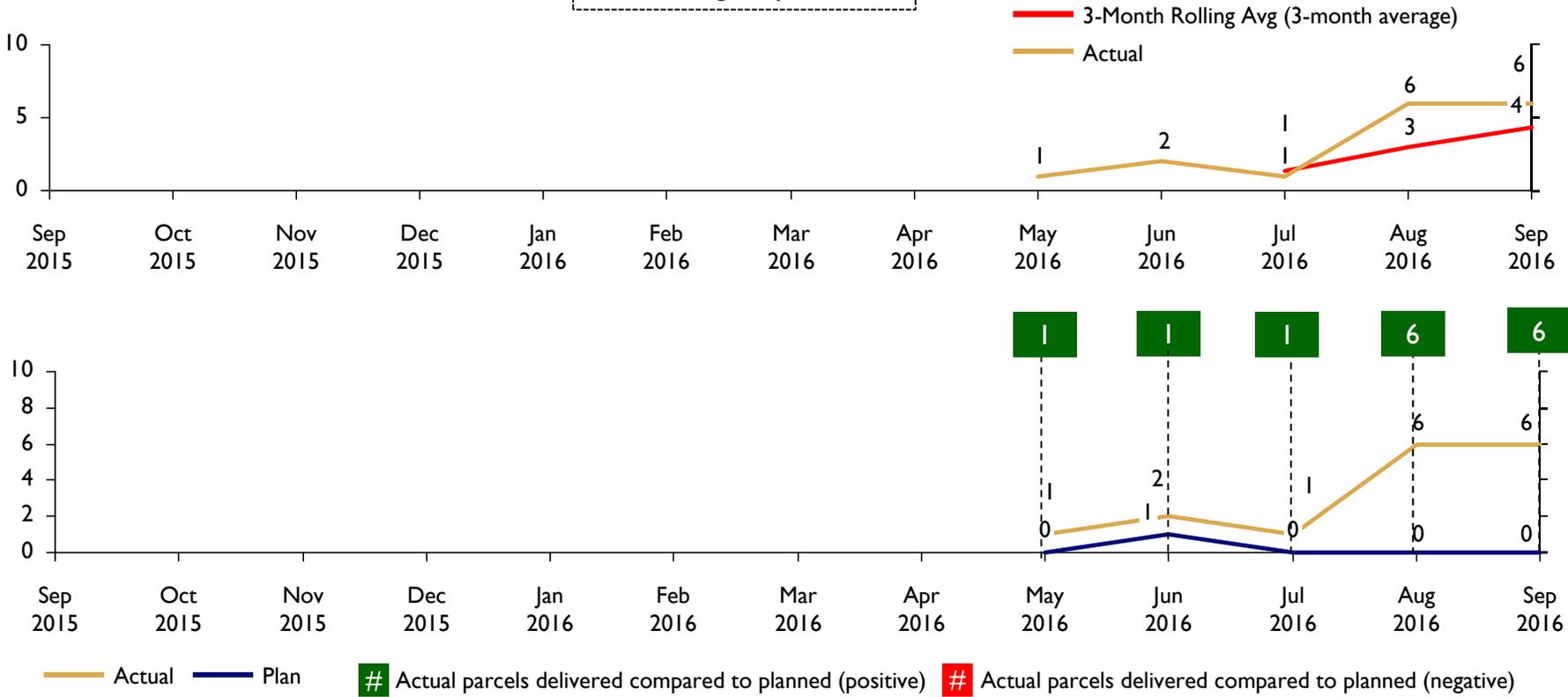
- 1. The "Plan" numbers have been developed as a placeholder until acquisition plan with DB is finalized.
- 2. "Forecast": Continually refined based on expected delivery.
- 3. Total number of parcels will be updated as design changes are approved.

Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Historic Performance

CPID Performance (in number of parcels)

Data through Sep. 30, 2016



Notes:

1. Per contract, "planned" to be rebaselined.
2. Contract executed in June 2015; 31 parcels delivered after contract execution
3. Design changes and lag in data entry can cause slight changes to plan and actual counts.

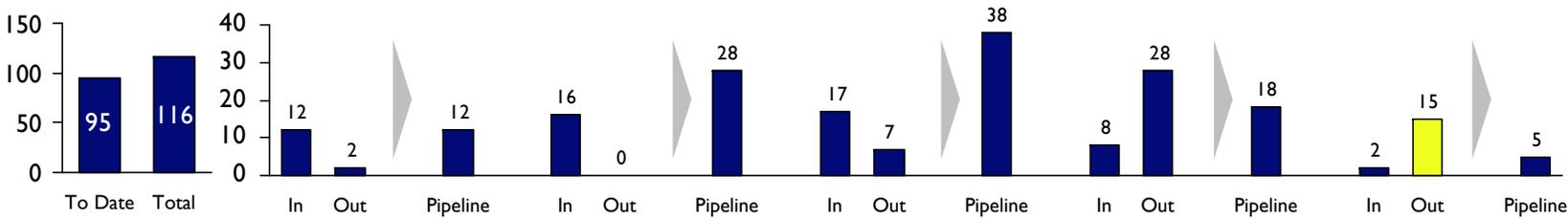
Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Pipeline by Process (1 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

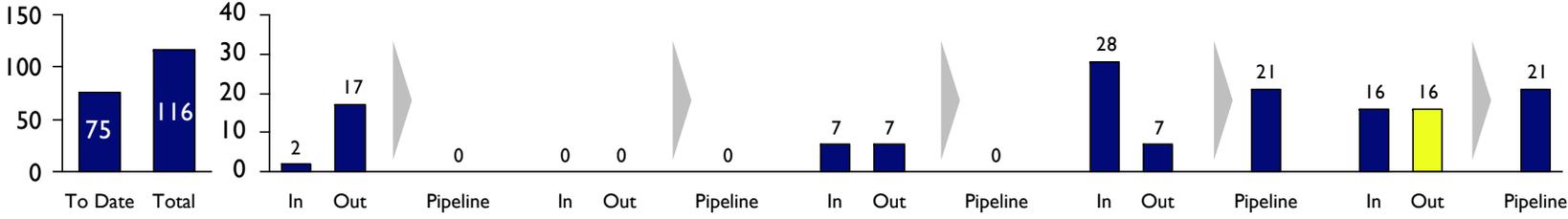
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Appraisal



- Parcels in pipeline a function of pending design refinement submittals, reviews and approvals.

Just Compensation



- Parcels in pipeline pending DGS setting Just Compensation

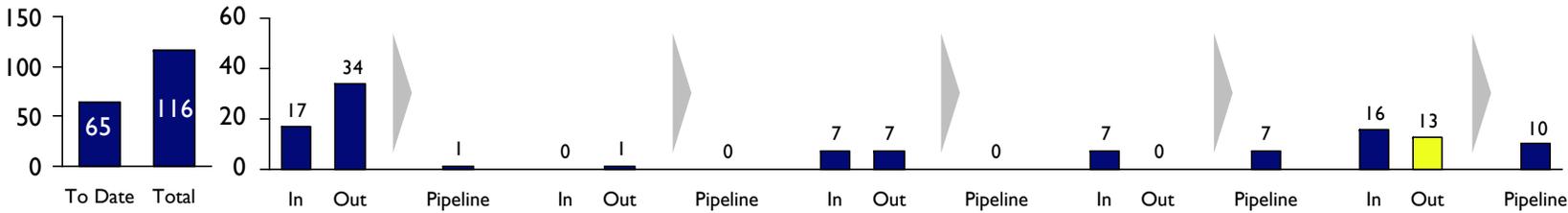
Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Pipeline by Process (2 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

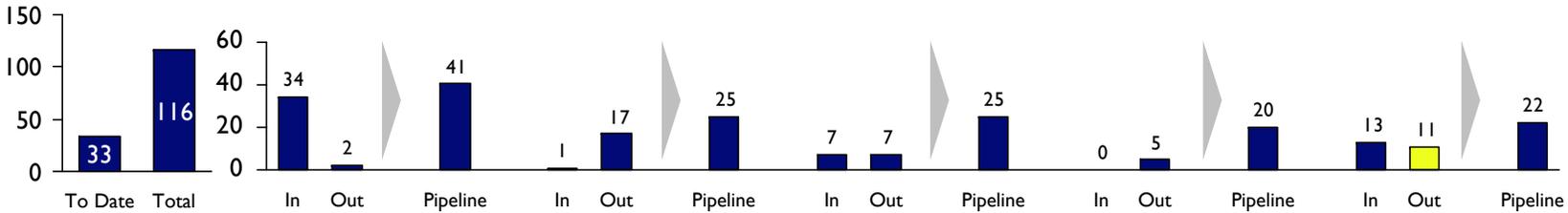
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First Written Offer



- Pipeline consists of railroad parcels and non-railroad parcels

Negotiation Acquisition



- Pipeline consists of signed agreements being processed through escrow, pending offers at property owners' decision to sign or enter condemnation and pending revised First Written Offer (FWO)

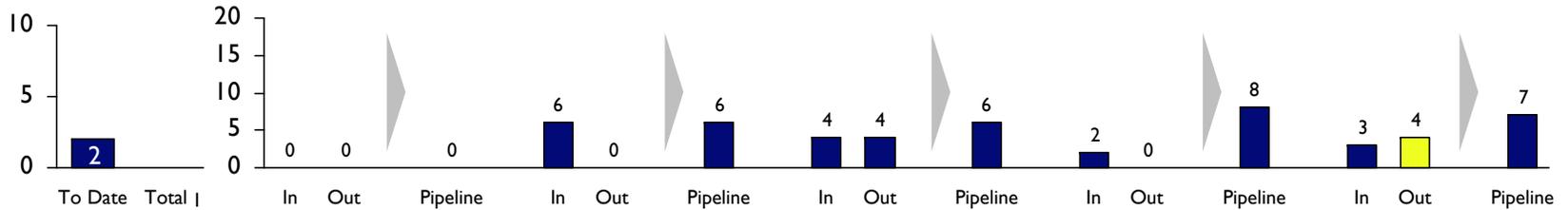
Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Pipeline by Process (3 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

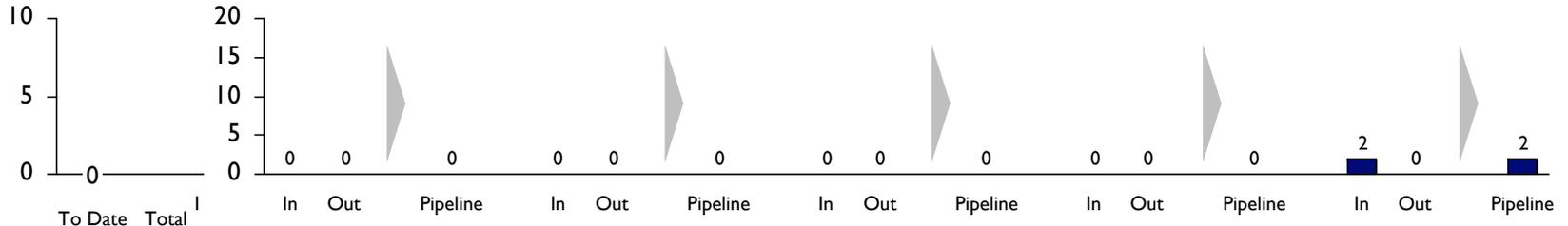
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Condemnation



- Pipeline comprised of RONS being processed by the Authority and ROW consultants and awaiting adoption by PWB.

Eminent Domain



- Pipeline comprised of suits (parcels) at Caltrans legal pending filing with the courts seeking Court Orders of Possession.

(1) Total parcels that may take the condemnation route is unknown

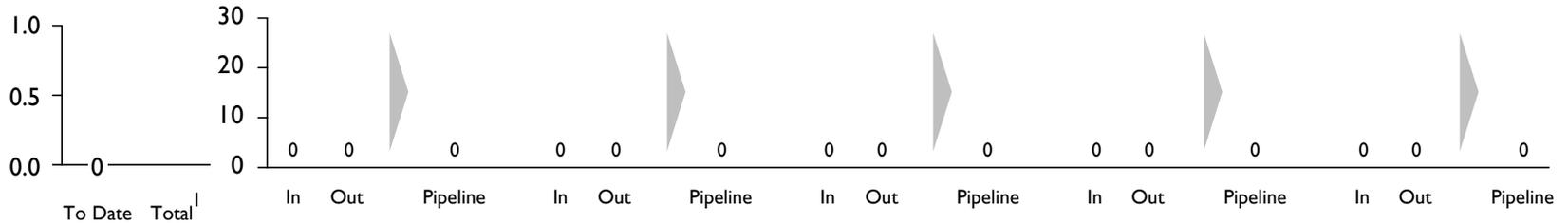
Source: October 7, 2016 ROW Weekly Report

ROW – CP1D Pipeline by Process (4 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

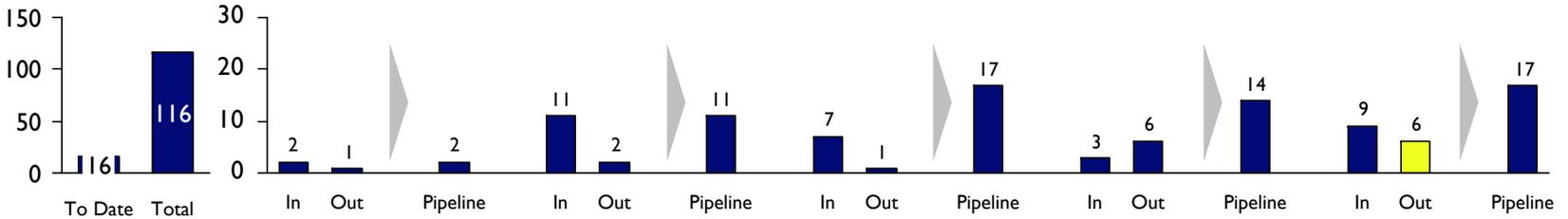
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Public Agency / Railroad



- Current parcel count only includes public parcels with APNs and value. Public Roadway parcels will be defined to add to the total number of distinct parcels.

Delivery



- Pipeline consists of parcels requiring relocation and parcels available to be transferred to DB.

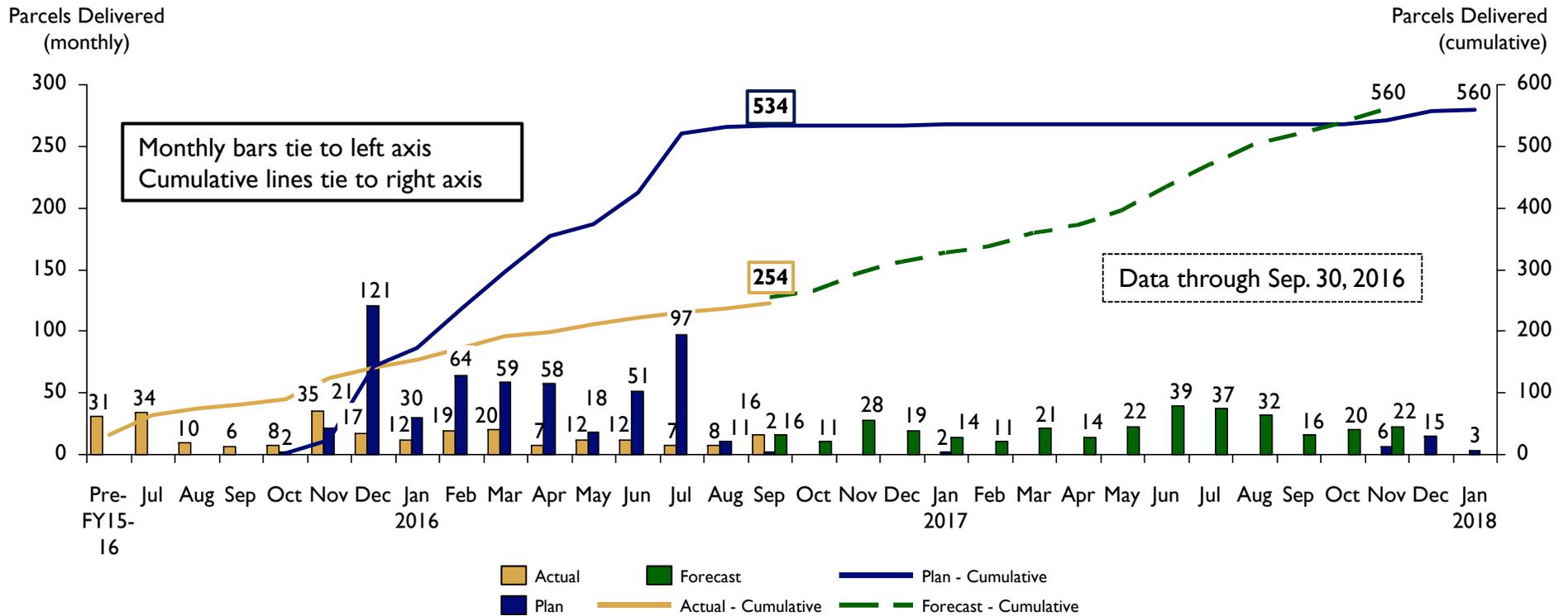
(1) Total number of public parcels to be identified

Source: October 7, 2016 ROW Weekly Report

ROW – CP2-3 Parcels Delivered to DB by Month

Plan vs. Actual vs. Forecast

CP2-3 - Delivered to DB (in number of parcels)



Notes:

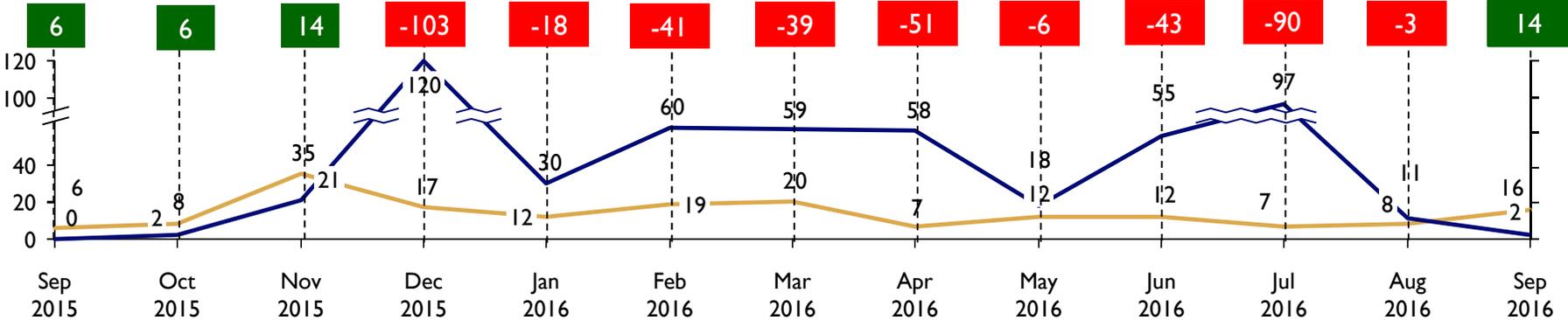
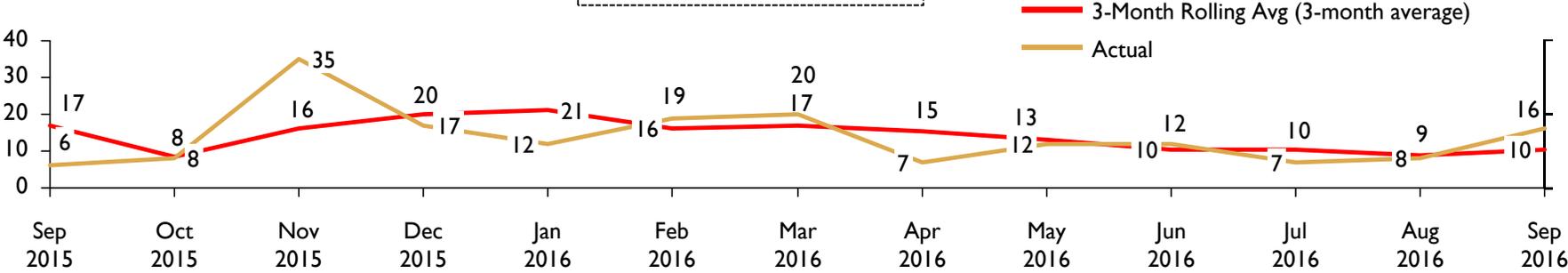
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2. "Forecast": Continually refined based on expected delivery.
3. Total number of parcels will be updated as design changes are approved.

Source: October 7, 2016 ROW Weekly Report

ROW – CP2-3 Historic Performance

CP2-3 Performance (in number of parcels)

Data through Sep. 30, 2016



— Actual — Plan # Actual parcels delivered compared to planned (positive) # Actual parcels delivered compared to planned (negative)

Notes:

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- 2. Contract executed in June 2015; 31 parcels delivered after contract execution
- 3. Design changes and lag in data entry can cause slight changes to plan and actual counts.

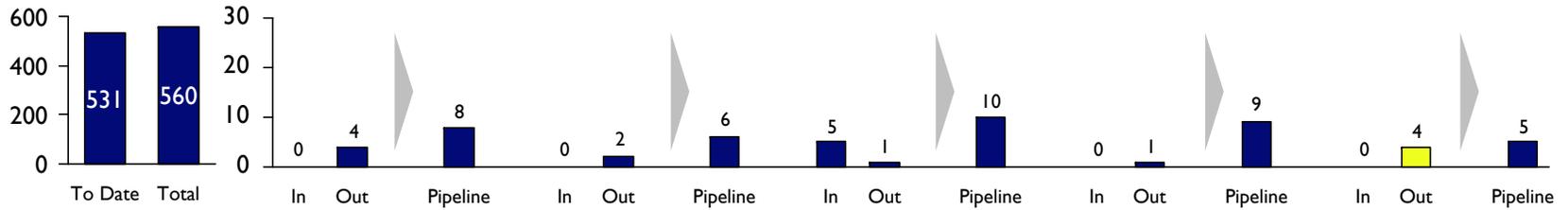
Source: October 7, 2016 ROW Weekly Report

ROW – CP2-3 Pipeline by Process (1 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

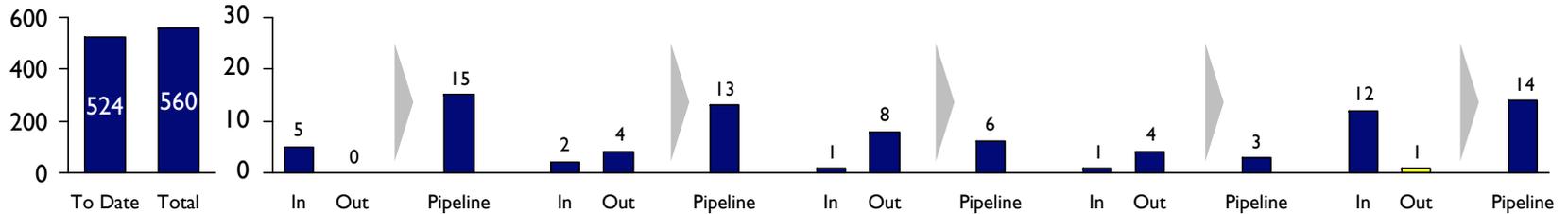
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Appraisal



- Parcels in pipeline a function of pending design refinement submittals, reviews and approvals

Just Compensation



- Parcels in pipeline pending DGS setting Just Compensation

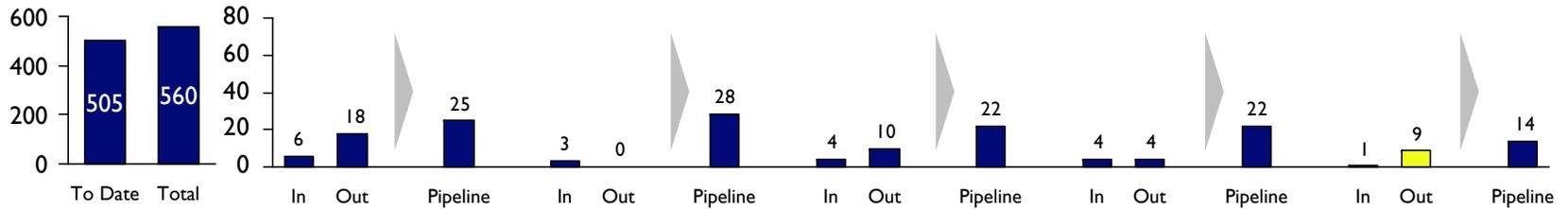
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ROW – CP2-3 Pipeline by Process (2 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

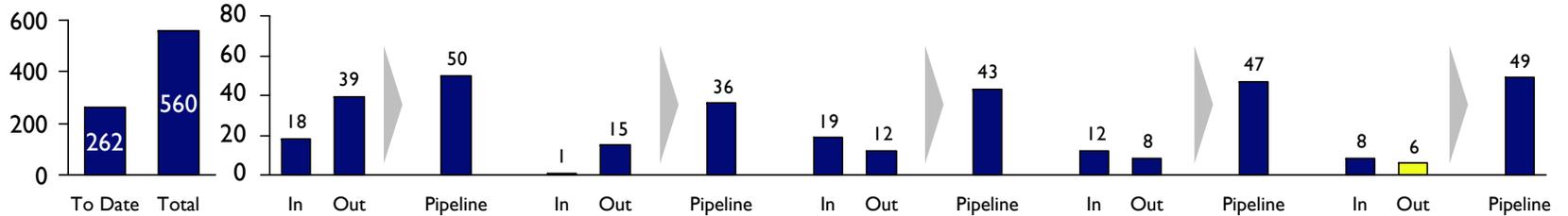
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First Written Offer



- Pipeline consists of railroad parcels and non-railroad parcels

Negotiation Acquisition



- Pipeline consists of signed agreements being processed through escrow, pending offers at property owners' decision to sign or enter condemnation and pending revised First Written Offer (FWO)

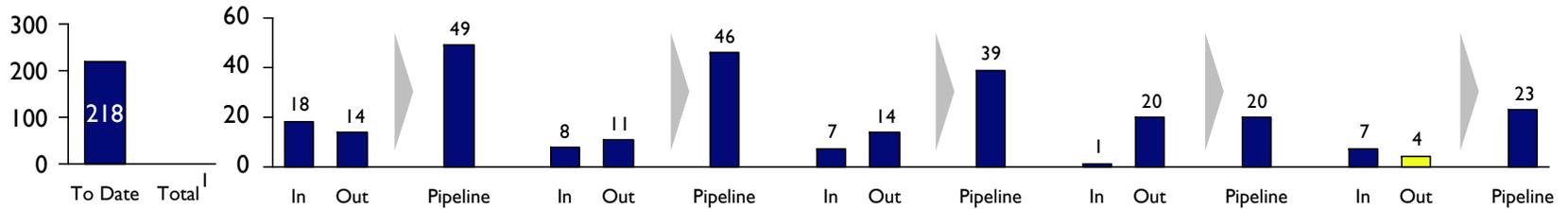
Source: October 7, 2016 ROW Weekly Report

ROW – CP2-3 Pipeline by Process (3 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

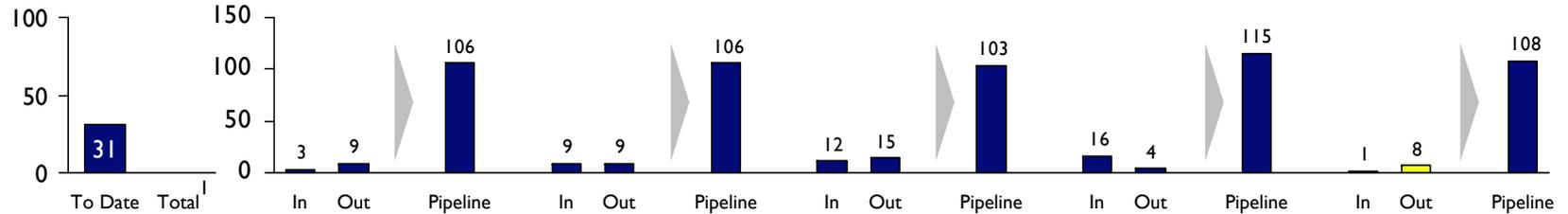
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Condemnation



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Eminent Domain



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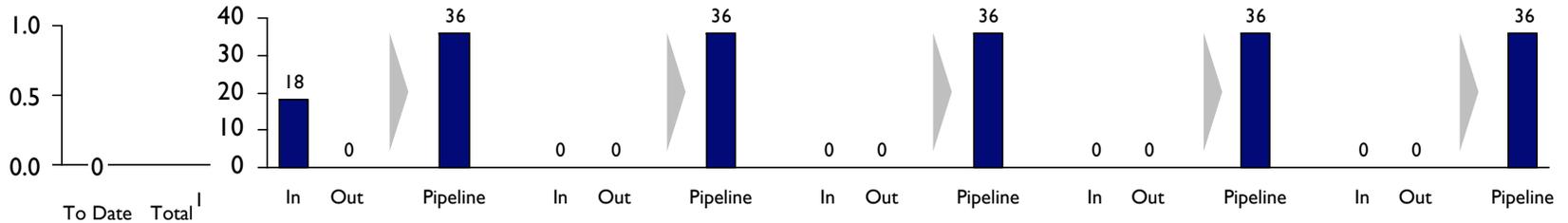
Source: October 7, 2016 ROW Weekly Report

ROW – CP2-3 Pipeline by Process (4 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

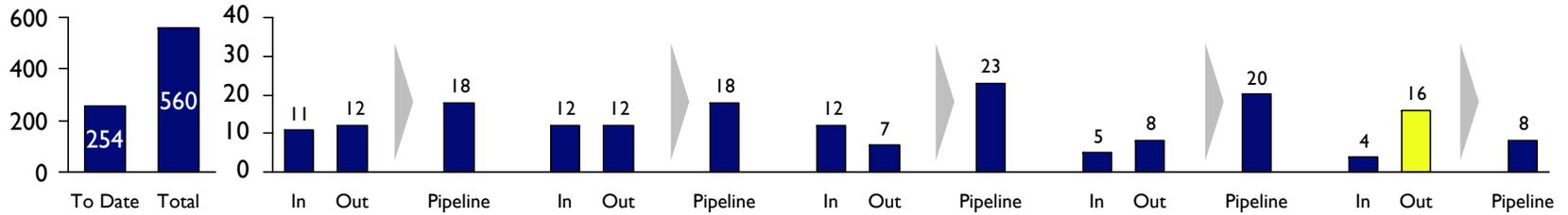
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Public Agency / Railroad



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Delivery



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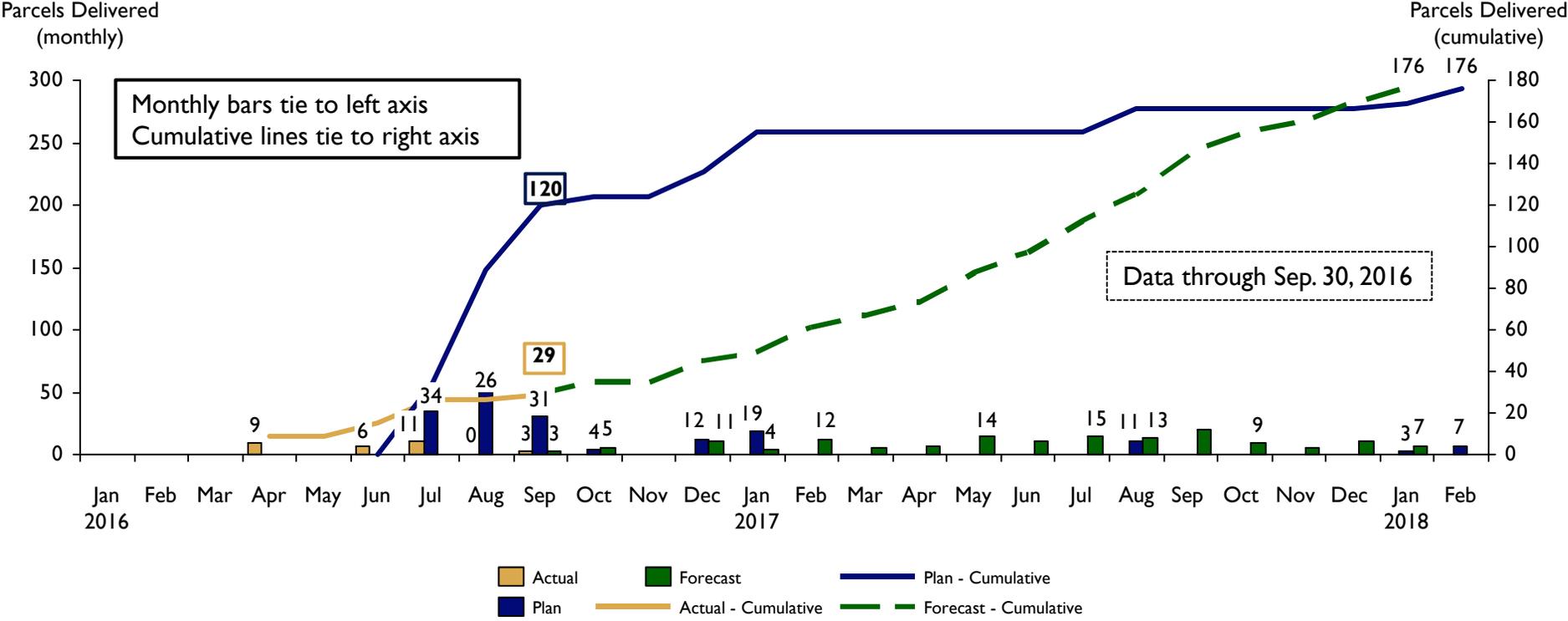
(1) Total number of public parcels to be identified

Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Parcels Delivered to DB by Month

Plan vs. Actual vs. Forecast

CP4 - Delivered to DB (in number of parcels)



Notes:

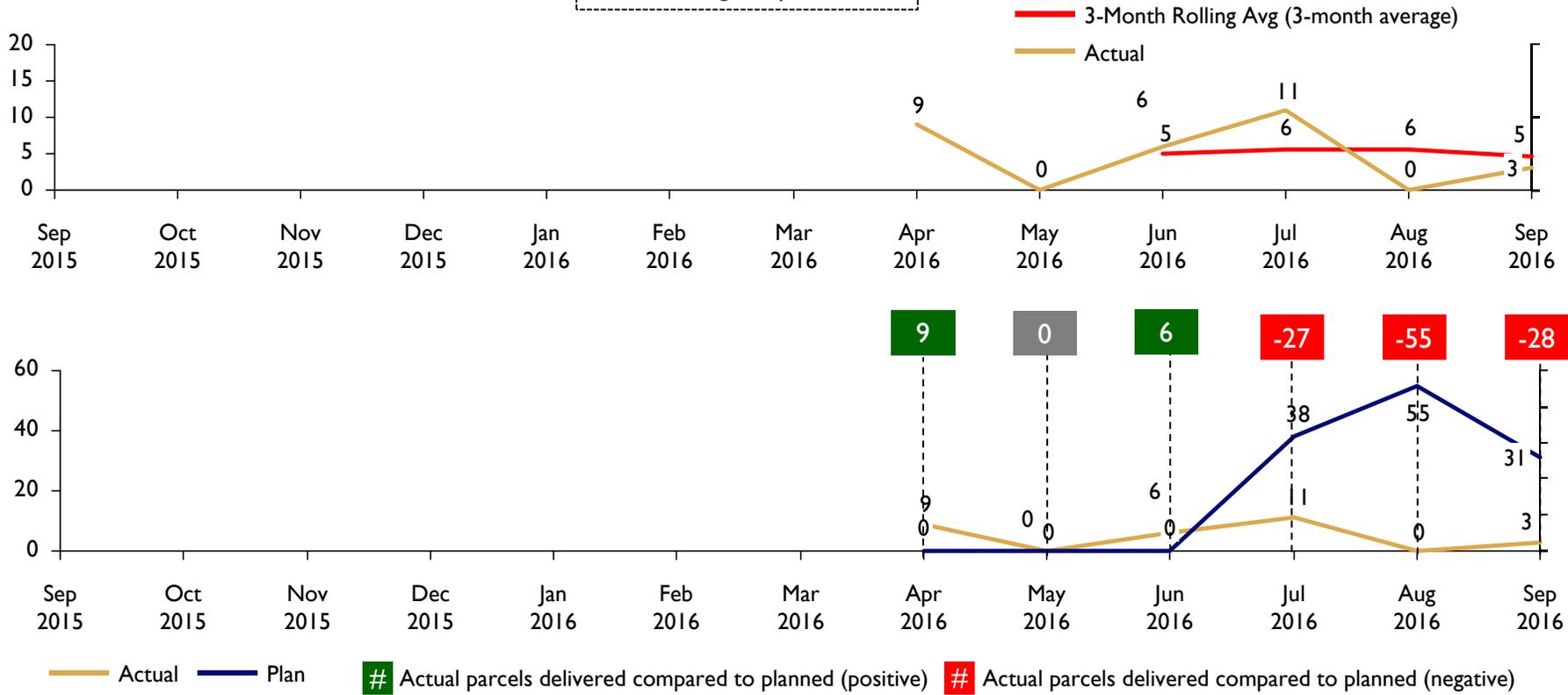
1. The "Plan" numbers have been developed as a placeholder until acquisition plan with DB is finalized.
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3. Total number of parcels will be updated as design changes are approved.

Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Historic Performance

CP4 Performance (in number of parcels)

Data through Sep. 30, 2016



Notes:

- 1. Per contract, "planned" to be rebaselined.
- 2. Design changes and lag in data entry can cause slight changes to plan and actual counts.

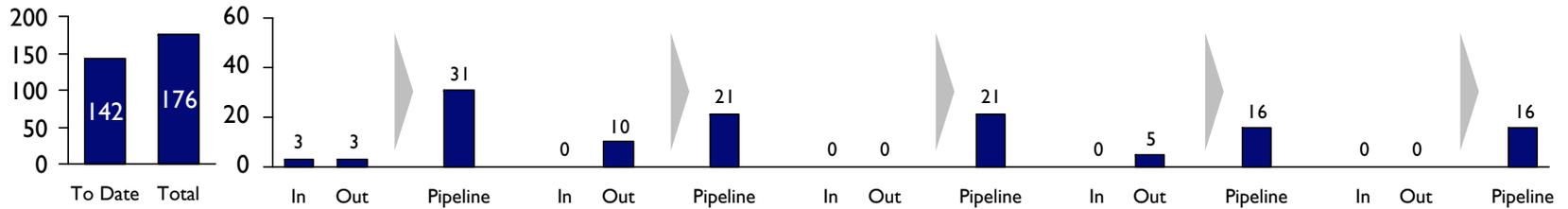
Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Pipeline by Process (1 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

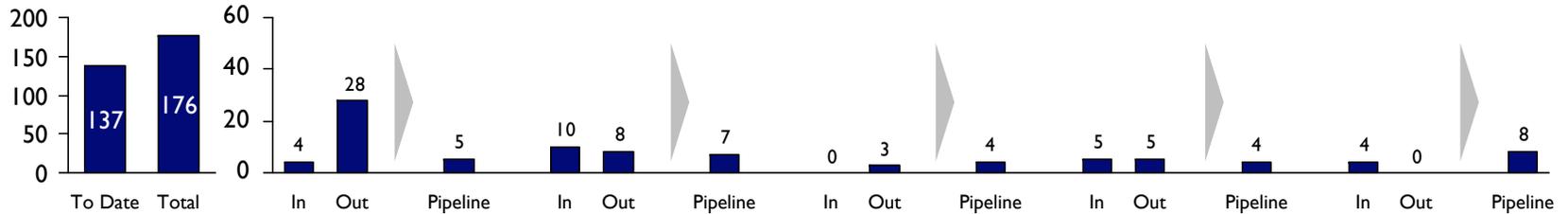
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Appraisal



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Just Compensation



- Parcels in pipeline pending DGS setting Just Compensation

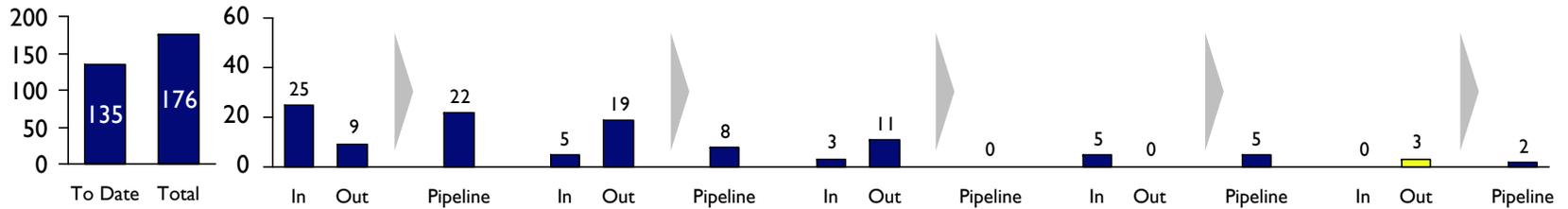
Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Pipeline by Process (2 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

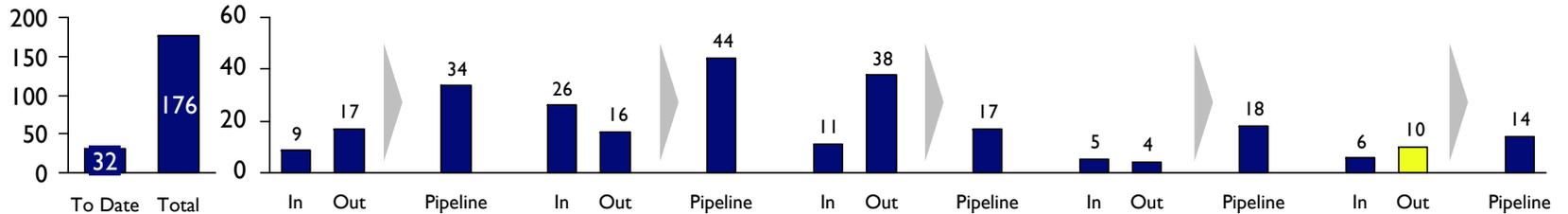
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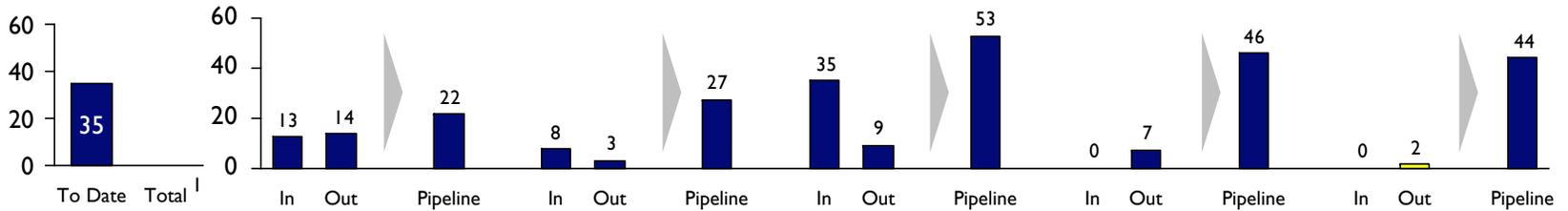
Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Pipeline by Process (3 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

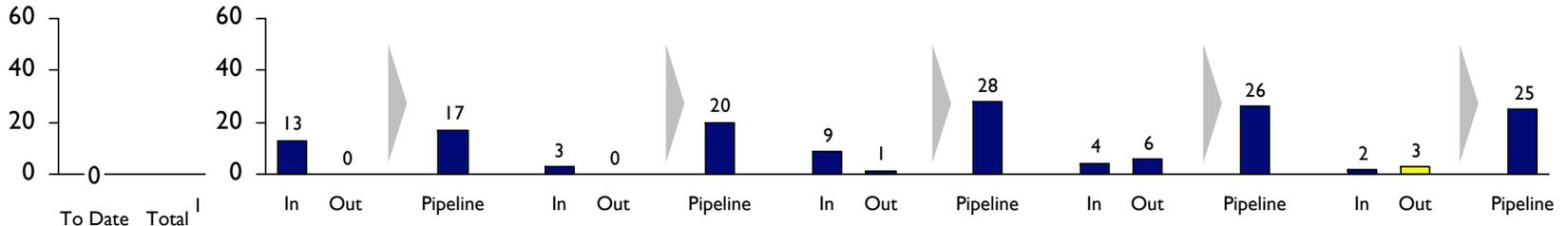
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Condemnation



- Pipeline comprised of RONs being processed by the Authority and ROW consultants and awaiting adoption by PWB.

Eminent Domain



- Pipeline comprised of suits (parcels) at Caltrans legal pending filing with the courts seeking Court Orders of Possession.

(1) Total parcels that may take the condemnation route is unknown

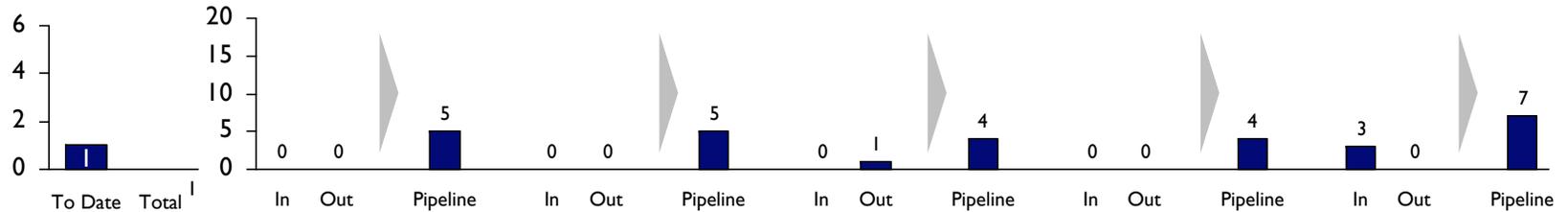
Source: October 7, 2016 ROW Weekly Report

ROW – CP4 Pipeline by Process (4 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

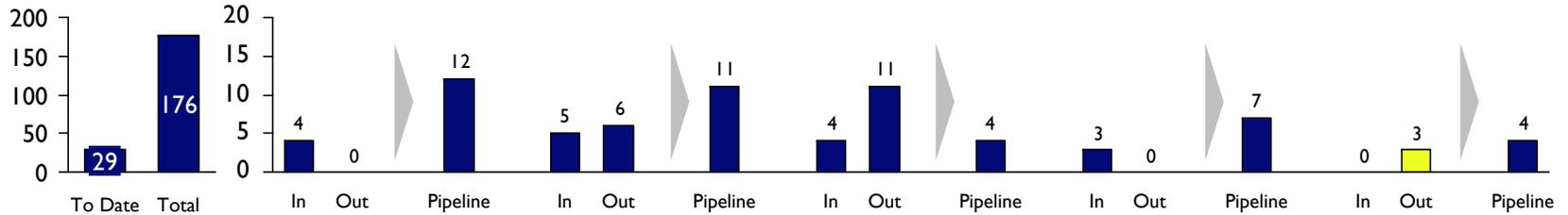
Completion May 2016 June 2016 July 2016 August 2016 **September 2016**

Public Agency / Railroad



- Current parcel count only includes public parcels with APNs and value. Public Roadway parcels will be defined to add to the total number of distinct parcels.

Delivery



- Pipeline consists of parcels requiring relocation and parcels available to be transferred to DB.

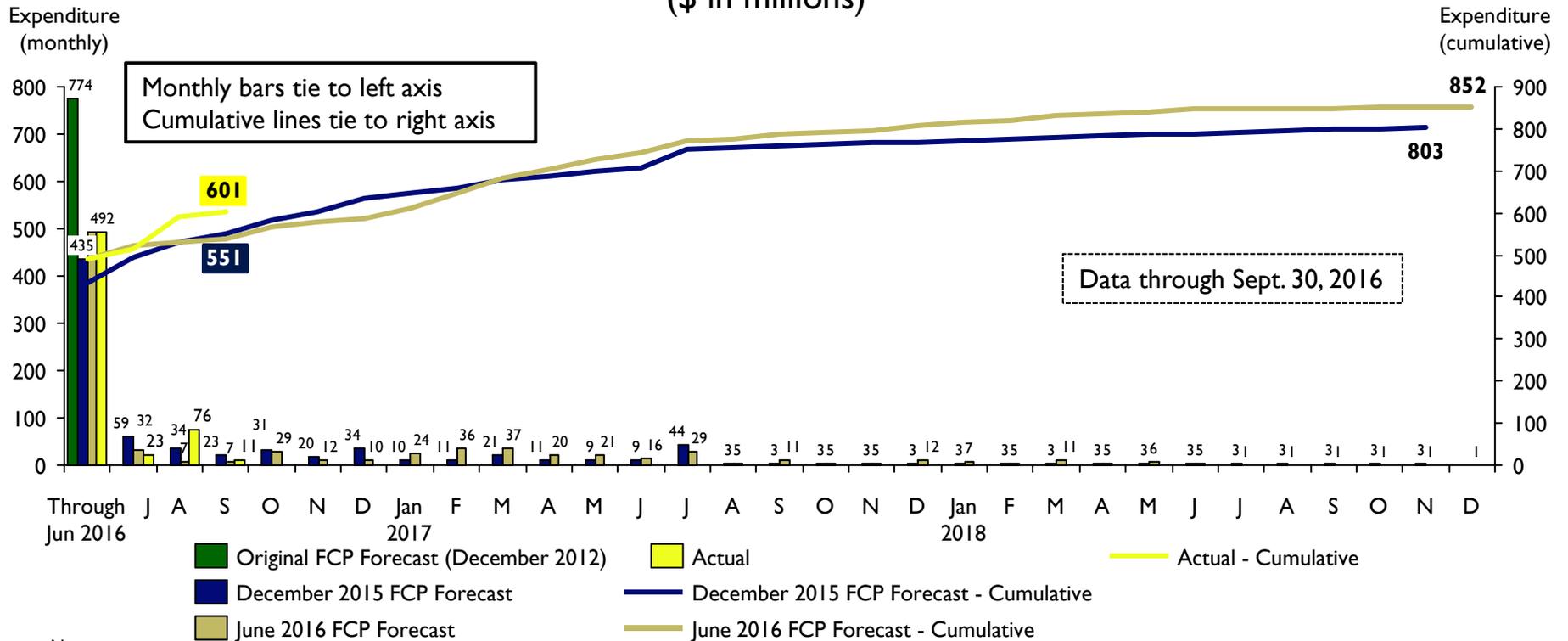
(1) Total number of public parcels to be identified

Source: October 7, 2016 ROW Weekly Report

Total ROW Expenditure by Month

Forecast vs. Actual

Total ROW Expenditure Schedule (\$ in millions)



Notes:

1. Amounts represent monthly totals; not parcel-by-parcel forecast and actual expenditures.
2. \$24M of ROW preliminary costs is not allocated to specific construction package (CP).
3. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in Dec-12.
4. Total ROW budget in Original FCP is \$774M, and was forecasted to be fully spent by Jun-15. Current total ROW budget is \$852M.
5. Dec-15 FCP was not approved, and was only used to track expenditure performance prior to the approval of Mar-16 FCP.
6. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
7. Numbers may not add due to rounding.
8. Variance in FCP and Capital Outlay numbers due to timing differences.

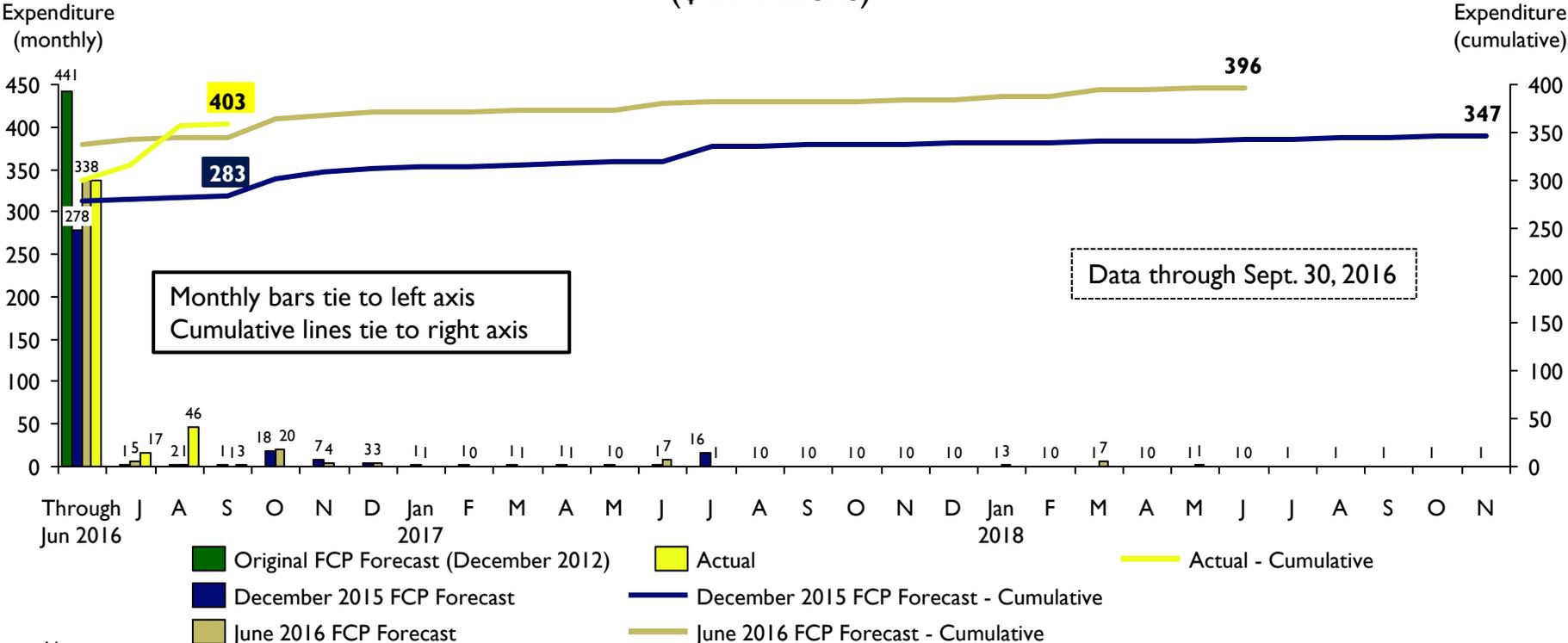
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept.2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

ROW-CP1 Expenditure by Month

Forecast vs. Actual

ROW-CPI Expenditure Schedule (\$ in millions)



Notes:

1. Amounts represent monthly totals; not parcel-by-parcel forecast and actual expenditures.
2. Does not include CPID (North Extension) acquisition costs.
3. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in Dec-2012.
4. CPI ROW budget in Original FCP is \$441M, and was forecasted to be fully spent by Jun-15. Current CPI ROW budget is \$396M.
5. Dec-15 FCP was not approved, and was only used to track expenditure performance prior to the approval of Mar-16 FCP.
6. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
7. Numbers may not add due to rounding.
8. Variance in FCP and Capital Outlay numbers due to timing differences.

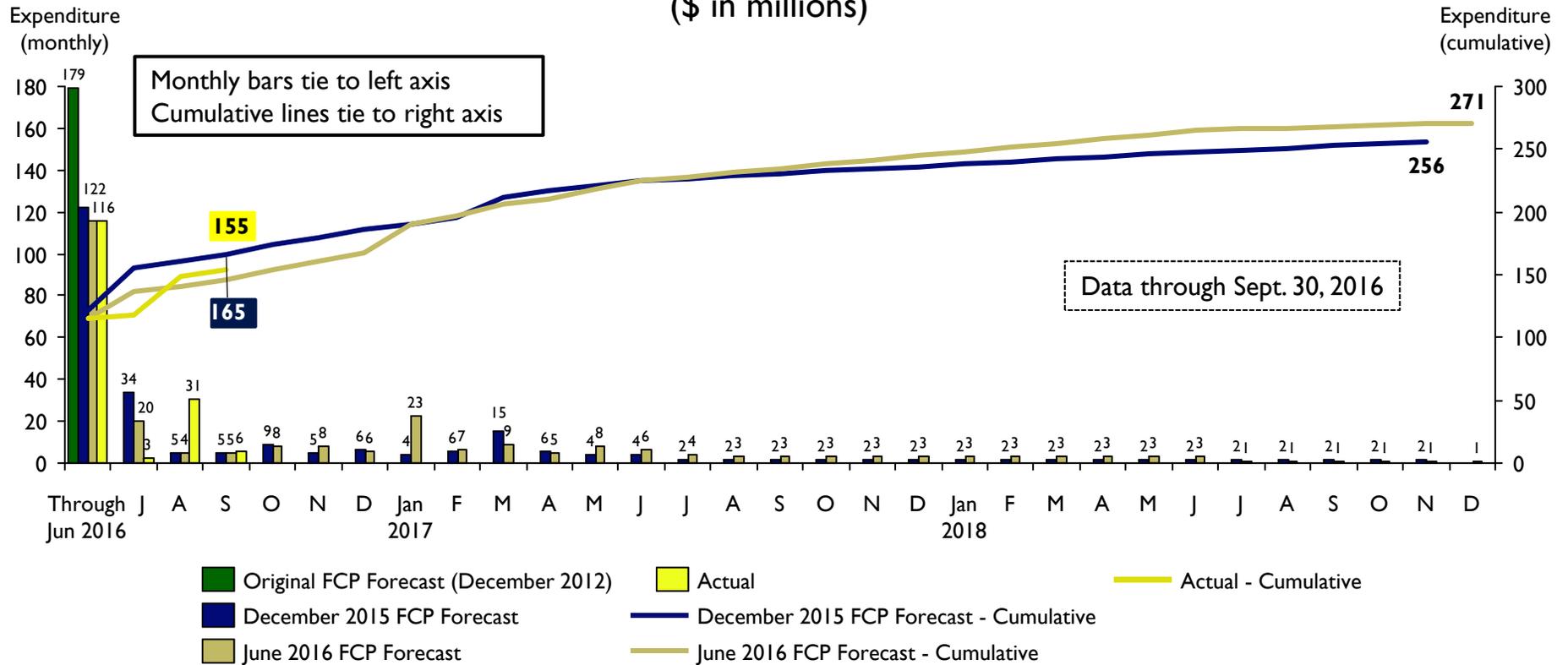
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept.-2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

ROW-CP2-3 Expenditure by Month

Forecast vs. Actual

ROW-CP2-3 Expenditure Schedule (\$ in millions)



Notes:

1. Amounts represent monthly totals; not parcel-by-parcel forecast and actual expenditures.
2. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in Dec-012.
3. CP2-3 ROW budget in Original FCP is \$179M, and was forecasted to be fully spent by Jun-2015. Current CP2-3 ROW budget is \$271M.
4. Dec-15 FCP was not approved, and was only used to track expenditure performance prior to the approval of Mar-16 FCP.
5. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
6. Numbers may not add due to rounding.
7. Variance in FCP and Capital Outlay numbers due to timing differences.

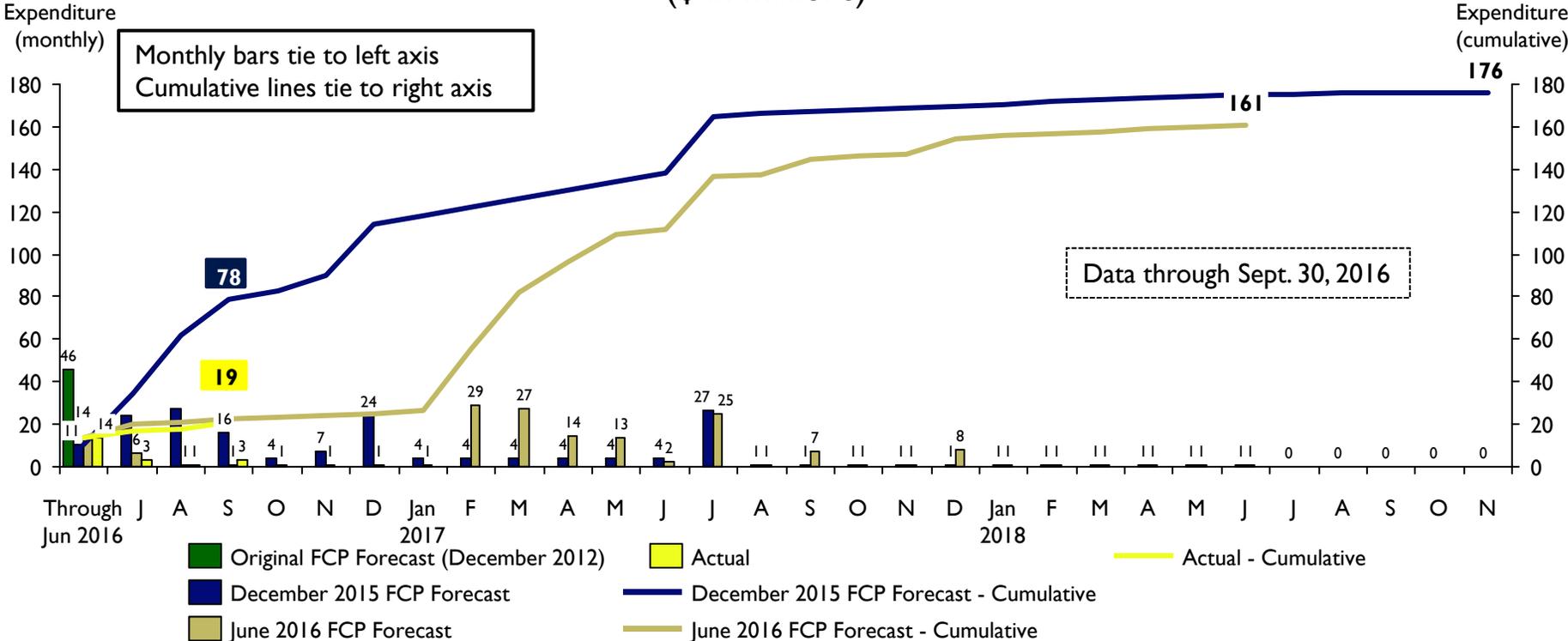
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept.-2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

ROW-CP4 Expenditure by Month

Forecast vs. Actual

ROW-CP4 Expenditure Schedule (\$ in millions)



Agenda

- ▶ Operations Report Metrics
 - Executive Summary
 - Right-of-Way (ROW)
 - Project Development
 - Third Party Agreements
 - Contract Management
 - Finance/Budget
 - ARRA Schedule
 - Risk

Project Development Clearance Metrics - Context

- ▶ The following slides track several metrics for each project development segment related to:
 - Schedule and physical percent complete.
 - Key milestones.
 - Actual, planned and forecasted costs-to-completion dates:
 - As of July 2015, cost projections were rebaselined.
 - Starting in September 2015, forecasted costs were based on performance and trends, with planned costs remaining set.
 - Actual costs come from invoices the Authority receives.
 - Future costs to be revised to take into account more comprehensive Preliminary Engineering for Procurement (PE4P) and non-biological mitigation measures.
 - Project Development Milestone Schedule (page 44) provides an overview of key upcoming milestones across all project development project sections and projects.

Note: The Project Development budgets in this Operations Report include all funding sources (Prop IA, ARRA, and Cap and Trade). This report differs from the Funding Contribution Plan (FCP) since it is limited to the scope of the ARRA grant and state match requirements.

Project Development Milestones Schedule (to ROD)

Information through September 2016¹

Segment	Progress to Date	Next Steps
San Francisco to San Jose	<ul style="list-style-type: none"> Continued project definition for blended system. Held coordination meetings with Caltrain to advance blended service infrastructure and operations. Reviewed and provided comments on the draft scoping report. Worked with the EEC on schedule recovery plans to avoid impact on record of decision. 	<ul style="list-style-type: none"> Maintain stakeholder outreach. Complete project scoping report. Lock down the project description and advance preliminary design (including alignment, passing tracks, station improvements, and terminal/storage facilities) and environmental technical studies (including traffic and cultural resources analysis).
San Jose to CV Wye	<ul style="list-style-type: none"> Held additional meetings with Morgan Hill and Gilroy staff on potential alternative refinements. Determined strategy and workflow to describe the PG&E network upgrades required for Sites 4 and 5. 	<ul style="list-style-type: none"> Complete definition of end-to-end project alternatives, conduct analysis of refined alternative elements for an addendum to Checkpoint B, advance preliminary design for established alignments. Conclude discussions with the US Bureau of Reclamation on the proposed crossing of the San Luis Reservoir.
Central Valley Wye (M-F)	<ul style="list-style-type: none"> Supported RC with technical guidance for air quality, socioeconomics, and responses to global comments. Submitted to FRA Checkpoint B Addendum which included the SR 152/Road 11 alternative. Reviewed sections and technical reports on safety and security, land use, parks and environmental justice. 	<ul style="list-style-type: none"> Update technical reports and administrative draft sections to include additional alternative. Prepare Checkpoint C Summary Report for submittal to EPA and USACE.
Central Valley Interconnections	<ul style="list-style-type: none"> Completed environmental re-examinations for Site 8 (Merced to Fresno) and Sites 9-12 (Fresno to Bakersfield). Continued environmental analysis for sites 4 to 7 covering the San Jose to Merced and Wye project sections. 	<ul style="list-style-type: none"> Continue to coordinate with PG&E on electrical interconnections and upgrades. Prepare biological resources memo and cultural survey reports for sites 6 and 7.
HMF	<ul style="list-style-type: none"> Environmental screening criteria and clearance approach still under discussion. 	<ul style="list-style-type: none"> Assess schedule performance once screening criteria and approach are finalized.
Locally-Generated Alternative (F-B) ²	<ul style="list-style-type: none"> Prepared response to the City of Bakersfield Notice of Preparation of an EIR for a Bakersfield HSR Station Area Plan. Developing technical reports and administrative draft for LGA evaluation. 	<ul style="list-style-type: none"> Continue outreach, community and agency meetings. Prepare Section 404 and Section 401 Clean Water Act permit applications for construction year 2016.

¹ Text identified in red indicate change from previous month.

² Previously referred to as the Bakersfield F Street Station Alignment

Project Development Milestones Schedule (to ROD)

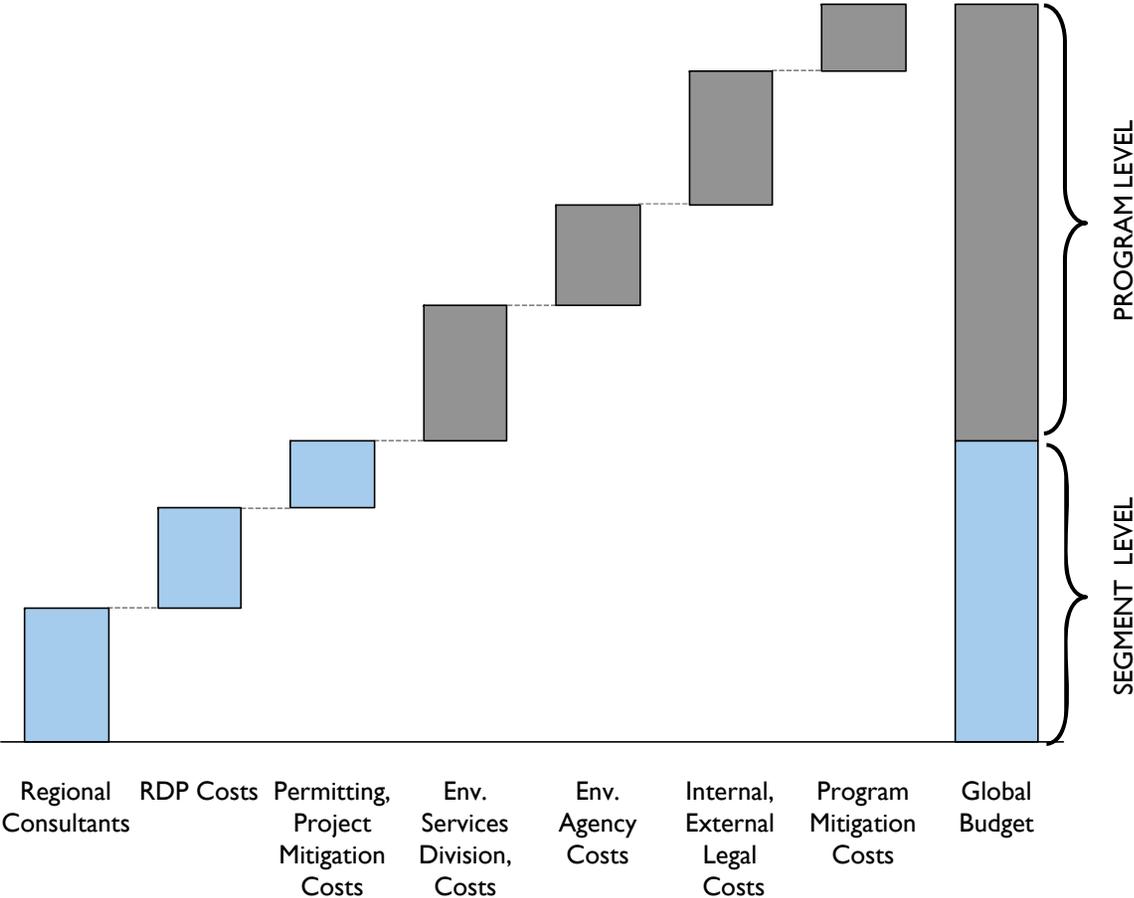
Information through September 2016¹

Segment	Progress to Date	Next Steps
Bakersfield to Palmdale	<ul style="list-style-type: none"> ▪ Received draft final aquatic resources technical report. ▪ Submitted draft Environmental Justice outreach plan for Authority review. ▪ Received draft preliminary engineering for project definition (PEPD). 	<ul style="list-style-type: none"> ▪ Continue coordination with the resource agencies, particularly under Section 402 of the Clean Water Act. ▪ Complete remaining technical reports and EIR/EIS chapters and sections. ▪ Develop regional approach for biological mitigation.
Palmdale to Burbank	<ul style="list-style-type: none"> ▪ Continued community working group meetings and public open houses. ▪ Completed geotechnical investigation in Angeles National Forest. ▪ Preparing Clean Water Act Checkpoint B submittal. ▪ Reviewing remaining “in progress” documents for preliminary engineering for project definition (PEPD). 	<ul style="list-style-type: none"> ▪ Carry on coordination activities with the USFS and other resource agencies. ▪ Complete administrative draft review of Chapter 2 – Alternatives. ▪ Distribute additional permission-to-enter letters for field studies. ▪ Continue to prepare and review draft technical reports and EIR/EIS chapters and sections. ▪ Develop regional approach for biological mitigation.
Burbank to LA	<ul style="list-style-type: none"> ▪ Reviewed draft technical studies for transportation, hydrology and water resources reports, aquatic resources delineation, and project purpose and need. ▪ Continued outreach at neighborhood council meetings. ▪ Continued coordination with Link US on refinements at Los Angeles Union Station. 	<ul style="list-style-type: none"> ▪ Complete final preliminary engineering for project definition. ▪ Submit draft project description to FRA. ▪ Continue discussions with USEPA and USACE regarding permitting strategy under the Clean Water Act. ▪ Evaluate parking strategies at LA Union Station. ▪ Coordinate with Metro and Metrolink on LA Union Station strategies.
LA to Anaheim	<ul style="list-style-type: none"> ▪ Reviewed draft technical studies for biological and aquatic resources, transportation, and historic architectural survey reports. ▪ Continued coordination with corridor stakeholders. ▪ Continued design refinement process as technical studies progress. 	<ul style="list-style-type: none"> ▪ Complete final preliminary engineering for project definition. ▪ Continue discussions with USEPA and USACE regarding permitting strategy under the Clean Water Act. ▪ Carry on coordination with corridor operators. ▪ Define project footprint for environmental evaluation.

1. Text identified in red indicate change from previous month.

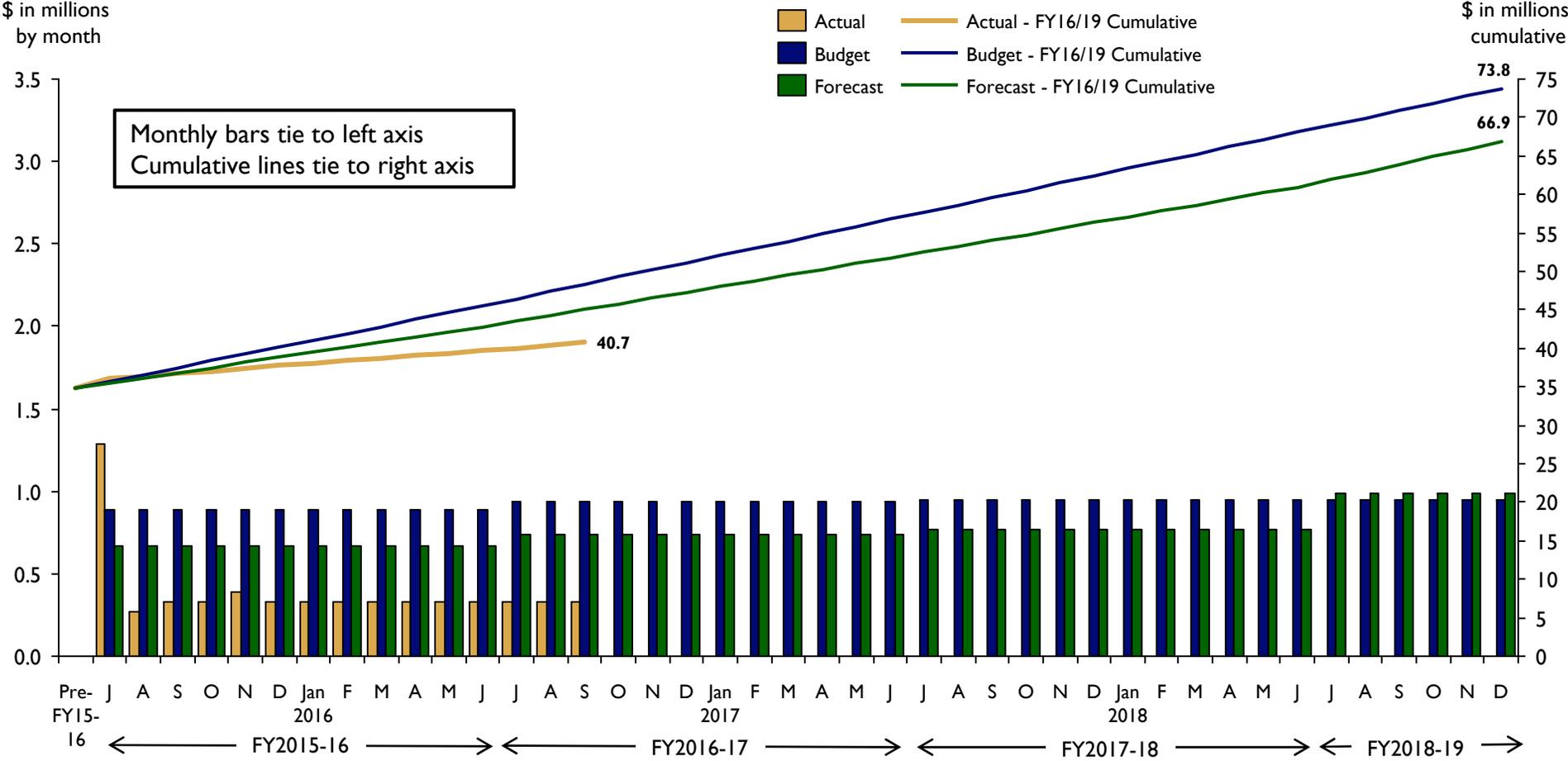
Global Project Development Budget includes activities involved in the scope at the program and segment levels

Cost Categories for Scope and Budget Definition



- | Cost Categories | |
|---|--|
| <ul style="list-style-type: none"> ▪ Regional consultants' and Engineering and Environmental consultants' costs include project management, outreach, planning, engineering and environmental activities. ▪ RDP costs include management, coordination, and technical reviews. ▪ Permitting and project mitigation costs include obtaining permits required for construction and implementing project-level mitigation commitments. ▪ Authority costs reflect management and staff costs for overseeing project development program delivery. ▪ Environmental agency costs are costs for agency staff to attend meetings, review technical reports, and provide technical guidance. ▪ Legal costs are costs associated with in-house and outside legal reviews. ▪ Program mitigation costs for costs associated with implementing EIR/EIS program-level mitigation commitments. | |

Program Level Budget (Non-Section Specific Costs)



Notes:
1) All estimates are preliminary and subject to change.

Source: Based on actual costs and future estimates for the Authority environmental staff, in-house legal review and resource agency agreements.

Project Development Milestones Schedule (to ROD) – Information through Sept 2016¹

	Segment	Progress	Complete Purpose & Need Statement		Complete Alternatives Analysis		Board Concurrence of Preliminary Preferred Alternative for Draft EIR/EIS ⁴		Publish Draft EIR/EIS ⁴		Publish Final EIR/EIS and Obtain ROD ⁴		Date EIR/EIS To Be Completed	
			Due Dates	Last Month	Current Month	Last Month	Current Month	Last Month	Current Month	Last Month	Current Month	Last Month	Current Month	Original Target
1	Merced to Fresno	Plan Forecast % Complete	-	Feb-11	-	Jun-11	-	N/A	-	Aug-11	-	Sep-12	-	Sep-12
2	Fresno to Bakersfield	Plan Forecast % Complete	-	Feb-11	-	Jun-11	-	N/A	-	Jul-12	-	Jun-14	-	Jun-14
3	CV Electrical Interconnections	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Jul-16 Aug-16 95%	Jul-16 Sep-16 100%	Nov-16 Nov-16 0%	Nov-16 Sep-16 100%	Oct-17 Oct-17 0%	Oct-17 Sep-16 100%	Oct-17	Sep-16
4	San Francisco to San Jose	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Jul-16 Nov-16 13%	Jul-16 Apr-17 14%	Jan-17 Feb-17 7%	Jan-17 Jul-17 7%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
5	San Jose to Merced	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-16 Dec-16 13%	Sep-16 Apr-17 14%	Feb-17 Mar-17 10%	Feb-17 Jul-17 10%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
6	Central Valley Wye (M-F) ²	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-15 May-17 60%	Sep-15 May-17 60%	Feb-16 Feb-17 0%	Feb-16 Feb-17 0%	Dec-16 Dec-17 0%	Dec-16 Dec-17 0%	Dec-16	Dec-17
7	Locally Generated Alternative (F-B) ³	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Jul-16 Oct-16 5%	Jul-16 Jan-17 85%	Dec-16 Jan-17 0%	Dec-16 Aug-17 0%	Dec-16	Aug-17
8	Bakersfield to Palmdale	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Oct-16 Dec-16 20%	Oct-16 Dec-16 20%	Feb-17 May-17 10%	Feb-17 May-17 5%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
9	Palmdale to Burbank	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Aug-16 Jan-17 25%	Aug-16 Jan-17 25%	Mar-17 Apr-17 15%	Mar-17 Apr-17 15%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
10	Burbank to LA	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Mar-17 Feb-17 5%	Mar-17 Feb-17 5%	Jun-17 Jul-17 5%	Jun-17 Jul-17 5%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
11	LA to Anaheim	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Mar-17 Feb-17 15%	Mar-17 Feb-17 15%	Jun-17 Jul-17 5%	Jun-17 Jul-17 5%	Nov-17 Dec-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
12	HMF ⁵	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Apr-16 TBD 0%	Apr-16 TBD 0%	Sep-16 TBD 0%	Sep-16 TBD 0%	May-17 May-17 0%	May-17 May-17 0%	May-17	No Change

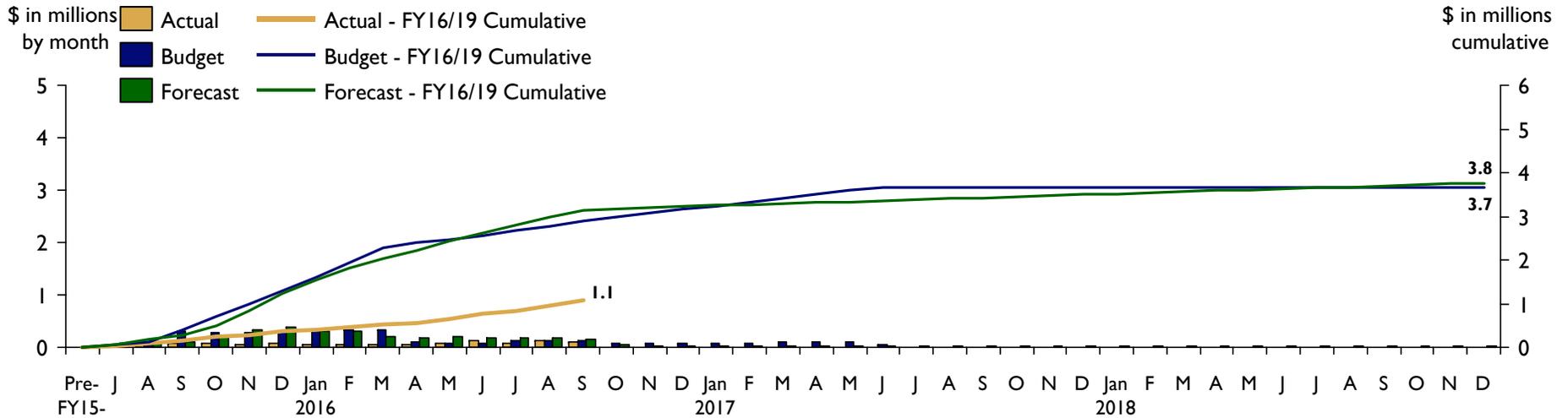
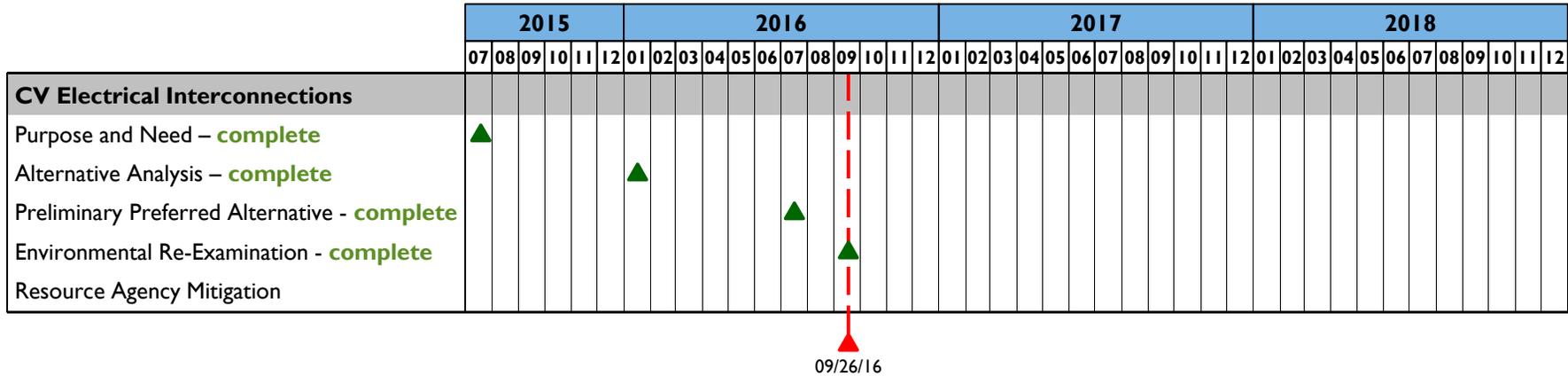
- Dates identified in red indicate change from previous month. Green cells indicates that that the EIR/EIS has been completed.
- Purpose and Need and the Alternatives Analysis were achieved as part of the Merced to Fresno EIR/EIS, completed in September 2012.
- Purpose and Need and the Alternatives Analysis were achieved as part of the Fresno to Bakersfield EIR/EIS, completed in June 2014.
- Forecast updates for Project Development schedule pending review for potential efficiencies for environmental documentation production and review.
- Timing will be influenced by input from the Early Operator

Project Development Milestones Schedule (to ROD) - Information through Sept 2016¹

Segment	Schedule Status and Mitigation Strategies
1 Merced to Fresno	EIR certified and project approval May 2012; FRA ROD issued September 2012
2 Fresno to Bakersfield	EIR certified and project approval May 2014; FRA ROD issued June 2014
3 CV Electrical Interconnections	Environmental Evaluation Has Been Completed Using an environmental re-examination process, it was determined that the electrical interconnection and network upgrades for PG&E sites 8 through 12 do not require preparation of a supplemental environmental document. As a result, the environmental review has been completed, shaving a year off the schedule.
4 San Francisco to San Jose	Potential schedule impact for complete preliminary engineering for project definition. No impact to final milestone, and mitigation underway. The schedule continues to be reviewed to identify opportunities for compressing activities and other environmental clearance options.
5 San Jose to Merced	Potential schedule impact for complete preliminary engineering for project definition. No impact to final milestone, and mitigation underway. The schedule continues to be reviewed to identify opportunities for compressing activities and other environmental clearance options.
6 Central Valley Wye (M-F)	No Delay Forecast at this Time The schedule continues to be reviewed to identify opportunities for compressing activities and other environmental clearance options. Interim milestone dates adjusted to reflect addition of new alternative for evaluation.
7 Locally Generated Alternative (F-B)	A delay has occurred because of consideration of potential project changes.
8 Bakersfield to Palmdale	No Delay Forecast at this Time The schedule continues to be reviewed to identify opportunities for compressing activities and other environmental clearance options.
9 Palmdale to Burbank	No Delay Forecast at this Time No impact to final milestone, and mitigation underway. The schedule continues to be reviewed to identify opportunities for compressing activities and other efficiencies.
10 Burbank to LA	No Delay Forecast at this Time The schedule continues to be reviewed to identify opportunities for compressing activities and other efficiencies.
11 LA to Anaheim	No Delay Forecast at this Time The schedule continues to be reviewed to identify opportunities for compressing activities and other efficiencies.
12 HMF	Dates are subject to change pending Authority decision regarding type of environmental clearance documentation needed.

1. Text identified in red indicate change from previous month.

3 Central Valley Electrical Interconnections

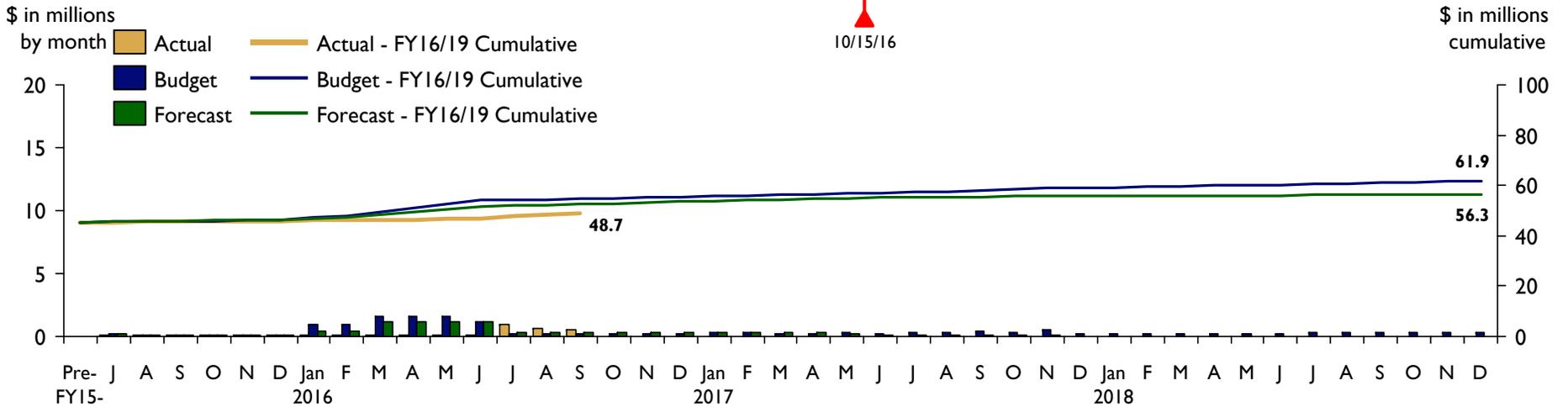
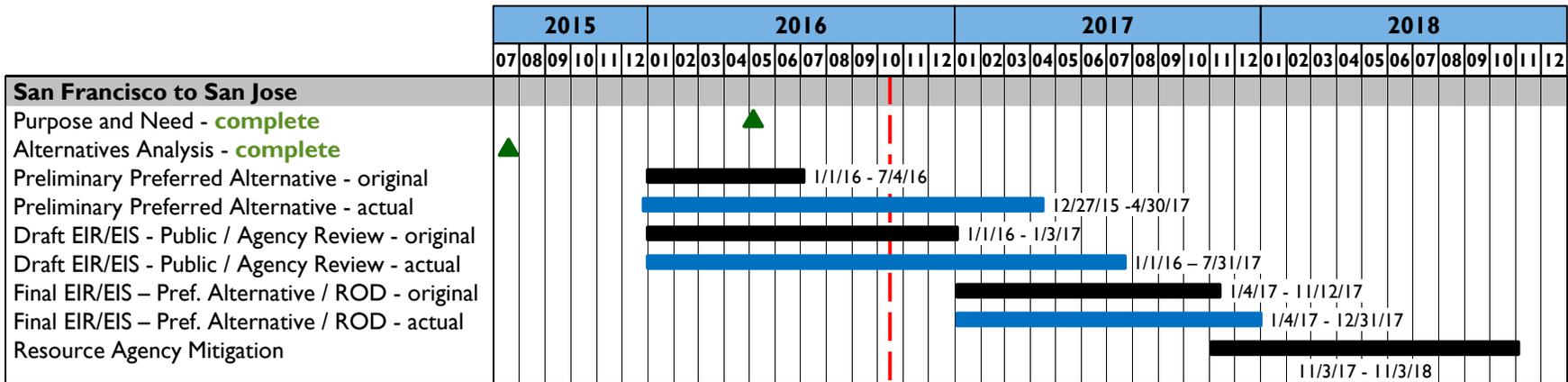


- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Environmental clearance approach under review.
 - 3) Forecast includes RDP and RC costs December 2015 through December 2018.
 - 4) At this time, no habitat mitigation assumed in estimate.

5) Analysis of electrical interconnections is ongoing for PG&E sites 3 – 7as part of San Jose to Merced and for the Central Valley Wye.

Source: Based on actual costs and future estimates for the RC and RDP.

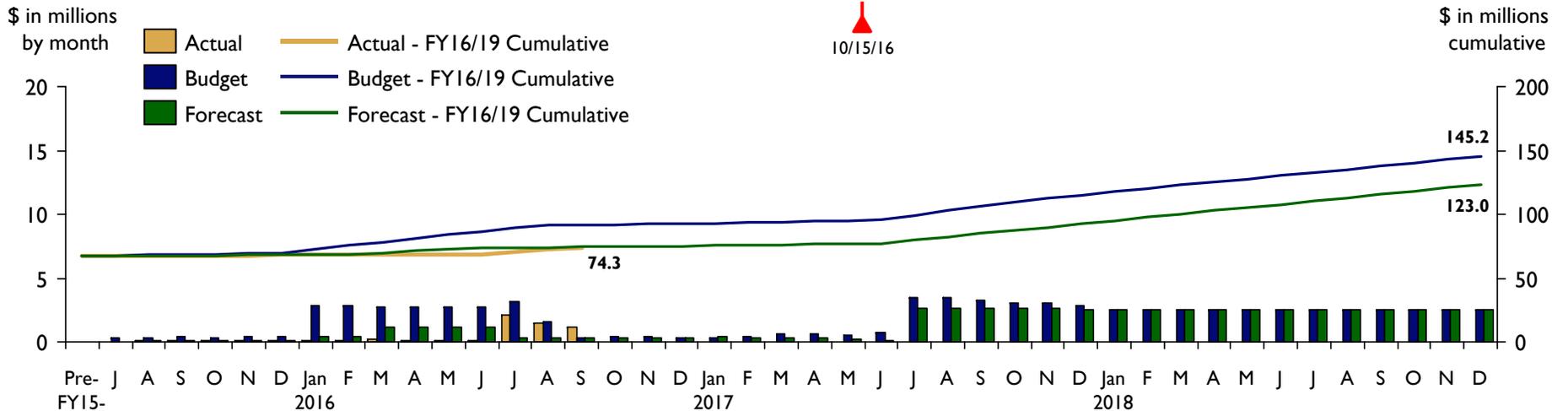
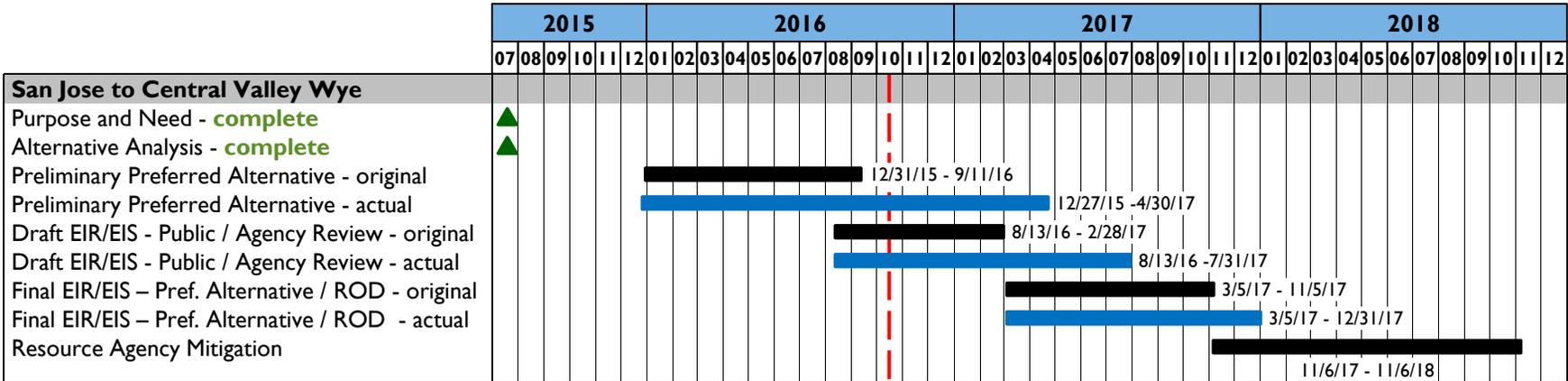
4 San Francisco to San Jose



- 16 Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Forecast based on RDP November 2015 estimate through December 2018.
 - 3) At this time, no habitat mitigation assumed in estimate.
 - 4) Actual costs have been adjusted to be consistent with revised consultant and RDP costs.

Source: Based on actual costs and future estimates for the EEC and RDP.

5 San Jose to Merced

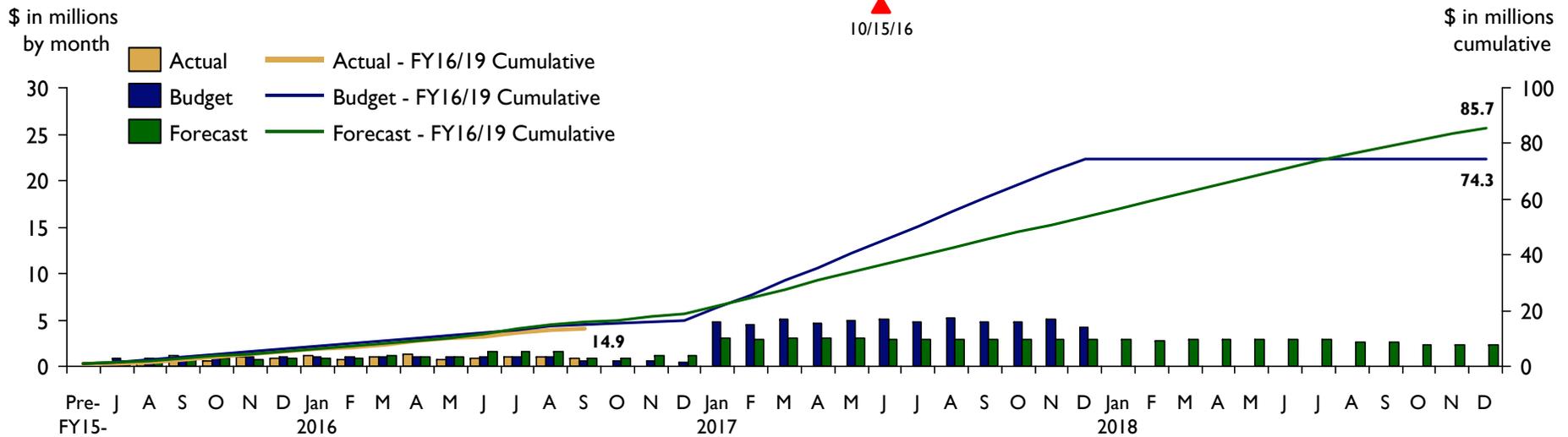
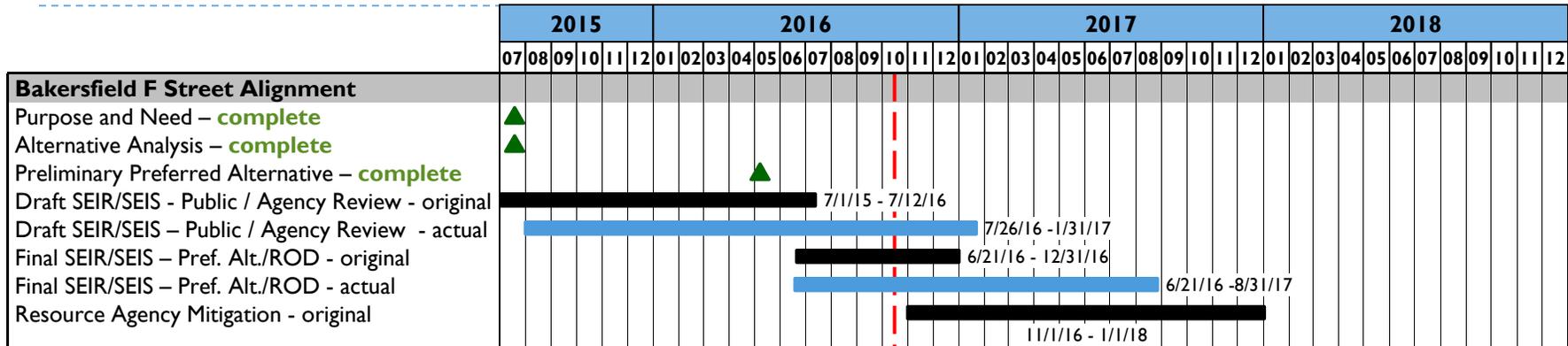


Notes:

- 1) All estimates are preliminary and subject to change.
- 2) Forecast based on RDP November 2015 estimate through December 2018.
- 3) Habitat Mitigation included.
- 4) June 2016 actual expenditure include accumulated unbilled expenditures from January 2016 to May 2016.

Source: Based on actual costs and future estimates for the EEC and RDP.

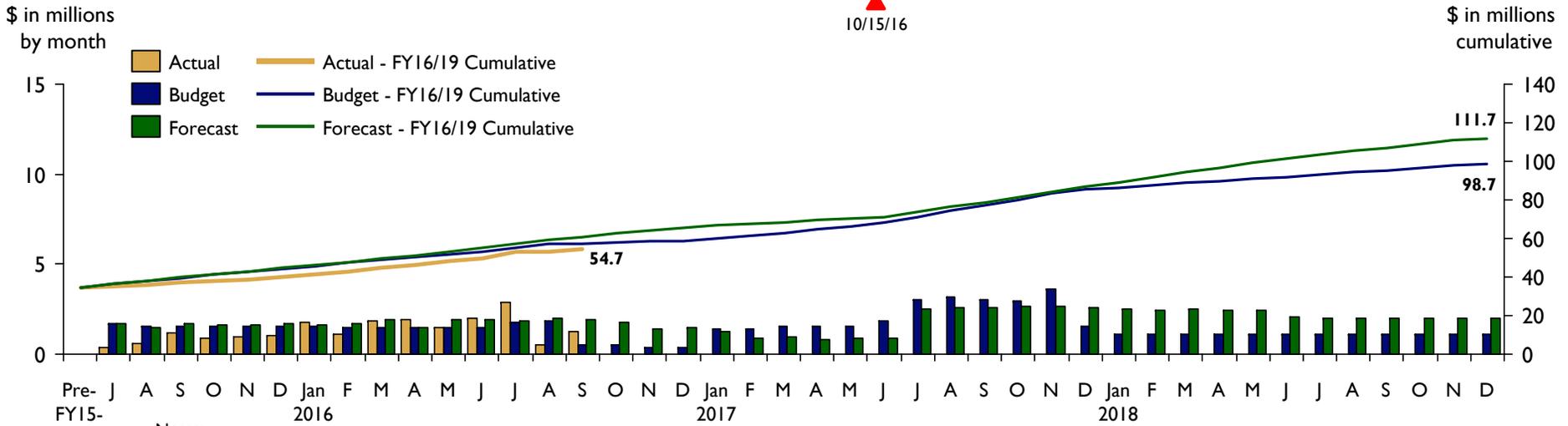
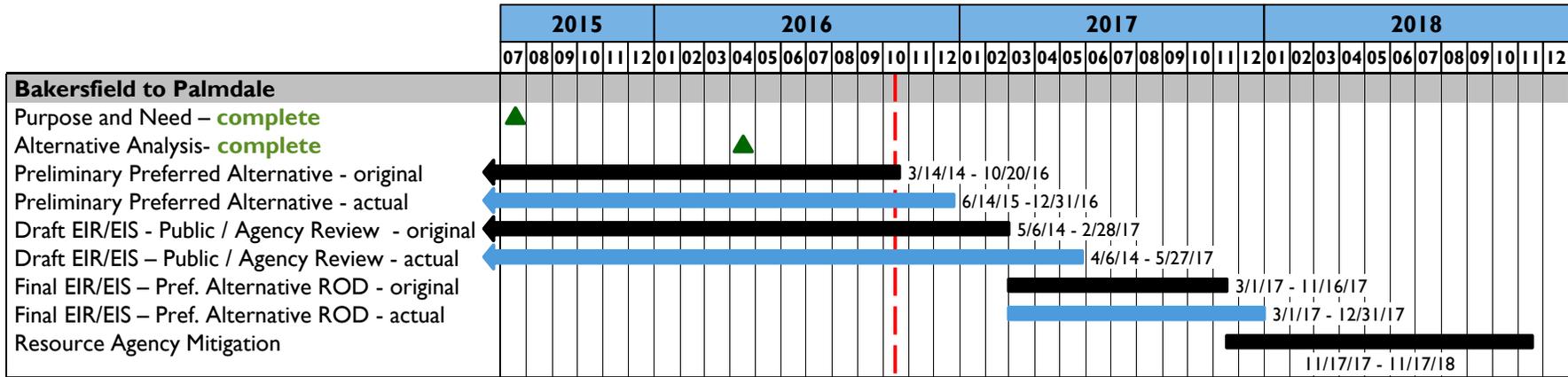
7 Locally Generated Alternative (F-B)



- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Forecasted includes RDP and RC costs through December 2018.
 - 3) Habitat Mitigation included.
 - 4) Purpose and Need and the Alternatives Analysis were achieved as part of the Fresno to Bakersfield EIR/EIS, completed in June 2014

Source: Based on actual costs and future estimates for the RC and RDP.

8 Bakersfield to Palmdale

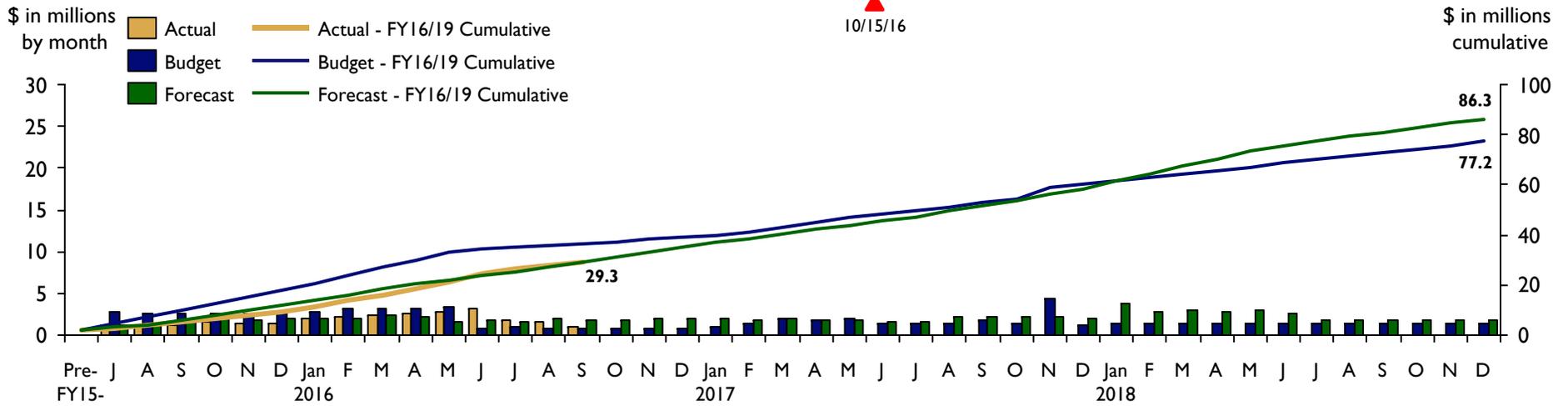
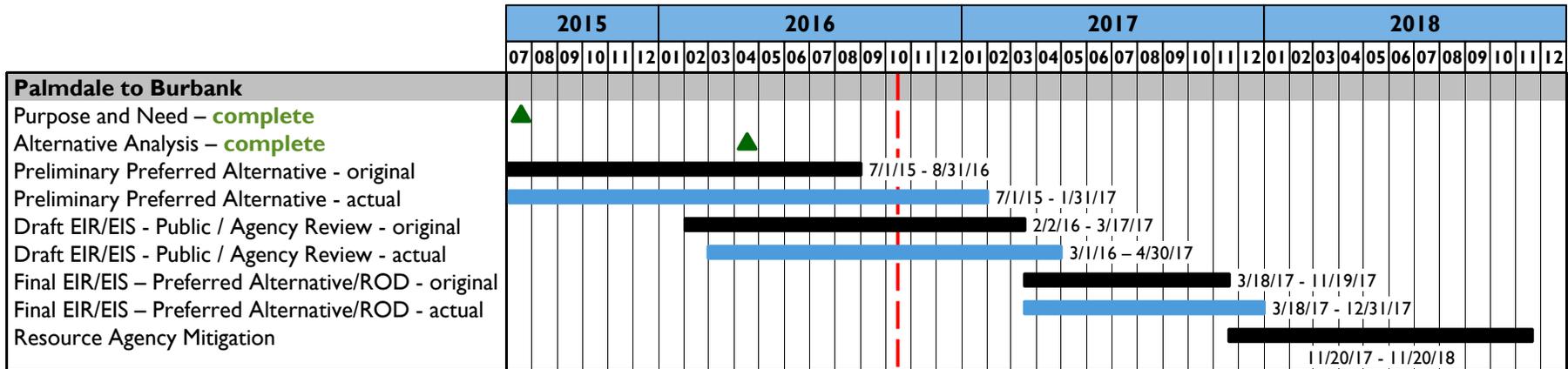


Notes:

- 1) All estimates are preliminary and subject to change.
- 2) Forecast includes RDP and RC costs through December 2018.
- 3) Habitat Mitigation included.

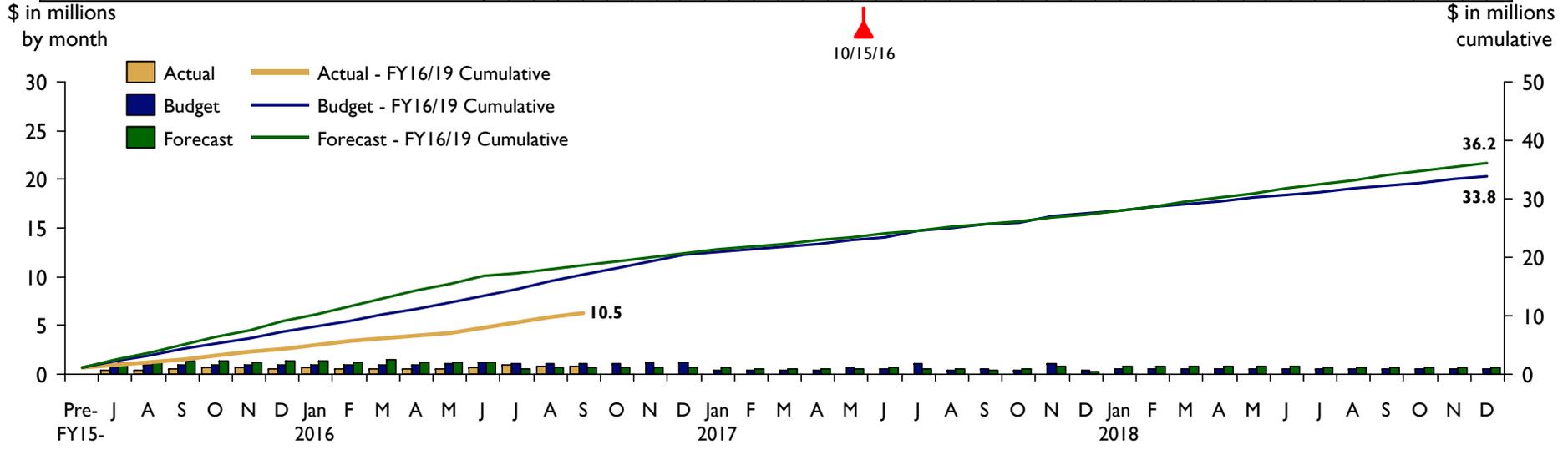
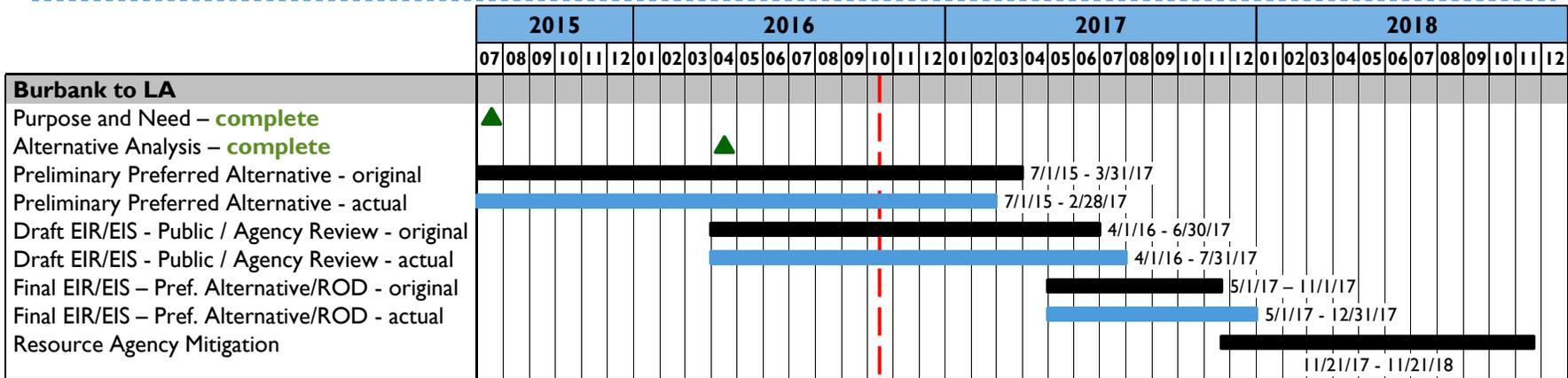
Source: Based on actual costs and future estimates for the RC and RDP.

9 Palmdale to Burbank



Source: Based on actual costs and future estimates for the RCs and RDP.

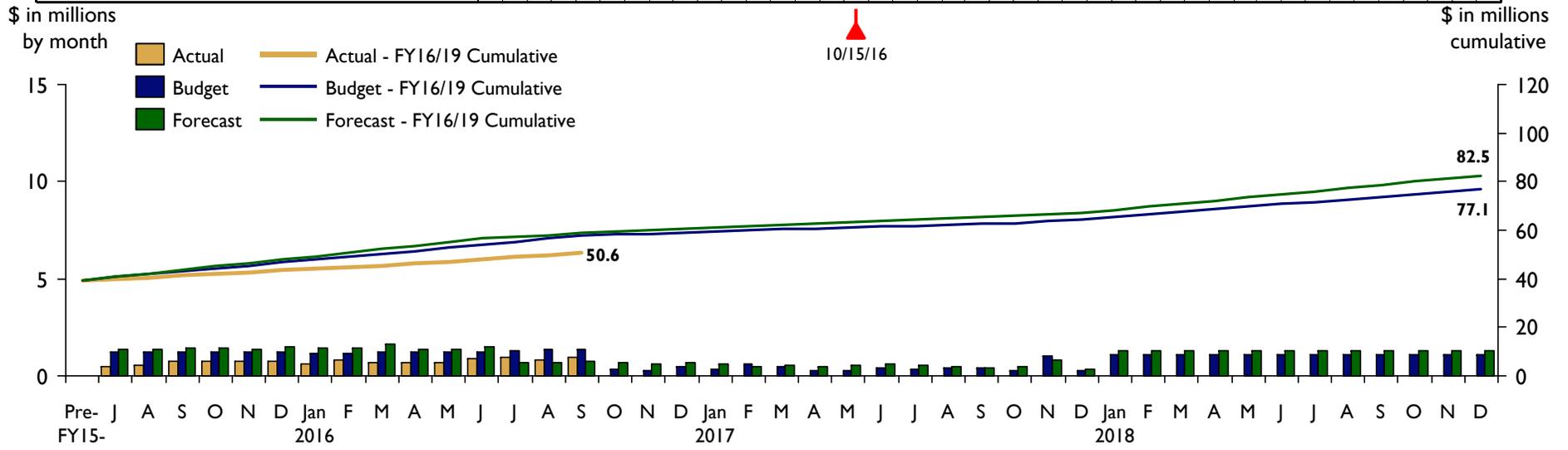
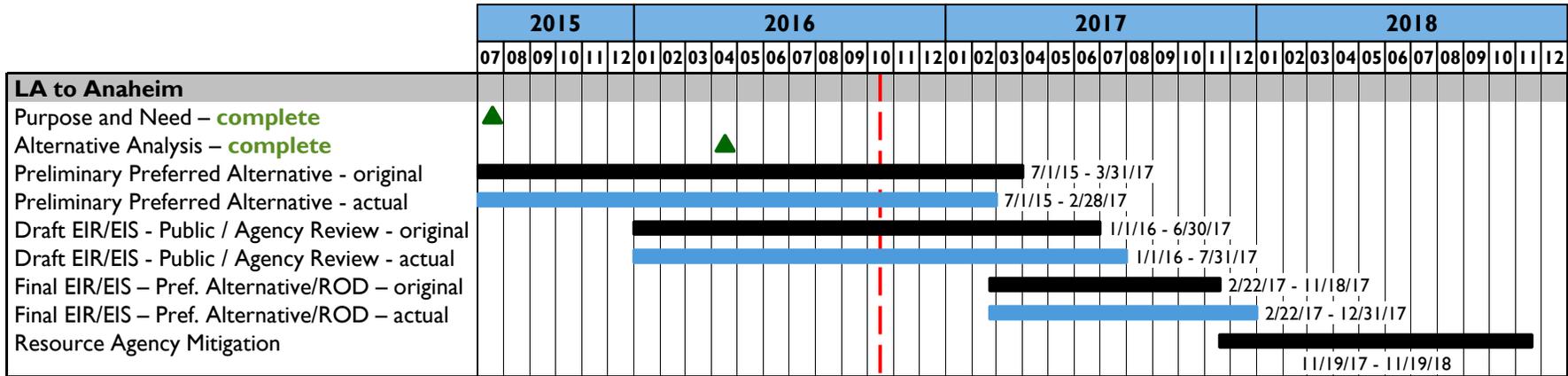
10 Burbank to LA



Notes:
 1) All estimates are preliminary and subject to change.
 2) Forecast includes RDP and RC costs through December 2018.
 3) Habitat Mitigation included.

Source: Based on actual costs and future estimates for the RCs and RDP.

LA to Anaheim

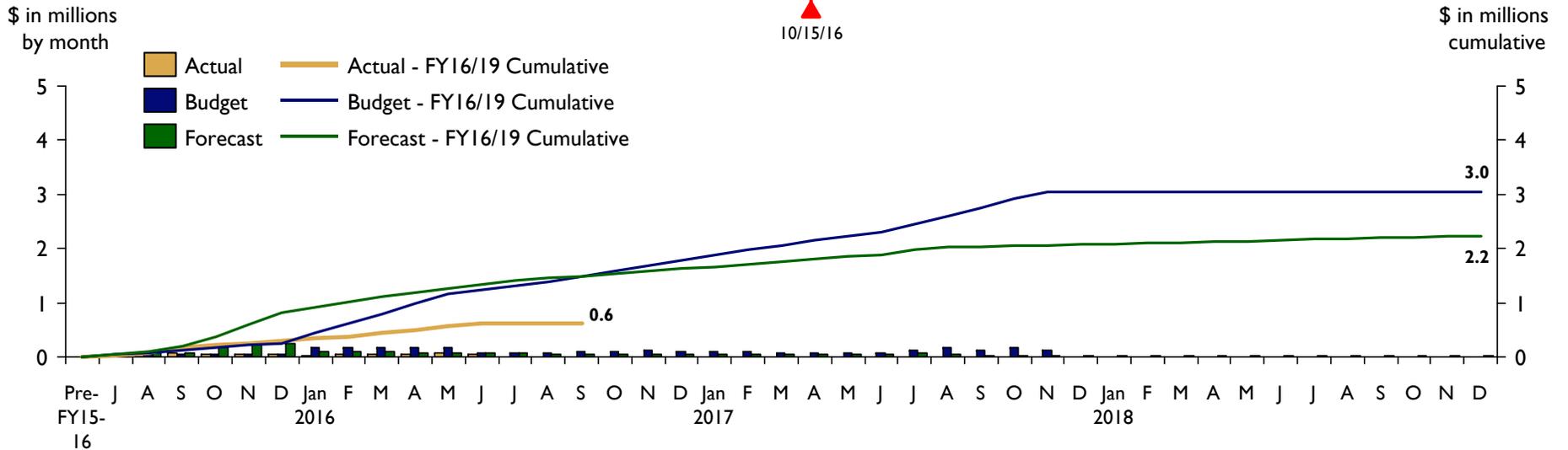


- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Forecast includes RDP and RC costs through Dec. 2018.
 - 3) Habitat Mitigation included.

Source: Based on actual costs and future estimates for the RCs and RDP.

12 Heavy Maintenance Facility

	2015			2016						2017						2018														
	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12
Heavy Maintenance Facility																														
Purpose and Need – complete	▲																													
Alternatives Analysis – complete	▲																													
Preliminary Preferred Alternative	8/1/15 - 4/29/16																													
Draft EIR/EIS - Public / Agency Review	11/2/15 - 9/15/16																													
Final EIR/EIS – Pref. Alternative/ROD	9/16/16 - 5/31/17																													
Resource Agency Mitigation	5/10/17 - 5/10/18																													



- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Environmental clearance approach under review.
 - 3) Forecast includes RDP and RC costs December 2015 through December 2018.
 - 4) At this time, no habitat mitigation assumed in estimate.
 - 5) Timing will be influenced by the input from an early operator

Source: Based on actual costs and future estimates for the RC and RDP.

Four-month look ahead - milestones and other key deliverables, all sections/projects: *Information through September 2016¹*

Milestone	Project Section	Due Date	% Completion	Status
Complete record set preliminary engineering for project development ²	Locally Generated Alternative (F-B)	July 2016	90%	Delayed
Complete preliminary engineering for project definition ³	San Jose to Merced	November 2016	35%	On Target
Complete environmental evaluation of PG&E Sites 8 -12	Central Valley Interconnections	August 2016	100%	Now Completed
Finish scoping report	San Francisco to San Jose	September 2016	98%	Delayed
Present Checkpoint B, range of alternatives to agencies	San Francisco to San Jose	November 2016	15%	On Target
Conclude record set preliminary engineering for project development	Bakersfield to Palmdale	April 2017	58%	On Target
Present Checkpoint B, range of alternatives to agencies	Palmdale to Burbank	December 2016	46%	On Target
Finish project description report ⁴	Bakersfield to Palmdale	May 2016	90%	Delayed
Complete of preliminary engineering for project definition	San Francisco to San Jose	November 2016	40%	On Target

Notes:

¹ Text and dates identified in red indicate change from previous month.

² A delay has occurred because of consideration of potential project changes.

³ A delay has occurred because of continuing work to complete project definition.

⁴ A delay has occurred with definition of the Bakersfield station.

Four-month look ahead - milestones and other key deliverables, all sections/projects: *Information through September 2016¹*

Milestone	Segment	Due Date	% Completion	Status
Resolution of nationwide permit approval and MOU with signatory agencies	Burbank to Los Angeles and Los Angeles to Anaheim	December 2016	75%	On Target
Complete jurisdictional water and wetlands delineation technical memos	Burbank to Los Angeles and Los Angeles to Anaheim	December 2016 (Draft received August 2016)	80%	On Target

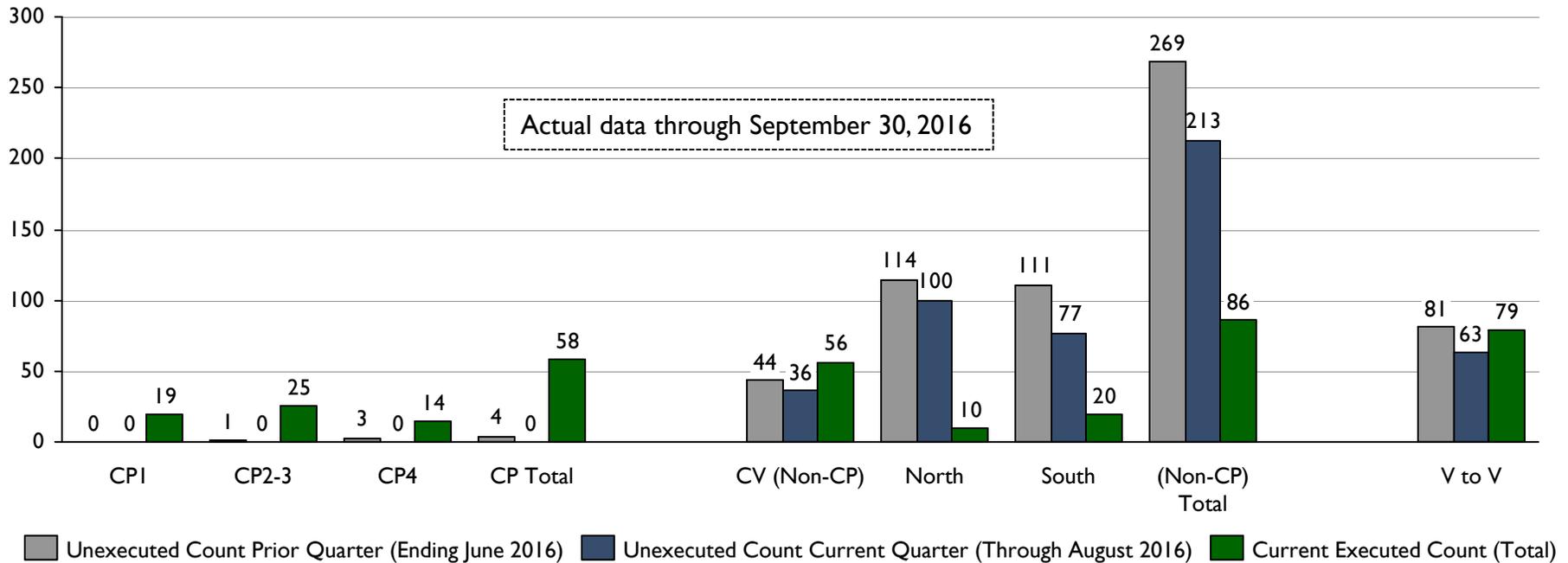
Notes:
¹ Text and dates identified in red indicate change from previous month.
² A delay has occurred because of consideration of potential project changes.
³ A delay has occurred because of continuing work to complete project definition.
⁴ A delay has occurred with definition of the Bakersfield station.

Agenda

- ▶ Operations Report Metrics
 - Executive Summary
 - Right-of-Way (ROW)
 - Project Development
 - Third Party Agreements
 - Contract Management
 - Finance/Budget
 - ARRA Schedule
 - Risk

CP1, CP2-3, CP4, Central Valley (Non-CP), North and South Executed and Unexecuted Agreements

Total Executed/Unexecuted Agreements
(in number of agreements)



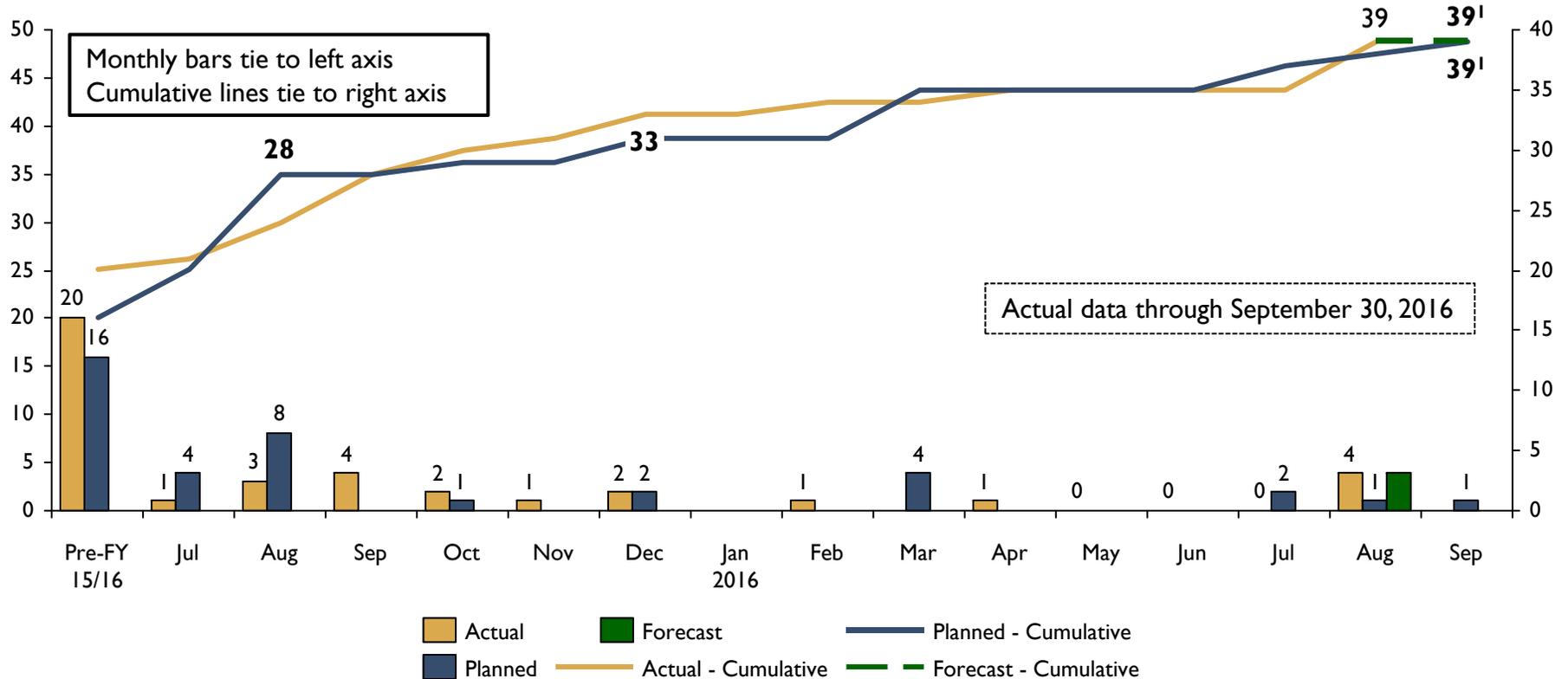
Notes:

1. Some Agreements are counted more than once because they are required for more than one section.
2. CPI, CP2-3, CP4 and CP Total counts only include Master/Cooperative Agreements
3. Central Valley (Non-CP), North, South and (Non-CP) Total counts include Master/Cooperative Agreements and Reimbursement Agreements for environmental coordination and project development.
4. V to V count is a subset of the agreement already represented.
5. The count for the “Non-CP” agreements may change regularly due to changes in alignments; new information as investigations continue; agreements being combined; mergers, acquisitions, spin-offs, and other transactions; identification of different legal entities as asset owners and operators; etc.

CP2-3 & CP4 Third Party Agreements by Month

Plan vs. Actual vs. Forecast

CP2-3 & CP4 Third Party Agreements (excluding Railroads) (in number of agreements)



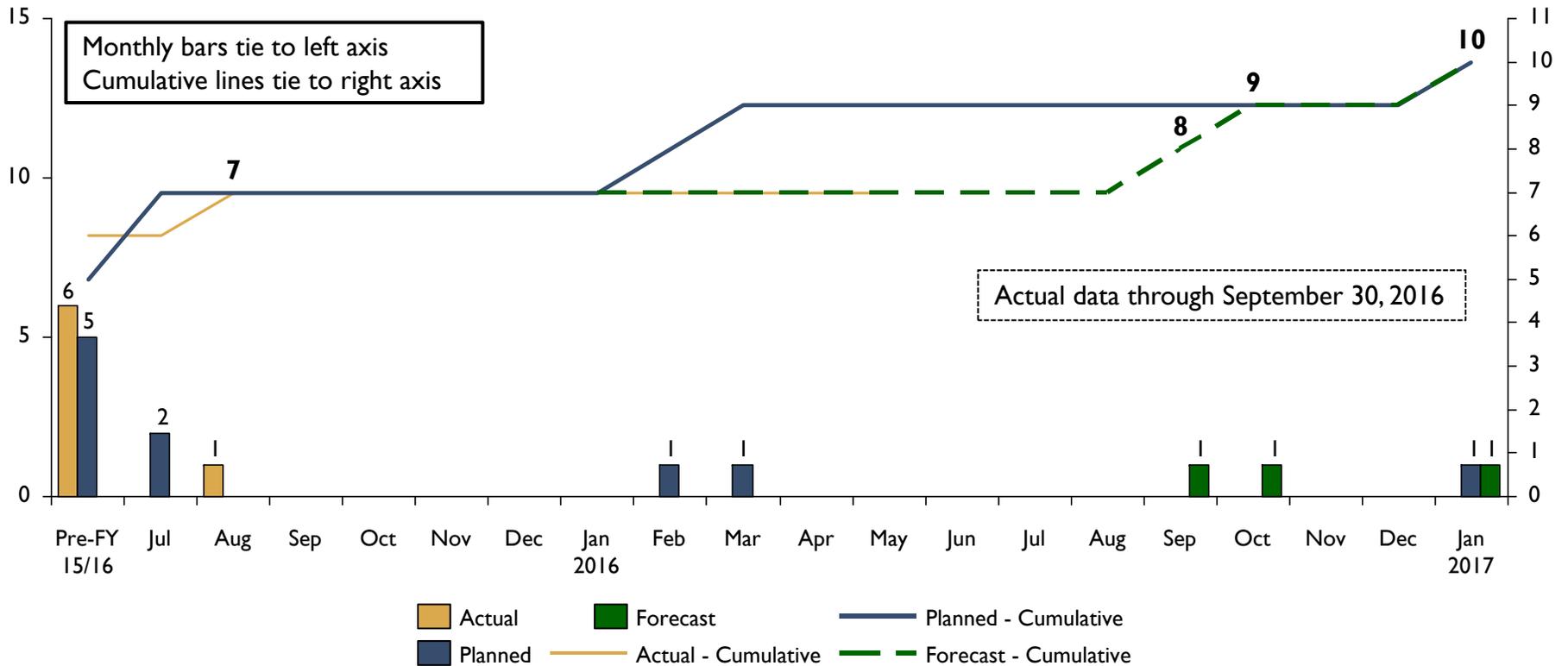
Notes:

I. Some Agreements are counted more than once because they are required for more than one section.

Railroad Third Party Agreements Separate from CP1, CP2-3, and CP4 by Month

Plan vs. Actual vs. Forecast

Railroads – Third Party Agreements Separate from CP1, CP2-3, and CP4 DB Contracts
(in number of agreements)



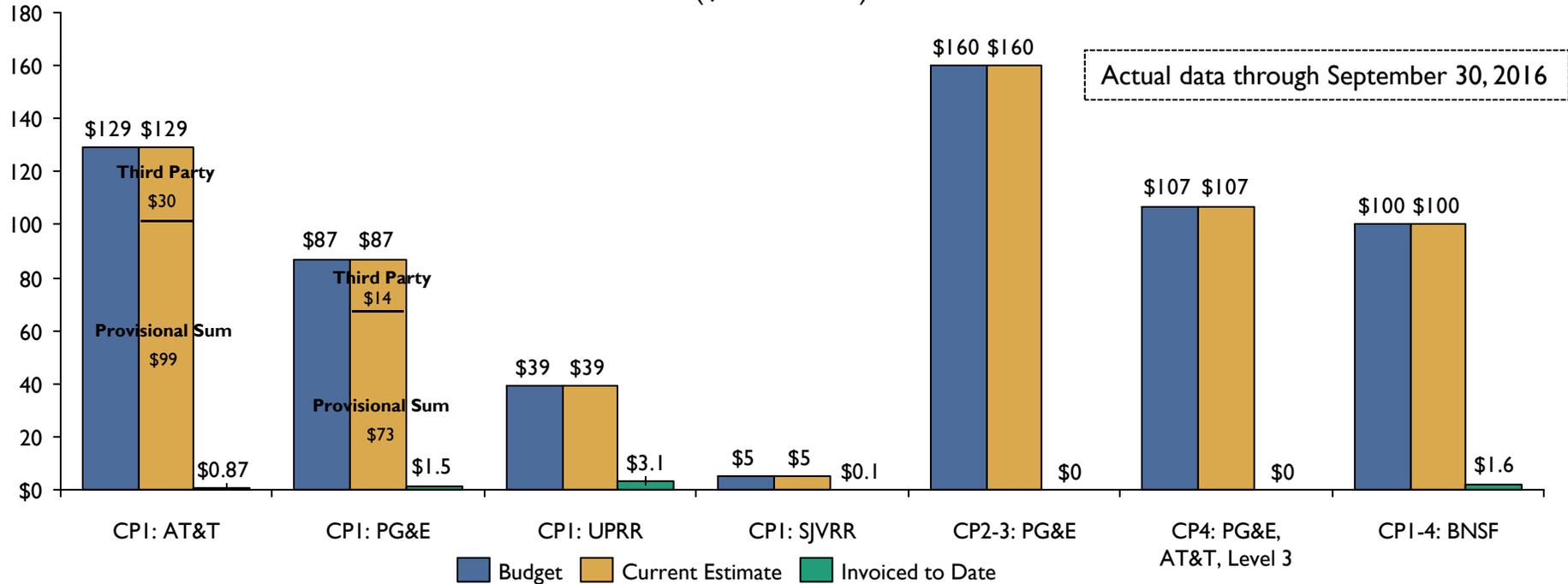
Notes:

1. 10 total Railroad agreements to be executed. Execution of BNSF agreements are dependent on DB designs.

AT&T, PG&E, Level 3, & Railroads

Board Authorized, Current Estimate and Invoiced Amounts

Board Authorized, Current Estimate and Invoiced Amounts
(\$ in millions)



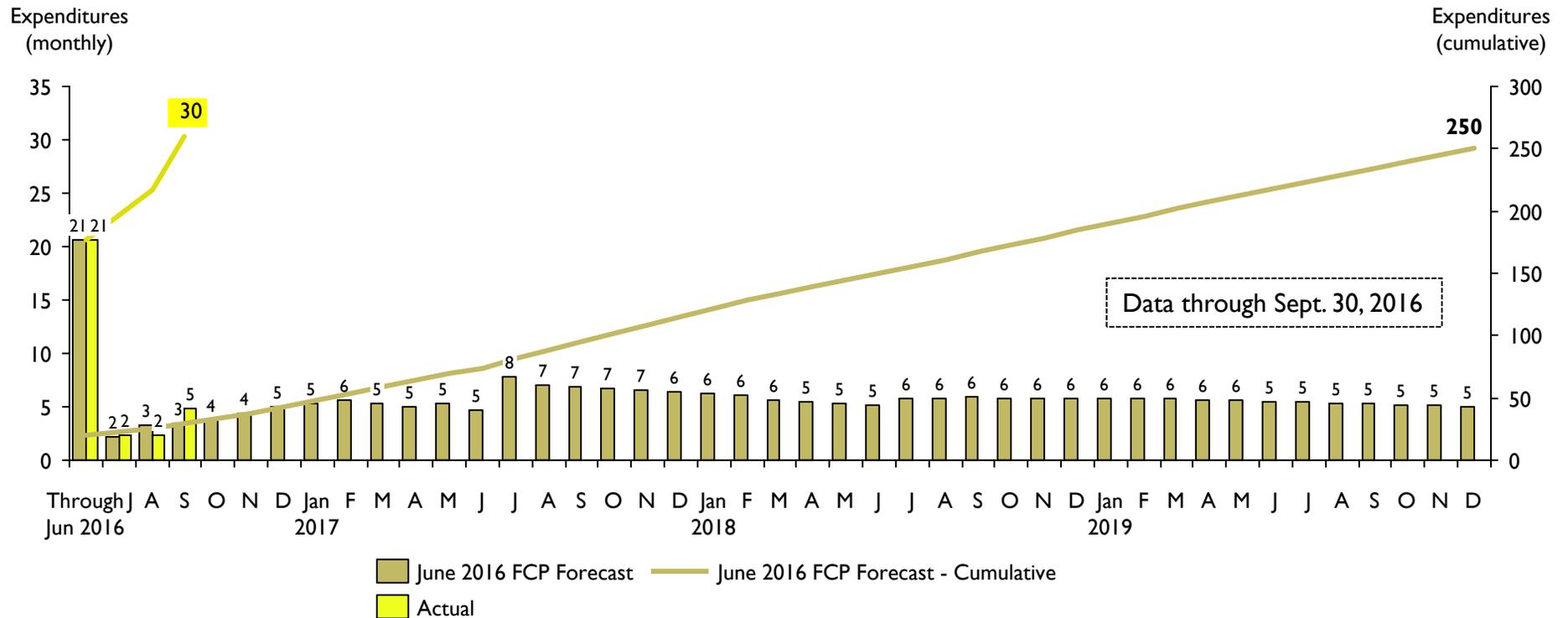
Notes:

1. Third Party Agreements are agreements that enable the design and construction of the CA High-Speed Rail System. These agreements are for the relocation, modification, reconstruction, and/or protection of utilities, irrigations facilities, and roadways that are in physical conflict with the proposed alignment.
2. As the project progresses, the Authority will be in a better position to quantify the estimates.
3. Current estimates for CPI are due to a better understanding of utility impacts as part of physical ground and underground surveys required for design.
4. Current estimates for CP2-3 and CP4 are based on most current information available and have not be verified by physical ground and underground surveys required for design.
5. All estimates do not include contingency. See risk overlay slides for added contingency.
6. Amounts shown for each Third Party agreement are inclusive of funds shown in both the project budget and Third Party budget line items.
7. Amounts expended by the DB's for this work will be reported as received.

Total Other Expenditure by Month

Forecast vs. Actual

Total Other Expenditure Schedule (\$ in millions)



Notes:

1. Original FCP Forecast (December 2012) did not have task level detail for other expenditures.
2. Other costs include – utilities, railroads, local municipalities, irrigation districts and resource agency support.
3. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
4. Numbers may not add due to rounding.
5. Variance in FCP and Capital Outlay numbers due to timing differences.

Sources:

1. Interim Funding Contribution Plan Worksheet, Sept-2016
2. Funding Contribution Plan, Jun-2016

Agenda

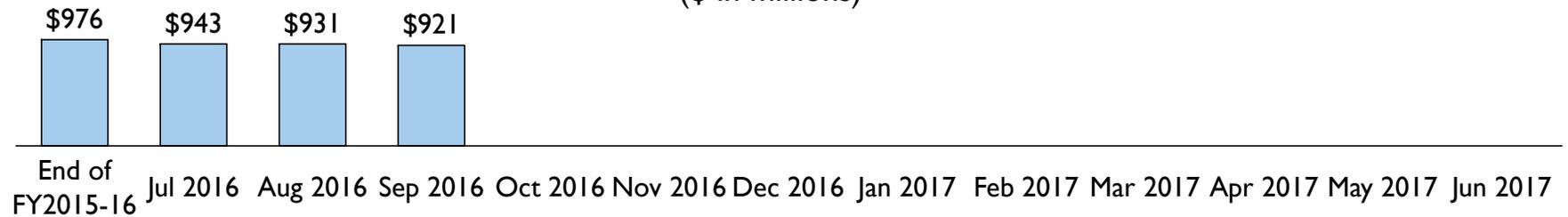
- ▶ Operations Report Metrics
 - Executive Summary
 - Right-of-Way (ROW)
 - Project Development
 - Third Party Agreements
 - Contract Management
 - Finance/Budget
 - ARRA Schedule
 - Risk

Contract Management Metrics - Context

- ▶ There are 2 contract management metrics included:
 - Contingency Value
 - This value is based on remaining contingency as a percentage of the remaining contract balance
 - Expenditure Schedule
 - Earned Value (EV) = Percent Complete x Budget at Completion (BAC)
 - Planned Value (PV) = Approved Baseline Schedule
 - Funding Contribution Plan (FCP) forecast value refers to forecasted Design-Build Contract expenditure in quarterly Funding Contribution Plan
- ▶ Contract management metrics for CPI, CP2-3, CP4, and SR-99 are included
 - For the SR-99 realignment project contract the Authority is in an oversight role, with Caltrans directly managing the project
- ▶ Updates to the report will be made monthly
 - In October 2015, cut-off date for data reporting was adjusted to the end of the prior month

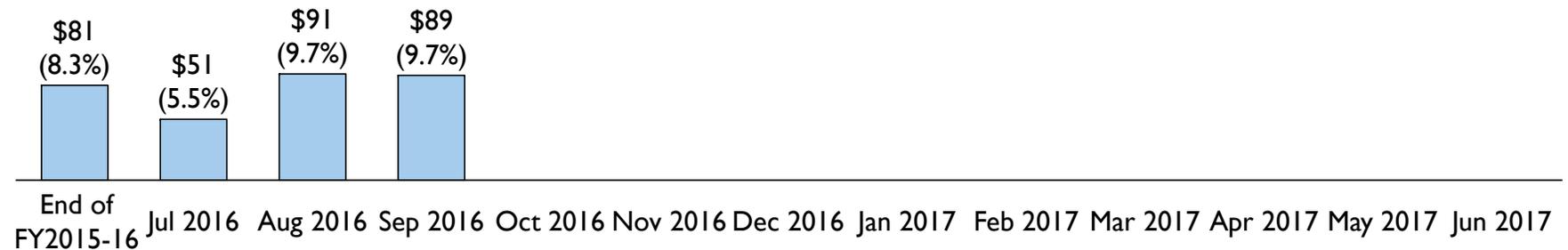
CP1 Contract Management – Contingency Value

CPI – Contract Balance Remaining¹
(\$ in millions)



If remaining contingency against amount of contract / work left falls below 10%, corrective action may be necessary.

CPI – Contingency Balance Remaining
(\$ in millions)
(% of contract balance remaining)



Notes:

1. Remaining Contract Value = [Revised DB Contract Amount] – [Authority Approved Invoices to Date]. Revised DB contract amount, increased to \$1,290M from the original contract amount of \$1,023M, due to executed change orders (including North Extension).
2. Contract balance only accounts for invoices in determining contract balance, so this number may not reconcile with "earned value" in schedule performance index metric.
3. Based upon the amount of CPI work remaining, both the remaining contingency balance and the contingency percentage, measured against the contract balance remaining, fall within the established contingency envelope of the project.

Source: September 30, 2016
CPI Performance Metric Report

CP1 Contract Management Raw Data: Contingency Value

CPI – Contingency (\$ in millions)

	End of FY15-16	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017
Contract Balance Remaining	\$976.4M	\$943.2M	\$931.5M	\$920.8M									
Contingency	\$160M	\$160M	\$160M	\$160M									
Change Orders (from contingency)	\$79.3M	\$29.2M	-\$39.1M See Note 2	\$1.4M									
Contingency Balance Remaining	\$80.7M	\$51.5M	\$90.5M	\$89.1M									
Contingency %	8.3%	5.5%	9.7%	9.7%									

Note:

1. Contract Balance Remaining is the sum of the previous month's Contract Balance Remaining less the monthly approved invoice amount plus change orders (from contingency).
2. \$39.1M of change orders executed from contingency was reclassified and funded through budget transfers.

Source: September 30, 2016
CPI Performance Metric Report

CP1 Contract Management Raw Data: Schedule Performance Index

FY2016-17 CPI – Schedule (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
June 2016 FCP Forecast Value	\$342.2M	\$358.2M	\$373.9M	\$389.4M									
Earned Value/ Invoiced to Date	\$279.8M	\$342.2M	\$354.0M	\$368.8M									
Planned Value	\$749.8M	\$768.4M	\$788.5M	\$807.0M									
Schedule Performance Index	37%	45%	45%	46%									

Source: September 30, 2016
CPI Performance Metric Report

CP2-3 Contract Management – Contingency Value

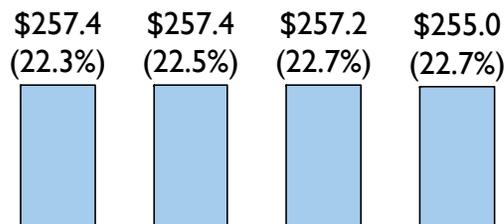
CP2-3 – Contract Balance Remaining
(\$ in millions)



End of FY2015-16 Jul 2016 Aug 2016 Sep 2016 Oct 2016 Nov 2016 Dec 2016 Jan 2017 Feb 2017 Mar 2017 Apr 2017 May 2017 Jun 2017

If remaining contingency against amount of contract / work left falls below 10%, corrective action may be necessary.

CP2-3 – Contingency Balance Remaining
(\$ in millions)
(% of contract balance remaining)



End of FY2015-16 Jul 2016 Aug 2016 Sep 2016 Oct 2016 Nov 2016 Dec 2016 Jan 2017 Feb 2017 Mar 2017 Apr 2017 May 2017 Jun 2017

Notes:

1. Remaining Contract Value = [Revised DB Contract Amount] – [Authority Approved Invoices to Date].
2. Contract balance only accounts for invoices in determining contract balance, so this number may not reconcile with "earned value" in schedule performance index metric.

Source: September 30, 2016
CP2-3 Performance Metric Report

CP2-3 Contract Management Raw Data: Contingency Value

CP2-3 – Contingency (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
Contract Balance Remaining	\$1,153M	\$1,142M	\$1,135M	\$1,124M									
Contingency	\$261.2M	\$261.2M	\$261.2M	\$264.2M									
Change Orders (from contingency)	\$4.0M	\$0.0M	\$0.0M	\$2.2M									
Contingency Balance Remaining	\$257.2M	\$257.2M	\$257.2M	\$255.0M									
Contingency %	22.3%	22.5%	22.7%	22.7%									

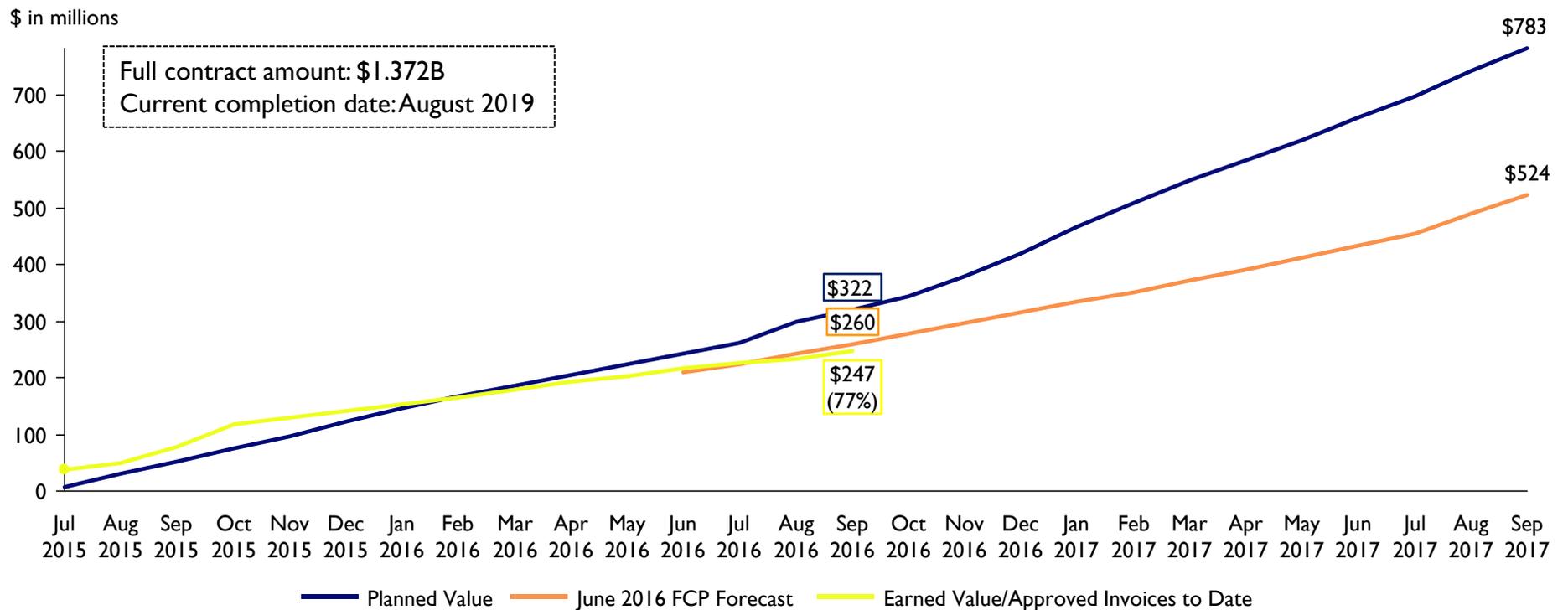
Note:

I. Contract Balance Remaining is the sum of the previous month's Contract Balance Remaining less the monthly approved invoice amount plus change orders (from contingency).

Source: September 30, 2016
CP2-3 Performance Metric Report

CP2-3 Contract Management – Schedule Performance Index

CP2-3 Schedule – Total Planned Value of Contract Earned (\$ in millions)



Notes:

1. Full contract amount includes bid amount, provisional sums and executed change order amounts.
2. Total amount earned refers to progress on the schedule, not approved contract invoices.
3. CP2-3 DB contract forecast expenditures from January 2016 to June 2017 will be 100% ARRA funded, until full ARRA drawdown.
4. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.

Sources:

1. FCP Forecast: Funding Contribution Plan, Jun-2016
2. Earned Value/Approved Invoices to Date: September 30, 2016 CP2-3 Performance Metric Report
3. FCP Forecast will be updated based on quarterly Funding Contribution Plan.

CP2-3 Contract Management Raw Data: Schedule Performance Index

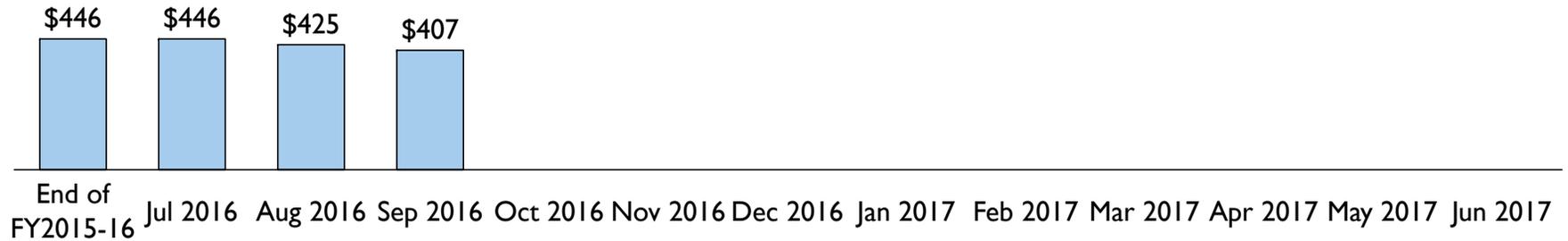
FY2016-17 CP2-3 – Schedule (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
June 2016 FCP Forecast Value	\$208.7M	\$224.7M	\$242.7M	\$260.3M									
Earned Value/ Invoiced to Date	\$216.3M	\$226.9M	\$234.1M	\$247.5M									
Planned Value	\$242.2M	\$262.5M	\$300.3M	\$321.6M									
Schedule Performance Index	89%	86%	78%	77%									

Source: September 30, 2016
CP2-3 Performance Metric Report

CP4 Contract Management – Contingency Value

CP4 – Contract Balance Remaining
(\$ in millions)



If remaining contingency against amount of contract / work left falls below 10%, corrective action may be necessary.

CP4 – Contingency Balance Remaining
(\$ in millions)
(% of contract balance remaining)



Notes:

1. Remaining Contract Value = [Revised DB Contract Amount] – [Authority Approved Invoices to Date].
2. Contract balance only accounts for invoices in determining contract balance, so this number may not reconcile with "earned value" in schedule performance index metric.

Source: September 30, 2016
CP4 Monthly Status Report

CP4 Contract Management Raw Data: Contingency Value

CP4 – Contingency (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
Contract Balance Remaining	\$445.6M	\$445.6M	\$424.6M	\$407.1M									
Contingency	\$62.0M	\$62.0M	\$62.0M	\$62.0M									
Change Orders (from contingency)	\$1.4M	\$0.0M	\$0.0M	\$0.0M									
Contingency Balance Remaining	\$60.6M	\$60.6M	\$60.6M	\$60.6M									
Contingency %	13.6%	13.6%	14.3%	14.9%									

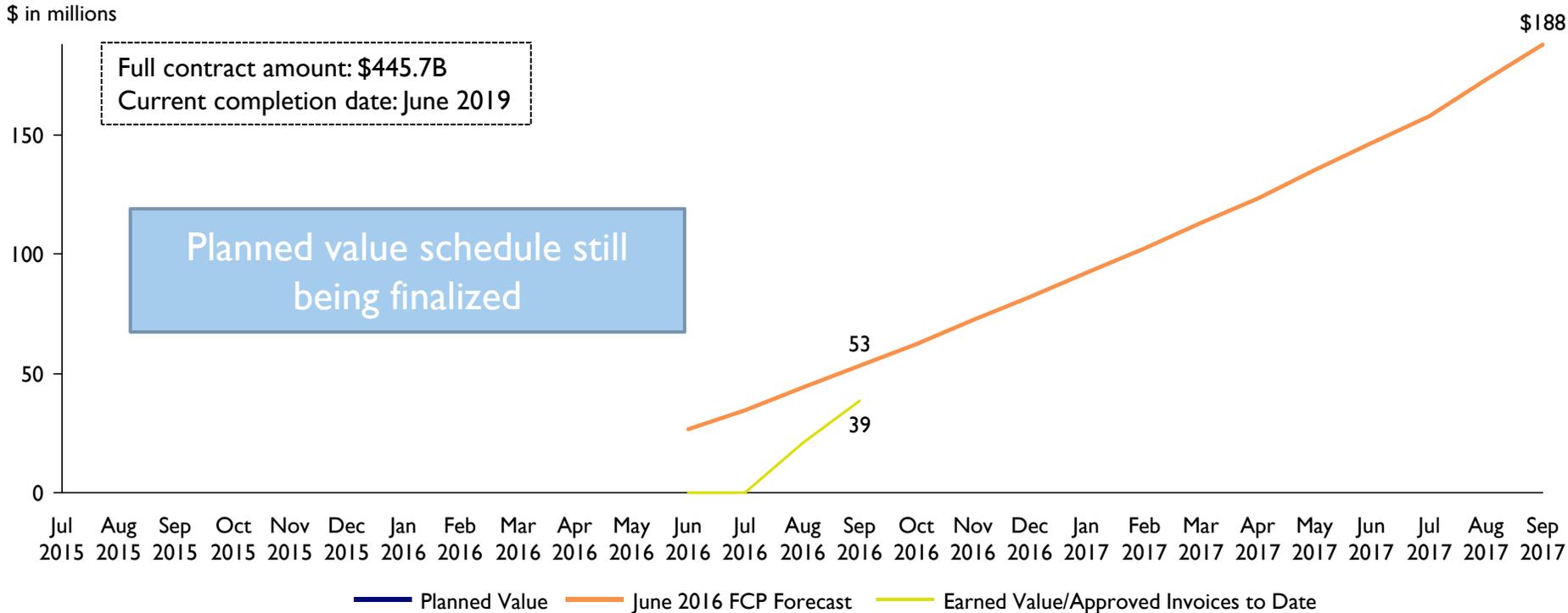
Note:

I. Contract Balance Remaining is the sum of the previous month's Contract Balance Remaining less the monthly approved invoice amount plus change orders (from contingency).

Source: September 30, 2016
CP4 Monthly Status Report

CP4 Contract Management – Schedule Performance Index

CP4 Schedule – Total Planned Value of Contract Earned
(\$ in millions)



Notes:

1. Full contract amount includes bid amount, provisional sums and executed change order amounts.
2. Total amount earned refers to progress on the schedule, not approved contract invoices.
3. CP4 DB contract forecast expenditures from January 2016 to June 2017 will be 100% ARRA funded, until full ARRA drawdown.
4. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.

Sources:

1. FCP Forecast: Funding Contribution Plan, Jun-2016
2. Earned Value/Approved Invoices to Date: September 30, 2016 CP4 Monthly Status Report
3. FCP Forecast will be updated based on quarterly Funding Contribution Plan.

CP4 Contract Management Raw Data: Schedule Performance Index

FY2016-17 CP4 – Schedule (\$ in millions)

	End of FY2015 -16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
June 2016 FCP Forecast Value	\$26.3M	\$34.7M	\$44.1M	\$53.2M									
Earned Value/ Invoiced to Date	\$0.0M	\$0.0M	\$21.1M	\$38.6M									
Planned Value	See Note 1	See Note 1	See Note 1	\$46.4M See Note 2									
Schedule Performance Index	See Note 1	See Note 1	See Note 1	83% See Note 2									

- Notes:
1. CP4 Planned Value schedule is still being finalized.
 2. SPI Figures shown are based on the accepted Interim 180 Day Schedule early cash flow curve. Once the full Baseline Schedule is approved, a revised set of SPIs will be published based on the accepted mid-point Planned Value curve.

Source: September 30, 2016 CP4 Monthly Status Report

SR-99 Contract Management – Contingency Value

SR-99 – Contract Balance Remaining
(\$ in millions)



If remaining contingency against amount of contract / work left falls below 5%, corrective action may be necessary.

SR-99 – Contingency Balance Remaining
(\$ in millions)
(% of contract balance remaining)

The values shown are a sum of the EWP and MP Contingencies.



Notes: Contract balance only accounts for invoices in determining contract balance, so this number may not reconcile with "earned value" in schedule performance index metric

Source: September 30, 2016
SR-99 Performance Metric Report

SR-99 Contract Management Raw Data: Contingency Value

SR-99 – Contingency (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
Contract Balance Remaining	\$144.7M	\$140.9M	\$136.8M	\$133.7M									
Contingency See Note 2	\$9.5M	\$9.5M	\$9.5M	\$9.5M									
Change Orders (from contingency)	\$1.3M	\$0.0M	\$0.4M	-\$0.2M									
Contingency Balance Remaining See Note 2	\$8.2M	\$8.2M	\$7.8M	\$8.0M									
Contingency %	5.7%	5.8%	5.7%	6.0%									

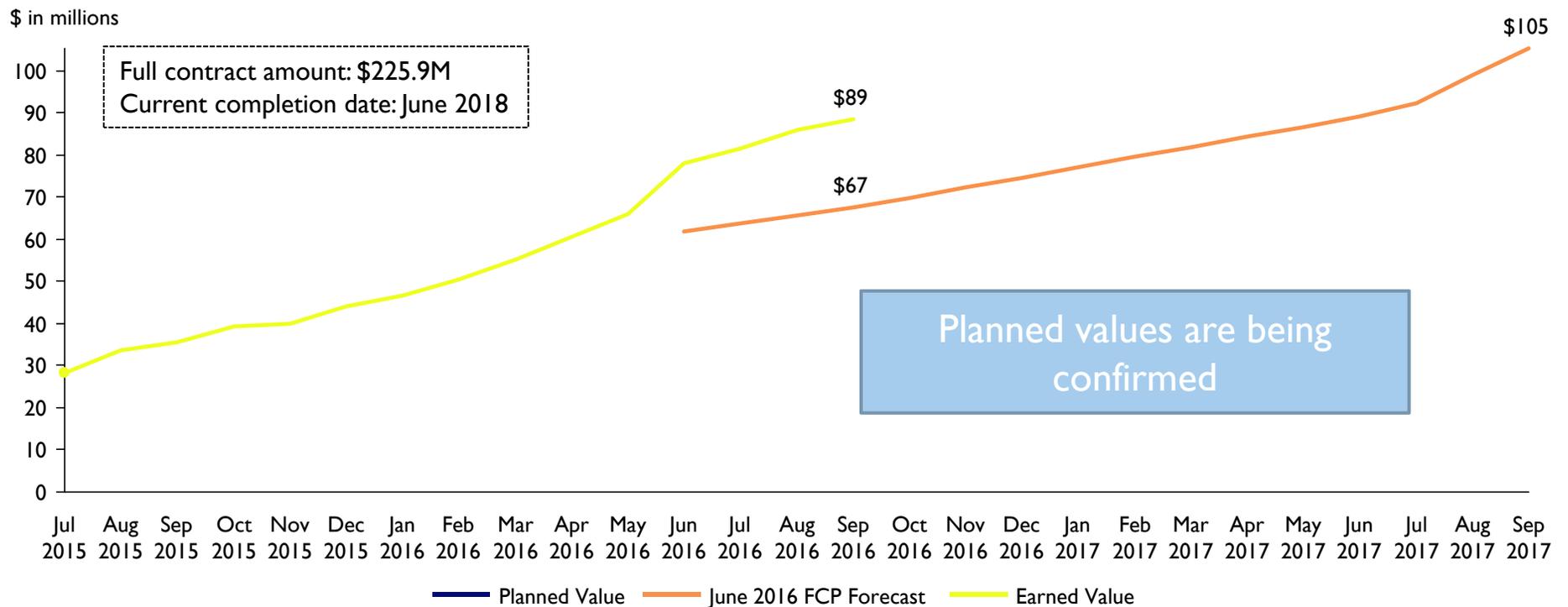
Notes:

- Contract balance only accounts for invoices in determining contract balance, so this number may not reconcile with "earned value" in schedule performance index metric
- The contingency values shown are a combination of the EWP and MP contingency values.

Source: September 30, 2016
SR-99 Performance Metric Report

SR-99 Contract Management – Schedule Performance Index

SR-99 Schedule – Total Planned Value of Contract Earned (\$ in millions)



Notes:

1. Total amount earned refers to progress on the schedule, not approved contract invoices.
2. SR-99 contract forecast expenditures from January 2016 to June 2017 will be 100% ARRA funded, until full ARRA drawdown.
3. Jun-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.

Sources:

1. FCP Forecast: Funding Contribution Plan, Jun-2016
2. Earned Value: September 30, 2016 SR-99 Performance Metric Report
3. FCP Forecast will be updated based on quarterly Funding Contribution Plan.

SR-99 Contract Management Raw Data: Schedule Performance Index

FY2016-17 SR-99 – Schedule (\$ in millions)

	End of FY2015-16	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
June 2016 FCP Forecast Value	\$61.7M	\$63.6M	\$65.5M	\$67.4M									
Earned Value ¹	\$78.1M	\$81.3M	\$86.1M	\$88.6M									
Planned Value	See Note 2	See Note 2	See Note 2	See Note 2									
Schedule Performance Index	93%	86%	82%	77%									

Note:

1. SR-99 contract with Caltrans is not a Design-Build contract. Earned value is not necessarily equal to invoice to data/actual cost amount.
2. Planned Values are being confirmed.

Source: September 30, 2016
SR-99 Performance Metric Report

Agenda

- ▶ Operations Report Metrics
 - Executive Summary
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Finance/Budget Metrics – Context

- ▶ Metrics organized by:
 - Summary of current fiscal environment
 - FY2016-17 finance/budget data, which includes ROW, planning, environmental and construction

- ▶ For FY2016-17, this report presents:
 - Budgeted expenditures based on FCP budget
 - Actual expenditures incorporated each month based on invoices received, invoices pending, and accruals, including Work-in-Progress
 - Forecasts will shift each month and align with FY2016-17 forecast from the F&A Capital Outlay Report

- ▶ All data shown is at the end of each month:
 - There is a 1-month lag to produce the F&A Capital Outlay Report
 - For example, the November F&A Capital Outlay Report includes financial data through September 30, 2016

As of September 30, 2016, the Authority has spent 19.6% of FY2016-17 budget, 76.9% of the federal ARRA grant, and 86% of the FY2014-15 Cap and Trade appropriation

FY2016-17 Expenditures to Date (Data as of September 2016)

Total appropriation includes some funding for Phase II planning and FY2015-16 Cap and Trade creating a difference with the total budget below.

Total Appropriation	FY2016-17 Budget		FY Expenditures to Date		Expenditures - % of Budget	
	Aug-16	Sept-16	Aug-16	Sept-16	Aug-16	Sept-16
\$9.025B	\$1.72B	\$1.72B	\$0.21B	\$0.32B	12.2%	18.6%

Total Expenditures to Date (\$ in billions) (Data as of September 2016)

ARRA expenditures are 76.9% of federal ARRA grant funds and 21.8% of \$9.0B total budget

	TOTAL		Planning		Construction	
	Budget	Expended	Budget	Expend to Date	Budget	Expend to Date
ARRA Grant	\$2.55	\$1.96	\$0.44	\$0.38	\$2.11	\$1.58
FY10 Grant	\$0.93	\$-	\$-	\$-	\$0.93	\$-
PROP IA	\$3.18	\$0.33	\$0.58	\$0.33	\$2.61	\$-
Cap and Trade	\$1.22	\$0.22	\$0.33	\$0.07	\$0.89	\$0.14
Local Assistance	\$1.10	\$-	\$-	\$-	\$1.10	\$-
Total	\$8.99	\$2.51	\$1.34	\$0.78	\$7.64	\$1.72

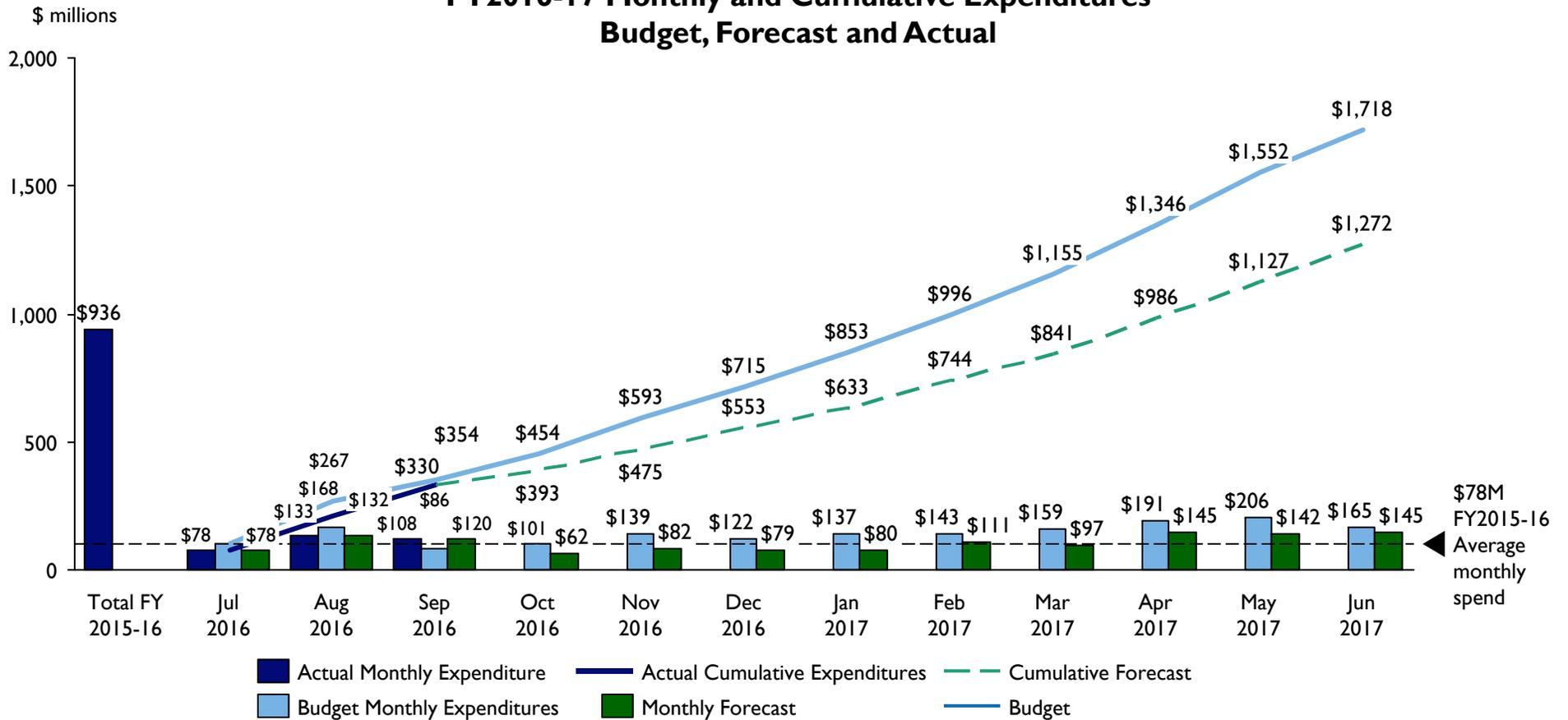
Note: Numbers may not add due to rounding

Source: F&A Capital Outlay Report, November 2016 – balance subject to change due to pending approval of tapered match and federal reimbursements

1 Total ARRA expenditures are \$2.007B or 78.6% of the \$2.553B grant as of November 1, 2016 including FRA paid, approved, and pending invoices plus invoices pending submittal to FRA, invoices received by HSRA, and Work-in-Progress.

Finance/Budget – FY2016-17 Expenditures

FY2016-17 Monthly and Cumulative Expenditures Budget, Forecast and Actual



Source: F&A Capital Outlay Reports (Sep-2015 – November-2016)

Notes: Forecast data may shift due to monthly actuals

Finance/Budget Raw Data

Capital Outlay Budget, Expenditures, and Forecast

FY2015-16 Raw Data

	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	June 2016
Total FY Budget	\$1.7B	\$1.7B	\$1.7B	\$1.7B	\$1.7B	\$1.8B	\$1.9B	\$1.9B	\$1.9B	\$1.9B	\$1.9B	\$1.9B
Expense to Date	\$0	\$74.1M	\$125.5M	\$161.4M	\$234.6M	\$293.1M	\$391.0M	\$453.3M	\$536.8M	\$624.0M	\$775.0M	\$936M
Monthly expenditures	\$0	\$74.1M	\$51.4M	\$35.9M	\$73.2M	\$58.5M	\$98.0M	\$62.3M	\$83.5M	\$87.2M	\$150.9M	\$175.3M
Total FY Forecast	\$1.7B	\$1.7B	\$1.3B	\$1.0B	\$1.0B	\$1.1B	\$0.9B	\$0.9B	\$0.8B	\$0.9B	\$0.9B	\$0.9B

FY2016-17 Raw Data

	July 2016	Aug 2016	Sept 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017
Total FY Budget	\$1.7B	\$1.7B	\$1.7B									
Expense to Date	\$78.5M	\$211.1M	\$319.1M									
Monthly expenditures	\$78.5M	\$132.6M	\$108.0M									
Total FY Forecast	\$1.7B	\$1.7B	\$1.3B									

Source: F&A Capital Outlay Reports

Notes: Numbers may not add due to rounding; no July 2015 expenditures were received by the July-2015 reporting deadline.

Agenda

- ▶ Operations Report Metrics
 - Executive Summary
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ARRA Schedule – Context

- ▶ The following slides provide the ARRA grant drawdown schedule, and track ARRA grant monthly expenditures

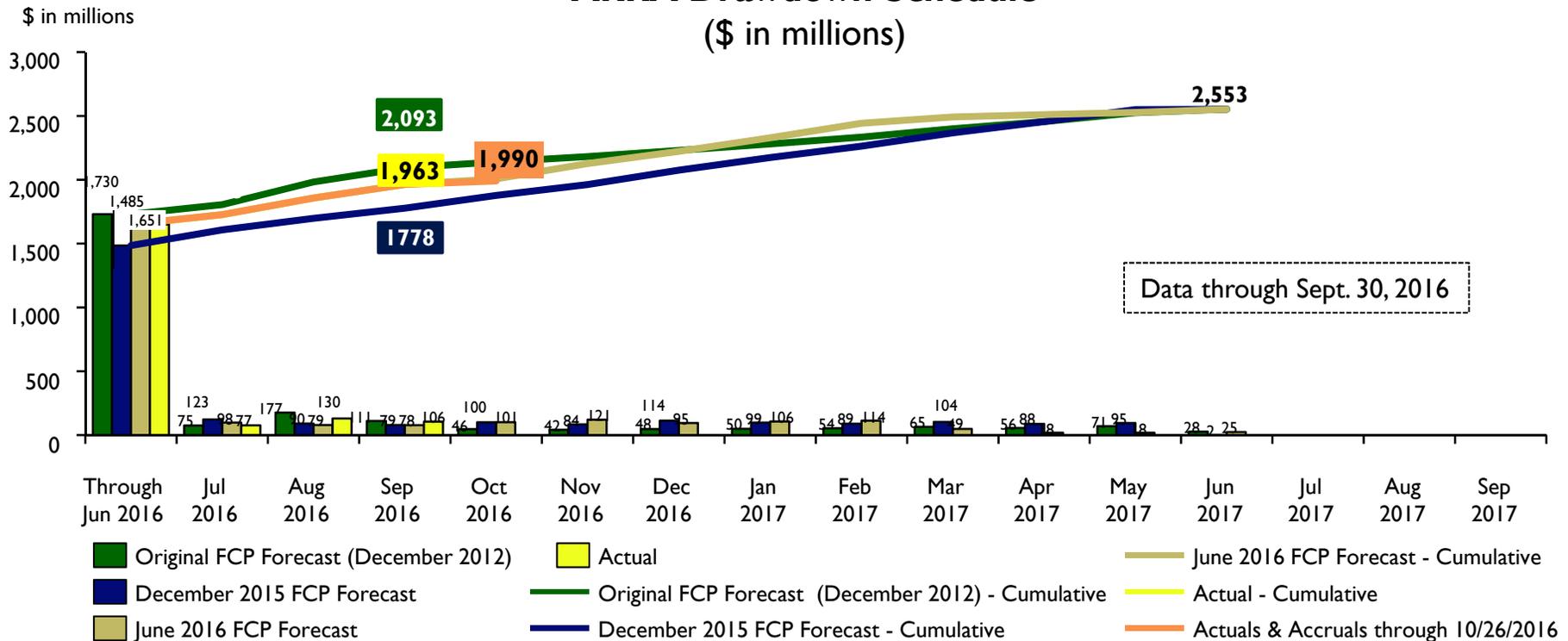
- ▶ The ARRA grant is broken down into two expenditure types:
 - ARRA-Project Development: Environmental Review, Preliminary Engineering Design, Project Administration and other project development related costs
 - ARRA-Construction: Program Management, Project Construction Management, ROW Acquisition, Design-Build Contracts, Third Party Agreements, Project Reserves and Contingencies

- ▶ The ARRA schedule tracks:
 - Actual expenditures: reported each month
 - Forecast expenditures: adjusted quarterly based on the Funding Contribution Plan

ARRA Expenditure by Month

Forecast vs. Actual

ARRA Drawdown Schedule (\$ in millions)



Data through Sept. 30, 2016

1. The program can frontload all of the ARRA funds to help spend those funds as early as possible.
2. State funds can be matched against federal funds and matched against ARRA funds already spent.
3. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in December 2012.
4. Dec-15 FCP was not approved, and was only used to initially track performance prior to the approval of the Mar-16 FCP.
5. June-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
6. Numbers may not add due to rounding.
7. Variance in FCP and Capital Outlay numbers due to timing differences.
8. As of the Nov-16 report, an orange trend line has been added to report ARRA Actuals and Accruals.
9. Total ARRA expenditures are \$2.007B or 78.6% of the \$2.553B grant as of November 1, 2016 including FRA paid, approved, and pending invoices plus invoices pending submittal to FRA, invoices received by HSRA, and Work-in-Progress.

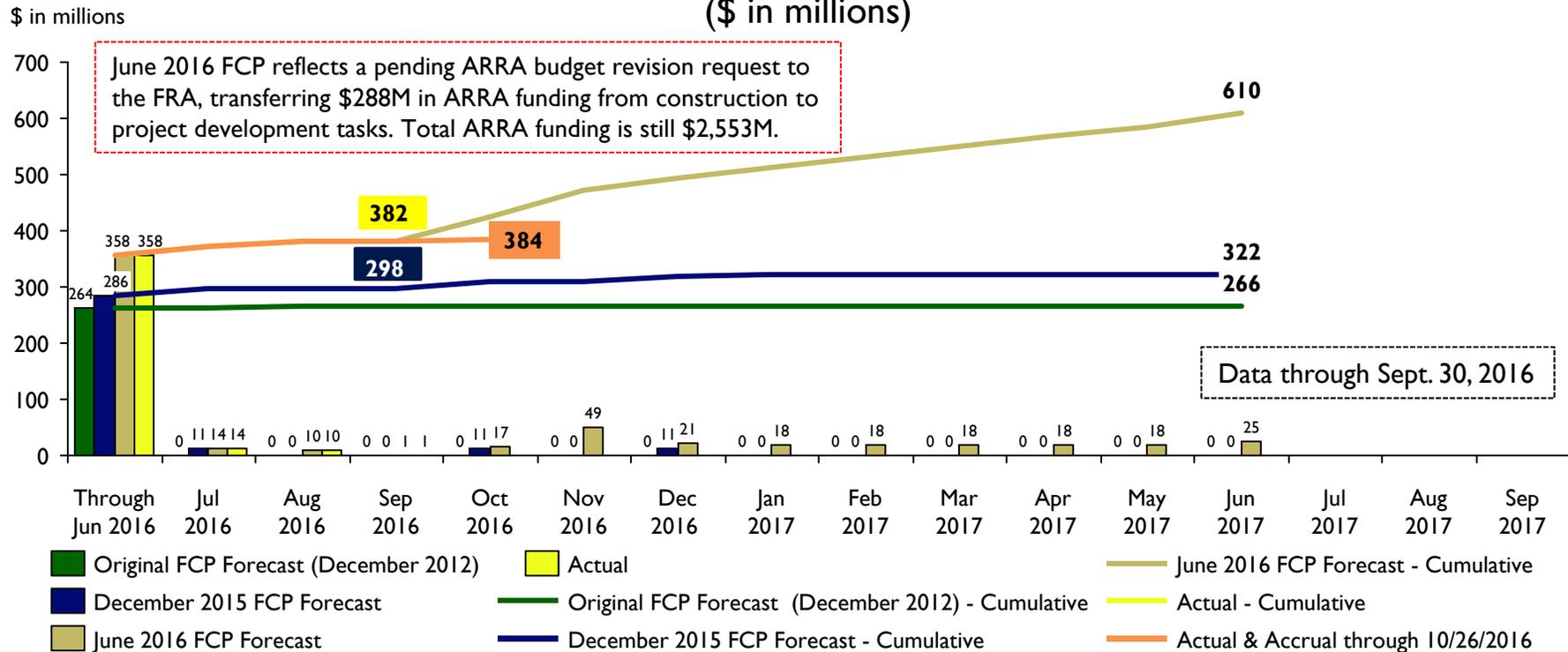
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept-2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

ARRA Expenditure by Month

Forecast vs. Actual

ARRA-Project Development Drawdown Schedule



Notes:

1. The program can frontload all of the ARRA funds to help spend those funds as early as possible.
2. State funds can be matched against federal funds and matched against ARRA funds already spent.
3. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in December 2012.
4. Dec-15 FCP was not approved, and was only used to initially track performance prior to the approval of the Mar-16 FCP.
5. June-16 FCP has been submitted to the Federal Railroad Administration (FRA), and is under review.
6. Numbers may not add due to rounding.
7. Variance in FCP and Capital Outlay numbers due to timing differences.
8. As of the Nov-16 report, an orange trend line has been added to report ARRA Actuals and Accruals.

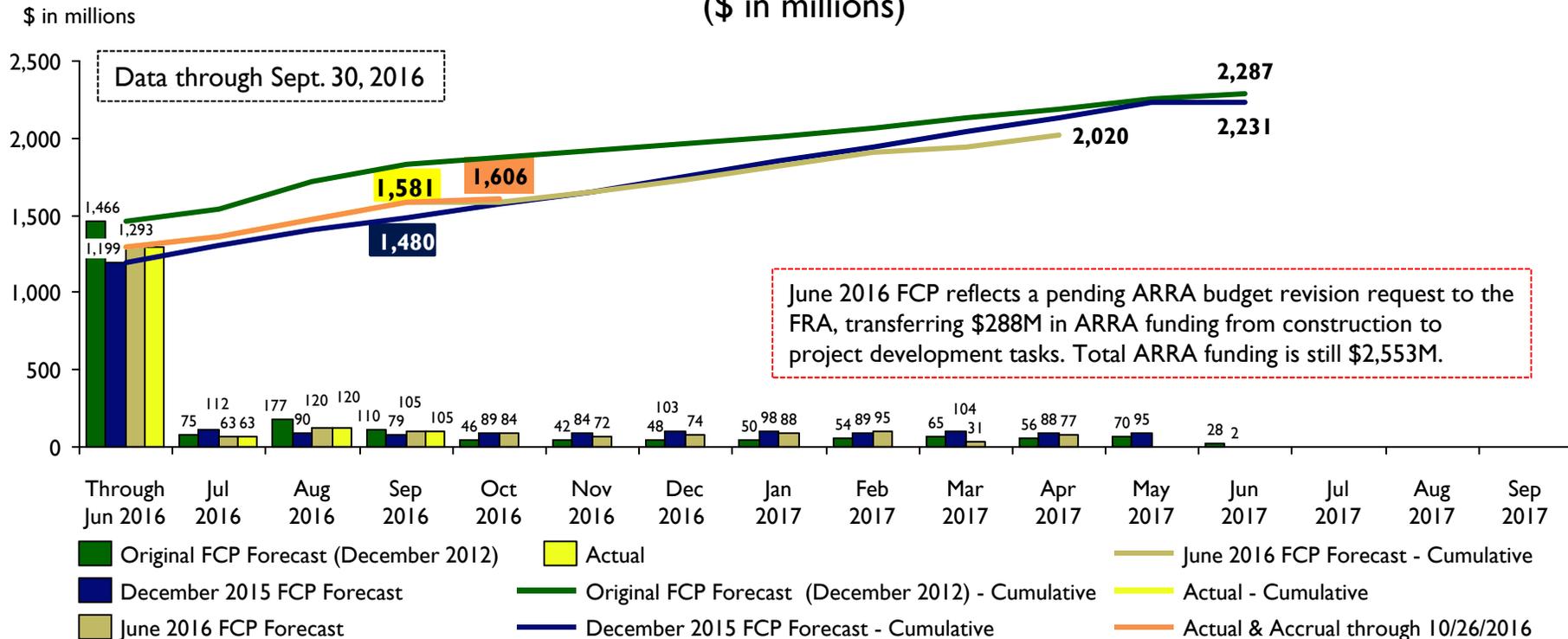
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept-2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

ARRA Expenditure by Month

Forecast vs. Actual

ARRA-Construction Drawdown Schedule (\$ in millions)



Notes:

1. The program can frontload all of the ARRA funds to help spend those funds as early as possible.
2. State funds can be matched against federal funds and matched against ARRA funds already spent.
3. "Original FCP Forecast" refers to the first Funding Contribution Plan approved by the FRA in December 2012.
4. Dec-15 FCP was not approved, and was only used to initially track performance prior to the approval of the Mar-16 FCP.
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8. As of the Nov-16 report, an orange trend line has been added to report ARRA Actuals and Accruals.

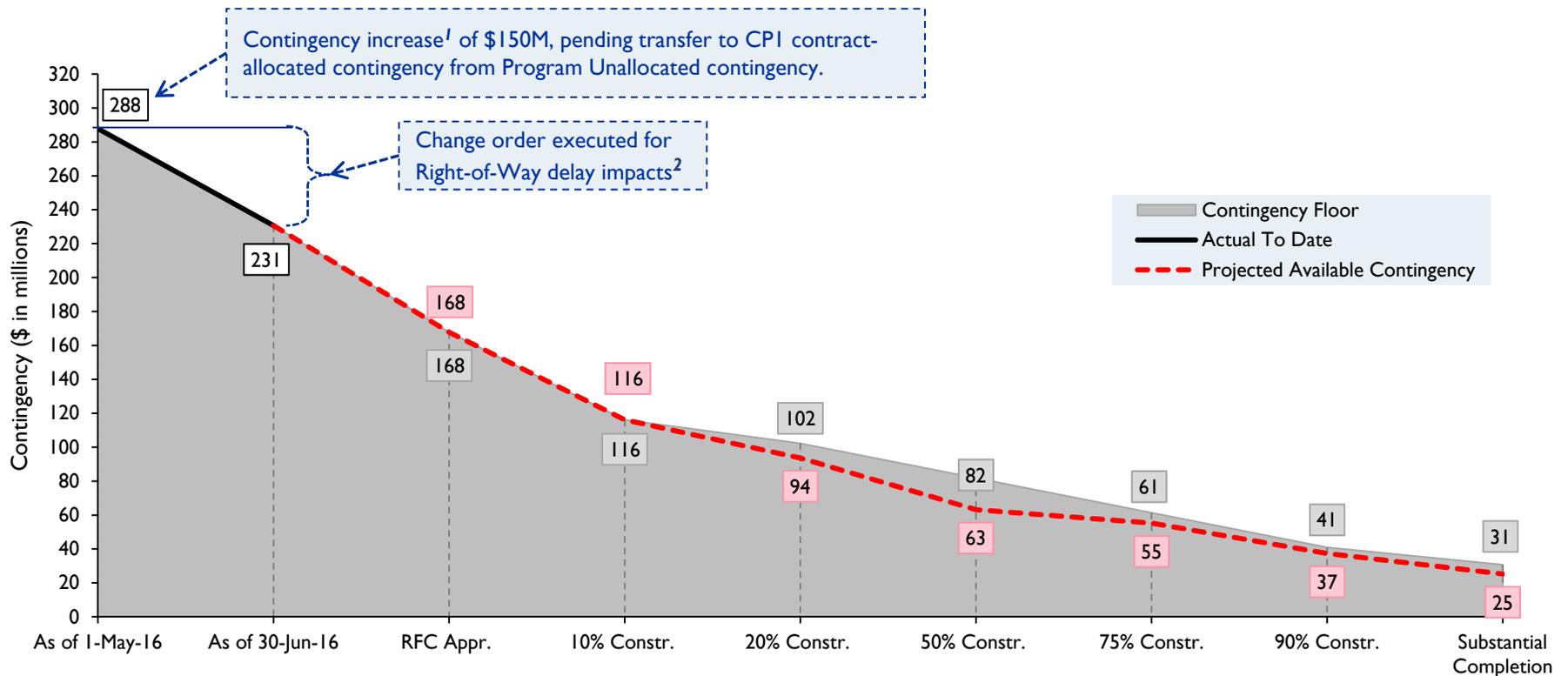
Sources:

1. Interim Funding Contribution Plan Worksheet, Sept-2016
2. Funding Contribution Plan, Jun-2016
3. Funding Contribution Plan, Dec-2015
4. Funding Contribution Plan, Dec-2012

Agenda

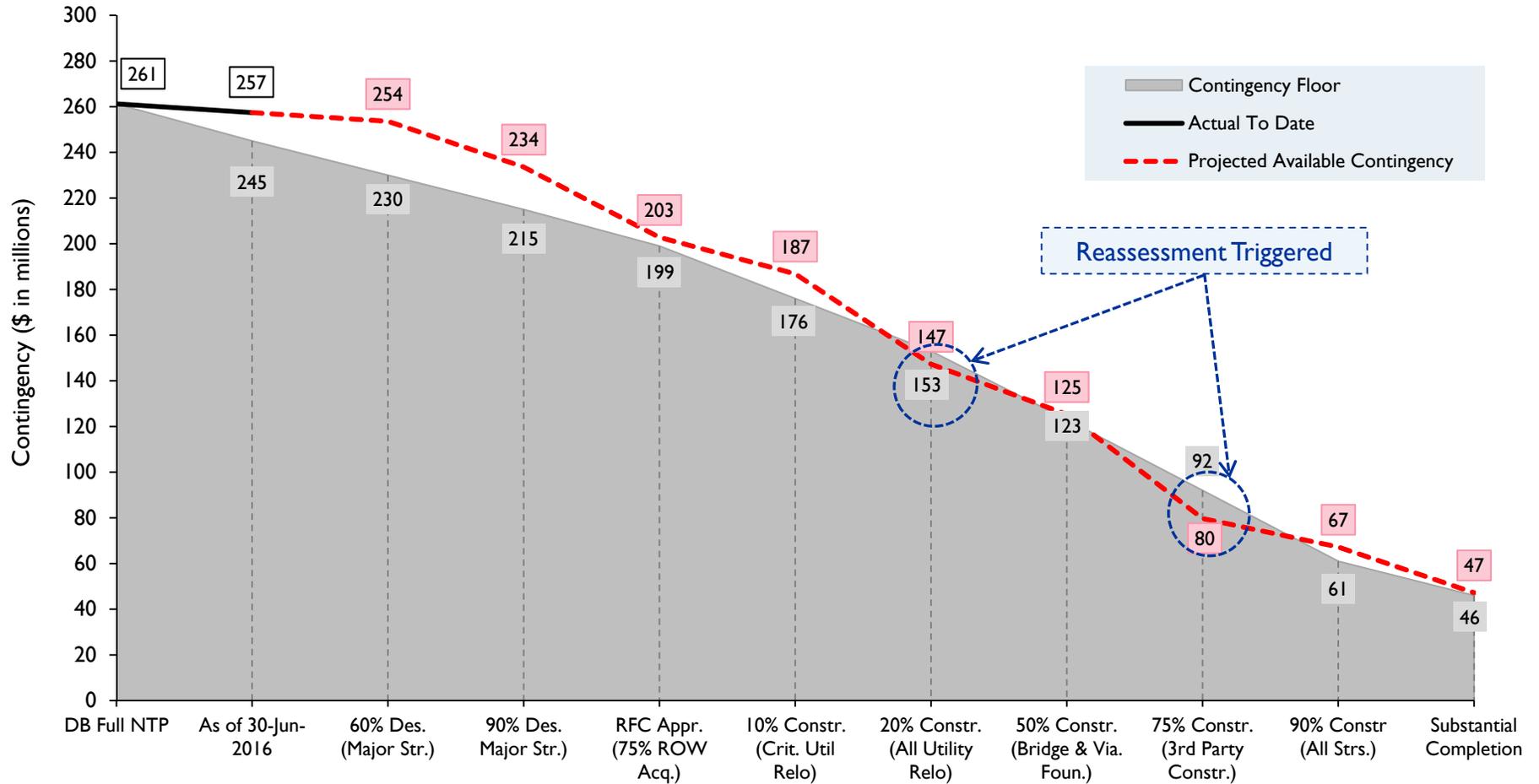
- ▶ Operations Report Metrics
 - Executive Summary
 - Right-of-Way (ROW)
 - Project Development
 - Third Party Agreements
 - Contract Management
 - Finance/Budget
 - ARRA Schedule
 - Risk

CP 1 Contract - Contingency report



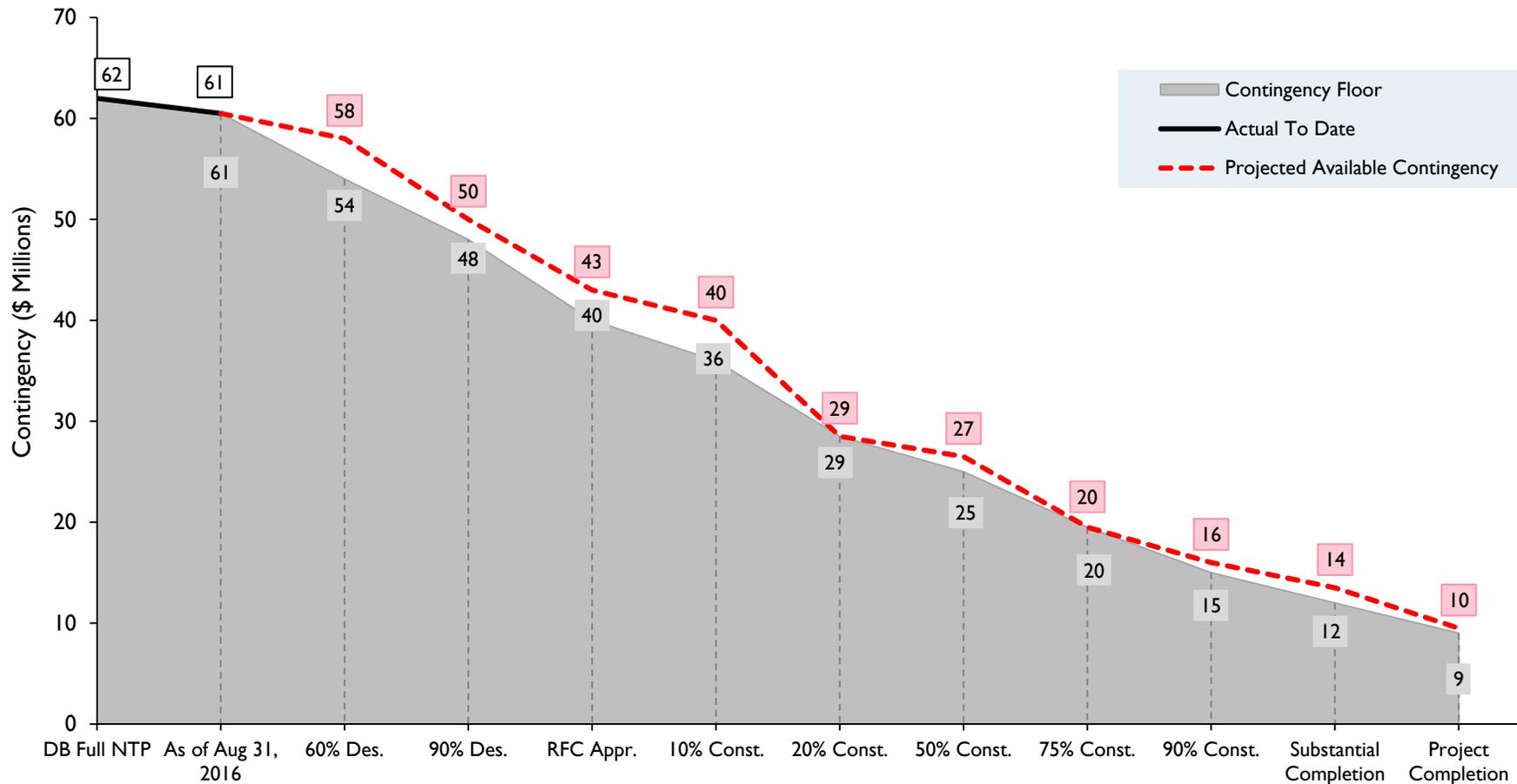
1. Reassessment Triggered: Based upon an updated contingency risk analysis, on February 16, 2016, the F&A Committee and Board of Directors was advised that the Authority is forecasting a need to increase contingencies on CPI by approx. \$150M. This contingency increase is incorporated in the approved 2016 Business Plan and does not affect the overall program budget. This increase in contingency will be transferred to Third Party Utility (PG&E and AT&T) relocation work as per May 2016 F&A update. The project team is currently analyzing remaining risk exposure on CP I project and plan to update contingency drawdown in December 2016.
2. The Right-of-Way delay impacts through December 31, 2015 have been resolved with the Contractor in Change Order 00099, with the delay costs coming out of project contingency. CPI budget and contingency have not been adjusted to reflect this added scope. The Authority is preparing to transfer funds for the added scope into the CPI budget and to re-evaluate the appropriate level of contingency in light of the added scope and other factors.

CP 2-3 Contract - Contingency report



Note: Content as of June 30, 2016; to be updated once the 60% design of major structures is completed.

CP 4 Contract - Contingency report



Note: Content as of 31 August-2016; to be updated once the 60% design of major structures is completed.