



California High-Speed Rail: Operations Report

FY14-15, FY15-16 and Program Metrics

March 2016

Agenda

- ▶ Operations Report Metrics
 - Executive Summary
 - Right of Way (ROW)
 - Environmental
 - Third-Party Agreements
 - Contract Management
 - Finance/Budget
 - Risk
 - Back-Up ROW Information

Executive Summary

ROW Acquisition

- ▶ The current report presents ROW acquisition progress relative to CPI and CP2-3 through January 31, 2016. As of that date, the Authority has secured legal possession of 642 parcels, with 582 delivered to the design-builder. There were 18 parcels delivered in CPI and 12 parcels delivered in CP 2-3 during the month of January.
- ▶ California High-Speed Rail Authority (CHSRA) staff is focused on delivery of key early construction parcels through utilization of the Settlement Teams and partnering with TPZP. This partnering effort has been successful and will enable a total of seven locations to be under construction by mid March 2016. The partnering efforts will continue to identify those key parcels needed to continue meaningful construction.
- ▶ The CP2-3 ROW Acquisition plan will be re-baselined during the first quarter of 2016 . The Rebaselining will set new delivery dates for new or modified parcel acquisition limits per the provisions of the contract. In addition, the Authority is partnering with the DB to identify critical parcels needed for early construction similar to the CP I approach.
- ▶ The probabilistic analysis update for CPI will be done after the seven early construction locations are underway so the analysis can incorporate the updated critical path schedule from TPZP. The probabilistic analysis update for CP 2-3 will be done after the rebaselining is completed.

Executive Summary

Environmental

- ▶ As part of a small group, the Authority has been invited to the White House to work with the Obama Administration to expand regional and landscape-scale environmental mitigation approaches and encourage greater private-sector investment in ecosystem and mitigation markets.
- ▶ With the FRA, the Authority is working to implement the Federal Infrastructure Permitting Dashboard which will be used by the FRA, federal agencies and the public for tracking our progress in completing each environmental document. The dashboard has encountered programming “bugs” and this has delayed its use nationally.
- ▶ With approval of Work Plan 2, the RDP and Authority continue to add additional staff resources, including new environmental project managers, environmental planners and permitting staff. Starting in January, the number of full-time equivalents is to increase from 22 to 58 by December 2016 with interviews set to fill four project managers, two cultural resources experts, two GIS professionals and several environmental coordinators. The Authority has hired a state mitigation and compliance manager and supervising environmental planner.
- ▶ Project management tools continue to be under development. To integrate the milestones tracking and reporting the new overall Project Management Information System (PMIS) and revised work breakdown structure are currently under review and revision.
- ▶ Work continues in preparing administrative draft EIR/EIS documents for the Central Valley Wye and for the Bakersfield F Street Station Alignment.
- ▶ We are finalizing our clearance approaches for the Central Valley Interconnections and for the Heavy Maintenance Facility.
- ▶ Work continues in preparing Supplemental Alternatives Analysis reports for presentation to the Board this April, including those for Bakersfield to Palmdale, Palmdale to Burbank, Burbank to Los Angeles, and Los Angeles to Anaheim.
- ▶ Following approval by the US Forest Service, geotechnical investigative drilling work has begun in the Palmdale to Burbank corridor.

Executive Summary

Third Party Agreement Execution

- ▶ The current report presents Third Party Agreement execution progress relative to Construction Package I (CPI), CP2-3, CP4, Central Valley (Non-CP), North and South through January 31, 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.
- ▶ The reports show that for the Master/Cooperative Agreements for CP2-3 and CP4 most of the agreements have been executed. Of the remaining CP agreements needed, the County of Kings, Angiola Water District, Deer Creek Storm Water District and County of Kern are not expected to be executed due to litigation and other issues. For Railroads, the only agreements necessary to start construction that are pending are BNSF Relocation and Construction agreements for CPI, CP2-3 and CP4 which need 100% DB design to execute.
- ▶ The Central Valley (Non-CP), North and South region counts include all currently considered/potential agreements within all alignment alternatives. As alignments are refined and/or preferred alternatives selected the number of anticipated agreements will change.

Executive Summary

Contract Management

- ▶ **CPI** - Construction activities continue to increase. TPZP is progressing with construction at the Fresno River Viaduct, including completion of the large diameter cast-in-drilled -hole (CIDH) foundation piles. Fabrication of reinforcement cages for piles and columns, placing concrete for pile extensions, bent columns and pedestals, and falsework construction continues. Construction also continues at the Tuolumne Street Overcrossing with demolition of the existing bridge. Ready-for-construction plans have been submitted for review for the new overcrossing. Additional construction work that has progressed during the previous month includes clearing & grubbing and subgrade testing for Guideway 1 between Avenue 15 and Avenue 15 ½, and beginning construction of the secant piles for the Fresno Trench near the SJVRR and UPRR wyes. 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 preparing for demolition activities. Field work continues with geotechnical exploration, utility location activities, and installation of delineators to identify the environmental footprint. Other early start activities are being considered, including a total of six overcrossings in Fresno, Kings and Tulare Counties.

Finance/Budget

- ▶ The program will rebaseline the budget and forecast in the coming months. In FY 2014/15, expenditure graphs tracked actuals and forecast. Going forward in FY 2015/16, the expenditure graphs will track budget along with actuals and forecast. Forecast will be published after the budget is rebaselined.
- ▶ Capital outlay expenditures were \$98.0M as reported in the Capital Outlay report for March-2016, compared to \$13.6M for March-2015.
- ▶ Delays in ROW are impacting construction schedules. Mitigation measures are in place to prioritize critical parcels required for major construction work. An analysis is currently being performed to verify that ARRA Federal Funds will not be at-risk even by using the Alternative Forecast. Continued monitoring will be performed to assess any changes should the ROW delivery be delayed further than anticipated.

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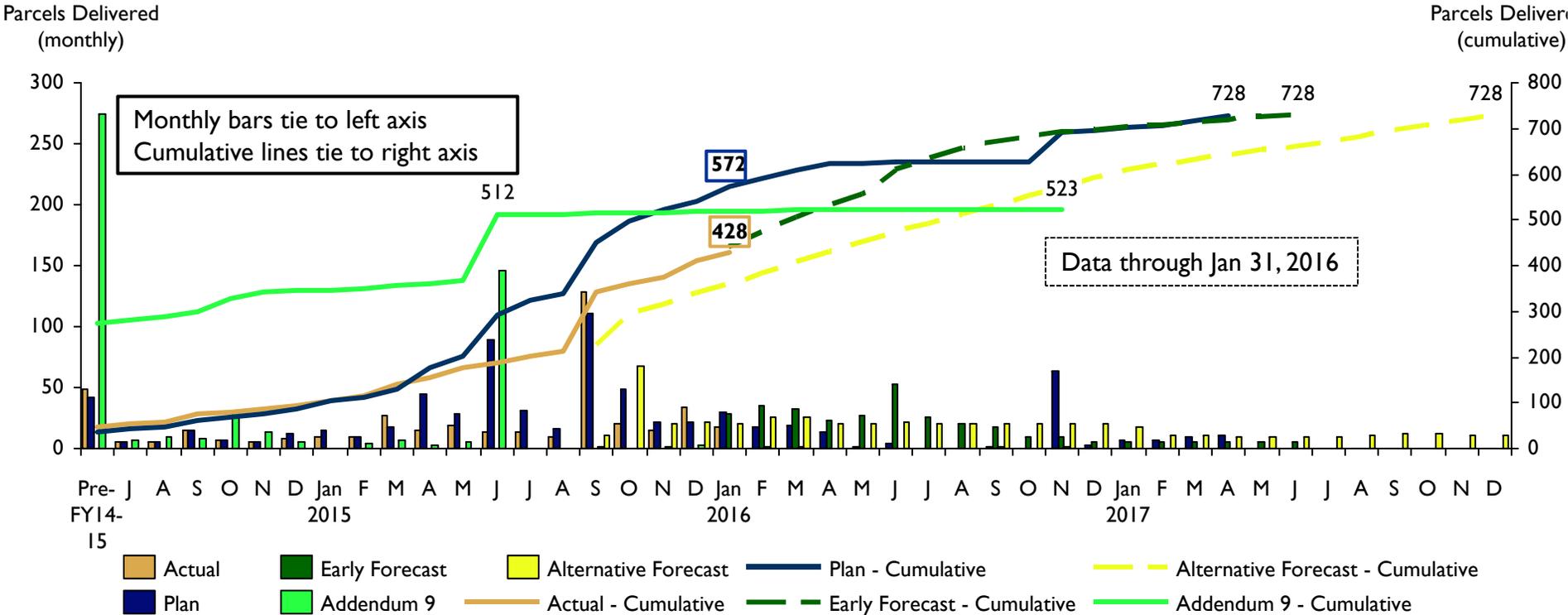
ROW Metrics - Context

- ▶ 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 re-baselined during the 1st Quarter of 2016.
 - 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 CPI parcels needed for delivery has changed (542 to 728) 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 Design Builder 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.
- ▶ The monthly flow model methodology has been updated as of December 15, 2015 to allow us to better track parcels that are “recycled” within the process, or have to repeat previous steps. As a result, some historic flow numbers may have been slightly adjusted. The model continues to be developed and enhanced.

ROW – CP1 Parcels Delivered to Design-Build by Month

Plan vs. Actual vs. Forecast

CPI - Delivered to DB (number of parcels)



Notes:

1. "Plan": Negotiated schedule as of December 2014 plus public parcels, design changes and new parcels.
2. "Early Forecast" and "Alternative Forecast": Early forecast is continually refined based on expected delivery schedule. The Alternative Forecast reflects potential delays.
3. CPI 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

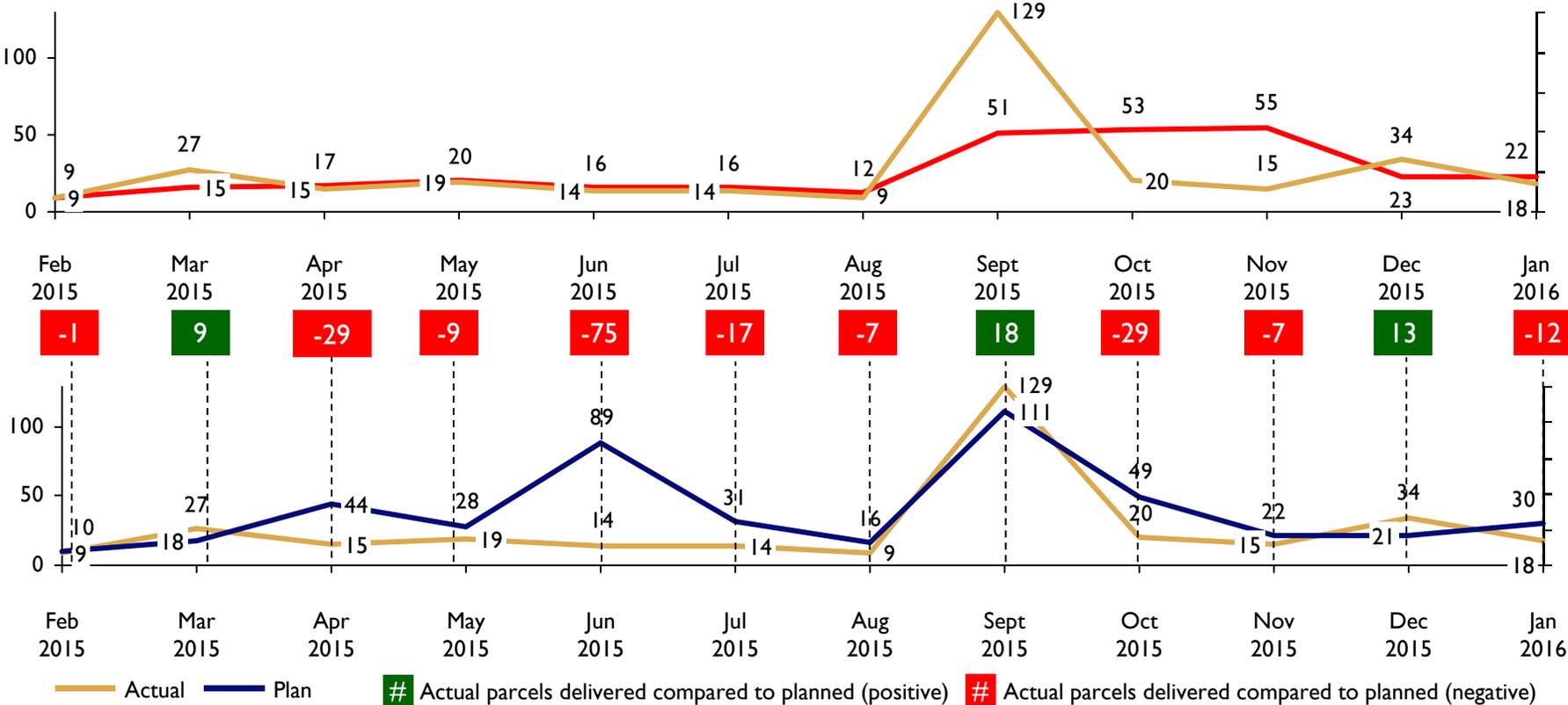
Source: Feb 19, 2016 ROW Weekly Report

ROW – CP1 Historic Performance

CPI Performance (in number of parcels)

Data through Jan 31, 2016

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



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

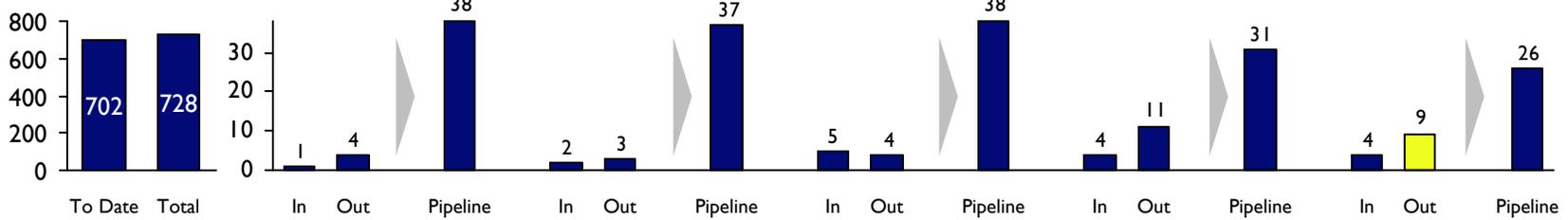
Source: Feb 19, 2016 ROW Weekly Report

ROW – CP1 Pipeline by Process (1 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

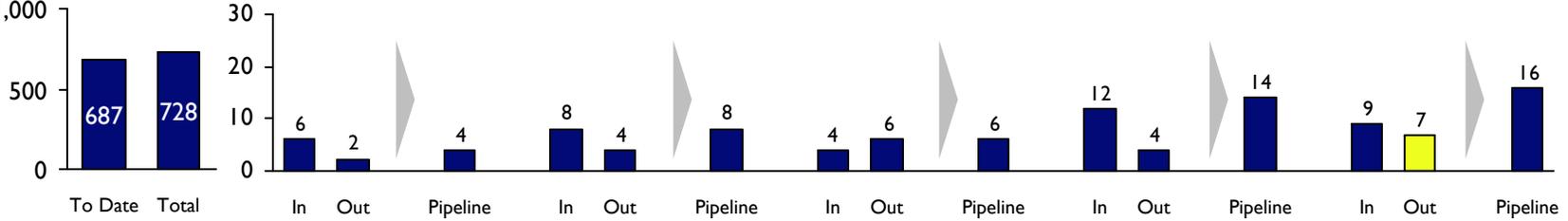
Completion Sep 2015 Oct 2015 Nov 2015 Dec 2015 **Jan 2016**

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

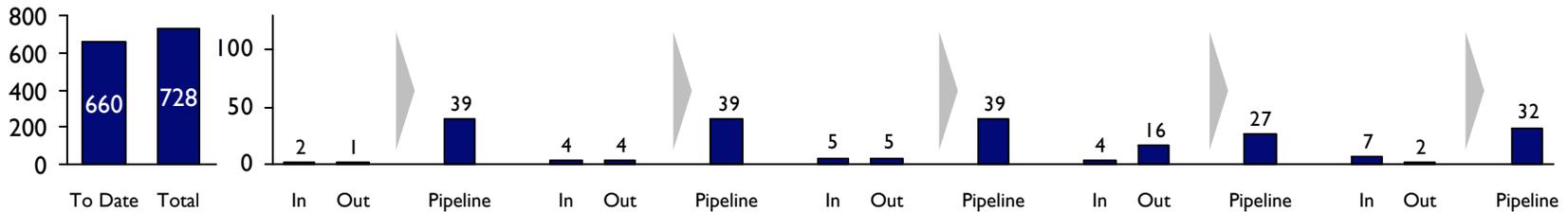
Source: Feb 19, 2016 ROW Weekly Report

ROW – CP1 Pipeline by Process (2 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

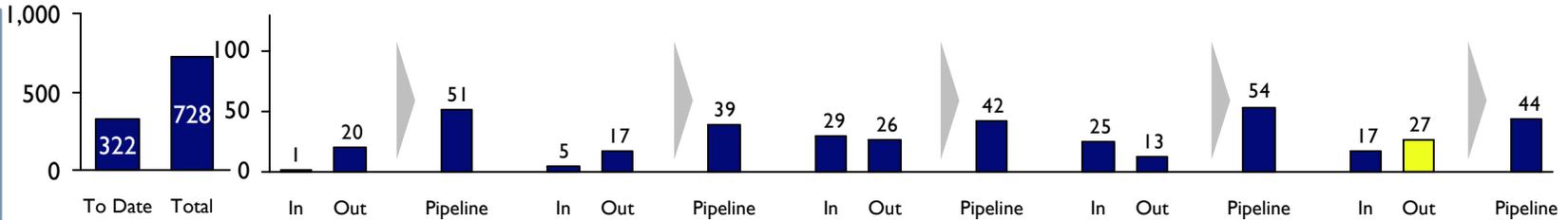


First Written Offer



- 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)

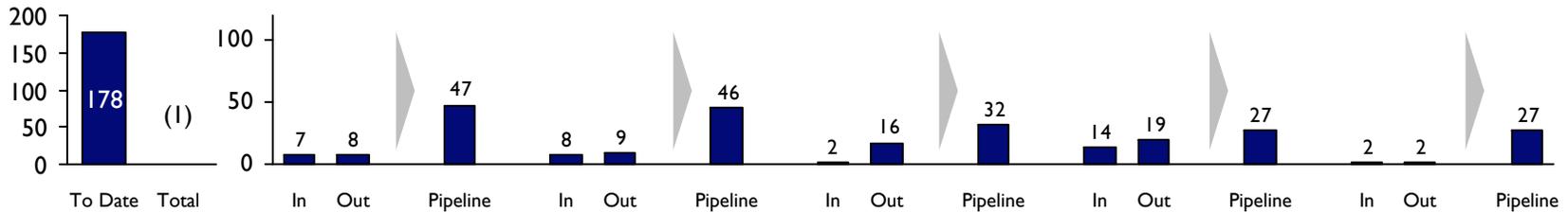
Source: Feb 19, 2016 ROW Weekly Report

ROW – CP1 Pipeline by Process (3 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

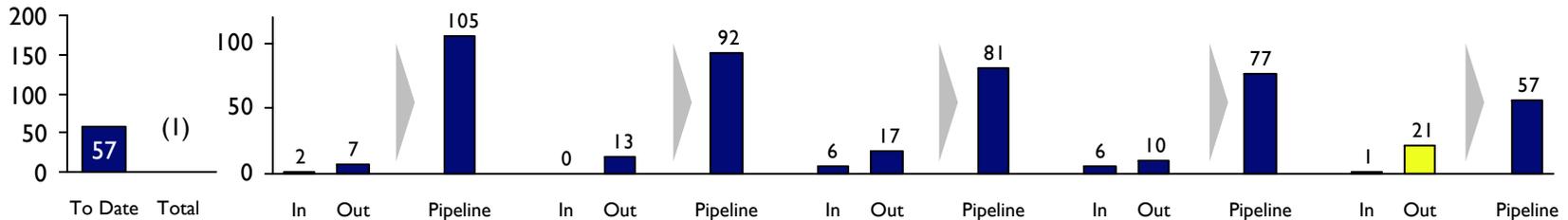


Condemnation



- Pipeline comprised of RONS being processed by CHSRA and ROW consultants and awaiting adoption by PWB. Also includes parcels being prepared by HSR 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

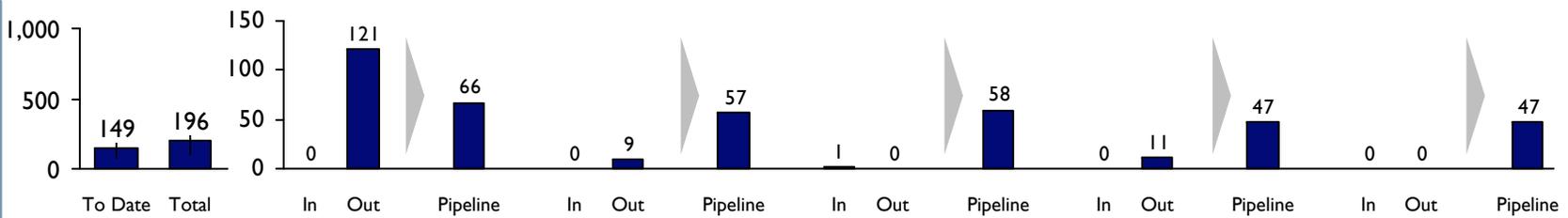
Source: Feb 19, 2016 ROW Weekly Report

ROW – CP1 Pipeline by Process (4 out of 4 pages)

Volume of Activity by Process (Flow) - Pipeline

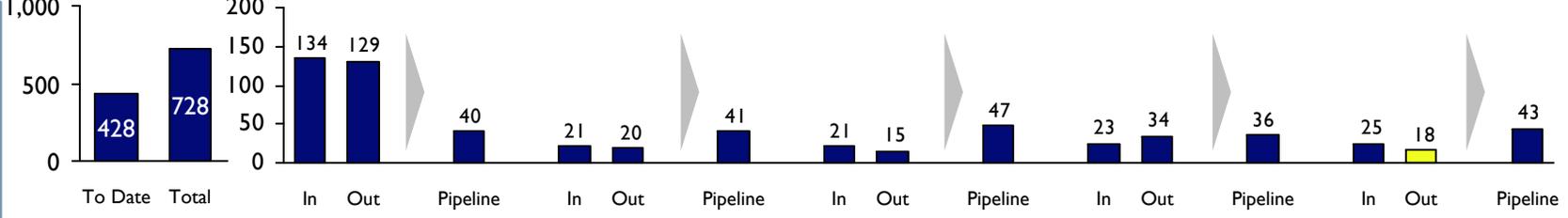


Public Agency / Railroad



- Comprised of railroad parcels and public parcels. Public parcels are being processed with Master Agreements before proceeding to individual utility relocations and acquisitions.

Delivery



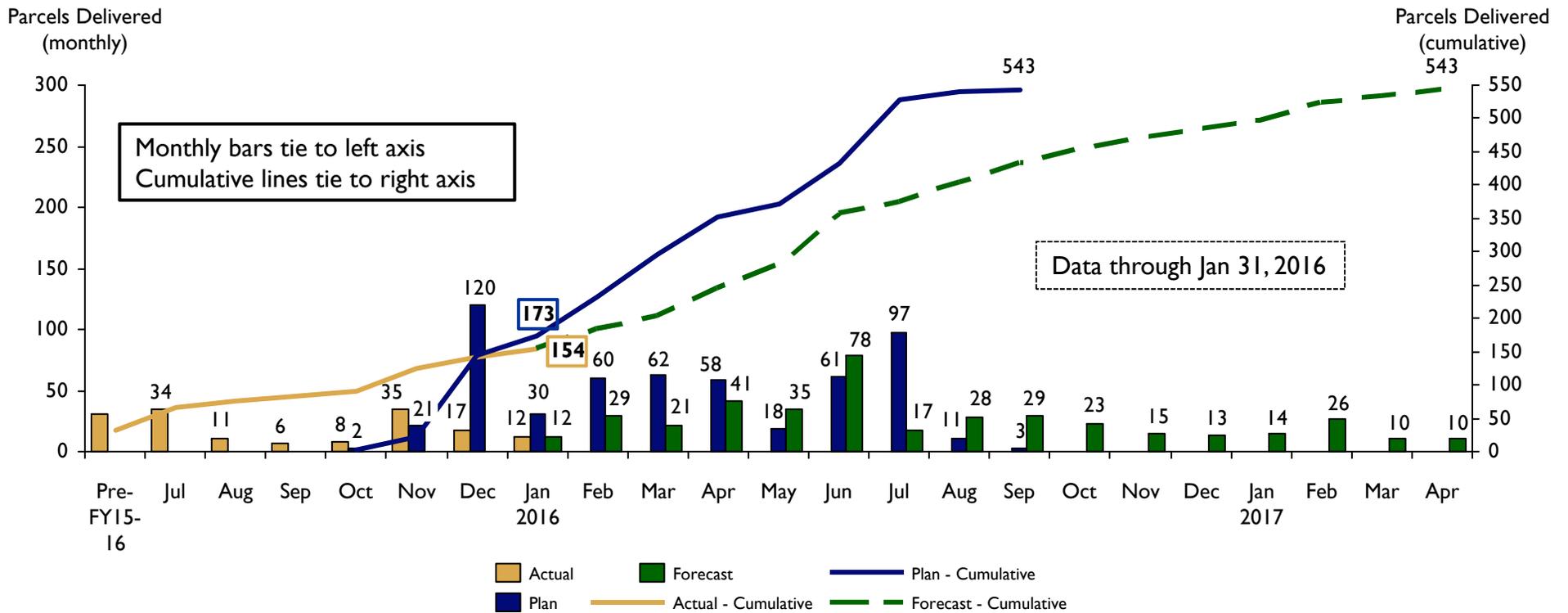
- Pipeline consists of parcels requiring relocation and parcels available to be transferred to DB.

Source: Feb 19, 2016 ROW Weekly Report

ROW – CP2-3 Parcels Delivered to Design-Build by Month

Planned vs. Actual vs. Forecast

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



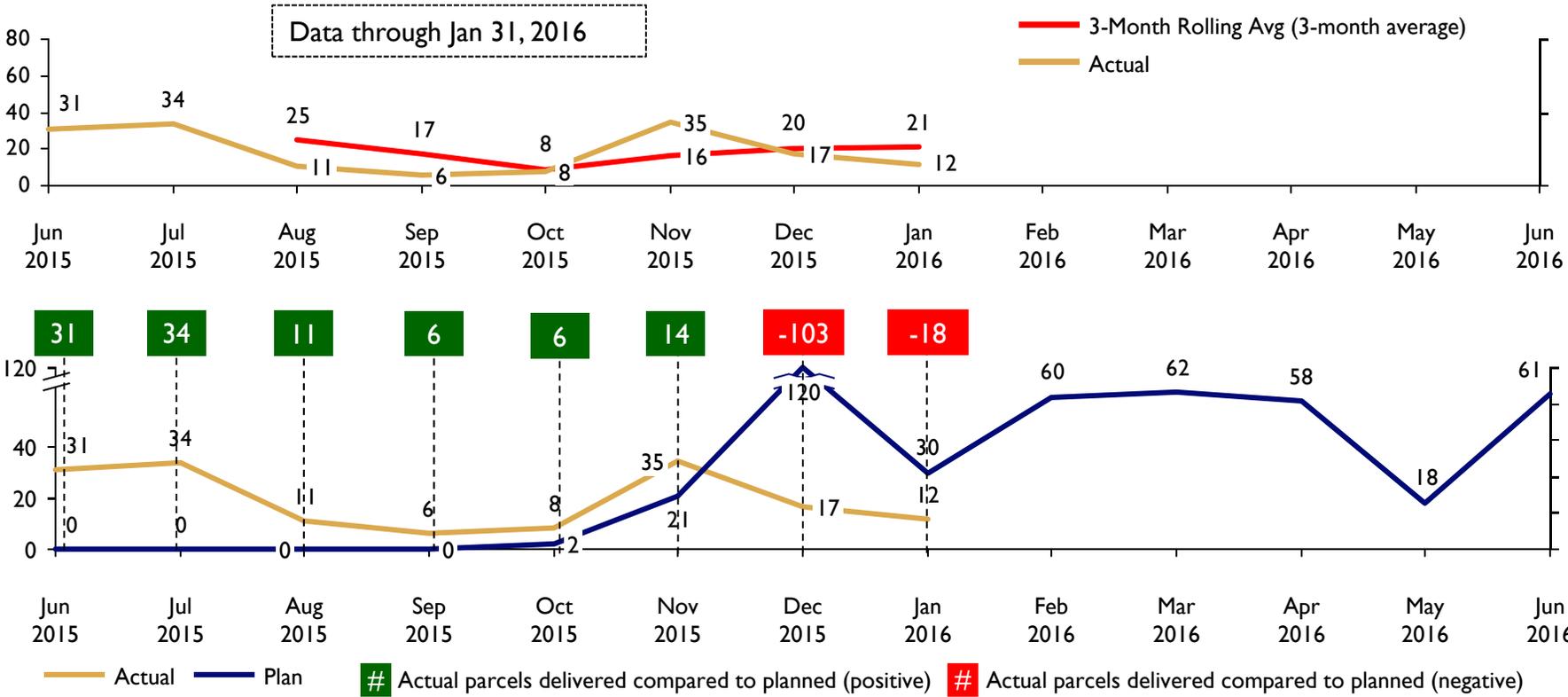
Notes:

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: Feb 19, 2016 ROW Weekly Report

ROW – CP2-3 Historic Performance

CP2-3 Performance (in number of parcels)



Notes:

1. Per contract, "planned" to be re-baselined in 1st Quarter of 2016
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.

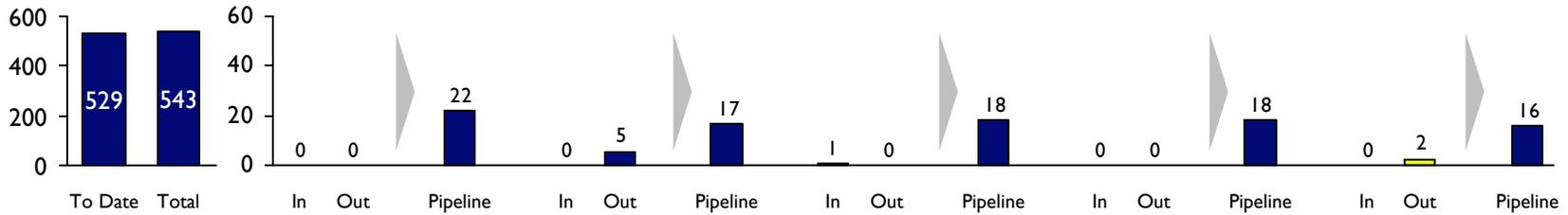
Source: Feb 19, 2016 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

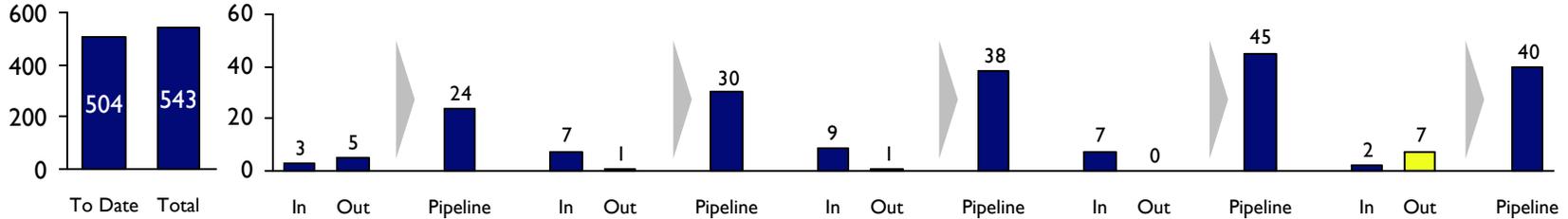
Completion Sep 2015 Oct 2015 Nov 2015 Dec 2015 **Jan 2016**

Appraisal



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

Just Compensation



- Parcels in pipeline pending DGS setting Just Compensation

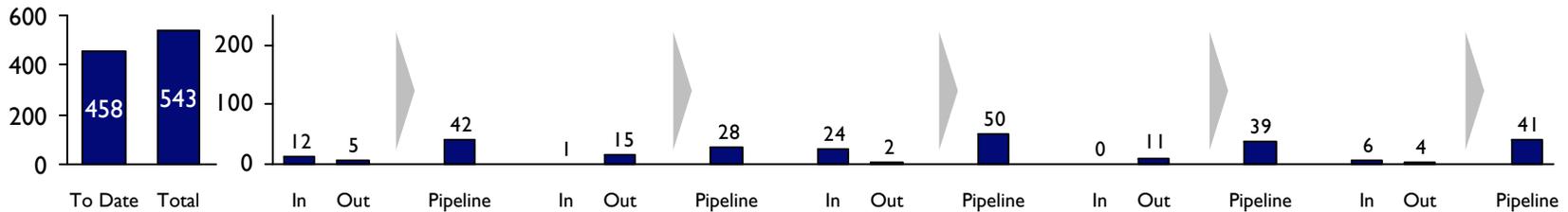
Source: Feb 19, 2016 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

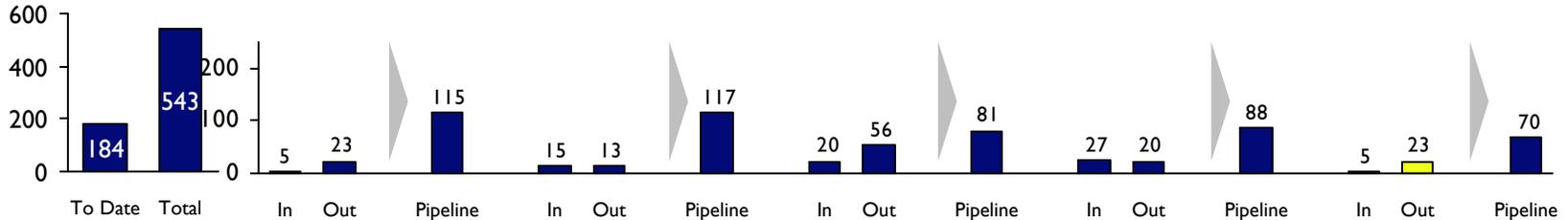


First Written Offer



- 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)

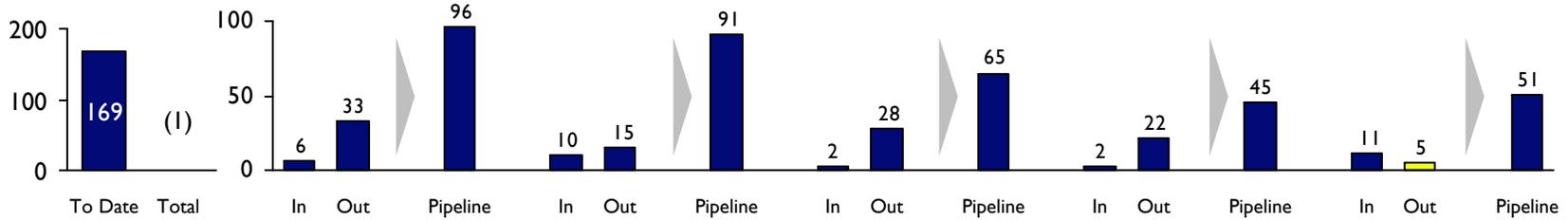
Source: Feb 19, 2016 ROW Weekly Report

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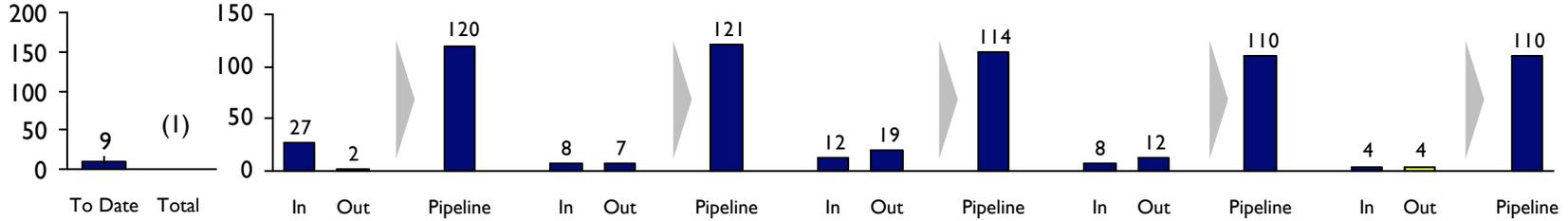
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Condemnation



- Pipeline comprised of RONS being processed by CHSRA 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

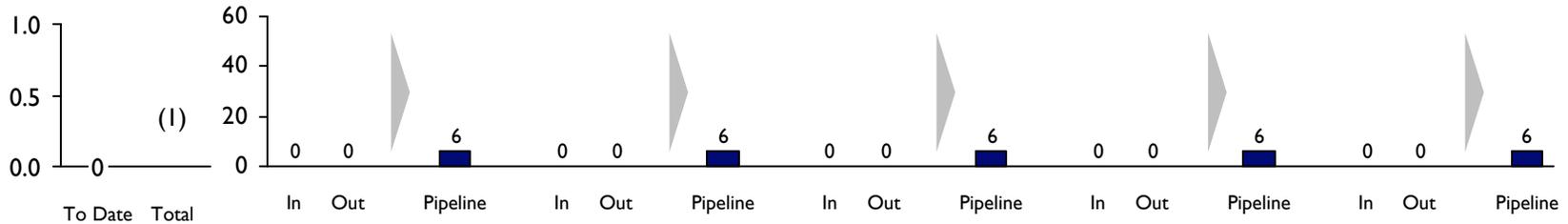
Source: Feb 19, 2016 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

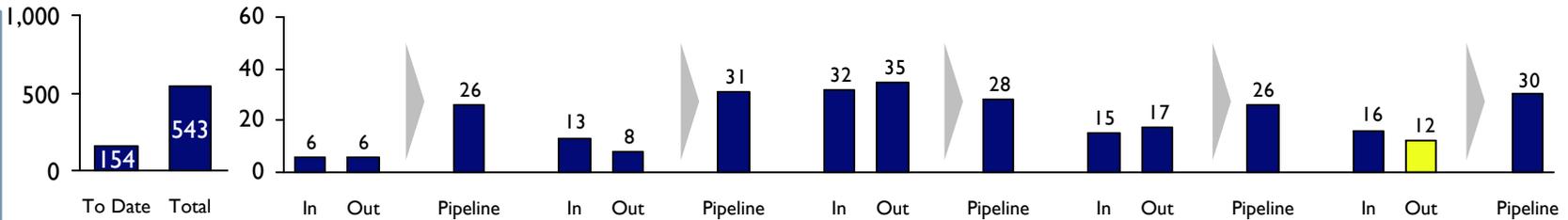
Completion Sep 2015 Oct 2015 Nov 2015 Dec 2015 **Jan 2016**

Public Agency / Railroad



- Current parcel count only includes public parcels with APN's 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: Feb 19, 2016 ROW Weekly Report

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Environmental Clearance Metrics - Context

- ▶ The following slides track several metrics for each environmental segment/project related to:
 - Schedule and physical percent complete.
 - Key milestones.
 - Actual, planned and forecasted costs-to-completion dates:
 - As of July 2015, costs projections were re-baselined.
 - Starting in September 2015, forecasted costs were based on performance and trends, with planned costs remaining locked.
 - In spring 2016 with a revised project control regime, the earned value and forecast costs will be reported monthly.
 - Actual costs come from invoices the Authority receives. For this reporting period:
 - Central Valley Wye, Central Valley Interconnections, Bakersfield to Palmdale, Palmdale to Burbank, Burbank to Los Angeles and Los Angeles to Anaheim actual costs are based on monthly expenditures as of January 31, 2015.
 - For remaining sections, no invoice has been received or has not been approved for payment since December. The sections include: San Francisco to San Jose, San Jose to Merced, Bakersfield F Street Station Alignment, and the Heavy Maintenance Facility.
- ▶ Environmental Milestone Schedule (page **27**) provides an overview of key, upcoming milestones across all environmental segments and projects.
- ▶ The Environmental budgets in this Operations Report includes all funding sources (Proposition 1A, ARRA, and Cap and Trade). However, the budget in the Funding Contribution Plan (FCP) is limited to the ARRA grant and state match. Thus this report does not match the FCP.
- ▶ The Environmental information in this Operations Report differs from the Funding Contribution Plan (FCP) since the FCP is limited to the scope of the ARRA grant and state match plan.

Environmental Milestones Schedule (to ROD)

Information through January 2016¹

Segment	Progress to Date	Next Steps
San Francisco to San Jose	<ul style="list-style-type: none"> Task Order 1 for planning activities issued to the environmental and engineering contractor in January. Task Order 2 for environmental studies and preliminary engineering under final review by RDP and Authority 	<ul style="list-style-type: none"> Submit draft Purpose & Need and project definition to FRA for review. Continue coordinating infrastructure analysis with Caltrain to define the project. Continue stakeholder outreach.
San Jose to CV Wye	<ul style="list-style-type: none"> Task Order 1 for planning activities issued to the environmental and engineering contractor in January. Task Order 2 for environmental studies and preliminary engineering under final review by RDP and Authority. 	<ul style="list-style-type: none"> Submit draft Purpose & Need and project definition to FRA for review. Continue coordinating infrastructure analysis with Caltrain to define the project. Continue stakeholder outreach.
Central Valley Wye	<ul style="list-style-type: none"> The regional consultant continues to prepare the Ranch Road to Merced environmental re-exam. Technical reports and Administrative Draft for Central Valley Wye evaluation under development. 	<ul style="list-style-type: none"> Continue coordination with stakeholders and resource agencies to identify a preferred alternative. Schedule under review to incorporate input from regulatory agencies and extension of CPI north from Ave 17 to Ave 19.
Central Valley Interconnections	<ul style="list-style-type: none"> Initial studies by PG&E completed for critical electrical interconnections for test track. Second phase PG&E study necessary for defining electrical improvements. In March 2016, environmental clearance approach will be decided. 	<ul style="list-style-type: none"> Continue to coordinate with PG&E on electrical interconnections and upgrades. Field work on biological and cultural resources underway to assess alternatives likely environmental impacts. Currently behind schedule in defining clearance approach.
HMF	<ul style="list-style-type: none"> In May 2016, environmental clearance approach will be decided. 	<ul style="list-style-type: none"> Will assess schedule performance once approach is finalized.
Bakersfield F St. Station Alignment	<ul style="list-style-type: none"> Technical reports and Administrative Draft for F Street evaluation under development and review. Design/Build Contractor for CP2-3 now preparing environmental re-exam for alternative technical concepts. 	<ul style="list-style-type: none"> Conduct on-going field biological and cultural surveys. Continue outreach, community and agency meetings.
Bakersfield to Palmdale	<ul style="list-style-type: none"> The Supplemental Alternatives Analysis will be shared with the Board in April 2016. Conducting environmental technical studies. 	<ul style="list-style-type: none"> Define maintenance and operations strategy/locations for clearance. Develop environmental document eventually to select a Preferred Alternative.

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

Environmental Milestones Schedule (to ROD)

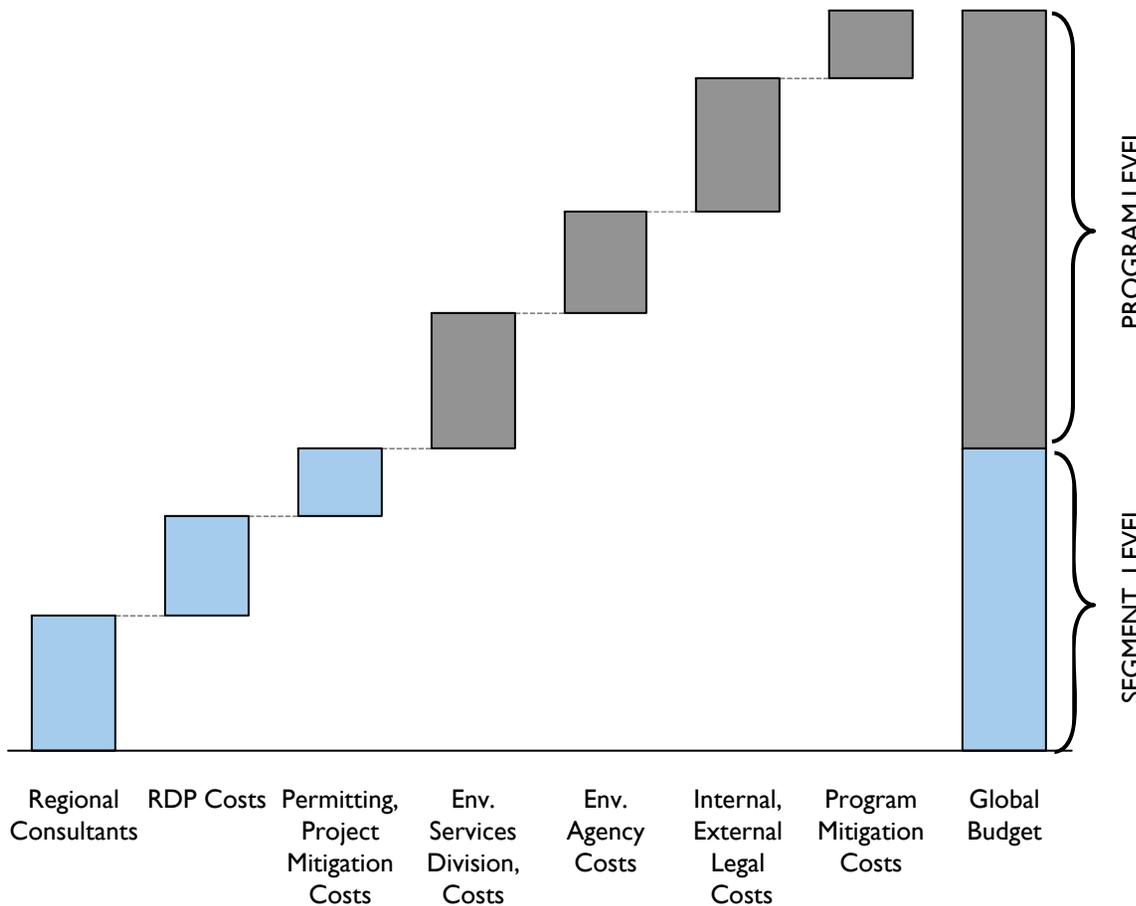
Information through January 2016¹

Segment	Progress to Date	Next Steps
Palmdale to Burbank	<ul style="list-style-type: none"> The Supplemental Alternatives Analysis will be shared with the Board April 2016. Conducting environmental technical studies. Kicking-off station area planning in Burbank and Palmdale. With approval from the US Forest Service, geotechnical investigative work has begun in Angeles National Forest. 	<ul style="list-style-type: none"> Complete station and station area planning. Develop environmental document eventually to select a Preferred Alternative. Complete technical studies in winter 2016.
Burbank to LA	<ul style="list-style-type: none"> The Supplemental Alternatives Analysis will be shared with the Board April 2016. Technical baseline studies are underway. 	<ul style="list-style-type: none"> Complete station and station area planning for Los Angeles Union Station. Develop environmental document eventually to select a Preferred Alternative.
LA to Anaheim	<ul style="list-style-type: none"> The Supplemental Alternatives Analysis will be shared with the Board April 2016. Technical baseline studies are underway. 	<ul style="list-style-type: none"> Complete station planning, option evaluation and selection in Spring 2016. Develop environmental document eventually to select a Preferred Alternative.

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

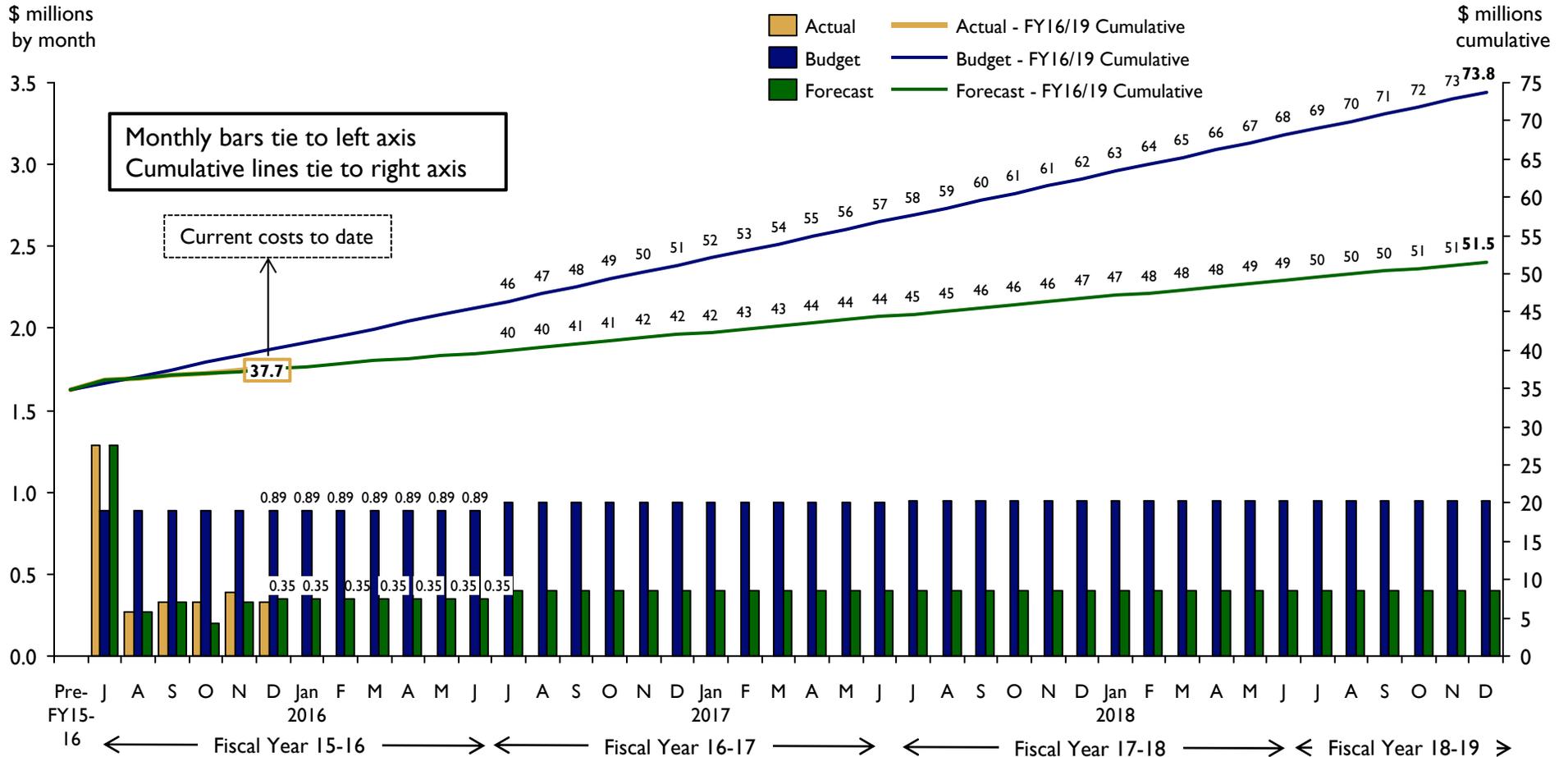
Global Environmental Budget includes activities involved in the scope at the program and segment levels

Cost Categories for Scope and Budget Definition



- ### Cost Categories
- **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 environmental 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)



Environmental Milestones Schedule (to ROD)

Information through January 2016¹

	Segment	Progress	Complete Purpose & Need Statement		Complete Alternatives Analysis		Board Selection of Preferred Alternative		Publish Draft EIR/EIS		Publish Final EIR/EIS and Obtain ROD		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	San Francisco to San Jose	Plan Forecast % Complete	Mar-16 Feb-16 65%	Mar-16 Feb-16 65%	Complete Complete 100%	Complete Complete 100%	Jul-16 Jul-16 7%	Jul-16 Jul-16 7%	Jan-17 Jan-17 7%	Jan-17 Jan-17 7%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%	Nov-17	No Change
2	San Jose to CV Wye	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-16 Sep-16 10%	Sep-16 Sep-16 10%	Feb-17 Dec-16 10%	Feb-17 Dec-16 10%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%	Nov-17	No Change
3	Central Valley Wye (M-F)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-15 Feb-16 60%	Sep-15 Apr-17 ² 60%	Feb-16 Oct-16 0%	Feb-16 Dec-16 0%	Dec-16 Oct-17 0%	Dec-16 Dec-17 0%	Dec-16	Dec-17
4	CV Electrical Interconnections ³	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Jul-16 Aug-16 80%	Jul-16 Aug-16 80%	Nov-16 Nov-16 0%	Nov-16 Nov-16 0%	Oct-17 Oct-17 0%	Oct-17 Oct-17 0%	Oct-17	No Change
5	HMF	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Apr-16 Apr-16 0%	Apr-16 Apr-16 0%	Sep-16 Sep-16 0%	Sep-16 Sep-16 0%	May-17 May-17 0%	May-17 May-17 0%	May-17	No Change
6	Bakersfield F St. Alignment (F-B)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	May-16 May-16 50%	May-16 May-16 50%	Jul-16 Jul-16 5%	Jul-16 Aug-16 5%	Dec-16 Oct-16 0%	Dec-16 Dec-16 0%	Dec-16	No Change
7	Bakersfield to Palmdale	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Feb-16 80%	Jan-16 Mar-16 85%	Oct-16 Oct-16 15%	Oct-16 Jul-16 15%	Feb-17 Feb-17 5%	Feb-17 Mar-17 5%	Nov-17 Nov-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
8	Palmdale to Burbank	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Aug-16 Nov-16 25%	Aug-16 Nov-16 25%	Mar-17 Mar-17 15%	Mar-17 Mar-17 15%	Nov-17 Nov-17 0%	Nov-17 Dec-17 0%	Nov-17	Dec-17
9	Burbank to LA	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Feb-16 90%	Jan-16 Mar-16 90%	Mar-17 Oct-16 5%	Mar-17 Dec-16 5%	Jun-17 Jun-17 5%	Jun-17 Jun-17 5%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%	Nov-17	No Change
10	LA to Anaheim	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Feb-16 85%	Jan-16 Mar-16 88%	Mar-17 Oct-16 15%	Mar-17 Jan-17 15%	Jun-17 Jun-17 5%	Jun-17 Jun-17 5%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%	Nov-17	No Change

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

2. Because of ongoing stakeholder/agency coordination issues, selection of a preferred alternative has been postponed to occur after circulation of the Draft EIR/EIS

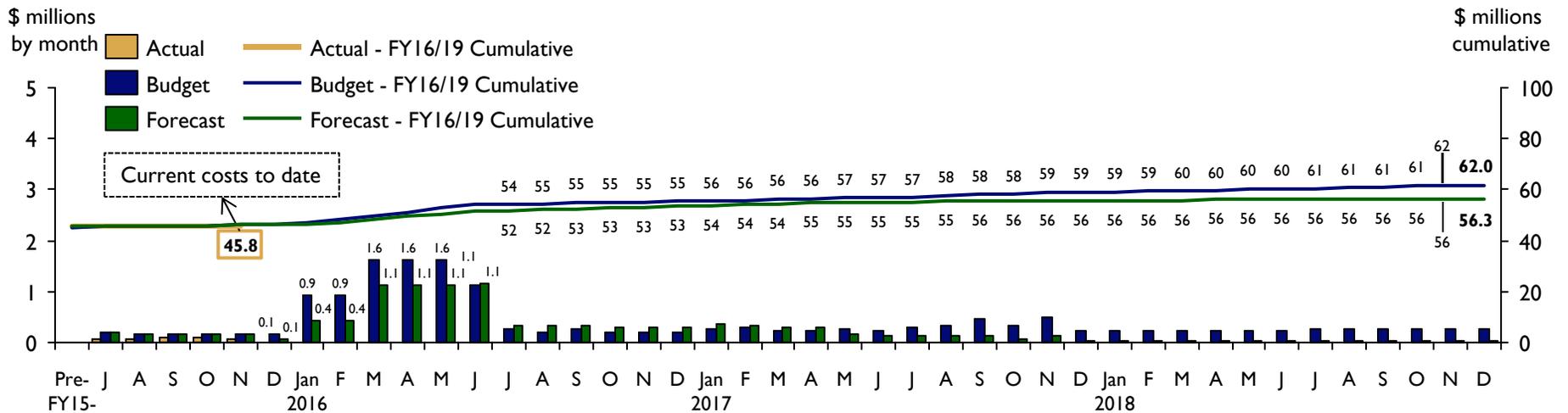
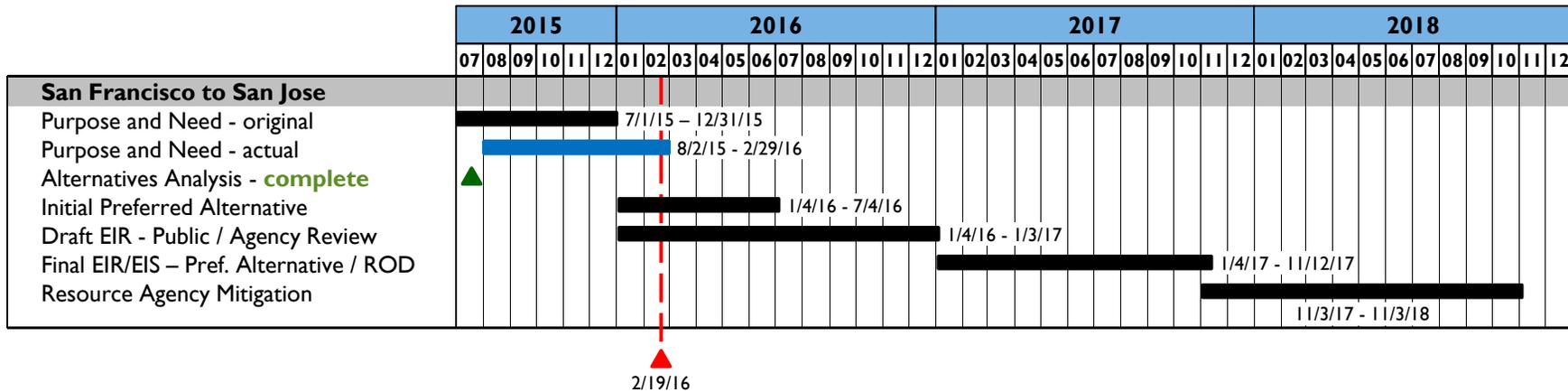
3. Schedule reflects master plan for testing and commissioning of the HSR train; dates are subject to change pending Authority decision regarding type of environmental documentation needed.

Environmental Milestone Schedule (to ROD)

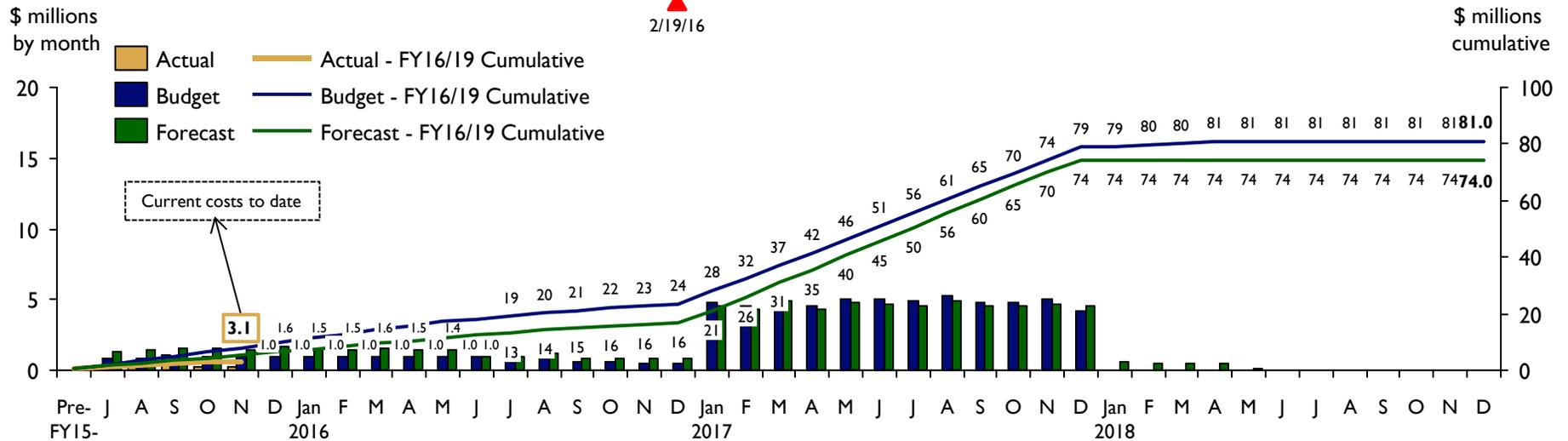
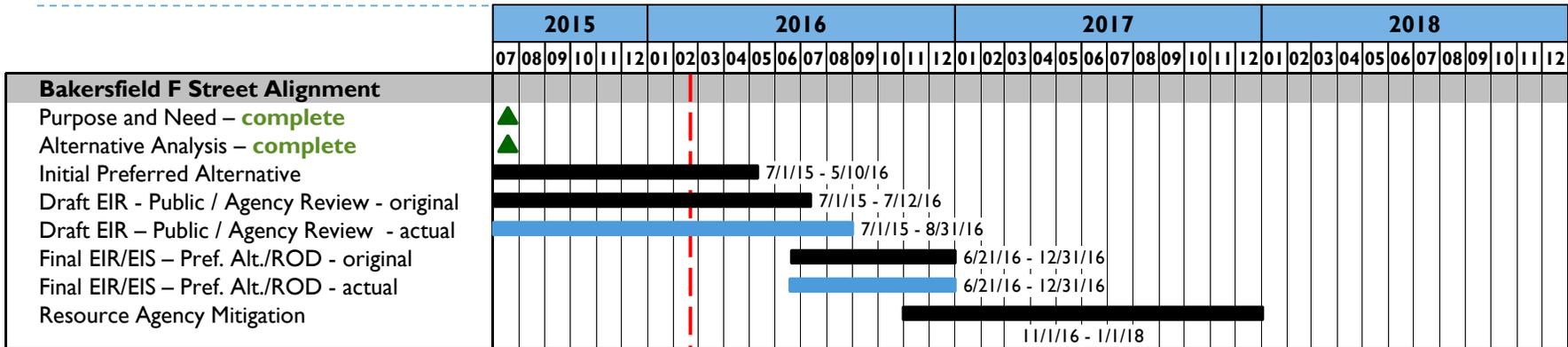
Information through January 2016

Segment	Schedule Status, Delay, and Mitigation Strategies
1 San Francisco to San Jose	<p>No Delay Forecast at this Time Existing schedule based on RDP dates from Fall 2015. Authority/RDP now awaiting submittal of baseline schedule from EES consultant. New schedule should be available for April F&A Committee Report.</p>
2 San Jose to CV Wye	<p>No Delay Forecast at this Time Existing schedule based on RDP dates from Fall 2015. Authority/RDP now awaiting submittal of baseline schedule from EES consultant. New schedule should be available for April F&A Committee Report.</p>
3 Central Valley Wye (M–F)	<p>Current Delay for Selecting Preferred Alternative Rationale for Delay: Because of ongoing stakeholder/agency coordination, selection of a preferred alternative is postponed after Draft EIR/EIS circulation. Consequence: Publication of the Draft EIR/EIS and Final EIR/EIS will be delayed by two months. ROD now to be obtained in December 2017. Mitigation: Schedule to be reviewed to compress activities for obtaining ROD earlier in 2017.</p>
4 CV Electrical Interconnections	<p>No Delay Forecast at this Time Dates are subject to change pending Authority decision regarding type of environmental clearance documentation needed.</p>
5 HMF	<p>No Delay Forecast at this Time Dates are subject to change pending Authority decision regarding type of environmental clearance documentation needed.</p>
6 Bakersfield F Street Alignment (F–B)	<p>Current Delay for Publishing Draft EIR/EIS Rationale for Delay: Revised publication date for Draft EIR/EIS because of “logic” correction made by the Regional Consultant. Consequence: Publication of the Draft EIR/EIS will be delayed by one month. ROD will now be delayed by two months and obtained in December 2016. Mitigation: Schedule to be reviewed to compress activities for obtaining ROD earlier in 2016.</p>
7 Bakersfield to Palmdale	<p>Current Delay for Completing Alternatives Analysis Rationale for Delay: Date adjusted to coincide with completing document and having it for Board presentation. Consequence: Delay in establishing alternatives will also delay publication of Draft and Final EIR/EIS. ROD will now be obtained in December 2017. Mitigation: Schedule to be reviewed to compress activities to achieve original November 2017 ROD deadline.</p>
8 Palmdale to Burbank	<p>Current Delay for Publishing Final EIR/EIS and Obtaining ROD Rationale for Delay: Delay resulting from modified task schedule. Consequence: Publication of the Final EIR/EIS and obtaining the ROD to be delayed by one month to December 2017. Mitigation: Schedule to be reviewed to compress activities to achieve original November 2017 ROD deadline.</p>
9 Burbank to LA	<p>Current Delay for Completing Alternatives Analysis Rationale for Delay: Date adjusted to coincide with completing document and having it ready for Board presentation. Consequence: Completion of Alternatives Analysis will be delayed by one month. While selection of a preferred alternative is now to occur several months later (December 2016); publication of the Final EIR/EIS and obtaining the ROD remain on original schedule (November 2017). Mitigation: No schedule mitigation is required.</p>
10 LA to Anaheim	<p>Current Delay for Completing Alternatives Analysis Rationale for Delay: Date adjusted to coincide with completing document and having it ready for Board presentation. Consequence: Completion of Alternatives Analysis will be delayed by one month. While selection of a preferred alternative is now to occur several months earlier (July 2016); publication of the Final EIR/EIS and obtaining the ROD remain on original schedule (November 2017). Mitigation: No schedule mitigation is required.</p>

San Francisco to San Jose



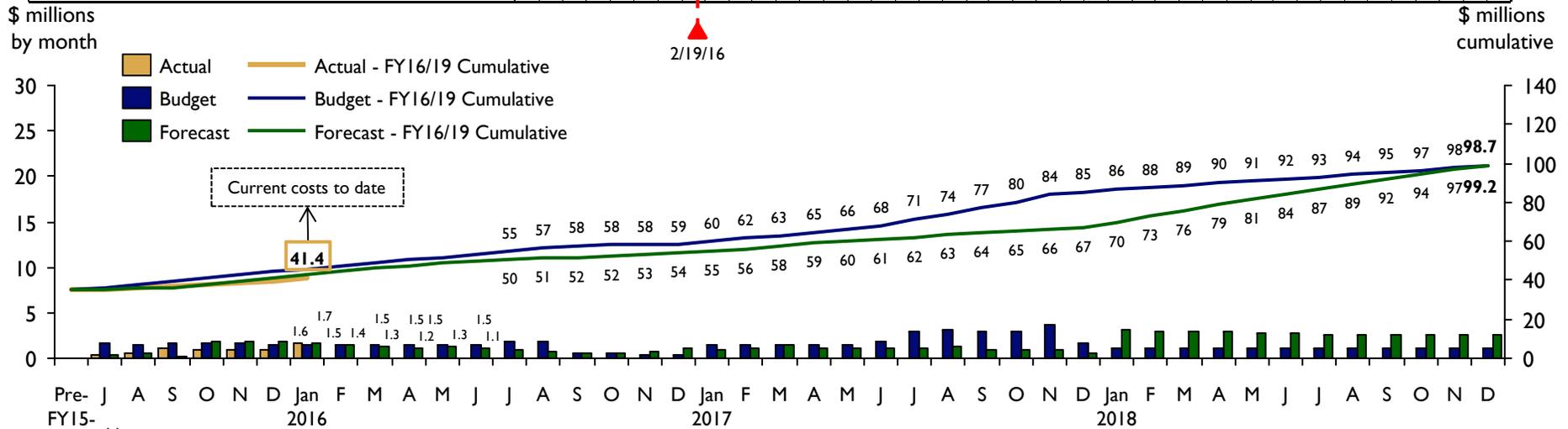
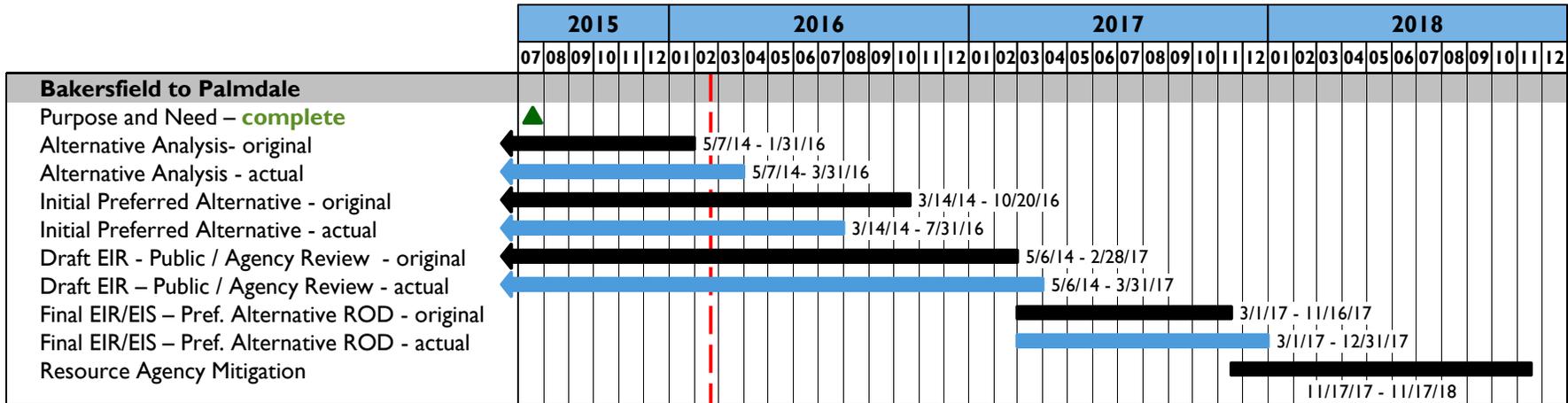
6 Bakersfield F Street Station Alignment



- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Habitat Mitigation included for all of Fresno to Bakersfield.
 - 3) Includes actual RDP costs thru Dec. 2015 and forecasted RC costs Dec. 2015 forward.
 - 4) Purpose and Need & Alternatives analysis completed prior to Jul. 1, 2015.

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

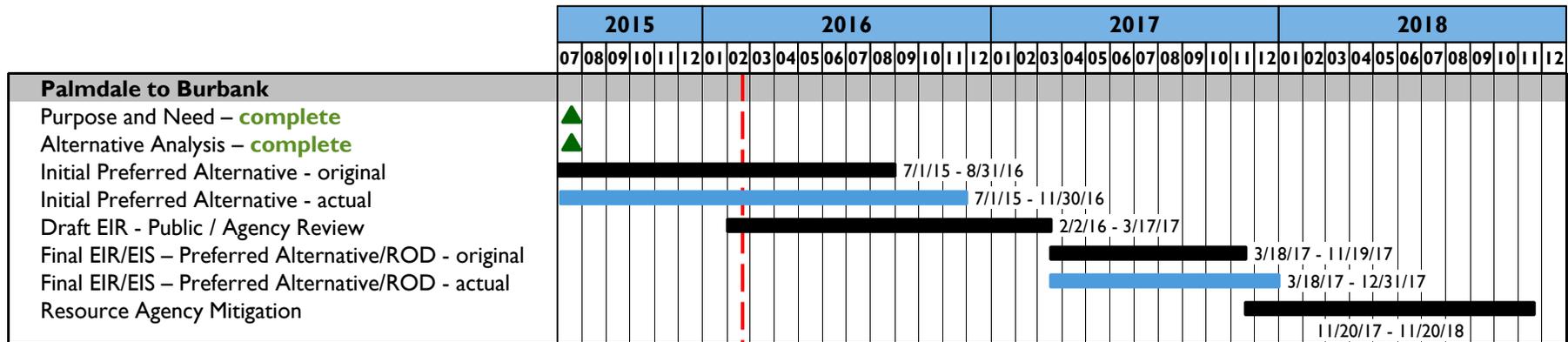
7 Bakersfield to Palmdale



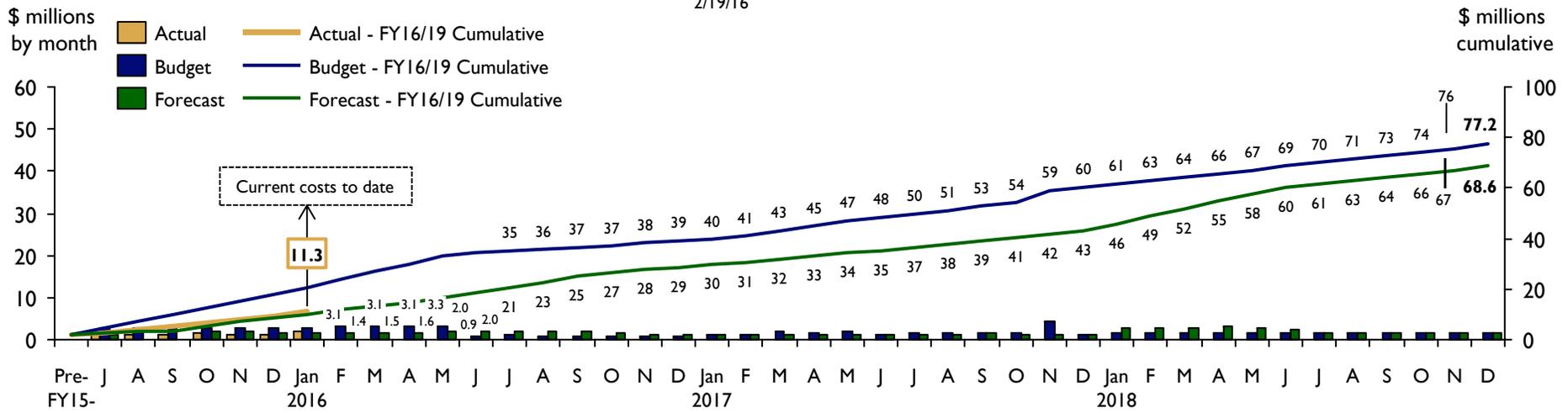
- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Includes actual RC costs thru Jan. 2016 and estimated RDP costs for Jan. 2016
 - 3) Habitat Mitigation included.
 - 4) Purpose and Need analysis completed prior to Jul. 1, 2015.

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

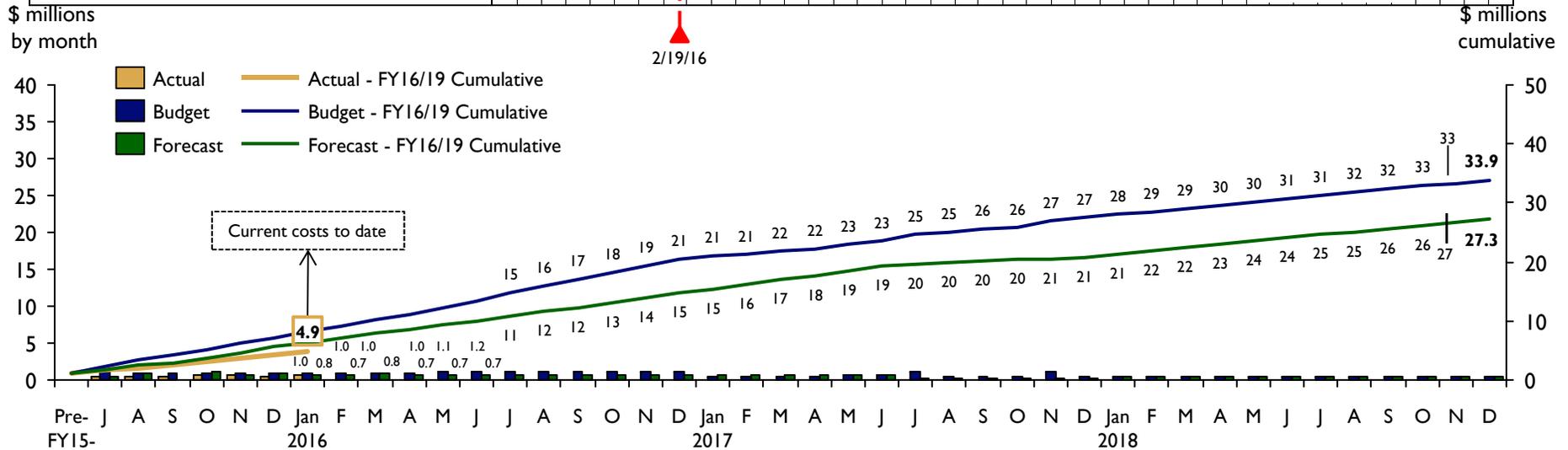
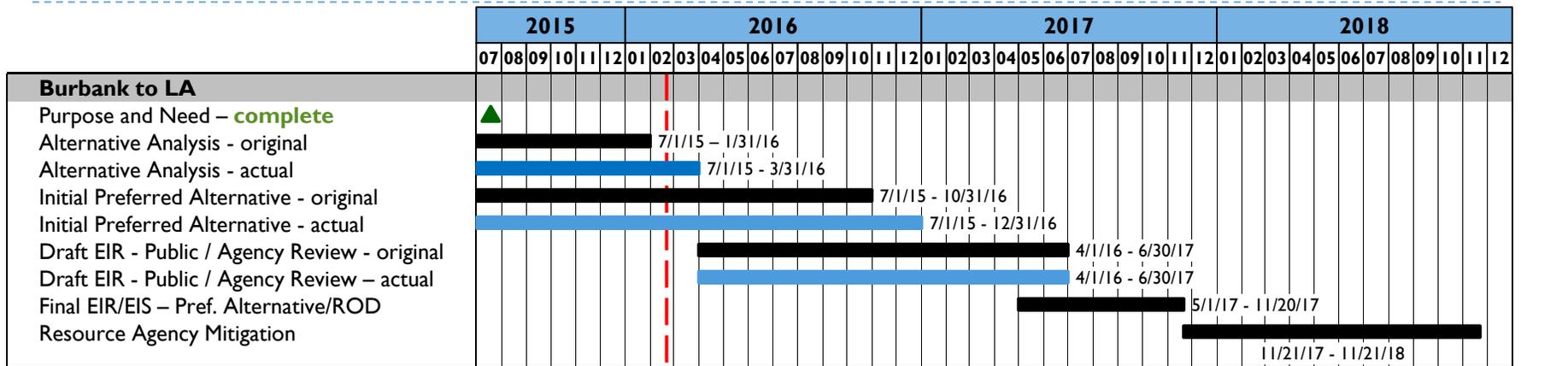
8 Palmdale to Burbank



2/19/16



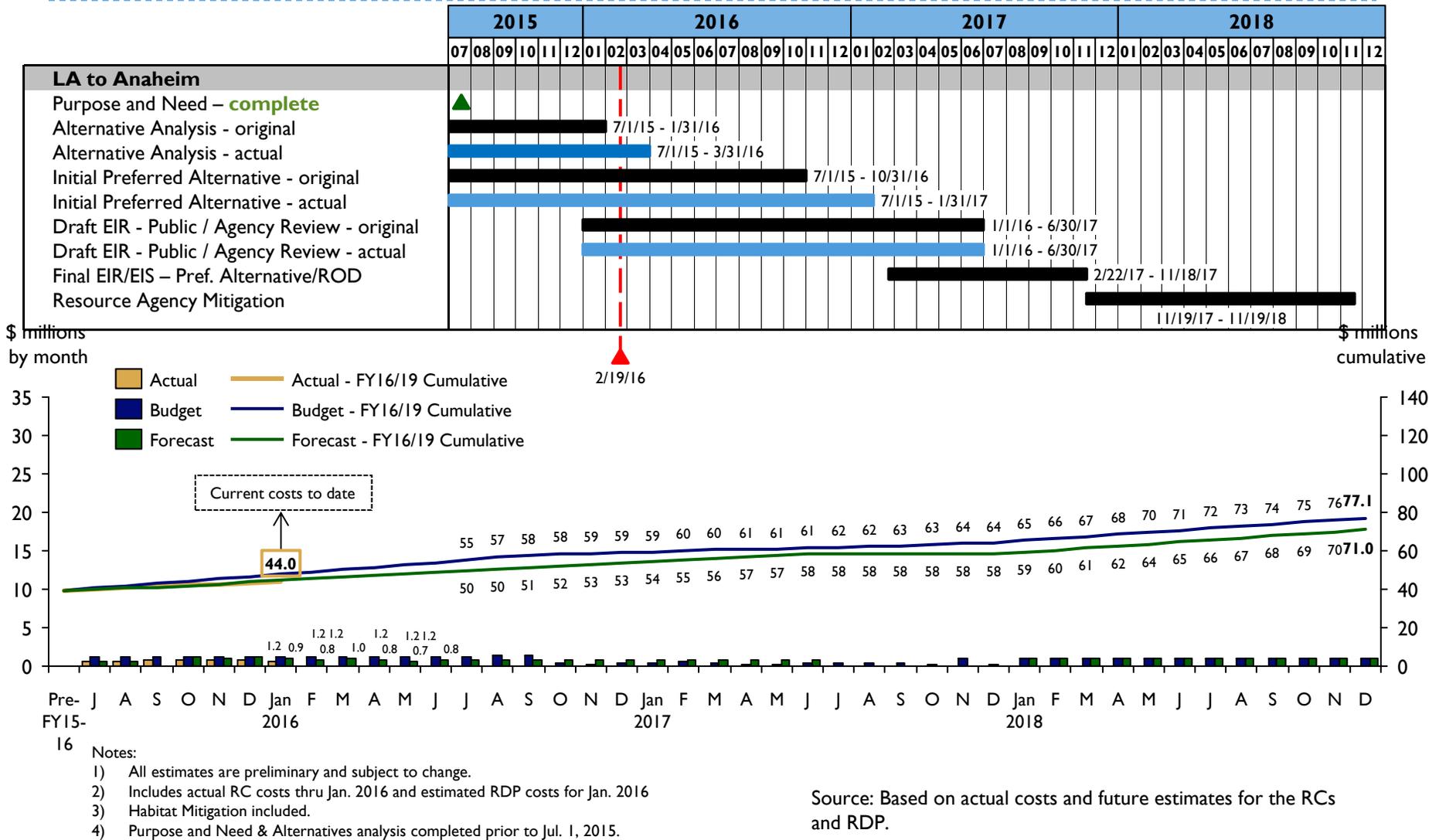
9 Burbank to LA



- Notes:
- 1) All estimates are preliminary and subject to change.
 - 2) Includes actual RC costs thru Jan. 2016 and estimated RDP costs for Jan. 2016
 - 3) Habitat Mitigation included.
 - 4) Purpose and Need & Alternatives analysis completed prior to Jul. 1, 2015.

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

10 LA to Anaheim



4-month milestones look-ahead – all sections/projects

Milestone	Segment	Due Date	% Completion	Status
Determine Environmental Clearance Approach	HMF	March 2016	50%	On-Target
Alternatives Analysis	Bakersfield to Palmdale	March 2016	85%	On Target
Alternatives Analysis	Burbank to LA	March 2016	90%	On Target
Alternatives Analysis	LA to Anaheim	March 2016	88%	On Target
Initial Preferred Alternative	Bakersfield F Street Station Alignment	May 2016	50%	On-Target

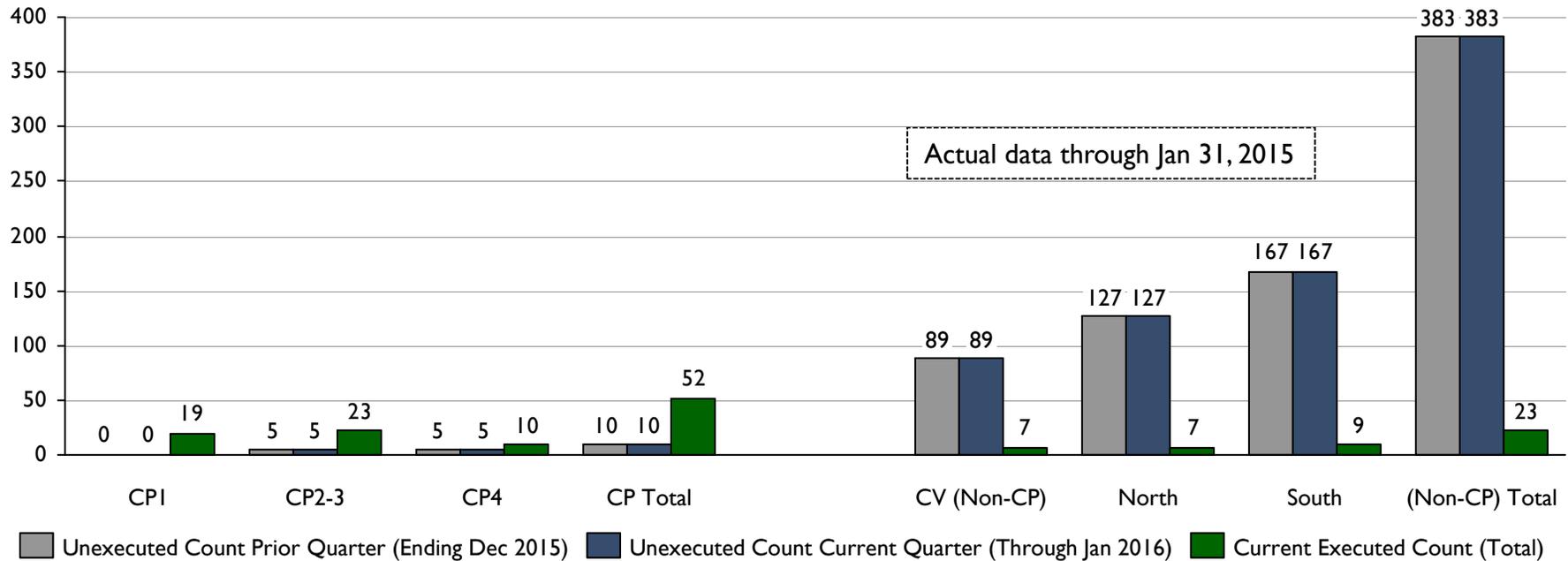
Note: Dates identified in red indicate change from previous month.

Agenda

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

Total Executed/Unexecuted Agreements
(in number of agreements)



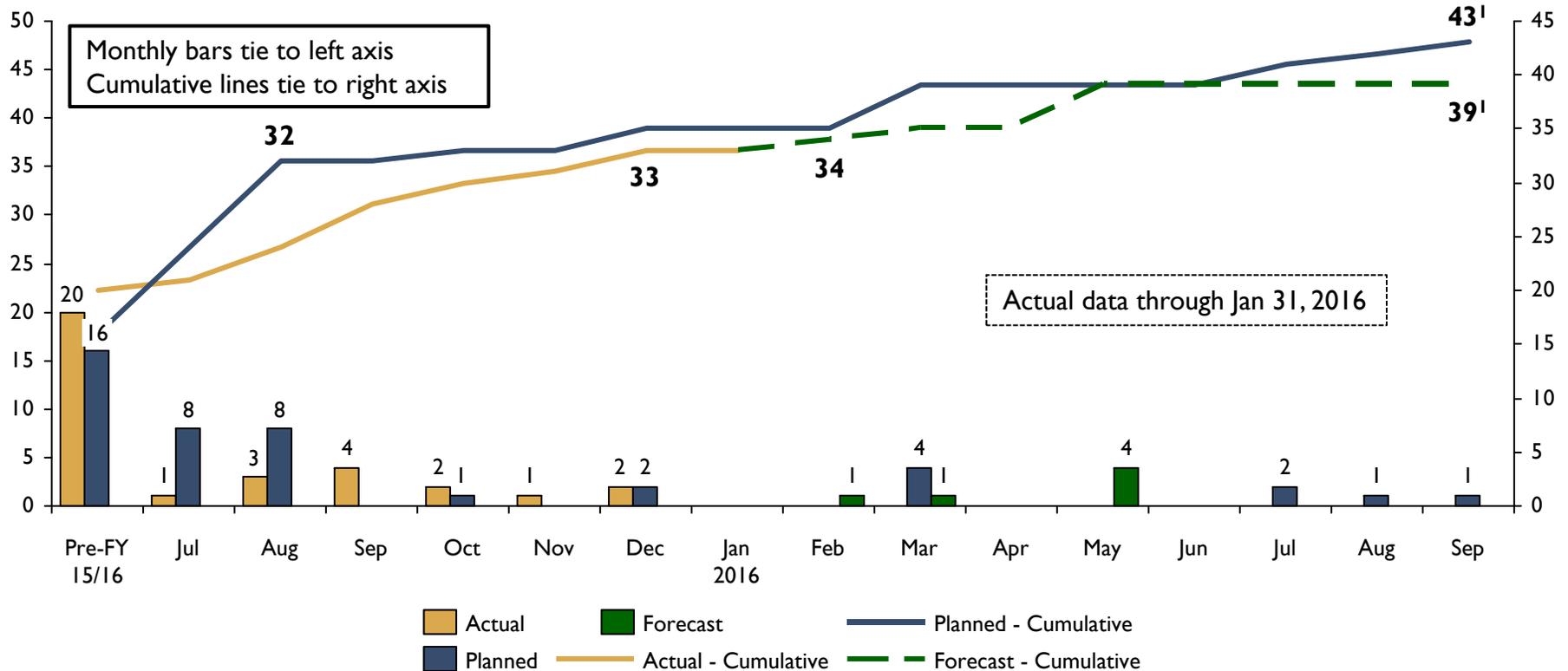
Notes:

- 28 total CP2-3 agreements were previously expected to be executed. Kings County, Angiola Water District, and Deer Creek Storm Water District agreements not expected to be executed.
- 15 total CP4 agreements were previously expected to be executed. Kern County agreement not expected to be executed
- Some Agreements are counted more than once because they are required for more than one section.
- CPI, CP2-3, CP4 and CP Total counts include Master/Cooperative Agreements
- Central Valley (Non-CP), North, South and (Non-CP) Total counts include Master/Cooperative Agreements and Reimbursement Agreements for coordination.

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)



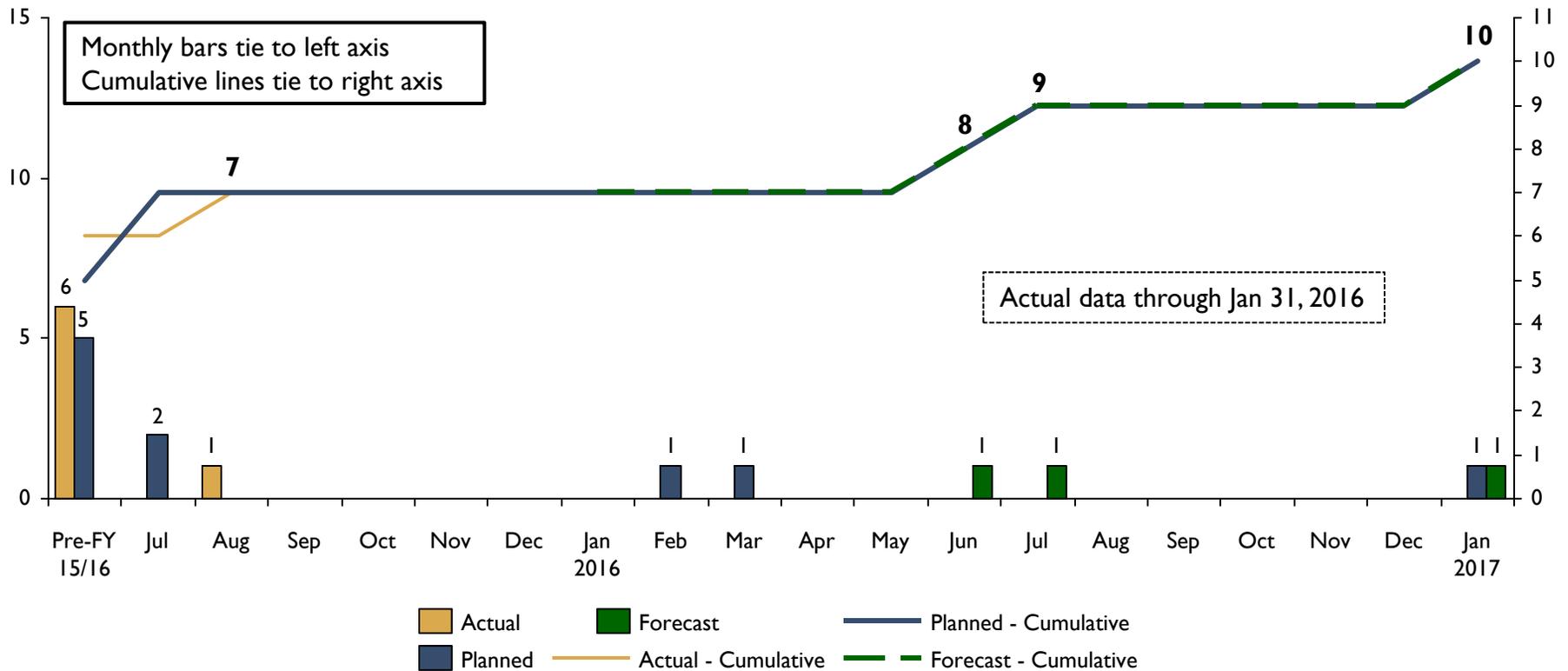
Notes:

- 43 total CP2-3 & CP4 agreements were previously expected to be executed. Kings County, Angiola Water District, Deer Creek Storm Water District and Kern County agreements not expected to be executed.
- 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:

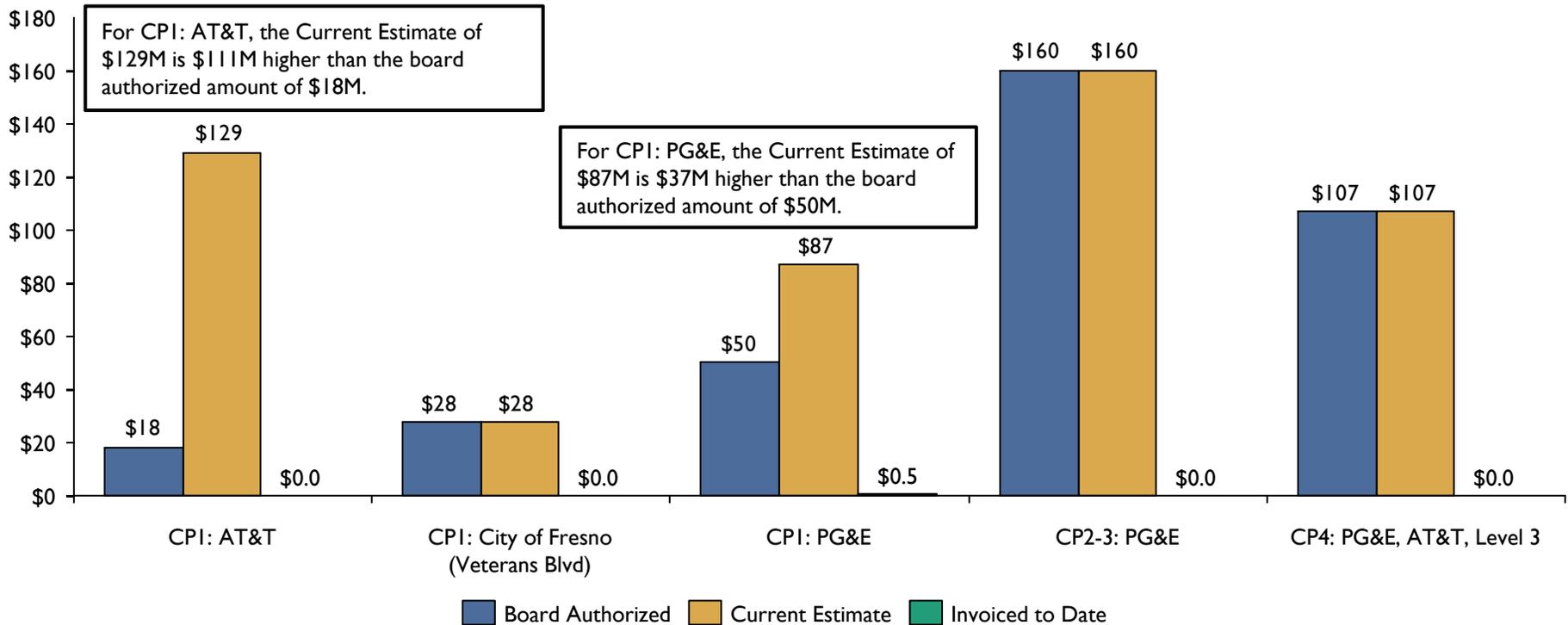
1. 10 total Railroad agreements to be executed. Execution of BNSF agreements are dependent on DB designs and Board Approval.

AT&T, PG&E, Level 3 & City of Fresno (Veterans Blvd)

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, HSR is 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. Policies and procedures have been implemented to improve the information being gathered, including the timing of data collection and the standardization of estimating practices.
6. A risk analysis is being performed and will be reflected in a future report.

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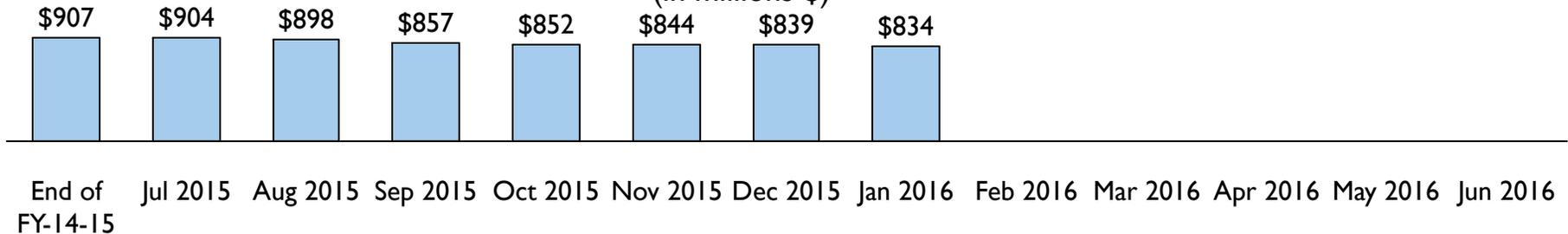
Contract Management Metrics - Context

- ▶ 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 refers to total invoices to date
 - Planned value refers to forecasted invoices to date
- ▶ Contract management metrics for CPI and CP2-3 are included
- ▶ 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 Remaining

(in millions \$)

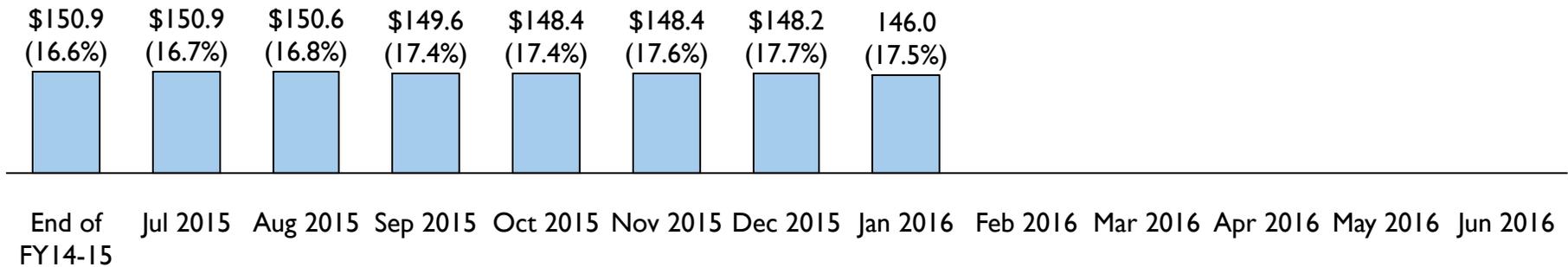


If remaining contingency against amount of contract / work left falls below 10%, corrective action may be necessary.

CPI – Contingency Balance Remaining

(millions \$)

(% of contract balance remaining)



Notes:

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

2. Based upon the amount of CP I 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: February 15, 2016
CPI Performance Metric Report

CP1 Contract Management Raw Data: Contingency Value

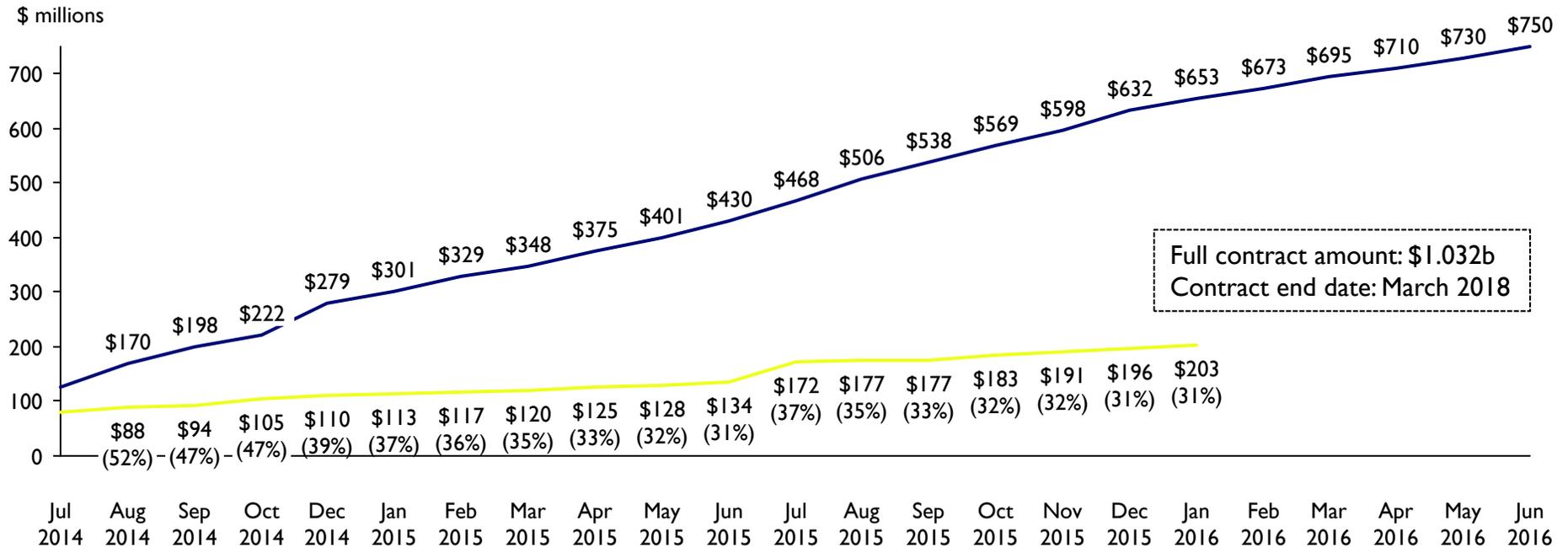
CPI – Contingency (\$ millions)

	End of FY 14-15	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	June 2016
Contract Balance Remaining	\$906.8m	\$904.2m	\$898.2m	\$857.4m	\$851.7m	\$843.9m	\$838.9m	\$834.4m					
Contingency	\$160m	\$160m	\$160m	\$160m	\$160m	\$160m	\$160m	\$160m					
Change Orders (from contingency)	\$9.1m	\$0.0m	\$0.3m	\$1.0m	\$1.2m	\$0.0m	\$0.2m	\$2.2m					
Contingency Balance Remaining	\$150.9m	\$150.9m	\$150.6m	\$149.6m	\$148.4m	\$148.4m	\$148.2m	\$146.0m					
Contingency %	16.6%	16.7%	16.8%	17.4%	17.4%	17.6%	17.7%	17.5%					

Source: February 15, 2016
CPI Performance Metric Report

CP1 Contract Management – Schedule Performance Index

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



Notes:

1. No report produced in November 2014
2. The increase in the CPI earned value during the August 2015 pay period (July 2015 data shown above) is primarily a result of revising the way the Contractor is compensated for administrative overhead incurred to date
3. Earned value flat from August to September 2015 because data reporting date was moved up in October 2015 creating a short period between data reporting dates in September and October 2015

Source: February 15, 2016
CPI Performance Metric Report

CP1 Contract Management Raw Data: Schedule Performance Index

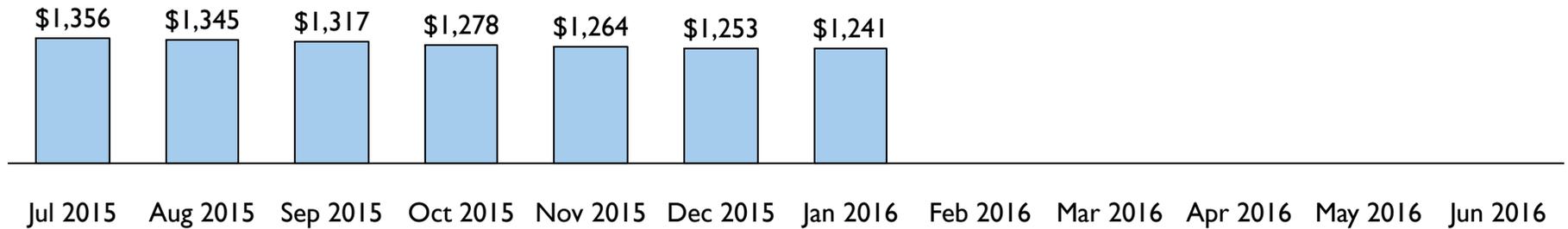
CPI – Schedule (millions \$)

	End of FY 14-15	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	June 2016
Earned Value/ Invoiced to Date	\$134.4m	\$171.5m	\$176.5m	\$176.5m	\$183.4m	\$191.2m	\$196.3m	\$203.1m					
Planned Value	\$430.3m	\$468.0m	\$505.8m	\$538.3m	\$568.9m	\$597.5m	\$631.8m	\$653.3m					
Schedule Performance Index	31%	37%	35%	33%	32%	32%	31%	31%					

Source: February 15, 2016
CPI Performance Metric Report

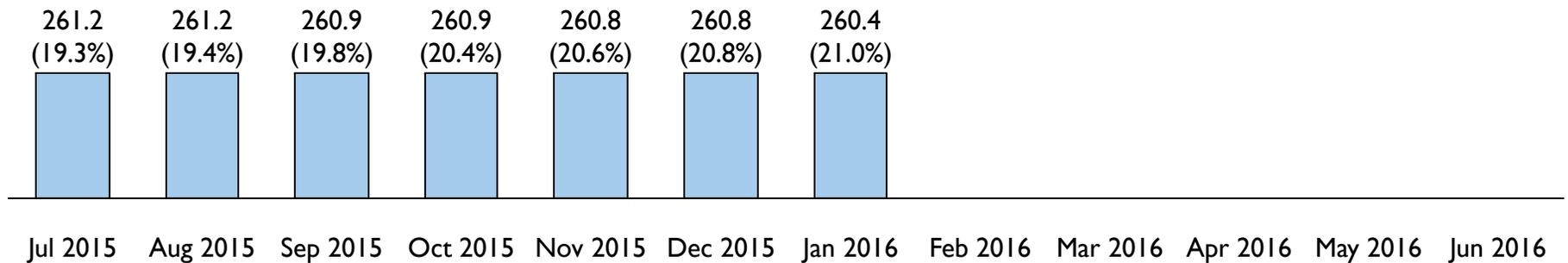
CP2-3 Contract Management – Contingency Value

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



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

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



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

Source: February 15, 2016
CP2-3 Performance Metric Report

CP2-3 Contract Management Raw Data: Contingency Value

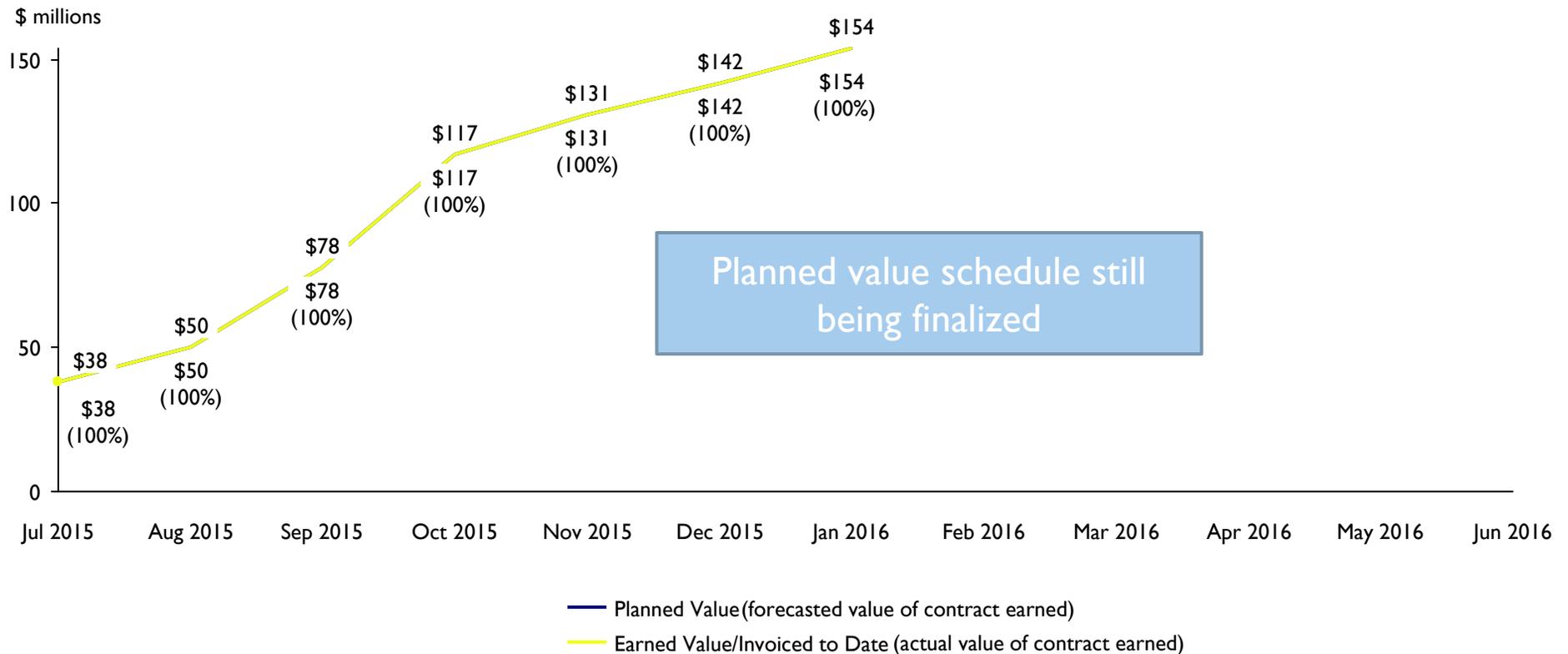
CP2-3 – Contingency (millions \$)

	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	June 2016
Contract Balance Remaining	\$1,356m	\$1,345m	\$1,317m	\$1,278m	\$1,264m	\$1,253m	\$1,241m					
Contingency	\$261.2m	\$261.2m	\$261.2m	\$261.2m	\$261.2m	\$261.2m	\$261.2m					
Change Orders (from contingency)	\$0.0m	\$0.0m	\$0.3m	\$0.0m	\$0.1m	\$0.0m	\$0.4m					
Contingency Balance Remaining	\$261.2m	\$261.2m	\$260.9m	\$260.9m	\$260.8m	\$260.8m	\$260.4m					
Contingency %	19.3%	19.4%	19.8%	20.4%	20.6%	20.8%	21.0%					

Source: February 15, 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: Total amount earned refers to progress on the schedule, not approved contract invoices

Source: February 15, 2016
CP2-3 Performance Metric Report

CP2-3 Contract Management Raw Data: Schedule Performance Index

CP2-3 – Schedule (millions \$)

	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	June 2016
Earned Value/ Invoiced to Date	\$38.1m	\$50.4m	\$77.7m	\$116.9m	\$130.6m	\$141.9m	\$153.9m					
Planned Value	\$38.1m	\$50.4m	\$77.7m	\$116.9m	\$130.6m	\$141.9m	\$153.9m					
Schedule Performance Index	100%	100%	100%	100%	100%	100%	100%					

Source: February 15, 2016
CP2-3 Performance Metric Report

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Finance/Budget Metrics – Context

- ▶ Metrics organized by:
 - Summary of current fiscal environment
 - FY 2015-16 finance/budget data, which includes ROW, planning, environmental and construction

- ▶ For FY 2015-16, this report presents:
 - Budgeted expenditures: based on FCP budget
 - Actual expenditures: incorporated each month
 - Forecasts: will shift each month and align with FY15-16 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 Reports, which is the source of the data
 - For example, a July F&A Capital Outlay Report includes financial data through May

The Authority has spent 21.0% of FY15-16 budget, 41.1% of the federal ARRA fund and 100% of C&T FY 14/15 fund

FY15-16 Expenditures to Date ¹ (Data as of January 2016)

Total appropriation includes some funding for Phase II planning and FY15/16 C&T creating a difference with the total budget below.

Total Appropriation	FY15-16 Budget ³		Expenditures to Date		Expenditures - % of Budget	
	Dec-16	Jan-16	Dec-15	Jan-16	Dec-15	Jan-16
\$7.292b	\$1.81b	\$1.87b	\$0.293b	\$0.391b	16.2%	21.0%

Total Expenditures to Date ¹

(Data as of January 2016)

ARRA expenditures are 41.1% of federal ARRA grant funds and 16.4% of \$6.40b total budget

	TOTAL		Planning		Construction	
	Budget	Expended	Budget	Expend to Date	Budget ³	Expend to Date
ARRA Grant ¹	\$2.553b	\$1.050b	\$0.322b	\$0.303b	\$2.231b	\$0.746b
FY10 Grant	\$0.928b	\$-	\$-	\$-	\$0.928b	\$-
PROP IA ²	\$2.563b	\$0.161b	\$0.192b	\$0.161b	\$2.372b	\$-
LOCAL	\$0.052b	\$-	\$0.052b	\$-	\$-	\$-
Cap and Trade ¹	\$0.305b	\$0.250b	\$0.059b	\$0.059b	\$0.246b	\$0.191b
Total	\$6.401b	\$1.461b	\$0.624b	\$0.523b	\$5.777b	\$0.937b

Note: Numbers may not add due to rounding

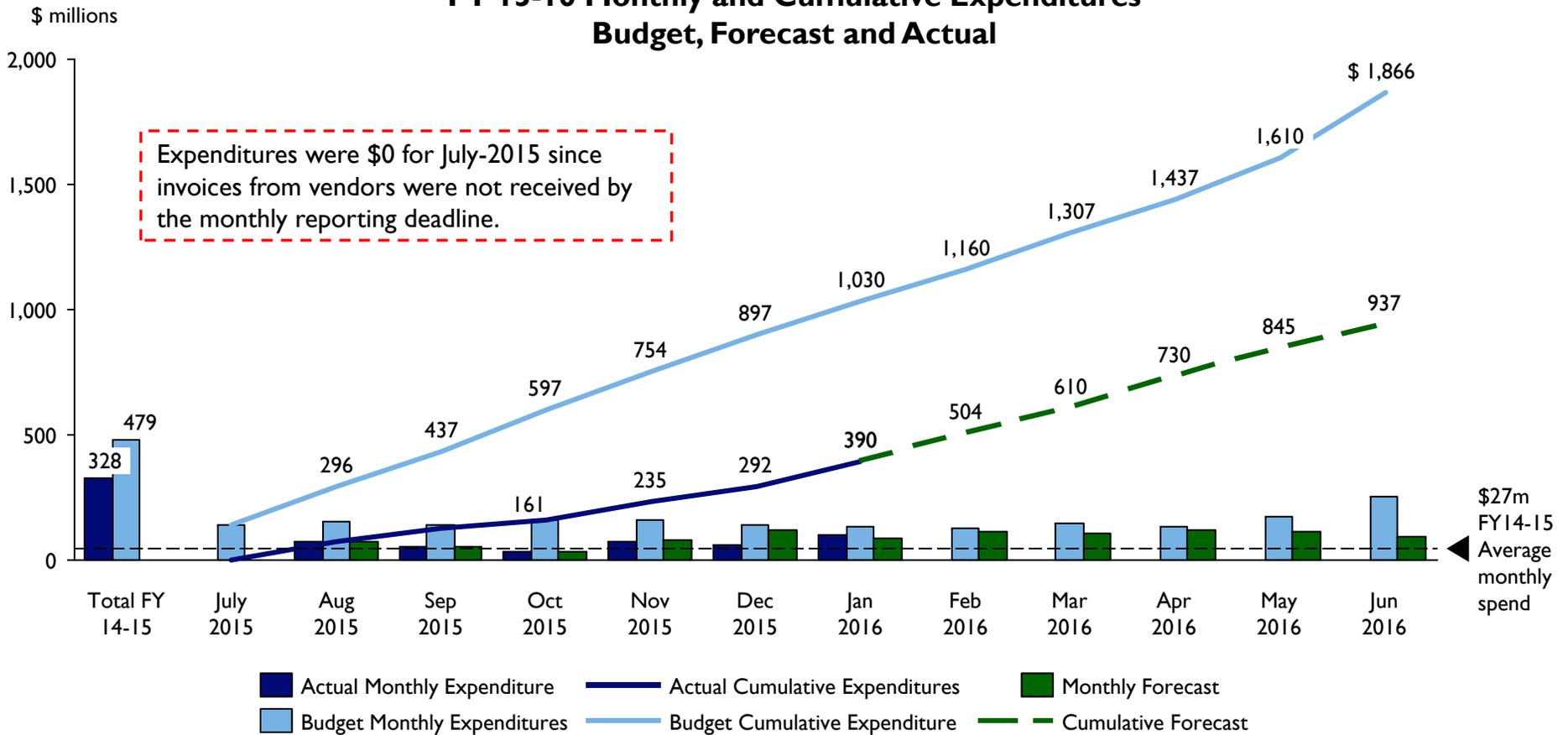
¹ Source: F&A Capital Outlay Report, March 2016 – balance subject to change due to pending approval of tapered match and federal reimbursements

² There is a total of \$2.8b in Prop IA appropriations, but the budgeted total excludes \$250m that were supplanted by C&T funds

³ The Capital Outlay Budget increase for March-2016 is due to the Authority’s Board of Director approval at the February 16, 2016 board meeting to purchase radio spectrum rights. The FY 15-16 budget increases \$55M from \$1.81B for Feb-2016 to \$1.87B for March-2016. The Construction budget increases \$55M from \$5.722b for Feb-2016 to \$5.777b for March-2016.

Finance/Budget – FY15-16 Expenditures

FY 15-16 Monthly and Cumulative Expenditures Budget, Forecast and Actual



Source: F&A Capital Outlay Reports (Sept 2015 – Mar 2016)

Notes: Forecast data will shift each month (budget and forecasts only equal at outset of FY15-16)

Finance/Budget Raw Data: Expenditures

FY14-15 Raw Data

	July 2014	Aug 2014	Sept 2014	Oct 2014	Nov 2014	Dec 2014	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	June 2015
Total FY Budget	\$1.6b	\$1.6b	\$1.6b	\$1.6b	\$859m	\$859m	\$859m	\$522m	\$479m	\$479m	\$479m	\$479m
Expense to Date	\$24.7m	\$47.2m	\$66.9m	\$91.6m	\$119.0m	\$139.4m	\$153.0m	\$174.4m	\$199.7m	\$218.3m	\$273.2m	\$327.6m
Monthly expenditures	\$24.7m	\$22.5m	\$19.7m	\$24.6m	\$27.4m	\$20.5m	\$13.6m	\$21.4m	\$25.3m	\$18.6m	\$54.9m	\$54.4m
Total FY Forecast	\$1.6b	\$1.5b	\$1.6b	\$838m	\$766m	\$728m	\$653m	\$522m	\$479m	\$416m	\$349m	\$336m

FY15-16 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					
Expense to Date	\$0	\$74.1m	\$125.5m	\$161.4m	\$234.5m	\$293.1m	\$391.0m					
Monthly expenditures	\$0	\$74.1m	\$51.4m	\$35.9m	\$73.2m	\$58.5m	\$98.0m					
Total FY Forecast	\$1.7b	\$1.7b	\$1.3b	\$1.0b	\$1.0b	\$1.1b	\$0.9b					

Source: F&A Capital Outlay Reports (Sept 2014 – Mar 2016)

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

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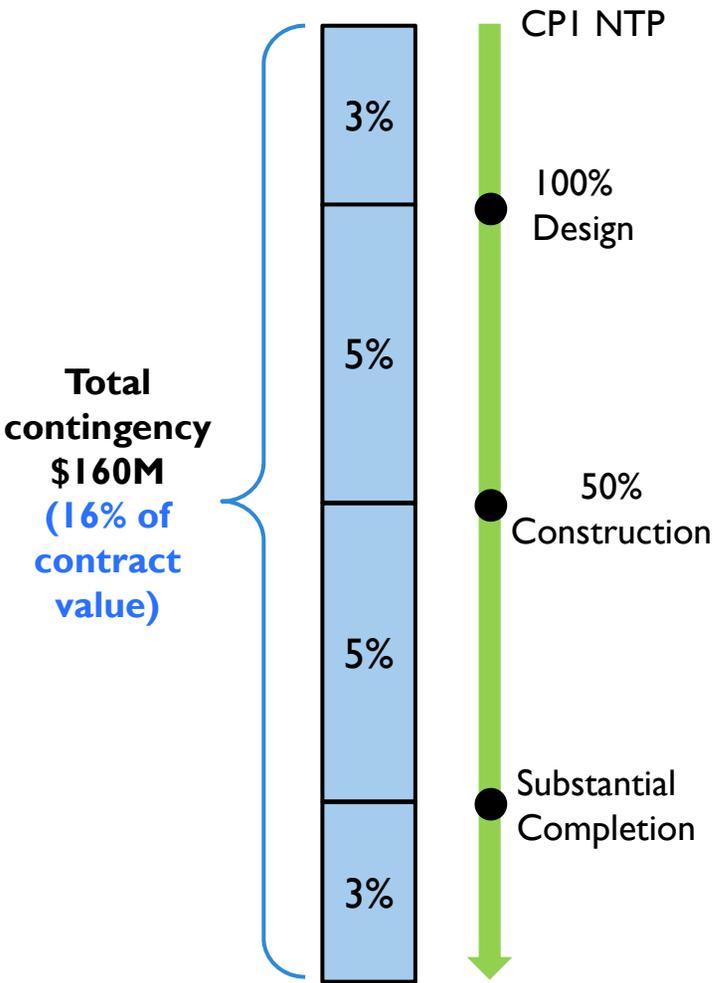
CP1 Contract – Current Contingency Level

Contract Milestones	CPI Contract Remaining Contingency	Major Change Orders Approved as of November 15, 2015
CPI Contract NTP	\$ 160.0 M	
As of 15-Nov-2015	\$ 148.4 M	<ul style="list-style-type: none"> • Class 1/2 Hazmat (\$5.25M) • Regulatory Changes - Archaeological, Biological, Native American monitoring (\$1.31M) • Ped.Arch Field Surveys; GIS Habitat Tracking • Scope Changes - Revised Shear Wave Boring, Weed Abatement, etc. • Trackway and Structures - Design Criterial Revisions • COF utility relocation cooperative agreement for design only • East American Avenue design speed variance • Small mammal burrow excavation; Built environment treatment plan • Env. Permit Changes, etc. • DRB expenses; Partnering workshop costs; Additional Space at 1401 Fulton • Other administrative, 3rd party, regulatory changes and additional scope items

Note: The approved change orders for CPI includes both anticipated and unanticipated risks/uncertainty initially considered in the contract contingency analysis (Aug 2013).

CP1 Contract – Establishing Contingency Floor

- ▶ Based on an analysis of the risks associated with CPI, a contingency of \$160M or slightly less than 16% of the contract value, was set aside.
- ▶ 3% of the contract value or approximately \$31M of the contingency was reserved for potential additional costs arising at or following substantial completion. This percentage is based on FTA guidance and is intended to serve as an added layer of protection against potential unidentified (additional) costs.
- ▶ Between these points, the floor is set based on FTA’s contingency targets for the amount of work outstanding at each milestone, for example, an additional 10% of contract value was reserved for potential additional cost arising between the start of construction and substantial completion, making the total required contingency at the 100% design stage to 13% of the contract value.



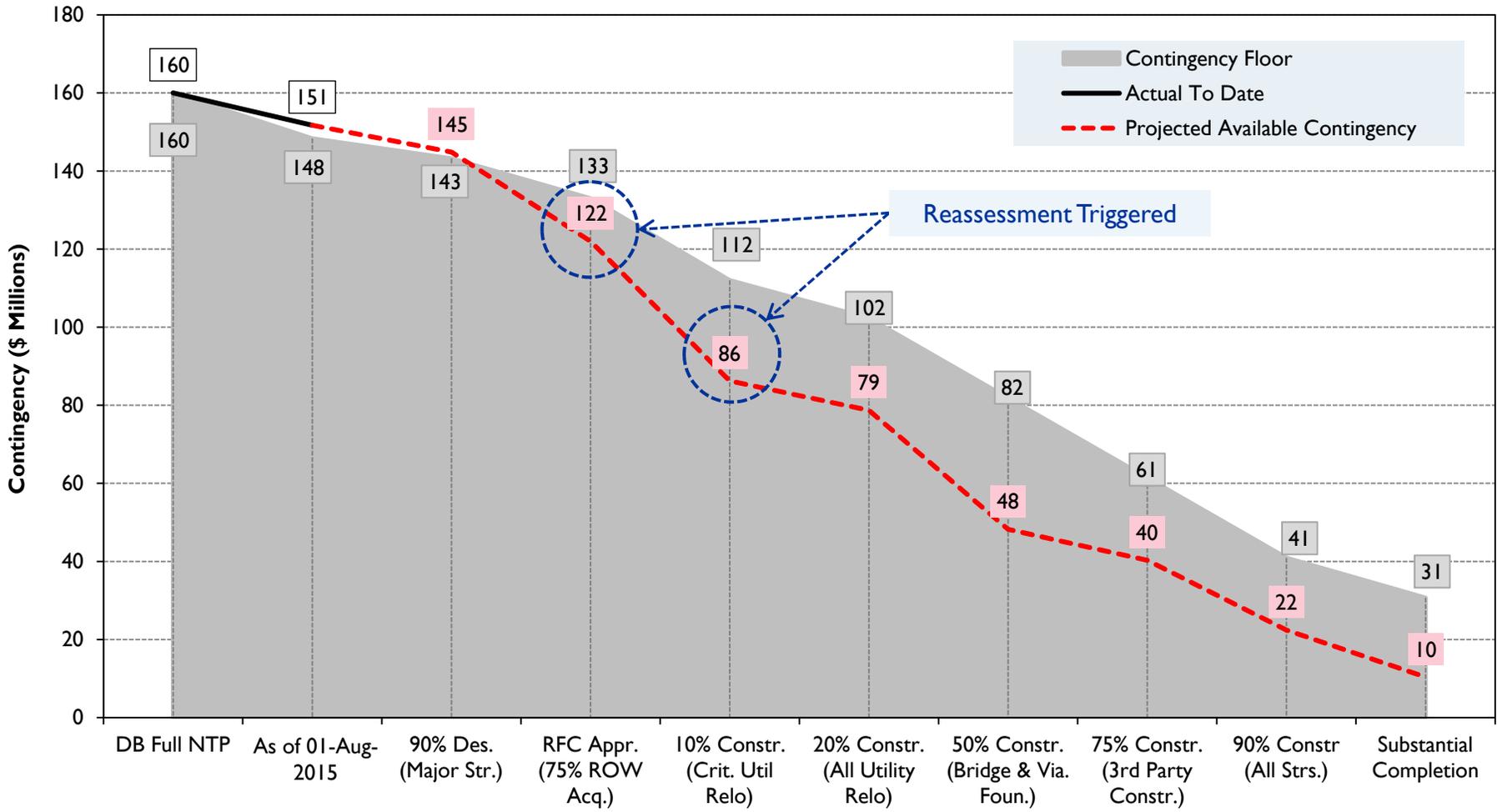
* Based on FTA Project and Construction Management Guidelines (July 2011)

Projected Available Contingency Level at Future Milestones

Contract Milestones	Projected Available Contingency (\$M)	Potential Risks Expected to Occur at Contract Milestones	Mean Rem. Risk Exposure (\$M)
As of Apr 01, 2015	151.7		
90% Design	144.8	<ul style="list-style-type: none"> • Scope changes as per environmental requirements modifications 	6.9
100% RFC Design	122.0	<ul style="list-style-type: none"> • Madera County Design roadway revisions (Avenues 9, 12, 13, 15 and 15.5) • Other Known scope changes incl. McKinley, GSB, etc. • City of Fresno Tier 2 requirements 	22.9
10% Construction	86.2	<ul style="list-style-type: none"> • Delays in agreement with RR agencies (50% impact) • ROW acquisition delays (50% impact) • Delays in obtaining permits (50% impact) • SJVRR Spurs - Scope considers one spur in the vicinity of Dry Creek Canal 	35.8
20% Construction	78.7	<ul style="list-style-type: none"> • Utility Provisional Sum • Construction contract work Prov. Sums 	7.5
50% Construction	48.2	<ul style="list-style-type: none"> • Changed/Differing Site Conditions • Class I & II Hazmat 	30.5
75% Construction	40.3	<ul style="list-style-type: none"> • Change or mis-representation of environmental requirements • SR99 & SRI80 Interface Coordination 	7.9
90% Construction	22.4	<ul style="list-style-type: none"> • Direct costs associated with intrusion protection 	17.9
Substantial Complete	10.4	<ul style="list-style-type: none"> • ROW acquisition delays (50% impact) • Delays in obtaining permits (50% impact) • Delays in acquiring compensatory mitigation sites 	24.1

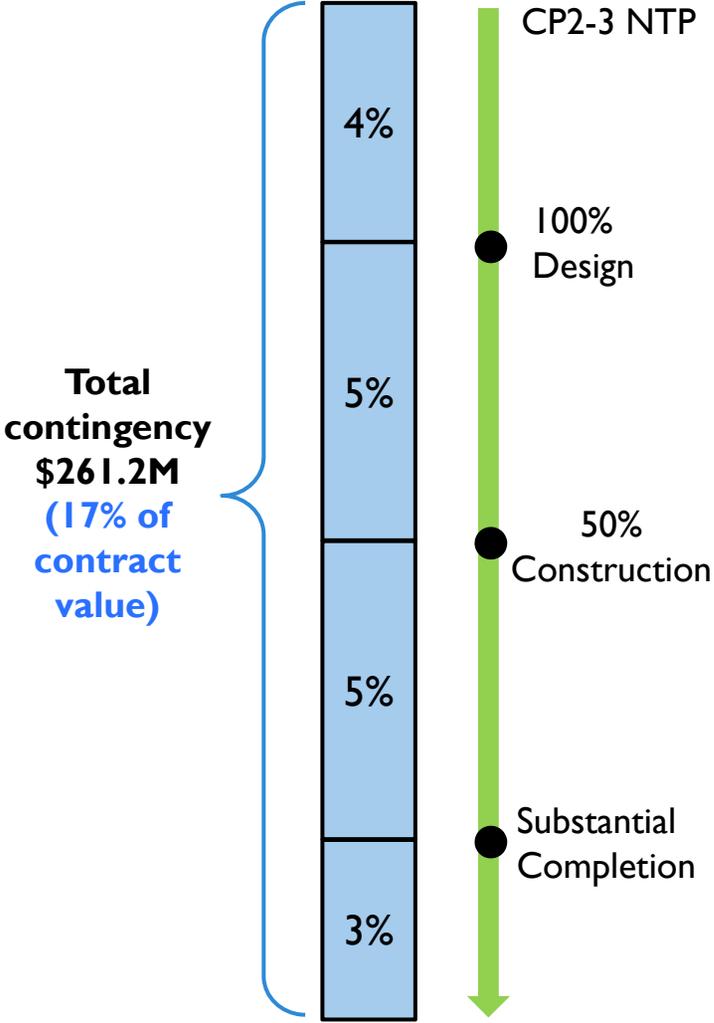
Note: Content as of 01-Apr-2015. The projections for remaining contingency available will be reviewed and adjusted at major project milestones. This will take into account actual known impact of risks that are realized and free-up the mean impact of the risks that are avoided.

CP1 Contract - Contingency report



CP2-3 Contract – Establishing Contingency Floor

- ▶ Based on an analysis of the risks associated with CP2-3, a contingency of \$261.2M or slightly over 17% of the contract value (base contract plus the PG&E provision sums and third party allowance), was set aside.
- ▶ Three percent of the contract value or approximately \$46M of the contingency was reserved for potential additional costs arising at or following substantial completion. This percentage is based on FTA guidance and is intended to serve as an added layer of protection against potential unidentified (additional) costs.
- ▶ Between these points, the floor is set based on FTA’s contingency targets for the amount of work outstanding at each milestone, for example, an additional 10% of contract value was reserved for potential additional cost arising between the start of construction and substantial completion, making the total required contingency at the 100% design stage to 13% of the contract value.



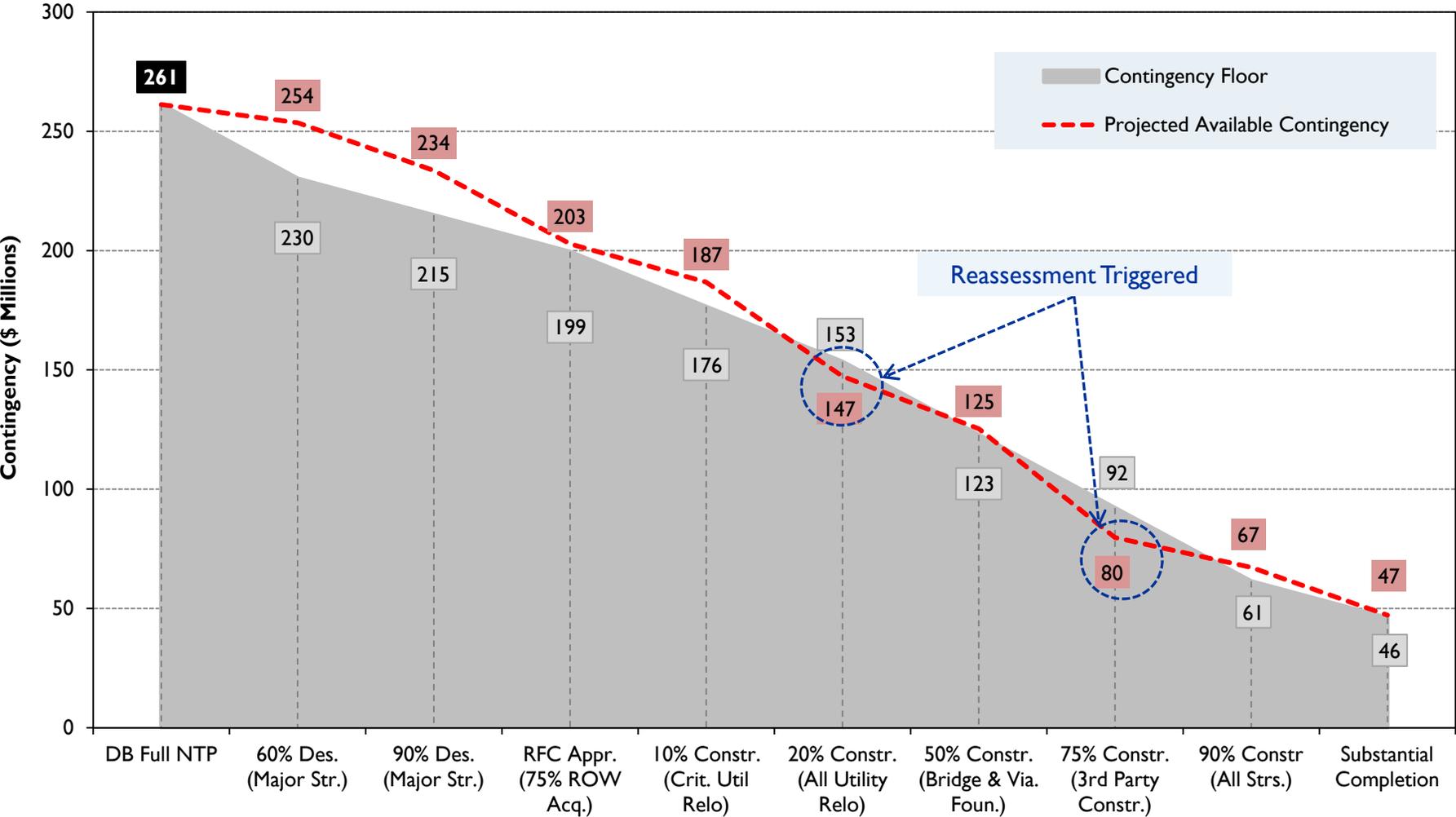
* Based on FTA Project and Construction Management Guidelines (July 2011)

Projected Available Contingency Level at Future Milestones

Contract Milestones	Projected Available Contingency (\$M)	Potential Risks Expected to Occur at Contract Milestones	P90 Risk Exposure (\$M)
CP2-3 NTP	261		
60% Design	253.6	<ul style="list-style-type: none"> • Scope changes as per Environmental requirement modifications 	15.3
90% Design	233.6	<ul style="list-style-type: none"> • Kings County Roadway Modifications • Notice of approval of restricted drawings 	20.0
100% RFC Design	202.8	<ul style="list-style-type: none"> • Fresno & Tulare County Roadway Modifications • SBE/DBE participation, community benefits agreement and NTHI 	30.8
10% Construction	186.8	<ul style="list-style-type: none"> • Delays in agreement with RR agencies (20% impact) • ROW acquisition delays (20% impact); Delays in obtaining permits (20% impact) • Uncooperative Kings County delaying HSR work (20% impact) • CPUC delays (20% impact) 	16.0
20% Construction	147.3	<ul style="list-style-type: none"> • Uncertainty in utility relocation costs; Uncertainty in canal relocation costs • Construction Water hard to find 	39.5
50% Construction	125.3	<ul style="list-style-type: none"> • Changed/Differing Site Conditions • Class I & II Hazmat 	22.0
75% Construction	79.7	<ul style="list-style-type: none"> • BNSF railroad intrusion protection measures (50%) 	45.6
90% Construction	67.2	<ul style="list-style-type: none"> • Agricultural crossings at Hanford and Cross Creek necessitated by embankments. 	12.5
Substantial Complete	47.2	<ul style="list-style-type: none"> • ROW acquisition delays (50% impact) • Delays in obtaining permits (50% impact) • Delays in acquiring compensatory mitigation sites (50% impact) 	40.1

Note: Content as of 11-Jun-2015. The projections for remaining contingency available will be reviewed and adjusted at major project milestones. This will take into account actual known impact of risks that are realized and free-up the P90 impact of the risks that are avoided.

CP2-3 Contract - Contingency report



Agenda

- ▶ Operations Report Metrics
 - Executive Summary
 - Right of Way (ROW)
 - Environmental
 - Third-Party Agreements
 - Contract Management
 - Finance/Budget
 - Risk
 - Back-Up ROW Information

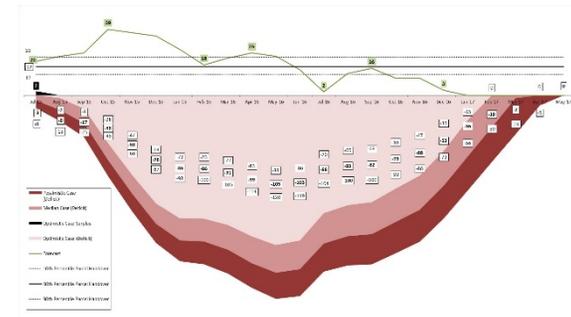
CP1 Probabilistic Analysis of Meeting CP1 Forecast

- ▶ The team has developed a new parcels handover forecast for CPI based on actual and past performance in terms of numbers of parcels delivered per month
- ▶ The forecast is refined monthly as new information is integrated and present a trajectory that the team uses to achieve the plan agreed with the contractor TPZP (negotiated schedule as of December 2014)
- ▶ A probabilistic distribution of monthly handover rates is specified based on monthly handovers during previous delivery periods (3 months and 6 months)
- ▶ The distribution is then compared to the forecast handover rates of each month in a Monte Carlo simulation to determine the probability of meeting monthly (clean slate) and cumulative (rolling over delayed parcels to next month) targets
- ▶ When relevant the analysis determines the likely delay to the forecasted completion date
- ▶ A Pessimistic case and an Optimistic case bracket the Median case; all presented in the detailed results in Appendix
- ▶ An updated probabilistic analysis will be prepared after the re-baselining of CP2-3. We expect this update to the probabilistic analysis to be completed in the 2nd Quarter 2016.

CP1 Probabilistic Analysis – Summary and Preliminary Results from August 2015 Forecasts

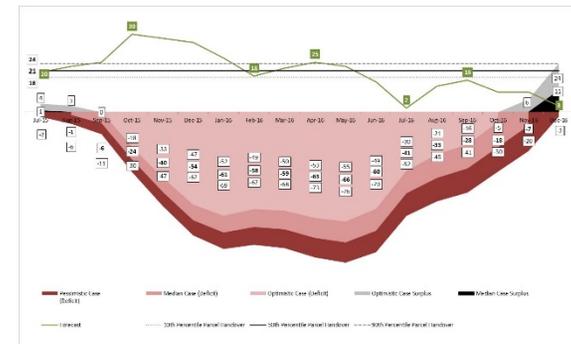
Past 6-Month Parcel Handover Rate

- Range used for historic period : 9 – 27 parcels per month (Median = 17 parcels per month)
- Meeting monthly targets (clean slate) : 9 / 18 months
- Meeting monthly targets (roll over) : 1 / 18 months
- Accumulated parcel delivery deficit of delivery of parcels (iceberg) reaches 105 parcels in the median case creating cost impacts to the contract if delays are not avoided or mitigated
- Handover of the final parcel anticipated to be delayed 7 months



Past 3-Month Parcel Handover Rate

- Range used for historic period : 15 – 27 parcels per month (Median = 21 parcels per month)
- Meeting monthly targets (clean slate) : 9 / 18 months
- Meeting monthly targets (roll over) : 4 / 18 months
- While the final parcel is likely (85.6%) to be delivered by Dec 2016, delays (and likely associated claims) will have been accumulated by that date.



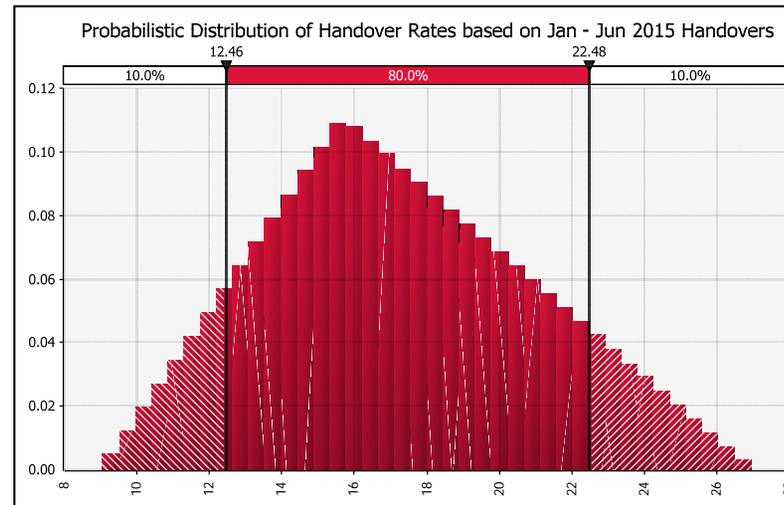
Notes: The deficits presented are in addition to the delays already accrued. Deficits measured against our own internal forecast NOT contractual obligations to the contractor.

ROW – CPI: Monthly Forecast Parcel Handover Rate vs Probabilistic Handover Rate based on prior 6 month’s results

	CLEAN SLATE Probability of meeting or bettering forecast	ROLL-OVER Probability of meeting or bettering forecast
Jul-15	24.0%	24.0%
Aug-15	7.8%	5.8%
Sep-15	2.0%	0.6%
Oct-15	0.0%	0.0%
Nov-15	0.0%	0.0%
Dec-15	0.0%	0.0%
Jan-16	0.0%	0.0%
Feb-16	39.7%	0.0%
Mar-16	12.3%	0.0%
Apr-16	2.0%	0.0%
May-16	7.8%	0.0%
Jun-16	70.0%	0.0%
Jul-16	100.0%	0.0%
Aug-16	86.7%	0.0%
Sep-16	59.3%	0.0%
Oct-16	99.2%	0.0%
Nov-16	99.2%	0.0%
Dec-16	100.0%	0.0%
Jan-17	100.0%	1.6%
Feb-17	100.0%	13.2%
Mar-17	100.0%	45.9%
Apr-17	100.0%	82.2%
May-17	100.0%	97.3%
Jun-17	100.0%	99.8%
Jul-17	100.0%	100.0%

A probabilistic distribution of monthly handover rates was specified based on monthly handovers during January – June 2015 period (below). This was then compared to the forecast handover rates of each month in a Monte Carlo simulation to determine the probability of meeting monthly and cumulative (rolling over delayed parcels to next month) targets.

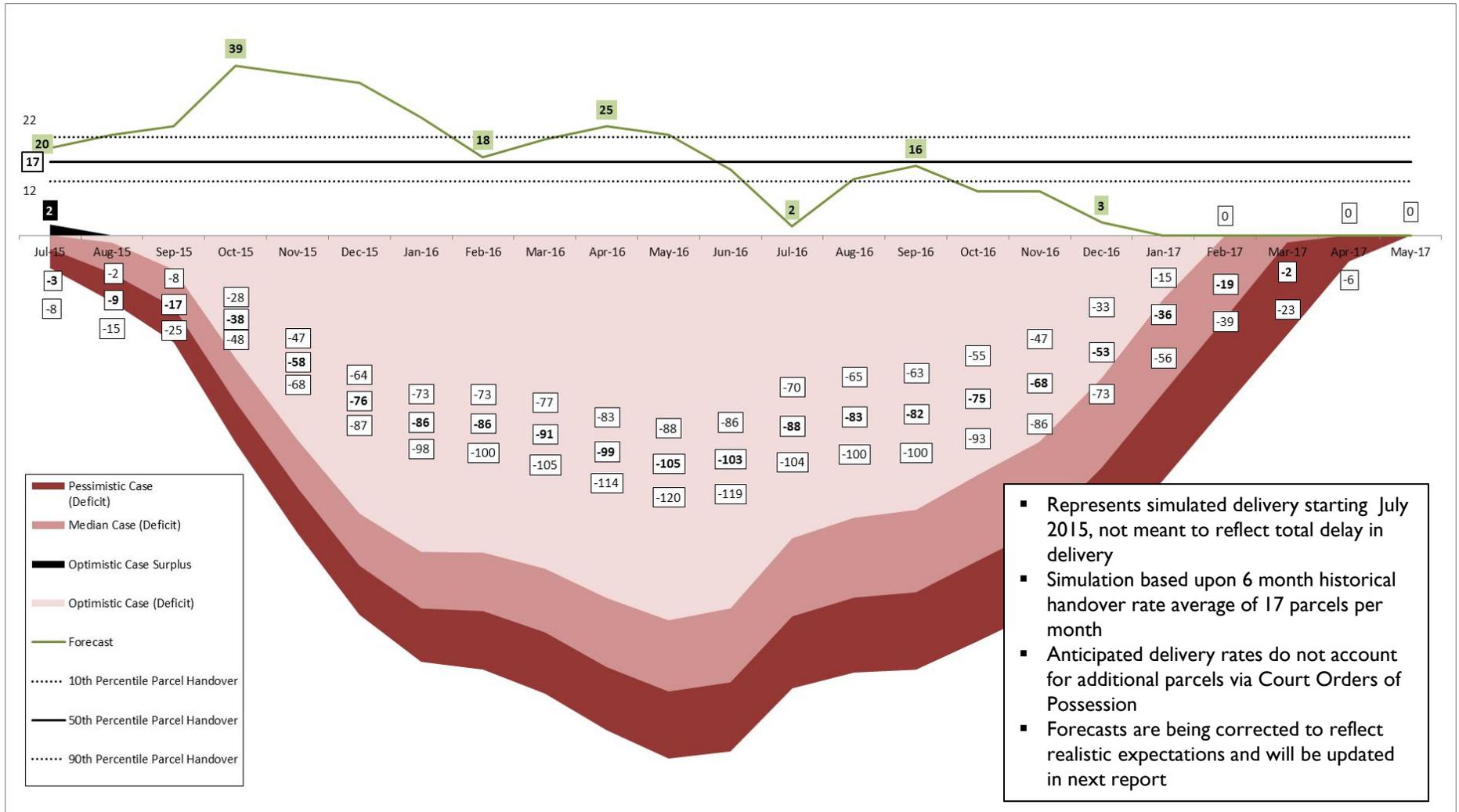
- Based on this analysis, the accumulated deficit of parcel delivery (iceberg) is large and reached 108 parcels in the median case
- The probability of handing over the requisite number of parcels by December 2016 is negligible
- It is projected that handover will not be complete until at least April 2017
- Analysis based purely on historic delivery. As such the additional parcels anticipated to be delivered court Orders of Possession starting in August and ramping up are not captured due to lack of history



ROW – CPI: Projected surpluses and deficits based on prior 6 month's handover rates (Jan – Jun 2015)

Deficits are projected to be *less than Pessimistic Case 90% of the time*

Deficits are projected to be *greater than Optimistic Case 90% of the time*



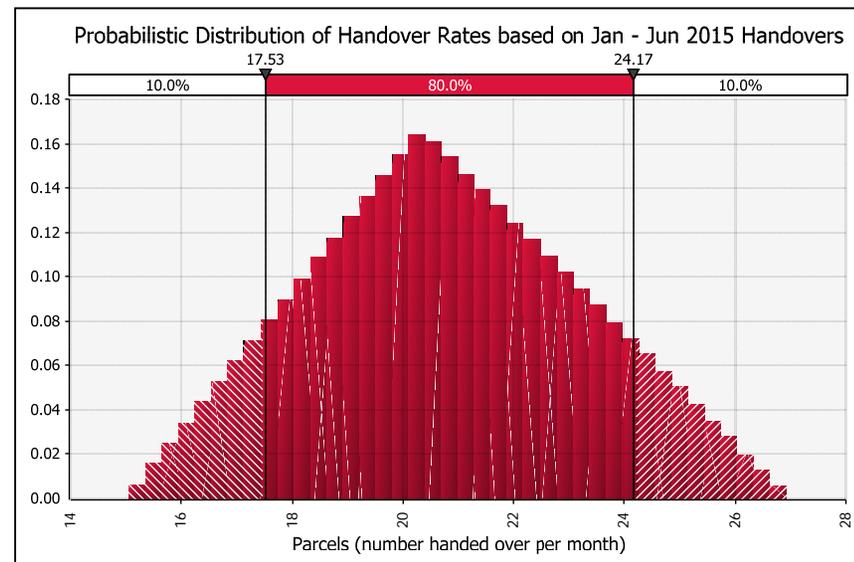
ROW – CPI: Probability of meeting or bettering forecast based upon 3 month’s results (March to May 2015)

Date	CLEAN SLATE Probability of meeting or bettering forecast	ROLL-OVER Probability of meeting or bettering forecast
Jul-15	60.9%	60.9%
Aug-15	20.0%	33.9%
Sep-15	5.0%	9.4%
Oct-15	0.0%	0.0%
Nov-15	0.0%	0.0%
Dec-15	0.0%	0.0%
Jan-16	0.0%	0.0%
Feb-16	85.9%	0.0%
Mar-16	31.2%	0.0%
Apr-16	5.0%	0.0%
May-16	20.0%	0.0%
Jun-16	100.0%	0.0%
Jul-16	100.0%	0.0%
Aug-16	100.0%	0.0%
Sep-16	98.4%	0.1%
Oct-16	100.0%	3.6%
Nov-16	100.0%	24.4%
Dec-16	100.0%	85.6%

It is projected that CPI will carry a deficit for much of the remaining ROW acquisition period, though the deficit is projected to diminish from Jun 16 forward and clear by the end of the handover period (Dec 2016).

The accumulated deficit of parcels delivery is less significant than the 6 month analysis and reaches 58 parcels in the median case

While 9 of 18 remaining months have individual forecasts that could be met by current handover rates, in 7 of these 9 handover rates are insufficient to address both the parcels due in that period and deficits accrued from previous periods



ROW – CPI: Projected surpluses and deficits end of July 2015 to end of December 2016 based upon 3 month's results (March to May 2015)

Deficits are projected to be *less than Pessimistic Case 90%* of the time

Deficits are projected to be *greater than* and *Surpluses are projected to be smaller than Optimistic Case 90%* of the time

