



# **California High-Speed Rail: Operations Report**

**FY14-15, FY15-16 and Program Metrics**

November 2015

# Agenda

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## ▶ Operations Report Metrics

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

# Executive Summary

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## ROW Acquisition

- ▶ The current report presents ROW acquisition progress relative to CPI and CP2-3 through October 16<sup>th</sup>. As of that date, the Authority has secured legal possession of 493 parcels, with 430 delivered to the design-builder.
- ▶ The increase of 40 parcels delivered in CPI since the last Ops Report is mostly attributed to the delivery of the County of Madera parcels through the ROW Transfer Agreement execution. We anticipate delivery of another 8 public parcels in the coming weeks resulting from the execution of the County of Fresno ROW Transfer Agreement. The delivery of private parcels continue to lag. California High-Speed Rail Authority (CHSRA) staff is focused on ways to increase delivery of private parcels through process improvements and increased utilization of the Settlement Team approach.
- ▶ Both CPI and CP2-3 delivery plans will be re-baselined in November / December . The Authority and CPI DB have “partnered” to identify 7 early construction locations with the goal of starting construction before the end of the calendar year. The team is focused on the priority parcels to be delivered in these sections so that construction delays are minimized.
- ▶ The ROW dataset has been updated to incorporate additional parcels as a result of design refinements. The forecast has been updated to reflect the current scheduled delivery for each parcel. An “Alternative” forecast has been developed to reflect potential delays that are outside the control of the Authority and are more in line with recent trends. The most likely delivery schedule will be between these forecasts curves.
- ▶ Future positive changes in delivery have the potential to significantly alter the outcome of the probabilistic analysis as it is based upon short term historical trends. As the dataset grows to include the benefits of these changes, improvements will be reflected in the results and reliability of the forecasts. Updating of the probabilistic analysis is planned for early 2016 after the rebaselining occurs in CPI and CP2-3.

# Executive Summary

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## **Finance/Budget**

- ▶ In FY 2014/15, the focus was on fully utilizing cap and trade funding of \$250M for planning and construction which was achieved. The current balance is subject to change due to pending approval of tapered match and federal reimbursements
- ▶ 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.
- ▶ September-2015 expenditures were \$51.4M, as reported in the November-2015 Operations Report, a 161% increase over expenditures of \$19.7M reported in the November-2014 Operations Report the previous year.
- ▶ 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.

## **Contract Management**

- ▶ CPI - TPZP is progressing with construction at the Fresno River Bridge, including starting concrete placement for columns. Key critical and near critical path structure locations have been jointly identified and actions are being taken to start construction in the coming months. Sufficient right-of-way parcels have been acquired at three additional locations to allow construction to begin, and TPZP is completing design activities to facilitate construction at those locations.
- ▶ CP2-3 - The Joint Venture of Dragados/Flatiron has been issued a full Notice to Proceed. The Joint Venture continues to mobilize and plan the work, including developing baseline right-of-way, design and construction plans. The Authority and the Joint Venture have reached an agreement on overall right-of-way acquisition strategies to progress the Right-of-Way Acquisition Plan.

# Executive Summary

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## Environmental

Where are we today?

- ▶ With the Authority's decision to deliver the high speed rail program benefits to the citizens of California and the traveling public sooner, the Authority committed to clear environmentally the program segments and projects in record time – by December 2017. Prior to this approach, the Authority was clearing program sections sequentially, following the project phasing identified in the Business Plans.
- ▶ This aggressive schedule requires that the program team change its organizational structure, its processes and its tools. This re-tooling requires not only environmental process clearances be tailored more closely to the project impacts - environmental impact reports/environmental impact statements (EIRs/EISs), initial studies/environmental assessments (ISs/EAs) and categorical exemptions/categorical exclusions (CEs/CEs) – but also to undertake the mitigation programs and permits, in near synchronicity, to allow the program to enter construction more quickly.
- ▶ The hard-hitting schedule requires a closer coordination among team members including clear lines of communications, decision-making, prioritization and control. It also demands additional resources for staffing and funds to advance mitigation and permitting. To advance this initiative, the Authority, with the US Office of the Secretary and Governor's Office, met with federal and state resource agency partners Oct. , 2015 to present the delivery schedule and discuss ways to achieve them, along with the request to identify additional needed agency resources.
- ▶ Work continues to develop the set of environmental program integrated schedules. The team is tracking progress by environmental milestone which are being wrapped into five key ones being reported to the Authority Board.
- ▶ Tools are in progress. One is the cost-loaded scheduling taking into account all costs: Authority, RDP, consultants, legal, support to other agencies for resources, and permitting and mitigation costs. Another is the specific reporting requirements to allow the ability to monitor progress and take swift management actions to achieve milestones.
- ▶ Other tools are not as advanced. The need exists, for example, to integrate the milestones tracking and reporting into the new overall Project Management Information System (PMIS) currently in review.

# Executive Summary

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## Are we on target?

- ▶ For San Francisco to San Jose, we are revisiting Purpose & Need/Project Description to reflect blended infrastructure and operations within the Caltrain Corridor.
- ▶ Extensive community and elected officials engagement activities have been kicked off in Northern California leading into the environmental clearance process for the San Francisco to San Jose and San Jose to Carlucci Road later this fall.
- ▶ The Central Valley Wye administrative draft EIR/EIS is being written. Before the ROD can be issued, the least environmentally damaging practicable alternative (LEDPA) must be agreed upon by the US Army Corps of Engineers and the US Environmental Protection Agency.
- ▶ In the Central Valley the Bakersfield F Street Station Area supplemental EIR/EIS is on target to meet a December 2016 ROD. Public meetings on the project are underway.
- ▶ We have successfully delivered a number of plans this year. Among them are the Palmdale to Burbank supplemental alternatives analysis (SAA), being closely followed by the Bakersfield to Palmdale, Burbank to Los Angeles and Los Angeles to Anaheim SAA studies this fall and in early 2016.
- ▶ To continue delivering progress we need additional resources. We hired an additional permitter for Central Valley, an environmental planner in NoCal, and a regional environmental manager in SoCal.
- ▶ To advance permitting and mitigation with the environmental clearances requires additional program funding, planning and scheduling. Daylighting these costs now is important as the costs may be significant.

# Executive Summary

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What is our short term action plan?

- ▶ The Authority is in negotiation to retain a new consultant for engineering and environmental services for the region between San Francisco and the Central Valley Wye.
- ▶ At the November board meeting, we will provide an update on efforts to identify a preferred alignment alternative for the Central Valley Wye.
- ▶ Between now and the end of the year, we will decide on how best to advance our environmental work for the future Heavy Maintenance Facility and electrical power interconnections in the Central Valley. How the Authority and FRA/STB decide to clear these may affect the Central Valley Wye administrative draft EIR/EIS and Bakersfield F Street Station Area supplemental EIR/EIS schedules.
- ▶ For the four So. California sections, work will continue on preparing technical reports and meeting with regulatory agencies to prepare draft environmental documents for public review in 2016.
- ▶ Addressing the completely changed environmental clearance process by implementing concurrent clearances with permitting, we have actions underway to deliver the program to meet uncompromising deadlines. Much remains to be done.
- ▶ Building on our Oct. 1 agency meeting, approaches to align federal and state agencies' priorities have been developed and are happening.
- ▶ Also based on the Oct. 1 meeting, we are establishing three regional federal and state agency working groups to facilitate decision-making and foster increased communication and technical exchanges.
- ▶ Internally we are kicking off an Authority Coordination Team to support achieving the aggressive environmental program schedule.
- ▶ We are leveraging opportunities to make program-wide efficiencies with regional mitigation, updated interagency agreements and customized environmental analyses methods.
- ▶ Going hand-in-hand are higher levels of stakeholder engagement to identify issues sooner and reach agreement on decisions that will "stick". Meetings and working groups are underway across the state, within program segments.
- ▶ To support this program, we are interviewing for additional environmental planning, permitting and specialty resource positions.

# Executive Summary

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## Third Party Agreement Execution

- ▶ The current report presents Third Party Agreement execution progress relative to CPI and CP2-3 through October 15th. To date, the Authority has secured 13 additional third party agreements to support the design and construction of CPI and CP2-3. The plan for agreement execution is based on the respective design-build contractor schedules and is updated monthly to reflect changes in the respective contractors schedule. The forecast for agreement execution is based on short term historical trends for agreement process durations.
- ▶ The agreements are broken into three separate groupings to account for differences among the Authority's obligations and risks. The Agreements are identified as: Master/Cooperative Agreements, AT&T and PG&E Utility Relocation Agreements, and Railroad Agreements.
- ▶ The reports show that for the Master/Cooperative Agreements for CPI all of the agreements are executed. All the agreements that are currently needed for CPI based on the Contractor's schedule are executed. For CP2-3 most of the agreements have been executed and the Authority is forecasting execution of all agreements, except the County of Kings, Kings County Water District, Angiola Water District, and Deer Creek Storm Water District within the next two months. In addition, a new third-party agreement was identified in CP2-3.

# Agenda

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

## ROW Metrics - Context

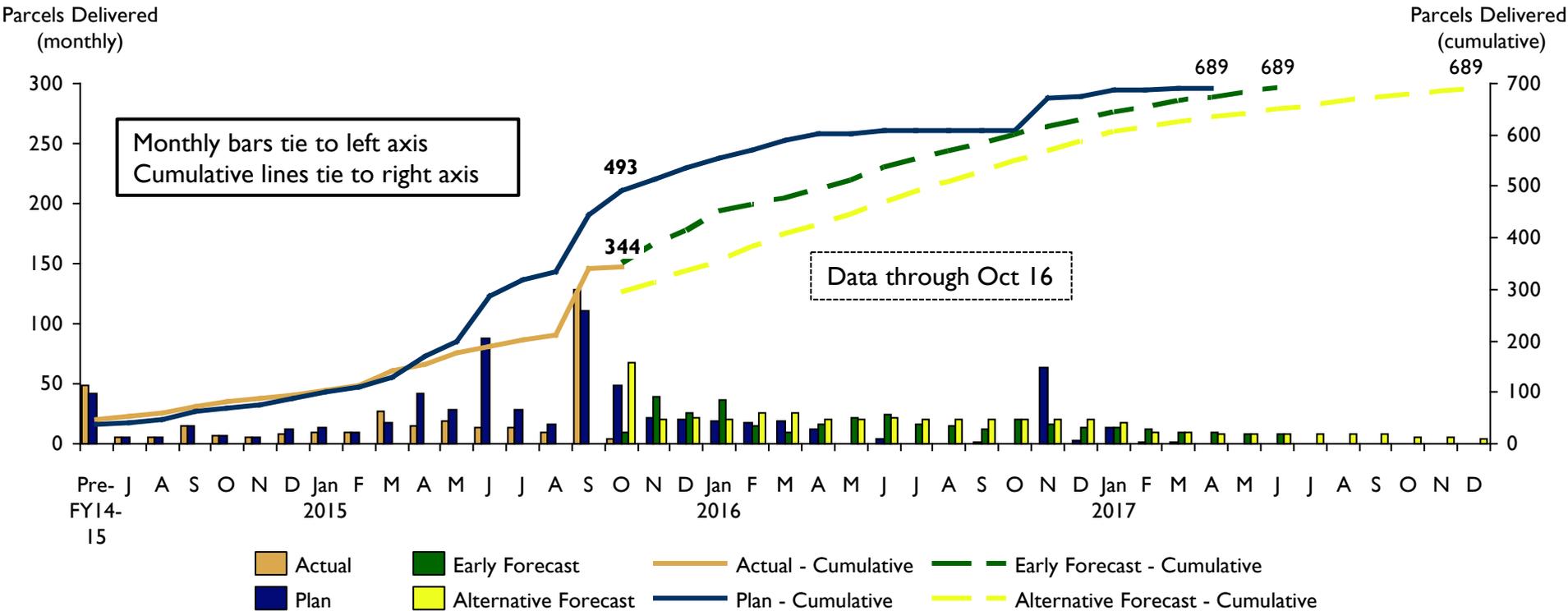
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- ▶ The following slides track parcels **delivered to design-builder (DB)**, which is the last step of the ROW process
  - Four metrics related to “delivered to DB” are tracked:
    - Plan: For CPI, the negotiated schedule of parcel delivery as of December 2014 plus additional public parcels and design changes; for CP2-3, planned delivery is currently a placeholder and will be re-baselined in November /December 2015.
    - 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
- ▶ 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 689) 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.

# ROW – CP1 Parcels Delivered to Design-Build by Month

Plan vs. Actual vs. Forecast

## CPI - Delivered to DB (number of parcels)



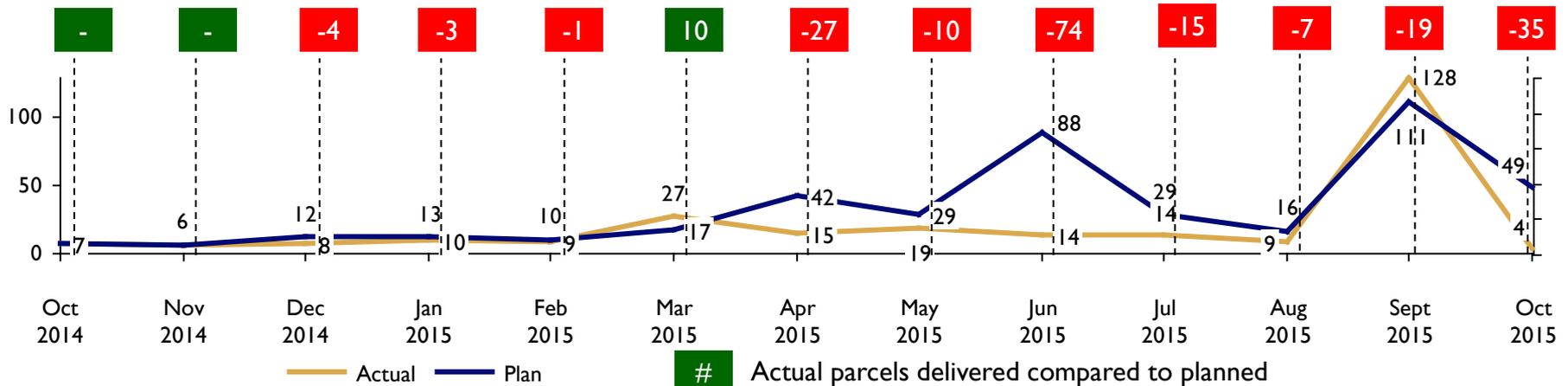
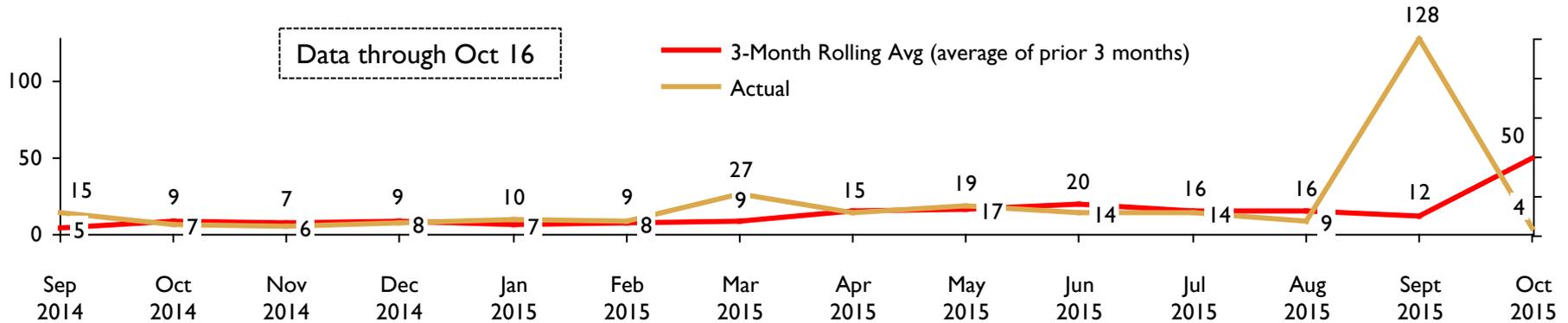
Notes:

1. "Plan": Negotiated schedule as of December 2014 plus public parcels (128), design changes (16) plus new parcels
2. "Early Forecast" and "Alternative Forecast": Early forecast is continually refined based on expected delivery schedule. The Alternative Forecast reflects potential delays.

Source: Oct 16, 2015 ROW Weekly Report

# ROW – CP1 Historic Performance

## CPI Performance (in number of parcels)



Notes:

I. "Plan": Negotiated schedule as of December 2014

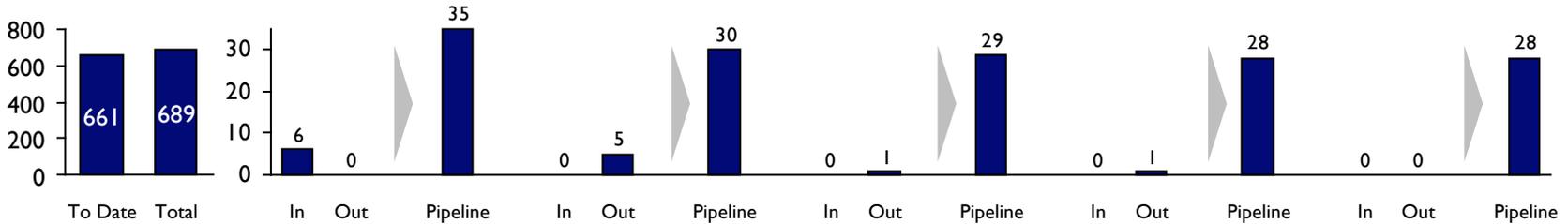
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

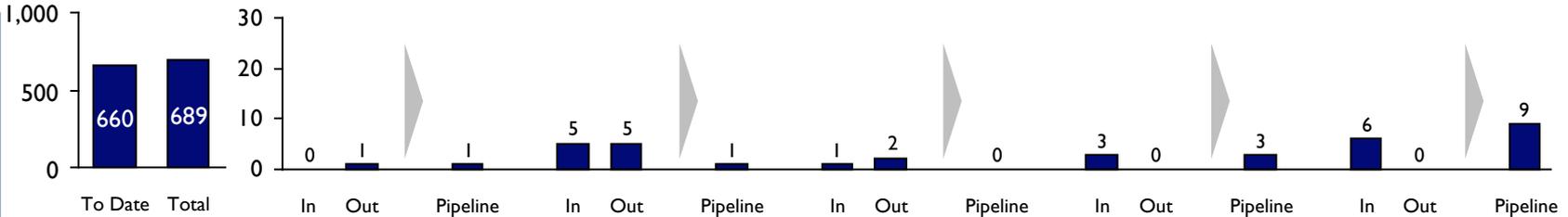
Completion    June 2015    July 2015    August 2015    Sept 2015    **Oct 2015**

Appraisal



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

Just Compensation



- Working with DGS to deliver the nine Just Compensations

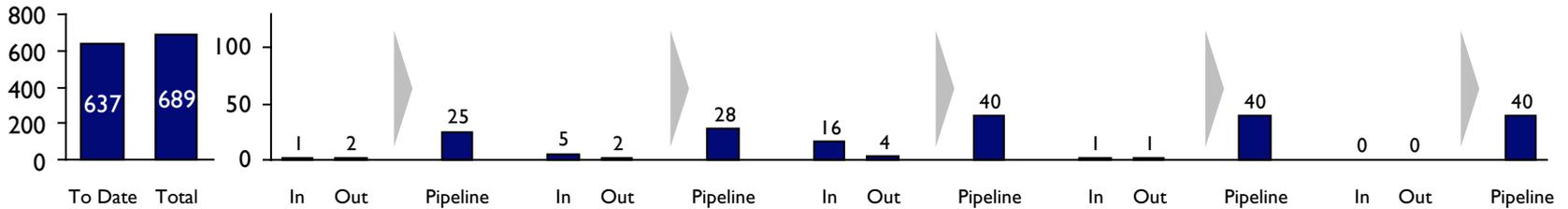
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

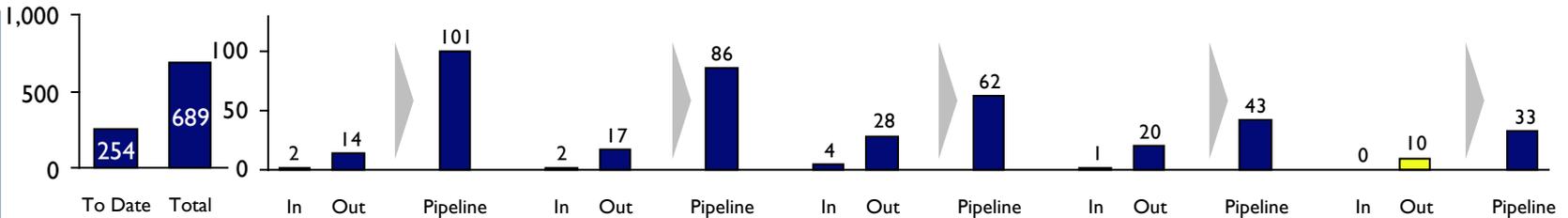


First Written Offer



- Much of the pipeline consists of railroad and State of California parcels that are handled through other means than First Written Offers

Negotiation Acquisition



- Twenty-four signed agreements being processed to and through escrow with nine pending offers at property owner decision to sign or enter condemnation

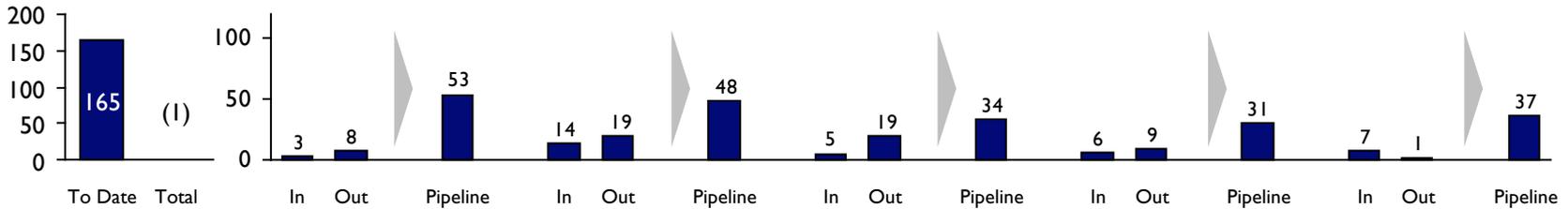
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

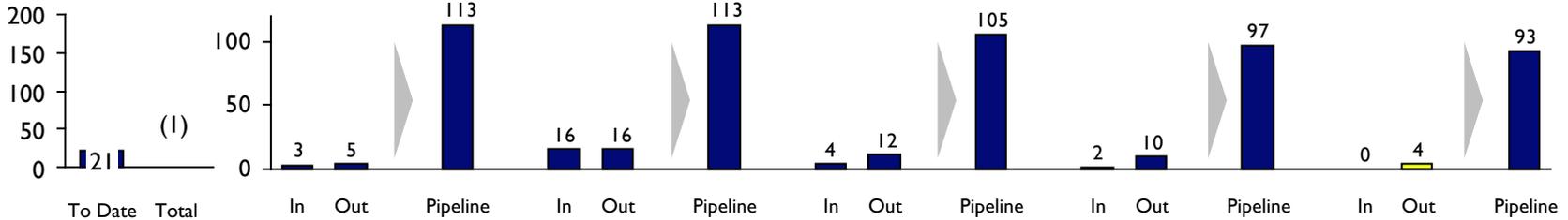


Condemnation



- Pipeline comprised of RONS being processed by CHSRA and ROW consultants and awaiting adoption by PWB. Also includes nine suit packages being prepared by HSR to transfer to CT 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

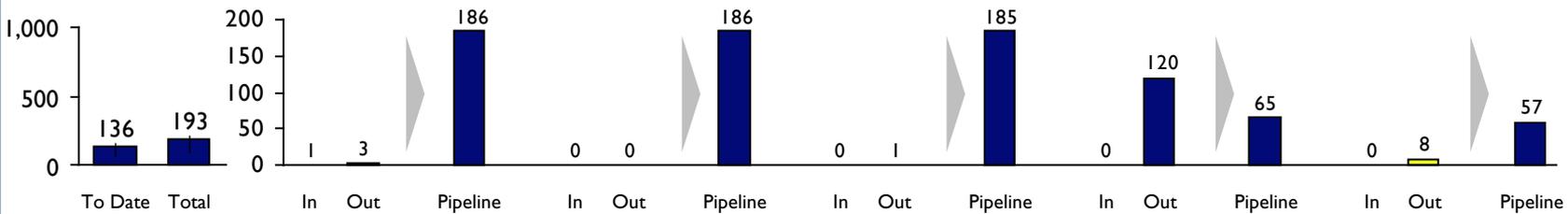
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

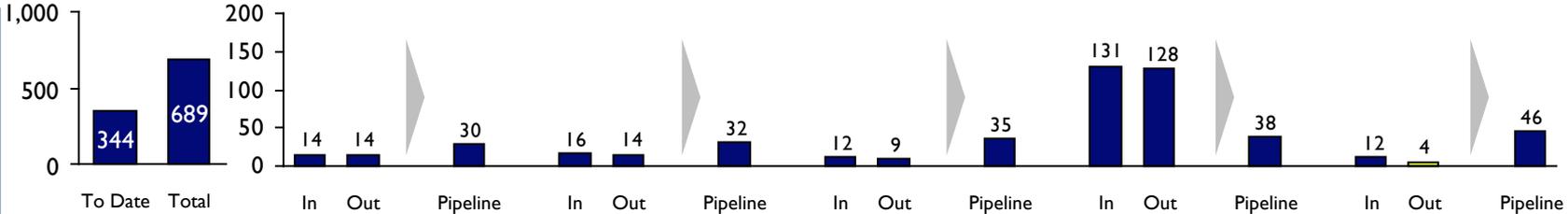


Public Agency



- Eight public roadway parcels from the County of Fresno came out of the pipeline last week and moved to Delivery pipeline

Delivery



- 33 parcels require relocations; 13 parcels available to be transferred to DB

Source: Oct 16, 2015 ROW Weekly Report

# CP1 Probabilistic Analysis of Meeting CP1 Forecast

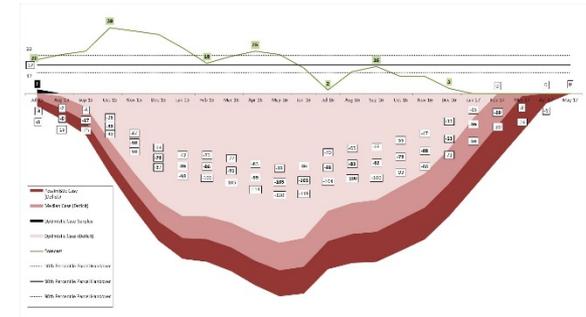
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- ▶ The team has developed a new parcels handover forecast for CPI based on actual and past performance in terms of numbers of parcels delivered per month
- ▶ The forecast is refined monthly as new information is integrated and present a trajectory 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 CPI and CP2-3. We expect this update to the probabilistic analysis to be completed in early 2016.

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

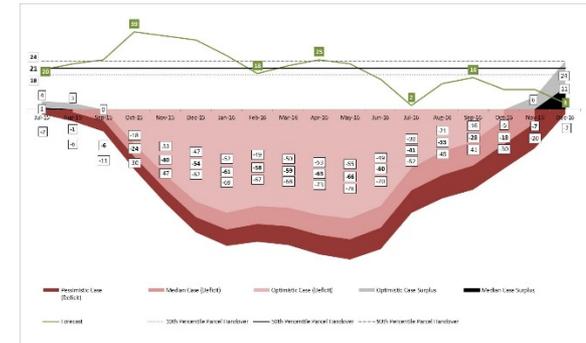
## Past 6-Month Parcel Handover Rate

- 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.

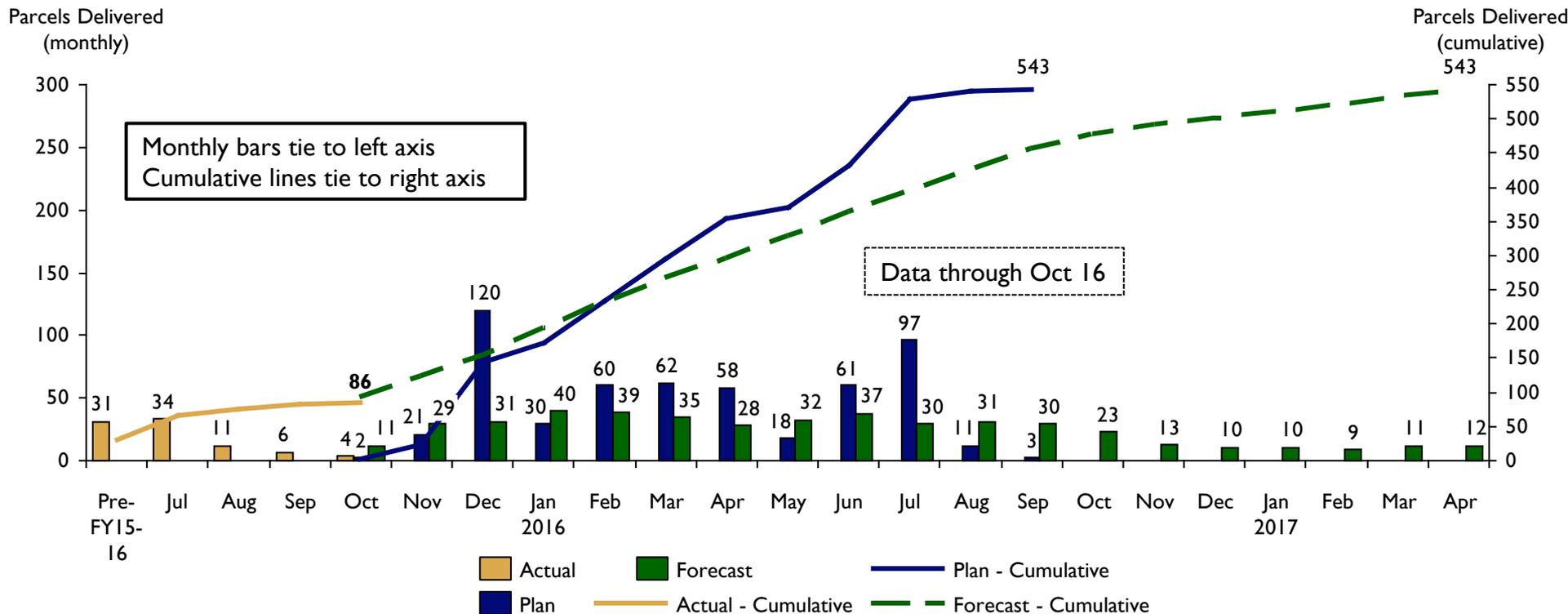


Notes: The deficits presented are in addition to the delays already accrued. Deficits measured against our own internal forecast NOT contractual obligations to the contractor.

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

Planned vs. Actual vs. Forecast

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



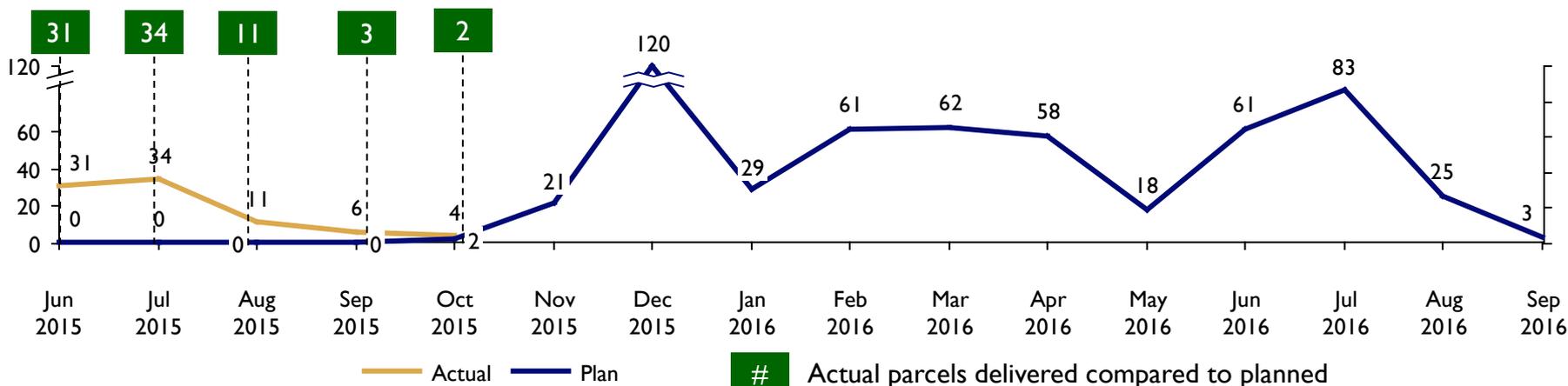
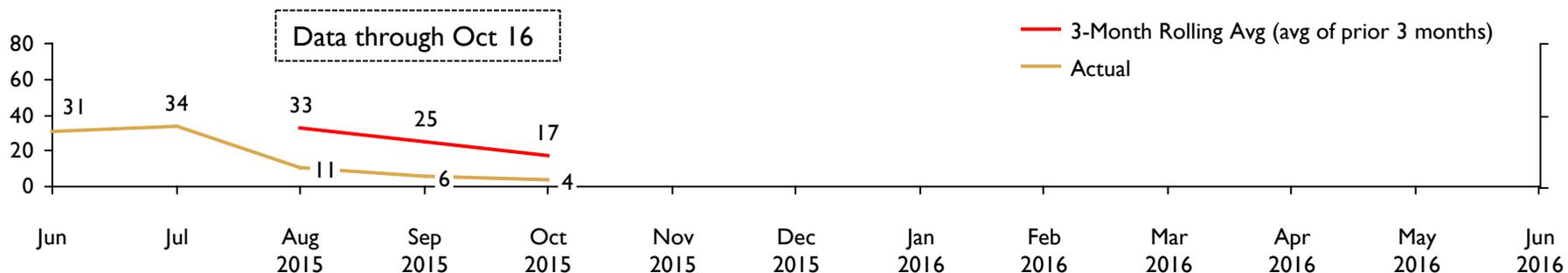
Notes:

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

Source: Oct 16, 2015 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 November/December
2. Contract executed in June; 31 parcels delivered after contract execution
3. August rolling average only based on June and July deliveries as CP2-3 deliveries began in June

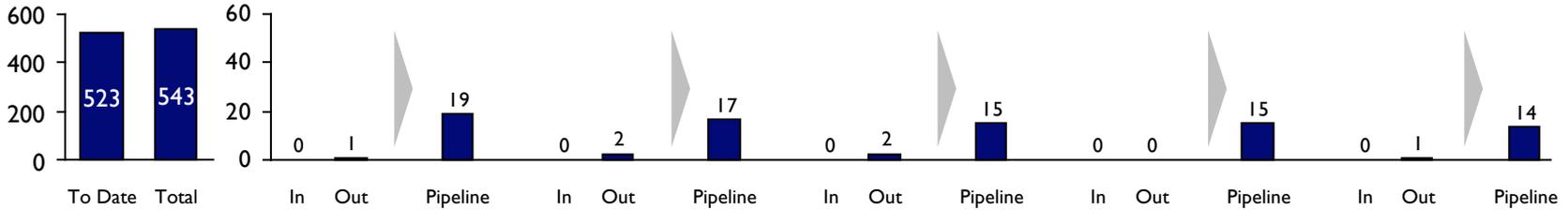
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

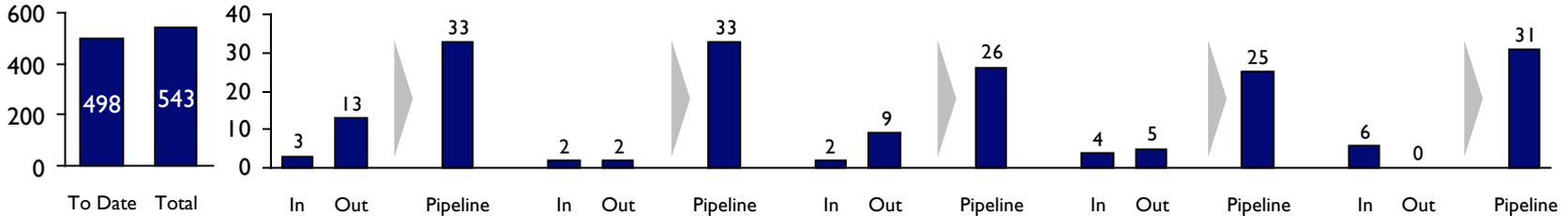
Completion    June 2015    July 2015    August 2015    Sept 2015    **Oct 2015**

Appraisal



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

Just Compensation



- Pipeline pending DGS setting Just Compensation

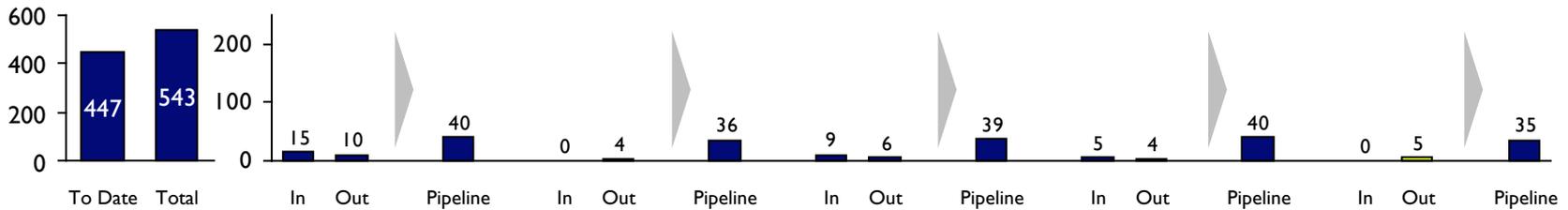
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

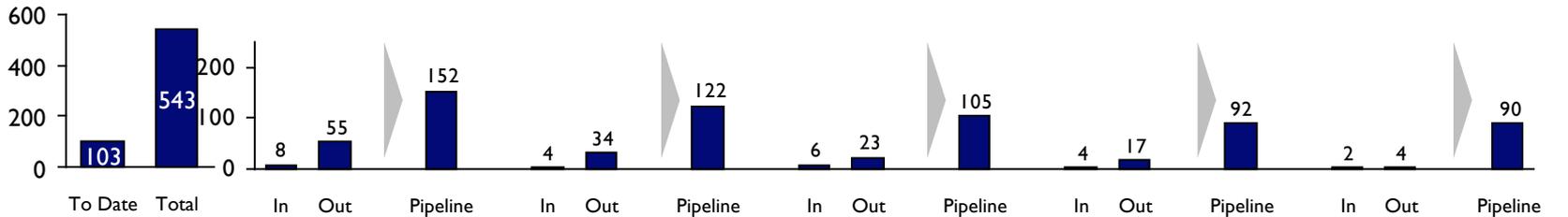


First Written Offer



- Pipeline consists of 24 railroad parcels and 11 non-railroad parcels

Negotiation Acquisition



- 62 signed agreements being processed to and through escrow with 28 pending offers at property owner decision to sign or enter condemnation

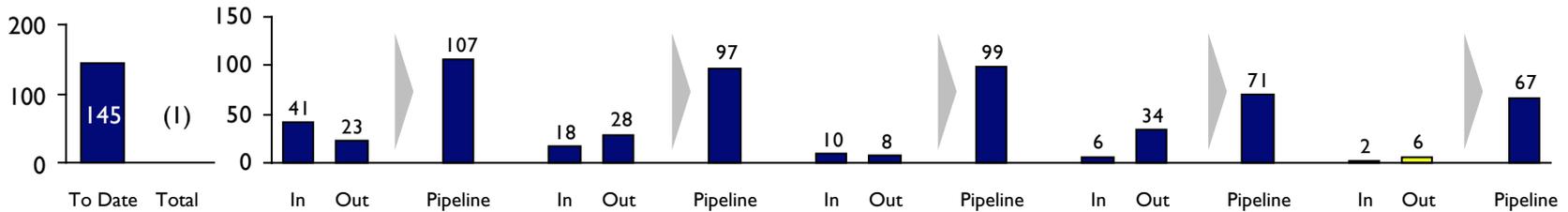
Source: Oct 16, 2015 ROW Weekly Report

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

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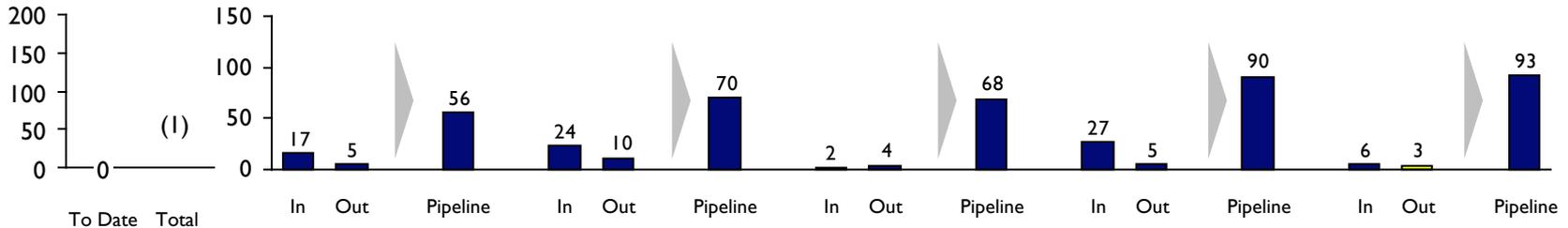
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Condemnation



- 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

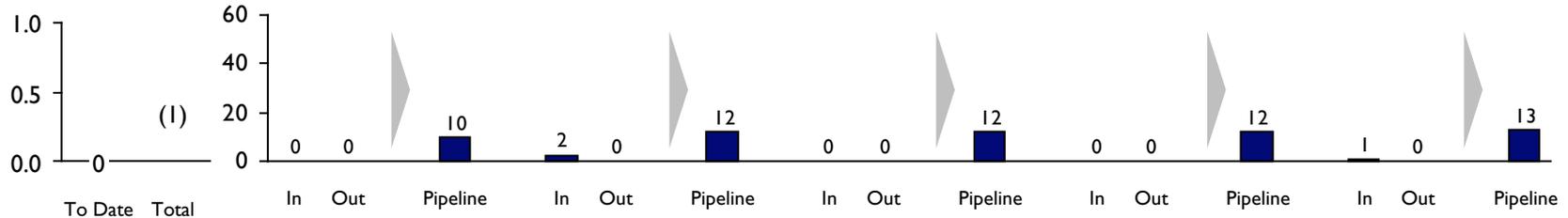
Source: Oct 16, 2015 ROW Weekly Report

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

## Volume of Activity by Process (Flow) - Pipeline

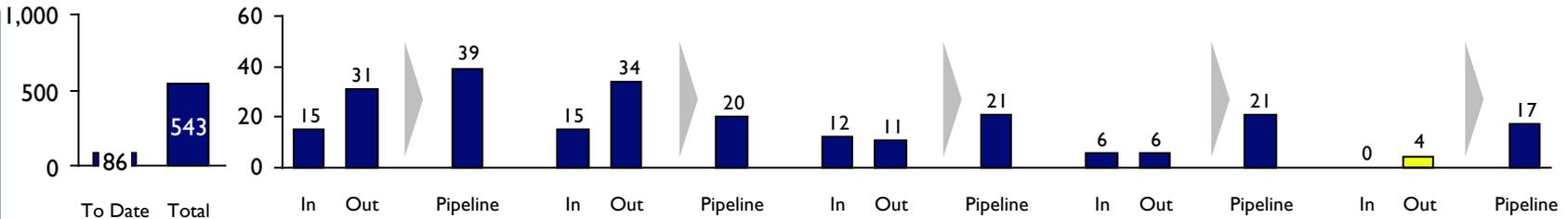
Completion    June 2015    July 2015    August 2015    Sept 2015    **Oct 2015**

Public Agency



- Current parcels are those public parcels with APN's and value. Public Roadway parcels will be defined as Transfer Agreements are developed with local agencies, and add to the total number of parcels.

Delivery



- 10 parcels require relocations, 7 parcels available to be transferred to DB

(1) Total number of public parcels to be identified

Source: Oct 16, 2015 ROW Weekly Report

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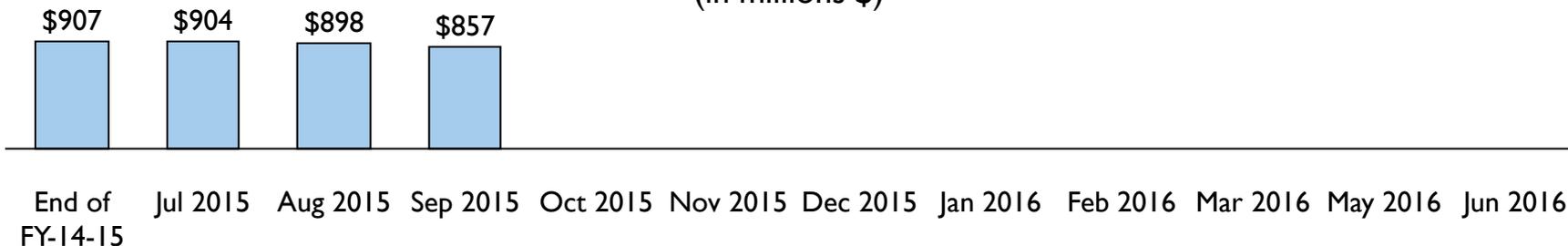
## Contract Management Metrics - Context

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- ▶ 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

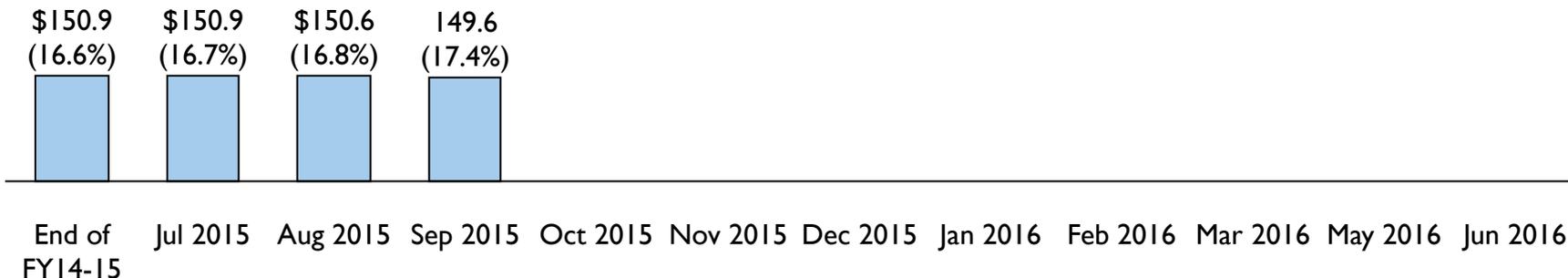
# CP1 Contract Management – Contingency Value

**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: CPI Performance Metric Report Oct 15, 2015

# CP1 Contract Management Raw Data: Contingency Value

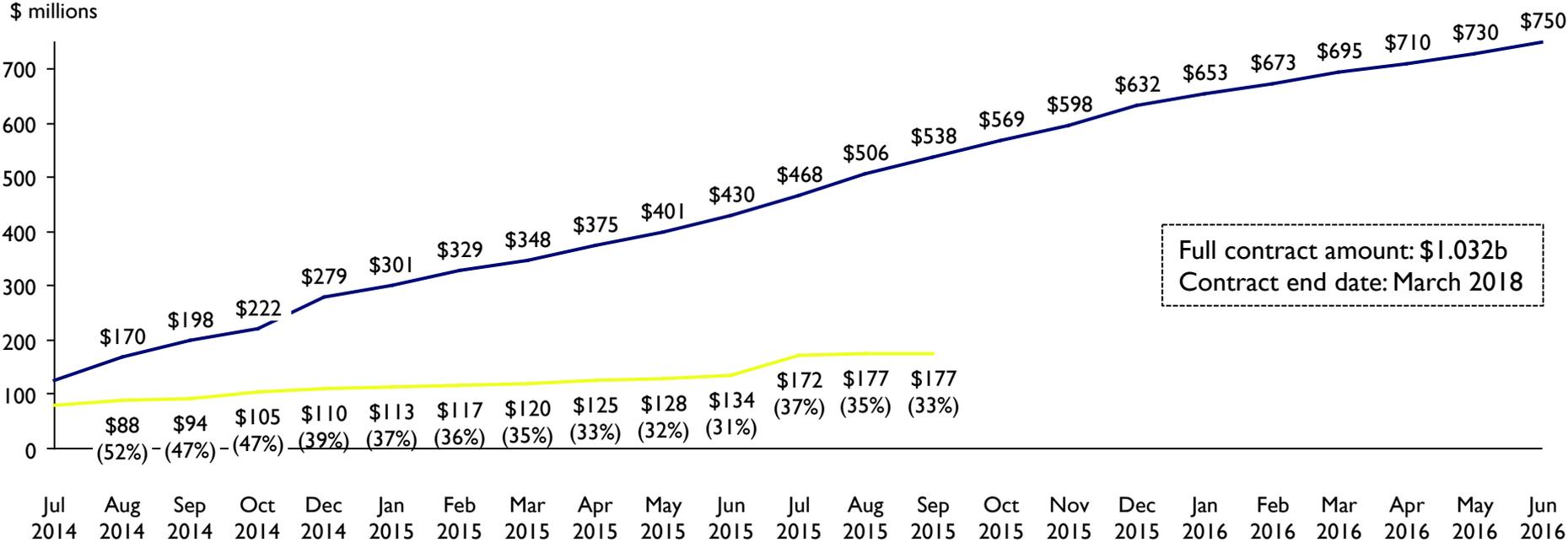
## CPI – Contingency (millions \$)

	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									
Contingency	\$160m	\$160m	\$160m	\$160m									
Change Orders (from contingency)	\$9.1m	\$0	\$0.3m	\$1.0m									
Contingency Balance Remaining	\$150.9m	\$150.9m	\$150.6m	\$149.6m									
Contingency %	16.6%	16.7%	16.8%	17.4%									

Source: CPI Performance Metric  
Report Oct 15, 2015

# CP1 Contract Management – Schedule Performance Index

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



— Planned Value (forecasted value of contract earned)  
— Earned Value/Invoiced to Date (actual value of contract earned)

Notes:

1. No report produced in November 2014
2. The increase in the CP I earned value during the August pay period (July 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 because data reporting date was moved up in October creating a short period between data reporting dates in September and October

Source: CPI Performance Metric Report Oct 15, 2015

# 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									
Planned Value	\$430.3m	\$468.0m	\$505.8m	\$538.3m									
Schedule Performance Index	31%	37%	35%	33%									

Source: CPI Performance Metric  
Report Oct 15, 2015

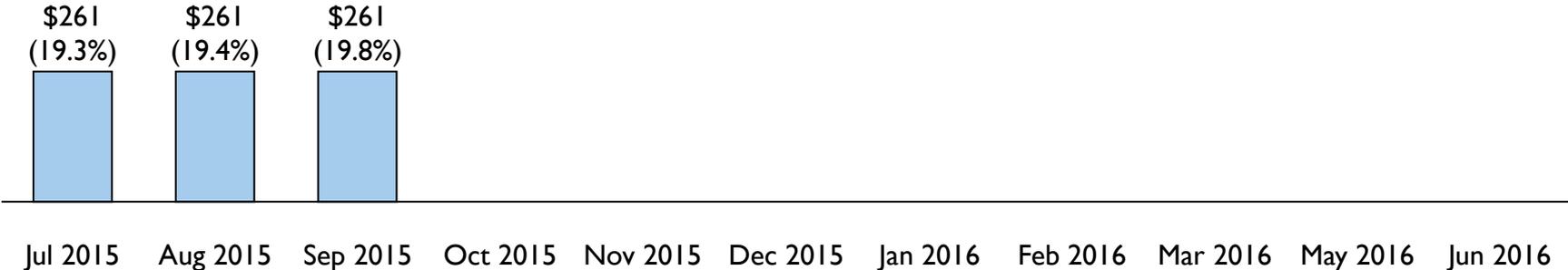
# CP2-3 Contract Management – Contingency Value

**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: CPI Performance Metric Report Oct 15, 2015

# CP2-3 Contract Management Raw Data: Contingency Value

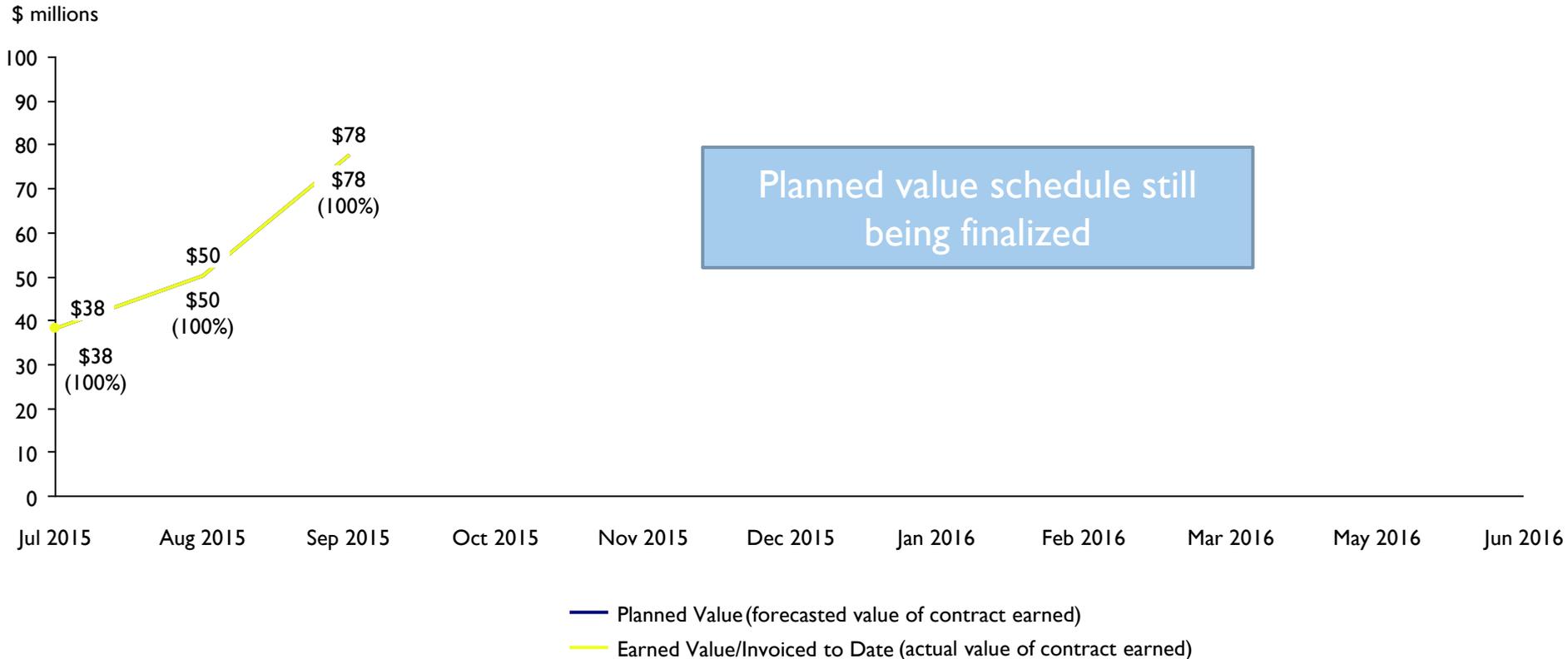
**CP2-3 – Contingency (millions \$)**

	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									
Contingency	\$261.2m	\$261.2m	\$261.2m									
Change Orders (from contingency)	\$0	\$0	\$0									
Contingency Balance Remaining	\$261.2m	\$261.2m	\$260.9m									
Contingency %	19.3%	19.4%	19.8%									

Source: CPI Performance Metric Report Oct 15, 2015

# 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: CPI Performance Metric Report Oct 15, 2015

# 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									
Planned Value	\$38.1m	\$50.4m	\$77.7m									
Schedule Performance Index	100%	100%	100%									

# Agenda

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

# Finance/Budget Metrics – Context

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- ▶ 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:
  - Budget expenditures: based on FCP budget
  - Actual expenditures: incorporated each month
  - Forecasts: will shift each month and align with FY15-16 forecast from Capital Outlay Report
  
- ▶ All data shown is at the end of each month
  - Numbers used reflect actual expenditures in the months they occur and may include adjustments from published versions of capital outlay reports
  - 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 Capital Outlay Report includes financial data through May

# The Authority has spent 7% of FY15-16 budget, 31% of the federal ARRA fund and 100% of C&T fund

**Total Expenditures to Date\***  
(as of September 2015)

ARRA expenditures are 31% of federal ARRA grant funds and 12.4% of \$6.34b total budget

	TOTAL		Planning		Construction	
	Budget	Expended	Budget	Expend to Date	Budget	Expend to Date
<b>ARRA Grant*</b>	\$2.553b	\$0.792b	\$0.322b	\$0.283b	\$2.231b	\$0.509b
<b>FY10 Grant</b>	\$0.928b	\$-	\$-	\$-	\$0.928b	\$-
<b>PROP IA**</b>	\$2.563b	\$0.154b	\$0.192b	\$0.154b	\$2.372b	\$-
<b>LOCAL</b>	\$0.052b	\$-	\$0.052b	\$-	\$-	\$-
<b>C&amp;T (FY14/15 only)*</b>	\$0.250b	\$0.250b	\$0.059b	\$0.059b	\$0.191b	\$0.191b
<b>Total</b>	\$6.347b	\$1.196b	\$0.624b	\$0.496b	\$5.722b	\$0.700b

\*Source: F&A Capital Outlay Report, Nov 2015 – balance subject to change due to pending approval of tapered match and federal reimbursements

\*\*There is a total of \$2.813b in Prop IA appropriations, but the budgeted total excludes \$250m that were supplanted by C&T funds

Note: Numbers may not add due to rounding

**FY15-16 Expenditures to Date\***  
(as of September 2015)

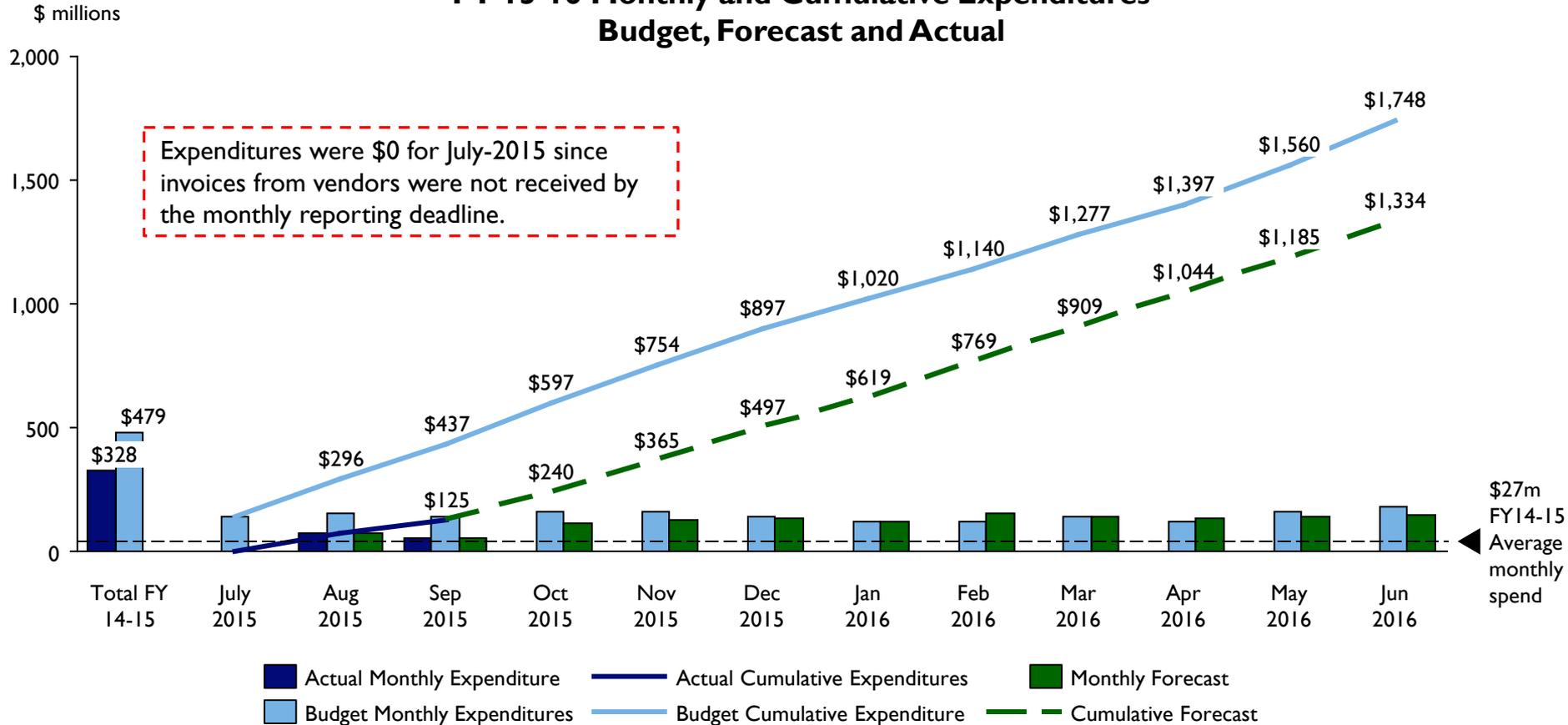
Total appropriation includes some funding for Phase II planning and FY15/16 C&T creating a difference with the total budget above.

Total Appropriation	FY15-16 Budget		Expenditures to Date		Expenditures - % of Budget	
	Aug 31	Sept 31	Aug 31	Sept 31	Aug 31	Sept 31
\$7.292b	\$1.74b	\$1.74b	\$0.074b	\$0.125b	4%	7%

\*F&A Capital Outlay Report, Nov 2015

# Finance/Budget – FY15-16 Expenditures

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



Source: F&A Capital Outlay and Expenditure Reports (Sept 2014 – Nov 2015)

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

# Finance/Budget Raw Data: FY14-15 Expenditure

## 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	\$139.4 m	\$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									
Expense to Date	\$0	\$74.1m	\$125.5m									
Monthly expenditures	\$0	\$74.1m	\$51.4m									
Total FY Forecast	\$1.7b	\$1.7b	\$1.3b									

Source: F&A Capital Outlay and Expenditure Reports (Sept 2014 – Nov 2015)

Notes: Numbers may not add due to rounding; no July 2015 expenditures were received

# Agenda

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- ▶ Operations Report Metrics
  - Executive Summary
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## Environmental Clearance Metrics - Context

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- ▶ The following slides track several metrics for each environmental segment/project related to:
  - Schedule and physical percent complete (earned value)
  - Key milestones
  - Actual, planned and forecasted costs-to-completion date
    - As of July 2015, when costs projections were re-baselined, planned and forecast costs are the same; starting in September 2015, forecasted costs are being based on performance and trends, but planned costs will remain locked
    - Actual costs are based on monthly expenditures
  
- ▶ An additional slide in the back of report provides an overview for key, upcoming milestones across all environmental segments and projects

# Environmental Milestones Schedule (to ROD)

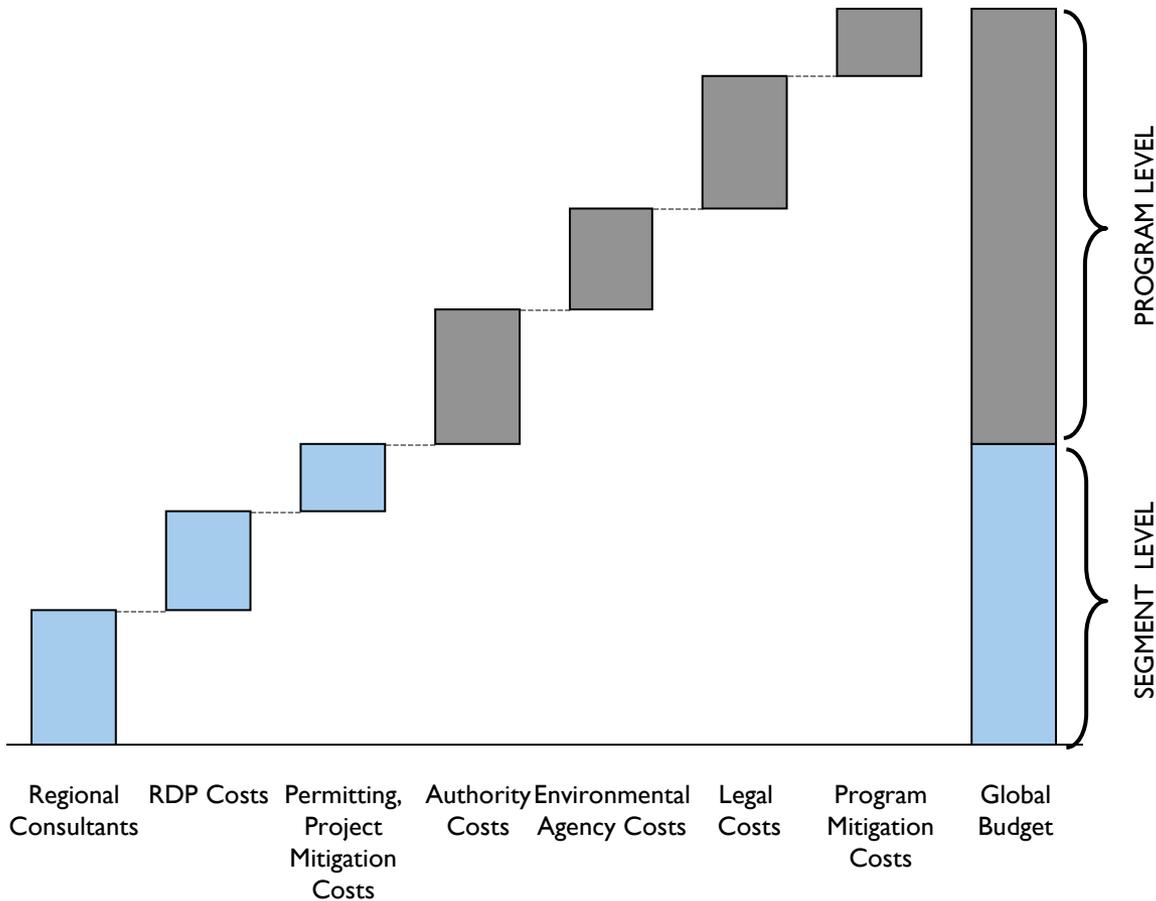
Segment	Progress to Date	Next Steps
San Francisco to San Jose	<ul style="list-style-type: none"> <li>Authority negotiating with preferred team to perform engineering and environmental services (E&amp;E).</li> <li>Open house meetings held in San Francisco, San Jose, and Burlingame in Sep./Oct.</li> </ul>	<ul style="list-style-type: none"> <li>Revisiting Purpose &amp; Need to reflect implementation of blended infrastructure and operations within Caltrain corridor.</li> <li>Developing strategy for complying with NEPA/404/408 Integration MOU.</li> <li>Developing a set of task orders for E&amp;E work.</li> </ul>
San Jose to CV Wye	<ul style="list-style-type: none"> <li>Authority negotiating with preferred team to perform engineering and environmental services (E&amp;E).</li> <li>Open house meetings held in Morgan Hill (Sep.).</li> </ul>	<ul style="list-style-type: none"> <li>Continuing to analyze performance of design features to achieve Prop. 1A travel time requirements.</li> </ul>
Central Valley Wye	<ul style="list-style-type: none"> <li>Technical Reports and Administrative Draft for Central Valley Wye evaluation under development.</li> <li>In Sep, the Regional Consultant initiated preparation of Ranch Road to Merced environmental re-exam.</li> <li>Adjusted southern limits of Wye study area to reflect expansion of CP #1.</li> </ul>	<ul style="list-style-type: none"> <li>Permitting &amp; Mitigation: A completed draft Compensatory Mitigation Plan is required before the ROD can be issued.</li> <li>Schedule under review to incorporate input from regulatory agencies and extension of CP #1.</li> </ul>
Central Valley Interconnections	<ul style="list-style-type: none"> <li>Initial studies by PG&amp;E completed for critical electrical interconnections for test track. Second phase PG&amp;E study necessary for refined electrical improvements.</li> <li>Environmental clearance approach is under review.</li> </ul>	<ul style="list-style-type: none"> <li>Continuing to coordinate with PG&amp;E on electrical interconnections and upgrades.</li> <li>Currently behind schedule.</li> </ul>
HMF	<ul style="list-style-type: none"> <li>The environmental clearance approach is under review.</li> </ul>	<ul style="list-style-type: none"> <li>Will assess schedule performance once approach is finalized.</li> </ul>
Bakersfield F St. Station Alignment	<ul style="list-style-type: none"> <li>Technical Reports and Administrative Draft for F Street evaluation under development.</li> <li>Stakeholder Meetings held in Bakersfield and Shafter (Aug./ Oct.).</li> </ul>	<ul style="list-style-type: none"> <li>On-going field biological and cultural surveys.</li> <li>Continuing outreach, community and agency meetings.</li> <li>Achieving ROD by the end of 2016 requires process improvements internally and commitments from outside agencies.</li> <li>Authority requested agency staffing needs to increase capacity of agencies to review program work. Expect to identify needs by November.</li> </ul>
Bakersfield to Palmdale	<ul style="list-style-type: none"> <li>Public open house meetings held, October 2015.</li> <li>The Supplemental Alternatives Analysis will be complete winter 2015/16.</li> <li>Conducting environmental technical studies.</li> </ul>	<ul style="list-style-type: none"> <li>Define maintenance and operations strategy/locations for clearance</li> <li>Develop environmental document and select Preferred Alternative</li> <li>Identify required agreements</li> </ul>

# Environmental Milestones Schedule (to ROD)

Segment	Progress to Date	Next Steps
Palmdale to Burbank	<ul style="list-style-type: none"> <li>Conducting environmental technical studies.</li> <li>Kicking-off station area planning in Burbank and Palmdale.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct geotechnical investigations – fall/winter/spring 2015/16.</li> <li>Complete station and station area planning.</li> <li>Develop environmental document and select Preferred Alternative.</li> <li>Complete technical studies in winter 2016.</li> </ul>
Burbank to LA	<ul style="list-style-type: none"> <li>Alternative Analysis will be completed by winter 2015/2016.</li> <li>Technical baseline studies are underway.</li> <li>Holding public open houses in November 2015.</li> </ul>	<ul style="list-style-type: none"> <li>Complete station and station area planning for Los Angeles Union Station.</li> <li>Develop environmental document and select Preferred Alternative.</li> </ul>
LA to Anaheim	<ul style="list-style-type: none"> <li>Supplemental Alternatives Analysis will be completed by winter 2015/2016.</li> <li>Technical baseline studies are underway.</li> <li>Holding public open houses in October 2015.</li> </ul>	<ul style="list-style-type: none"> <li>Complete station planning, option evaluation and selection in Spring 2016.</li> <li>Develop environmental document and select Preferred Alternative.</li> </ul>

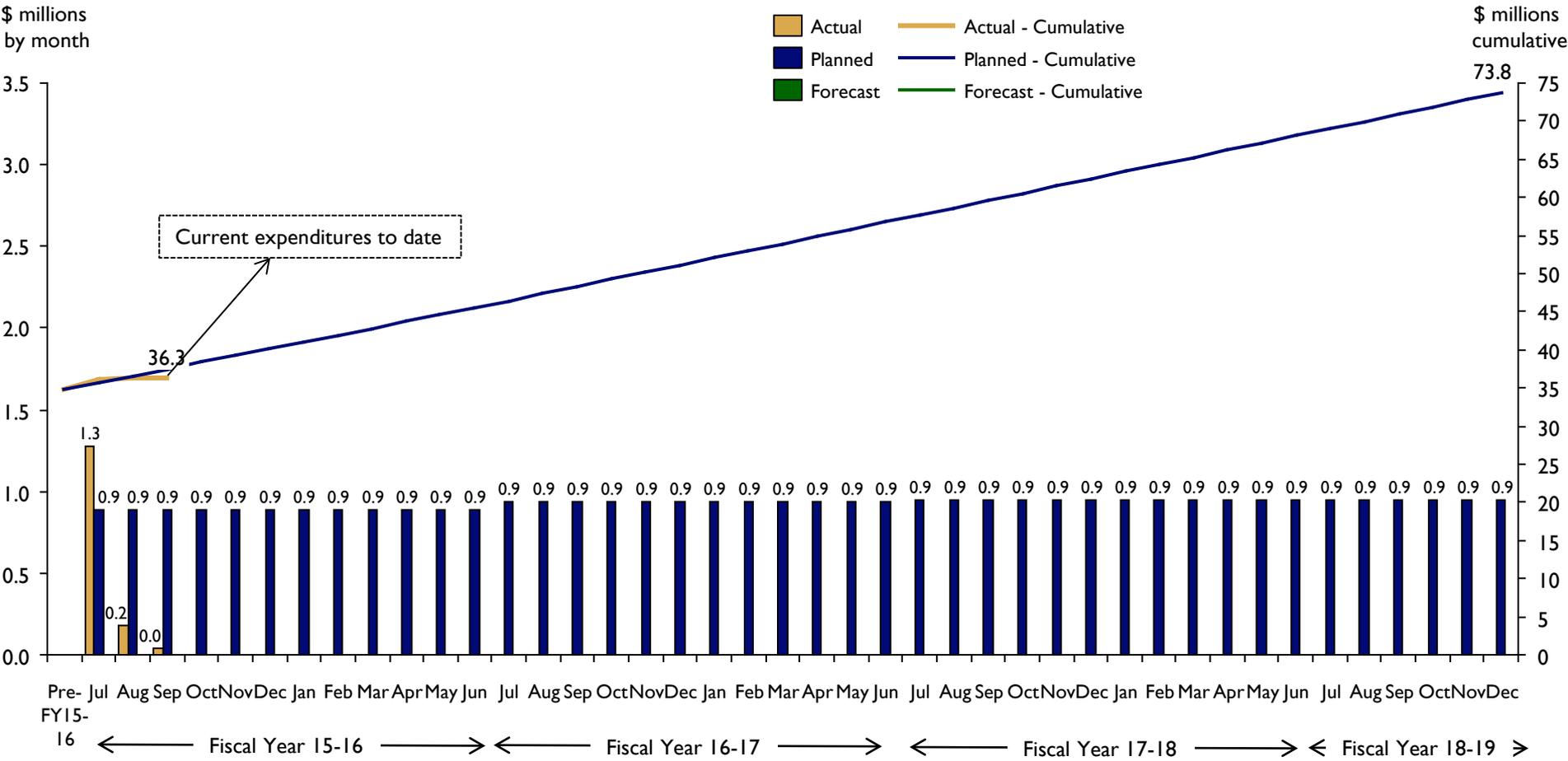
# Global Environmental Budget includes all activities involved in the scope at the program and segment levels

## Cost Categories for Scope and Budget Definition



Cost Categories	
▪	<b>Regional consultants</b> costs include project management, outreach, engineering and environmental activities.
▪	<b>RDP costs</b> include management, coordination, and technical reviews.
▪	<b>Permitting and project mitigation costs</b> include obtaining permits required for construction and implementing project-level mitigation commitments.
▪	<b>Authority costs</b> reflect management and staff costs for overseeing environmental program delivery.
▪	<b>Environmental agency costs</b> are costs for agency staff to attend meetings, review technical reports, and provide technical guidance.
▪	<b>Legal costs</b> are costs associated with in-house and outside legal reviews.
▪	<b>Program mitigation costs</b> for costs associated with implementing EIR/EIS program-level mitigation commitments.

# Program Level Budget



Notes:

1) Program level costs include Authority, Environmental Agency, Legal and Program Mitigation Costs

Source: Based on actual expenditures and future estimates for RAs, Legal and Authority

# Environmental Milestones Schedule (to ROD)

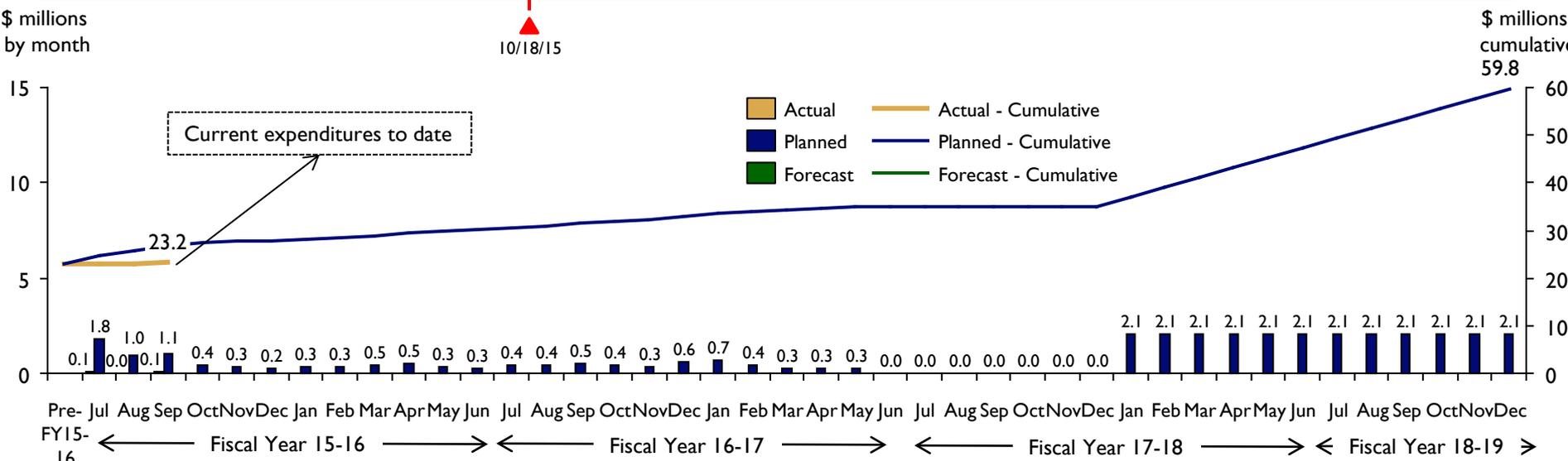
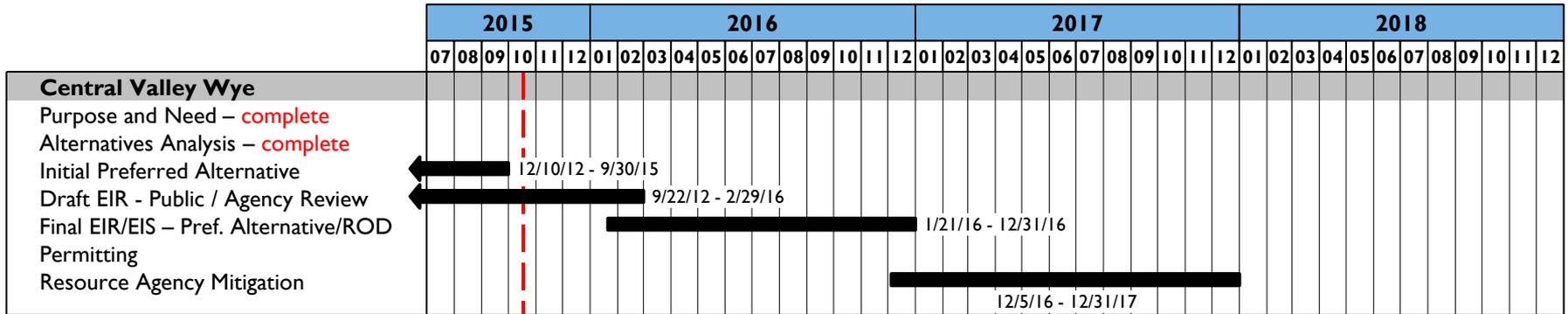
Segment	Progress	Purpose & Need Statement		Alternatives Analysis		Initial Preferred Alternative		Draft EIS		Final EIS / ROD / Permitting	
		Due Dates	Last Month	Current Month	Last Month	Current Month	Last Month	Current Month	Last Month	Current Month	Last Month
San Francisco to San Jose	Plan Forecast % Complete	Mar-16 Mar-16 40%	Mar-16 Mar-16 40%	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%
San Jose to CV Wye (M – F)	Plan Forecast % Complete	Dec-15 Dec-15 40%	Dec-15 Dec-15 40%	Apr-16 Apr-16 50%	Apr-16 Apr-16 50%	Sep-16 Sep-16 10%	Sep-16 Sep-16 10%	Feb-17 Feb-17 10%	Feb-17 Feb-17 10%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%
Central Valley Wye	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Sep-15 Sep-15 50%	Sep-15 Sep-15 50%	Feb-16 Feb-16 30%	Feb-16 Feb-16 30%	Dec-16 Dec-16 0%	Dec-16 Dec-16 0%
CV Electrical Interconnections	Plan Forecast % Complete	Jan-16 Jan-16 10%	Jan-16 Jan-16 10%	Mar-16 Mar-16 10%	Mar-16 Mar-16 10%	Jul-16 Jul-16 0%	Jul-16 Jul-16 0%	Nov-16 Nov-16 0%	Nov-16 Nov-16 0%	Oct-17 Oct-17 0%	Oct-17 Oct-17 0%
HMF	Plan Forecast % Complete	Sep-15 Sep-15 60%	Sep-15 Sep-15 60%	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%
Bakersfield F Street Alignment (F –B)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	May-16 May-16 5%	May-16 May-16 15%	Jul-16 Jul-16 0%	Jul-16 Jul-16 5%	Dec-16 Dec-16 0%	Dec-16 Dec-16 0%
Bakersfield to Palmdale	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Jan-16 70%	Jan-16 Jan-16 75%	Oct-16 Oct-16 15%	Oct-16 Oct-16 15%	Feb-17 Feb-17 5%	Feb-17 Feb-17 5%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%
Palmdale to Burbank	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Aug-16 Aug-16 25%	Aug-16 Aug-16 25%	Mar-17 Mar-17 15%	Mar-17 Mar-17 15%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%
Burbank to LA	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Jan-16 20%	Jan-16 Jan-16 25%	Mar-17 Mar-17 5%	Mar-17 Mar-17 5%	Jun-17 Jun-17 5%	Jun-17 Jun-17 5%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%
LA to Anaheim	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Jan-16 Jan-16 75%	Jan-16 Jan-16 80%	Mar-17 Mar-17 15%	Mar-17 Mar-17 15%	Jun-17 Jun-17 5%	Jun-17 Jun-17 5%	Nov-17 Nov-17 0%	Nov-17 Nov-17 0%

Note: Northern California Alternatives Analysis process are under review. This could potentially result in additional time required to identify study alternatives





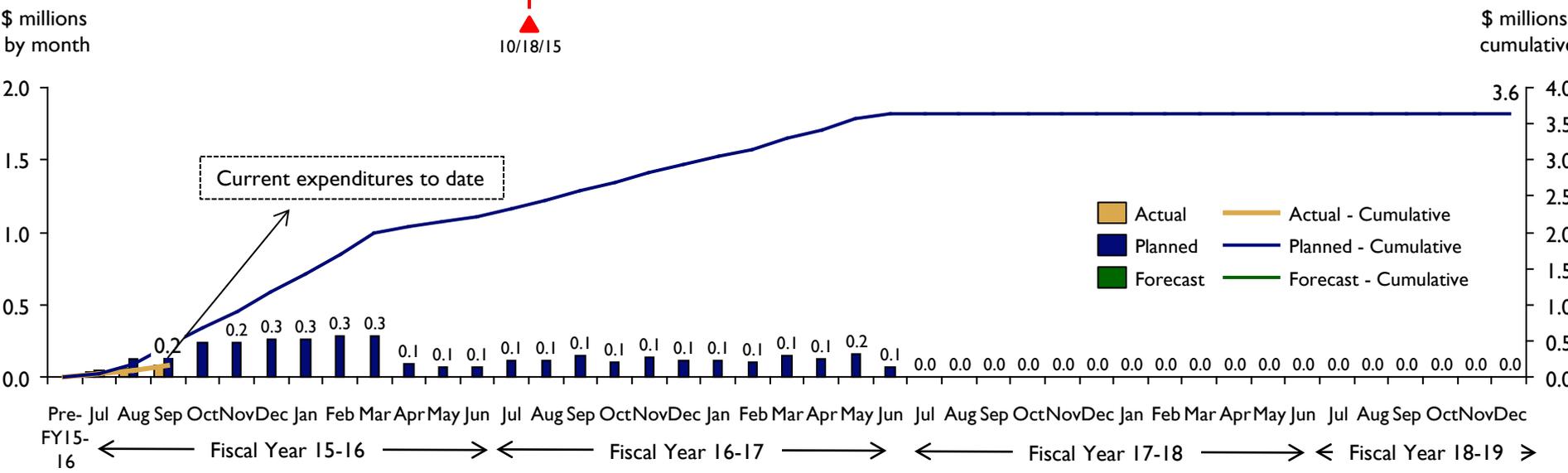
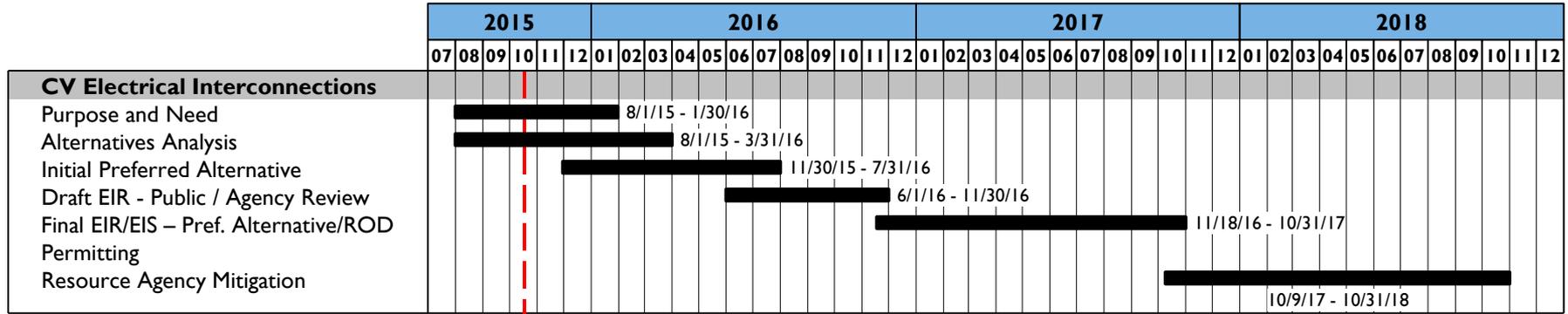
# Central Valley Wye



- Notes:
- 1) All estimates included are preliminary and subject to change
  - 2) July – Sept actuals for RDP only

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

# Central Valley Electrical Interconnections



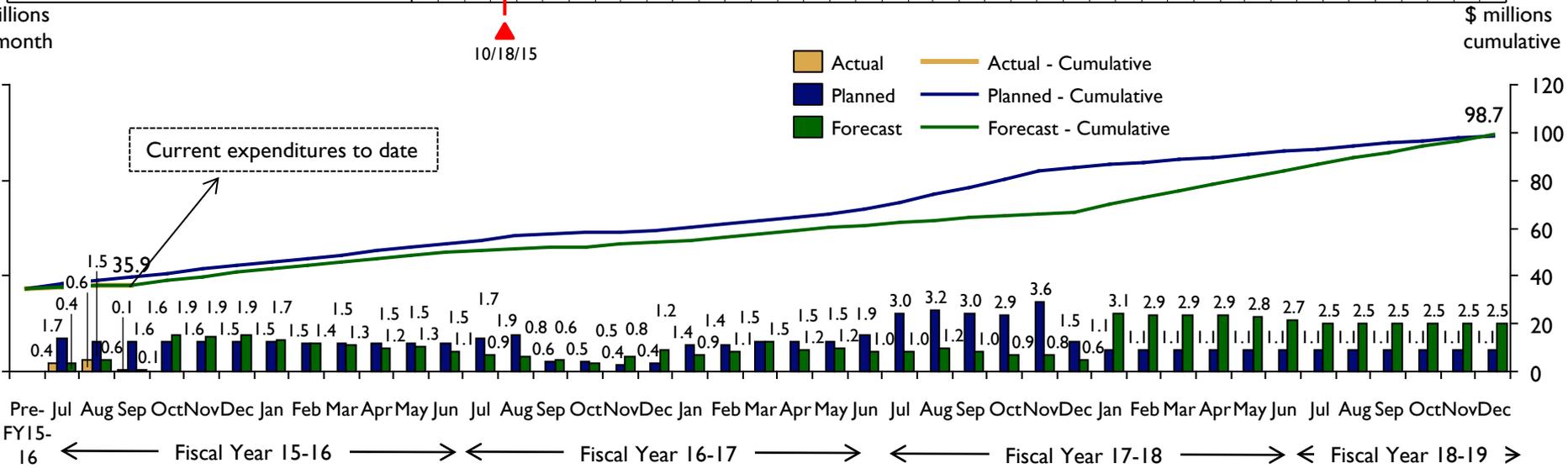
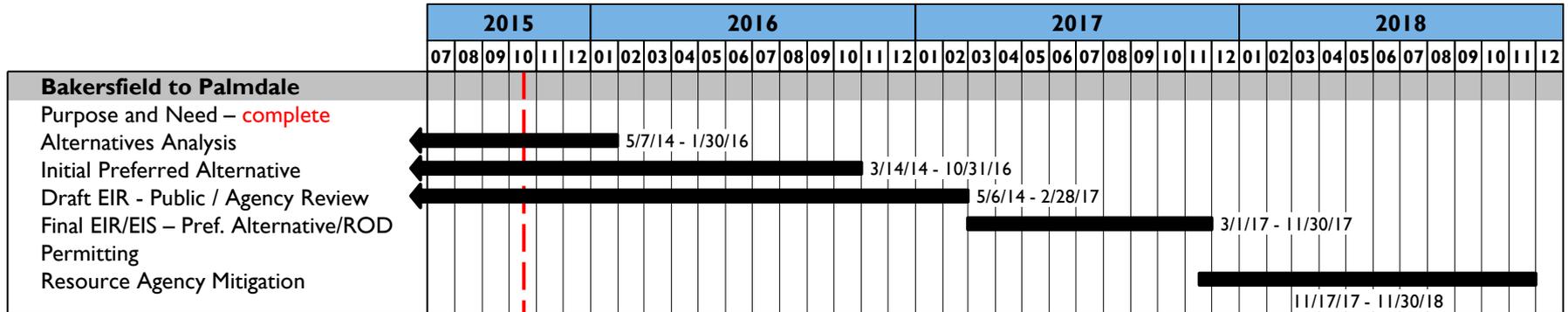
Notes:  
 1) All estimates included are preliminary and subject to change

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





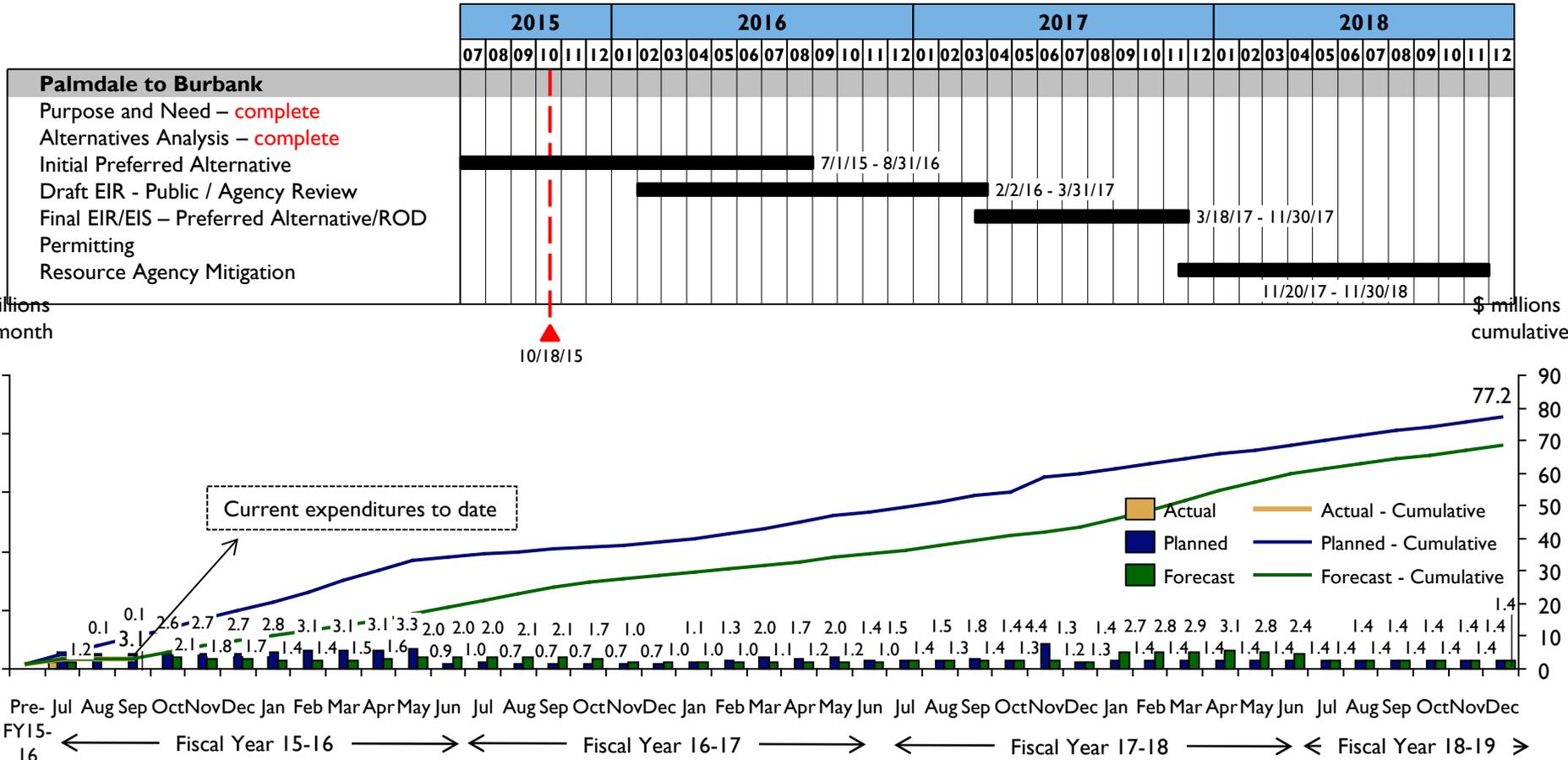
# Bakersfield to Palmdale



- Notes:
- 1) Forecasts were developed in anticipation of plan re-baselining
  - 2) All estimates included are preliminary and subject to change
  - 3) Habitat Mitigation included from 1/18-12/18

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

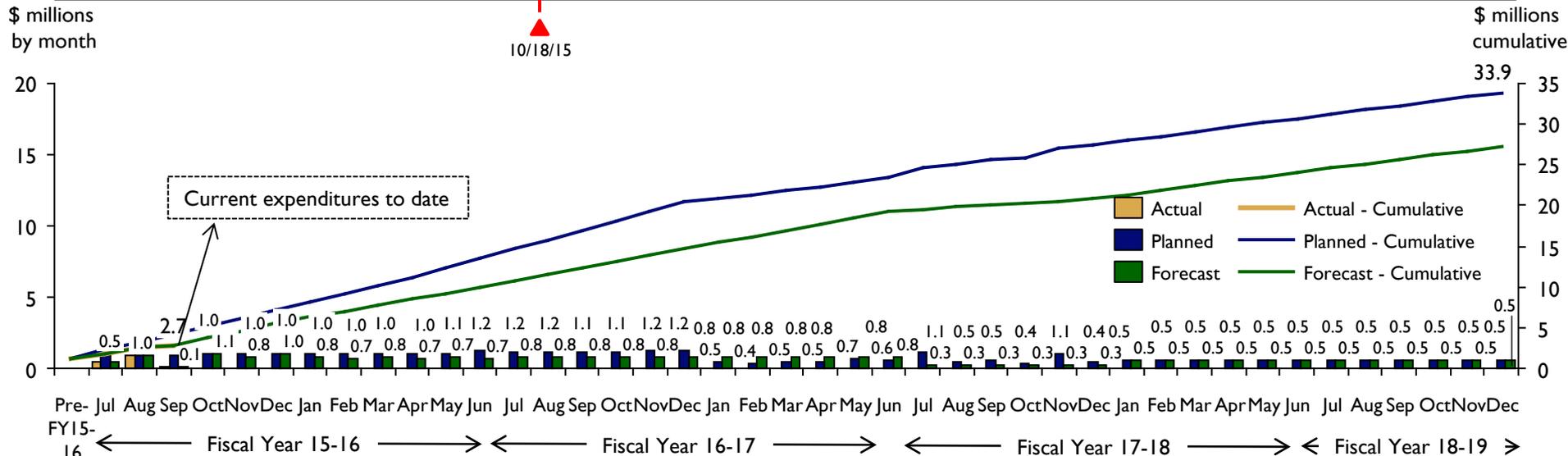
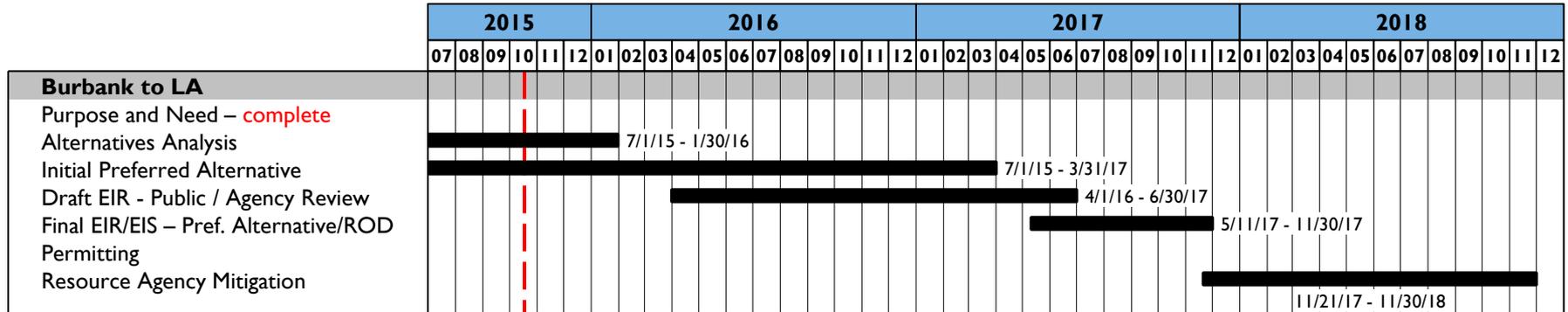
# Palmdale to Burbank



- Notes:
- 1) Forecasts were developed in anticipation of plan re-baselining
  - 2) All estimates included are preliminary and subject to change
  - 3) Habitat Mitigation included from 1/18-12/18

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

# Burbank to LA

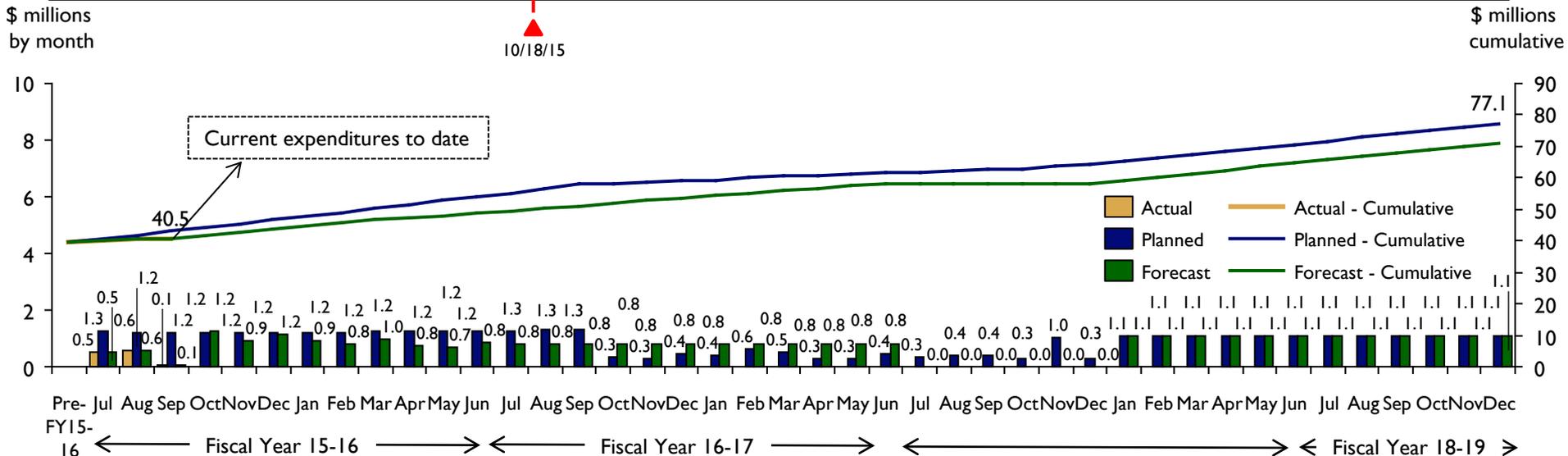
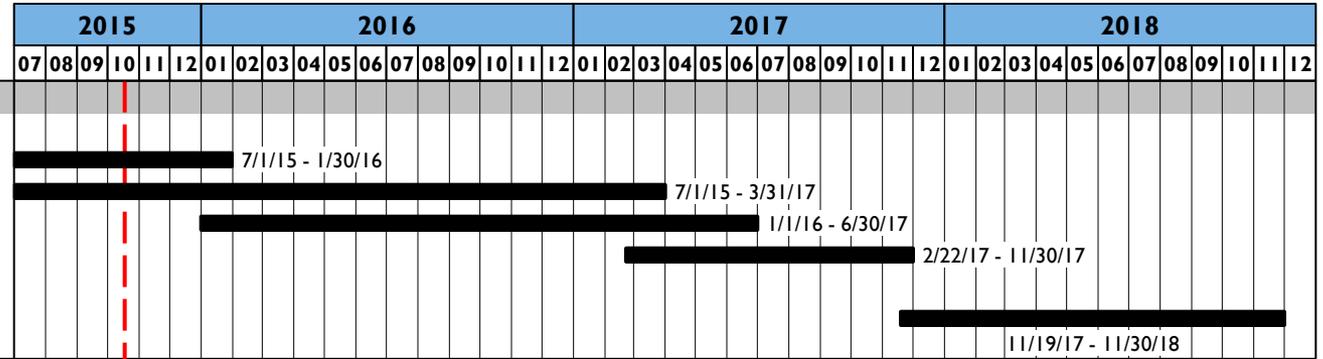


Notes:

- 1) Forecasts were developed in anticipation of plan re-baselining
- 2) All estimates included are preliminary and subject to change
- 3) Habitat Mitigation included from 1/18-12/18

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

# LA to Anaheim



Notes:

- 1) Forecasts were developed in anticipation of plan re-baselining
- 2) All estimates included are preliminary and subject to change
- 3) Habitat Mitigation included from 1/18-12/18

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

## 4-month milestones look-ahead – all segments/projects

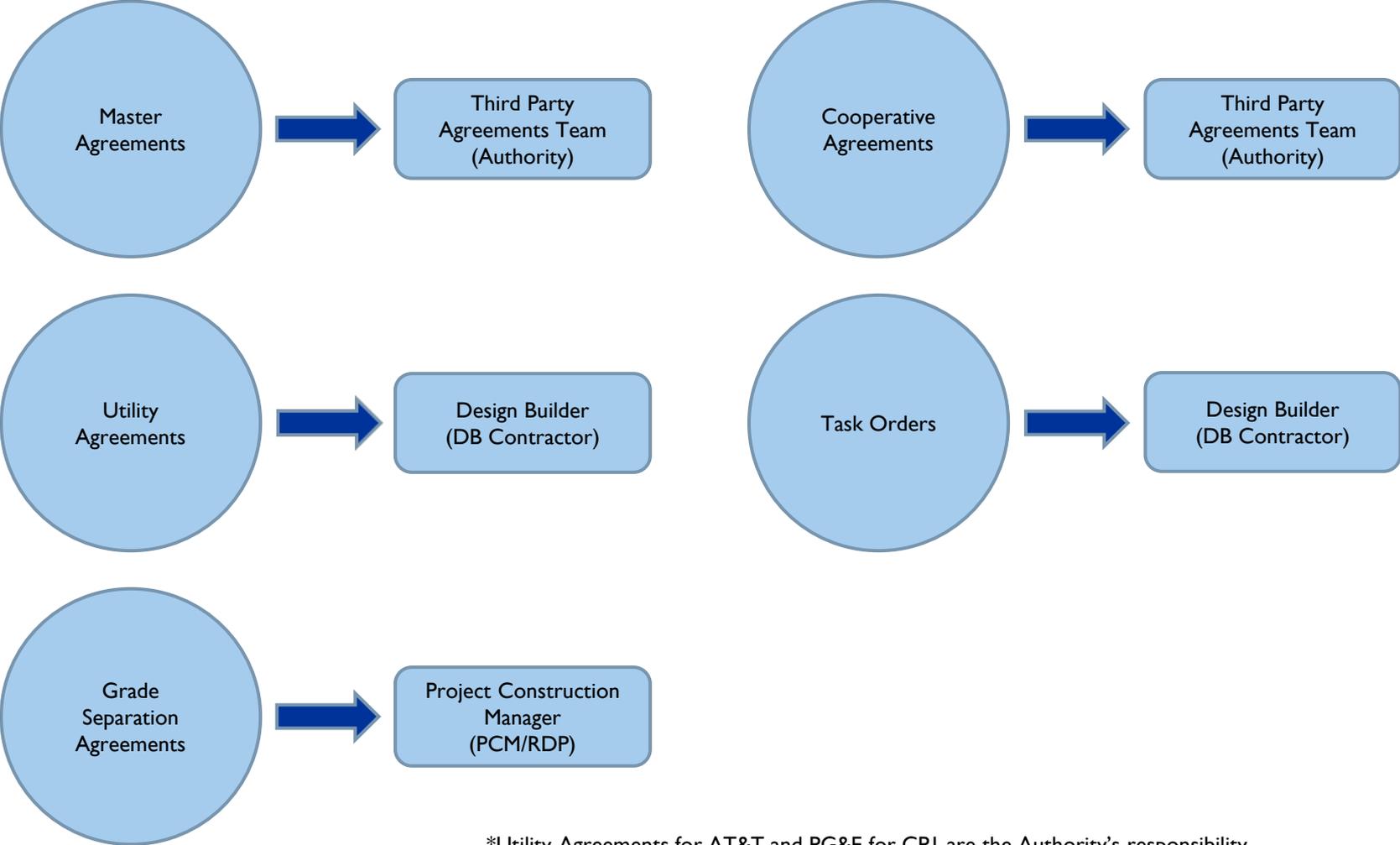
Milestone	Segment	Due Date	% Completion	Status
Initial Preferred Alternative	Central Valley Wye	21 September 2015	50%	Late - Need LEDPA determination
Purpose & Need Statement	HMF	24 September 2015	60%	Late - Environmental clearance process being determined
Alternatives Analysis	Palmdale to Burbank	1 October 2015	100%	Ahead of Target
Alternatives Analysis	Bakersfield to Palmdale	January 2016	75%	On Target
Alternatives Analysis	LA to Anaheim	January 2016	80%	On Target

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# Categories of Agreements

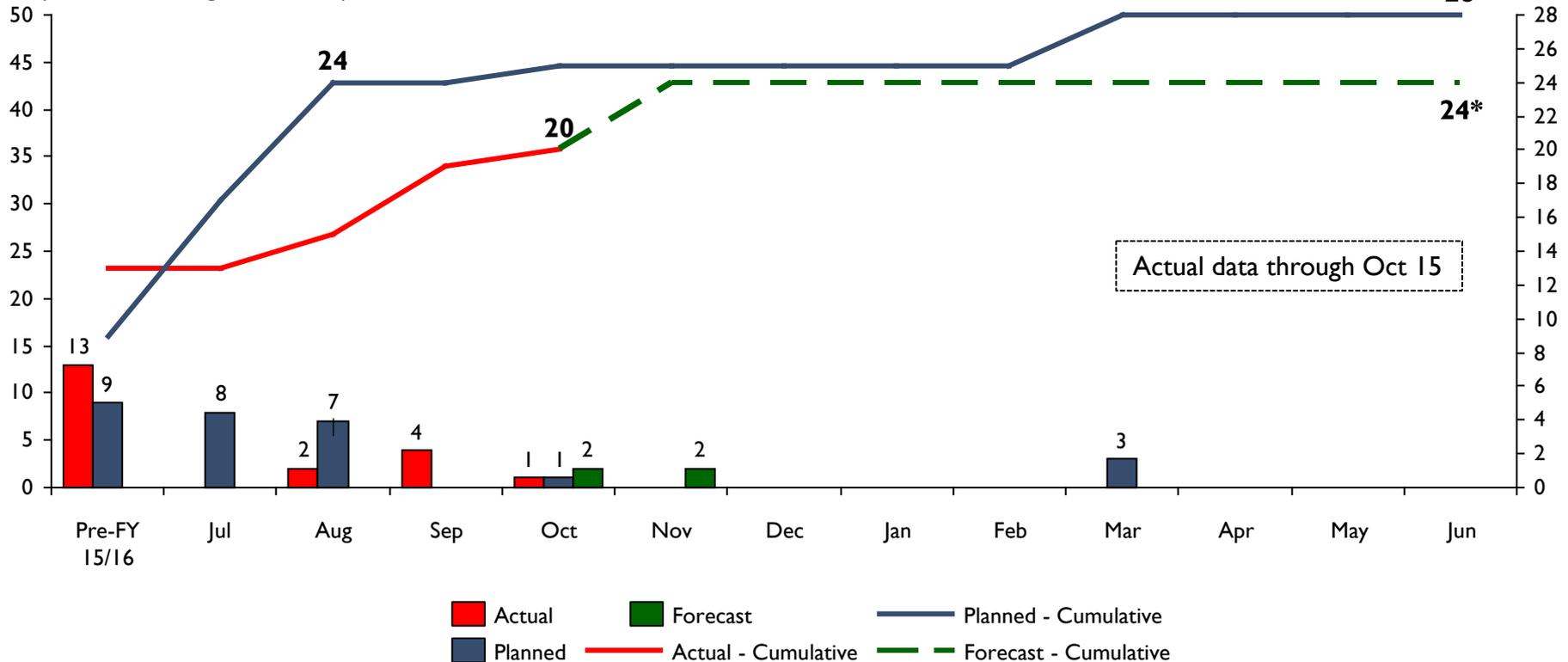


\*Utility Agreements for AT&T and PG&E for CPI are the Authority's responsibility.

# CP2-3 Third Party Agreements by Month

Plan vs. Actual vs. Forecast

**CP2-3 Third Party Agreements (excluding Railroads)**  
(number of agreements)



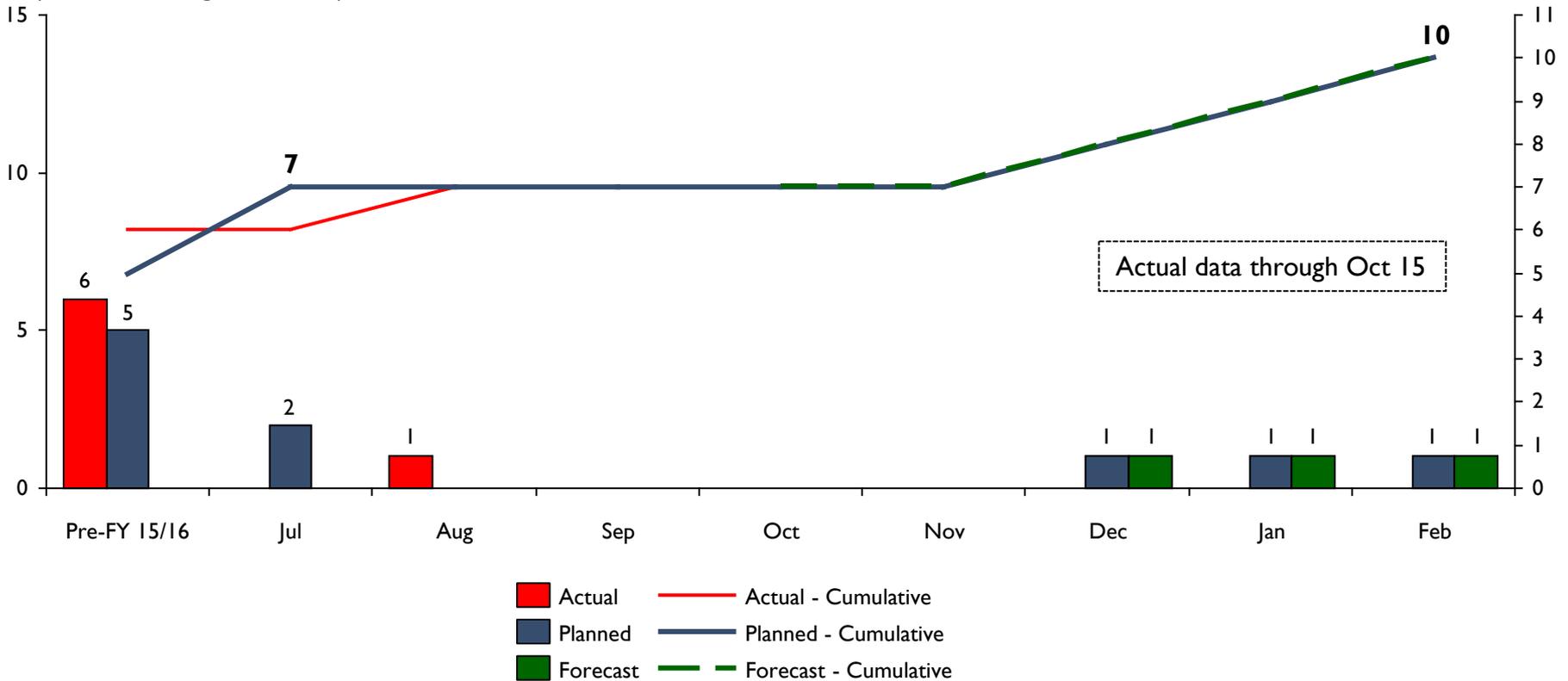
Notes: Twenty-eight total CP2-3 agreements were previously expected to be executed

\* Kings County, Kings County Water District, Angiola Water District, and Deer Creek Storm Water District agreements not expected to be executed

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

Plan vs. Actual vs. Forecast

**Railroads – Third Party Agreements Separate from CPI and CP2-3 DB Contracts**  
(number of agreements)



Notes: Ten total Railroad agreements to be executed

# Agenda

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- ▶ Operations Report Metrics
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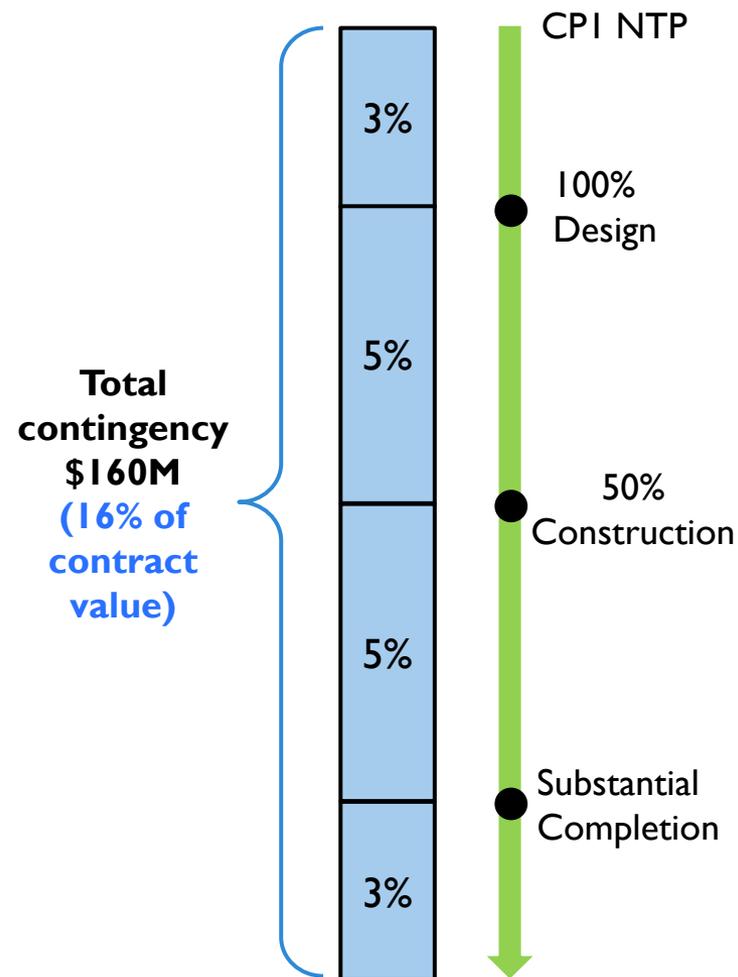
## CP1 Contract – Current Contingency Level

Contract Milestones	CPI Contract Remaining Contingency	Major Change Orders Approved as of August 20, 2015
<b>CPI Contract NTP</b>	\$ 160.0 M	
<b>As of 15-Oct-2015</b>	\$ 149.6 M	<ul style="list-style-type: none"> <li>• Class 1/2 Hazmat (\$5.25M)</li> <li>• Scope Changes - Revised Shear Wave Boring, Weed Abatement, etc.</li> <li>• Env. Permit Changes, etc.</li> <li>• Regulatory Changes - Archaeological, Biological, Native American monitoring (\$1.31M)</li> <li>• Ped. Arch Field Surveys</li> <li>• Other administrative, 3<sup>rd</sup> party, regulatory changes and additional scope items</li> </ul>

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 \$31 M 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.



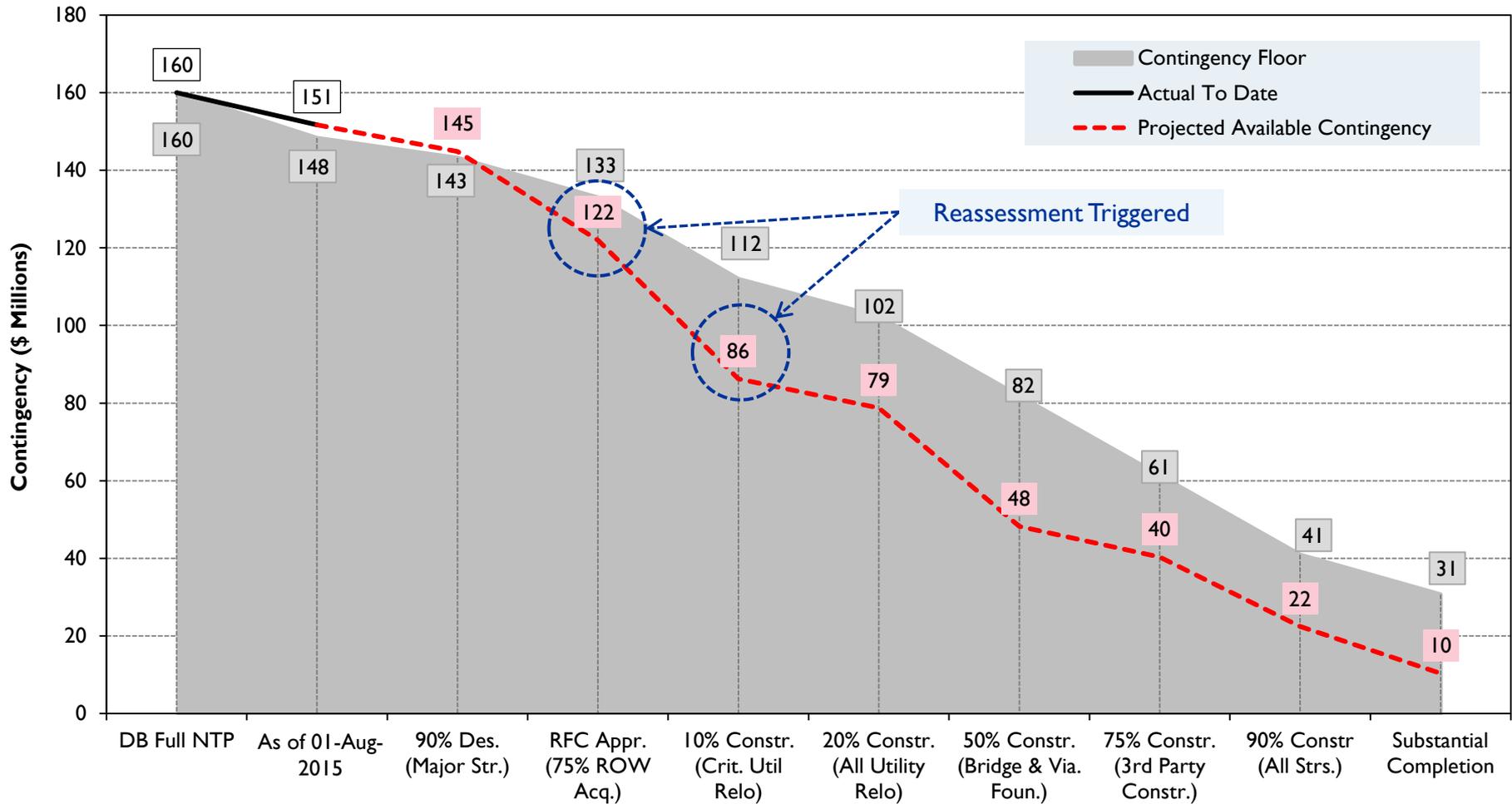
\* Based on FTA Project and Construction Management Guidelines (July 2011)

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



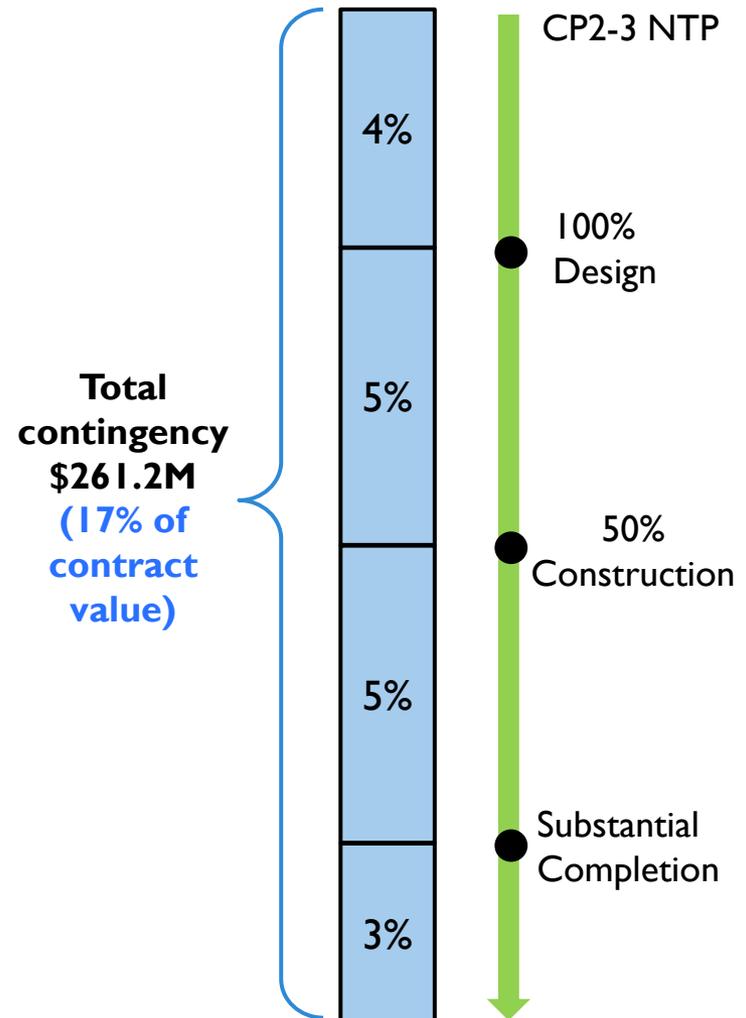
## CP2-3 Contract Cost Summary

Base Cost item	Cost
CP2-3 D-B Base Cost	1,234,567,890
PG&E Allowance	160,000,000
Third Parties / Support Costs	140,000,000
<b>Total CP2-3 Contract D-B Cost</b>	<b>1,534,567,890</b>
Allocated Contingency	261,200,000

Note: Figures from Task 8 – Design-Build Funding Contribution Plan as of May 2015

## 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.



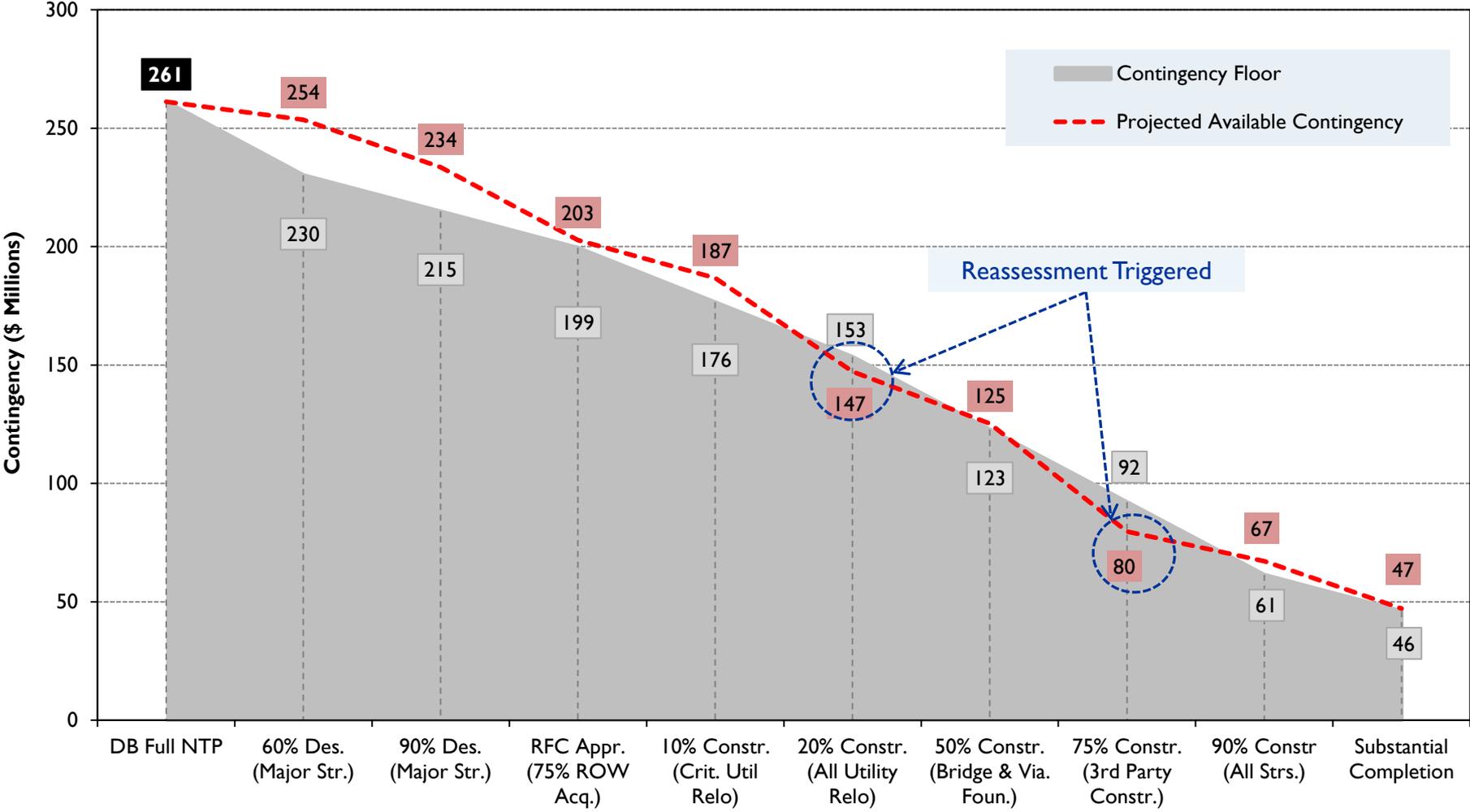
\* Based on FTA Project and Construction Management Guidelines (July 2011)

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

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- ▶ Operations Report Metrics

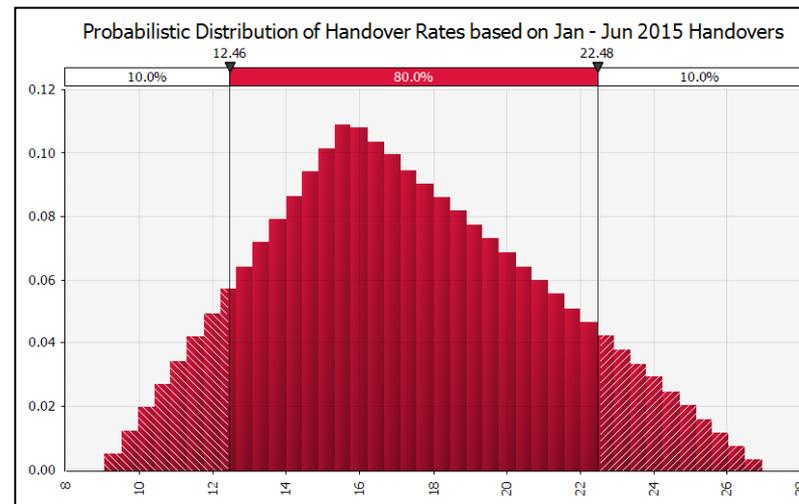
- Executive Summary
- ROW
- Contract Management
- Finance/Budget
- Environmental
- Third-Party Agreements
- Risk
- Back-Up ROW Information

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

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

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.

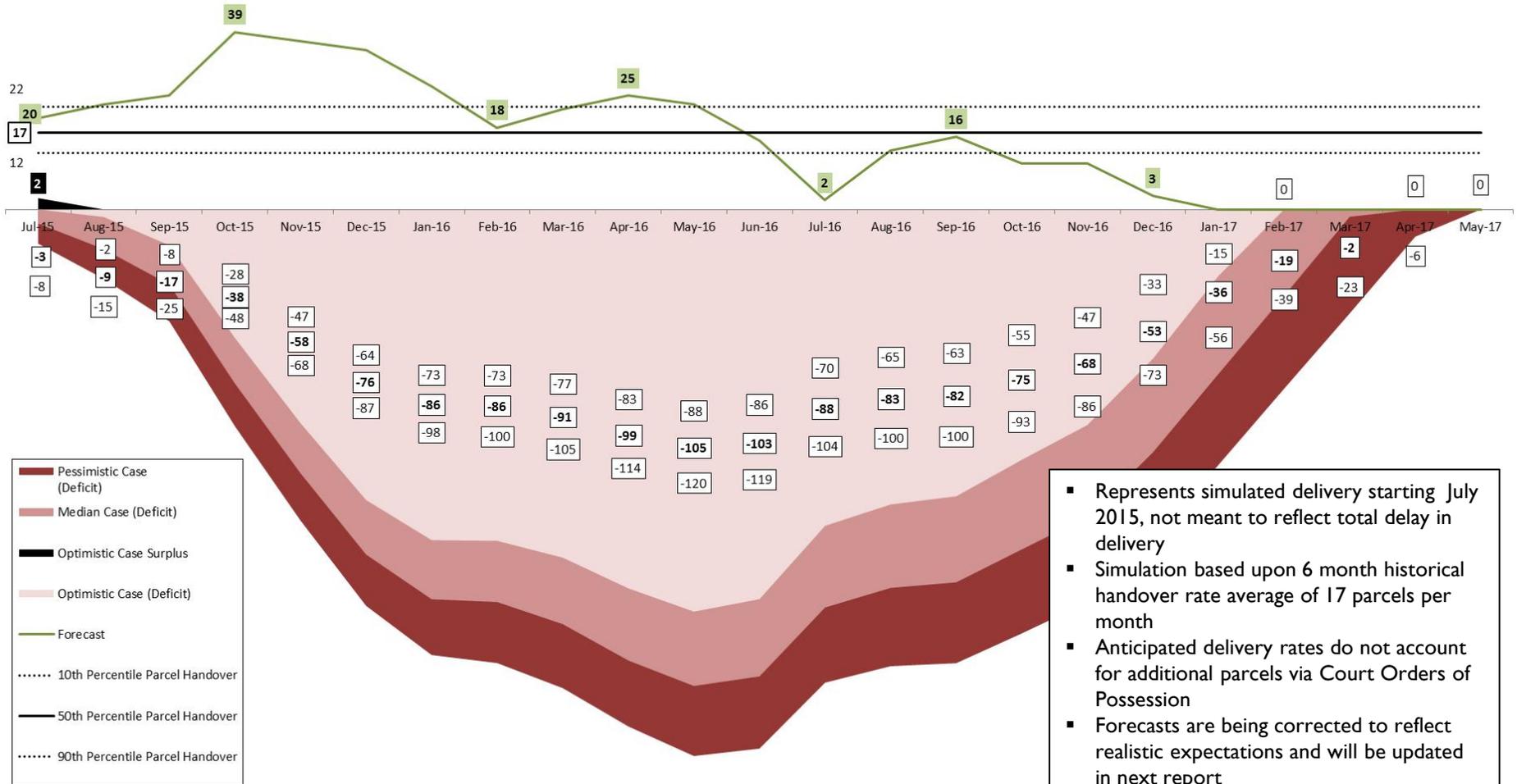
- Based on this analysis, the accumulated deficit of parcel delivery (iceberg) is large and reached 108 parcels in the median case
- The probability of handing over the requisite number of parcels by December 2016 is negligible
- It is projected that handover will not be complete until at least April 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*



- Represents simulated delivery starting July 2015, not meant to reflect total delay in delivery
- Simulation based upon 6 month historical handover rate average of 17 parcels per month
- Anticipated delivery rates do not account for additional parcels via Court Orders of Possession
- Forecasts are being corrected to reflect realistic expectations and will be updated in next report

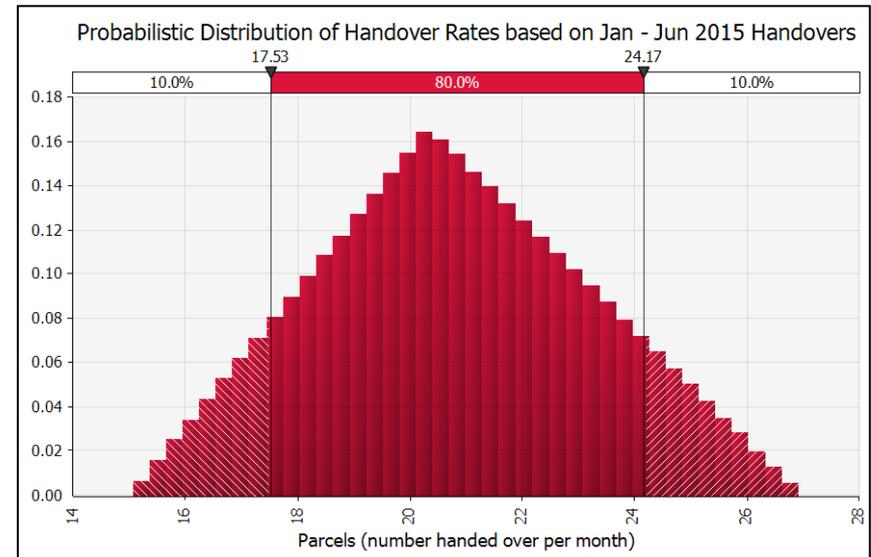
## ROW – CPI: Probability of meeting or bettering forecast based upon 3 month’s results (March to May 2015)

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

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

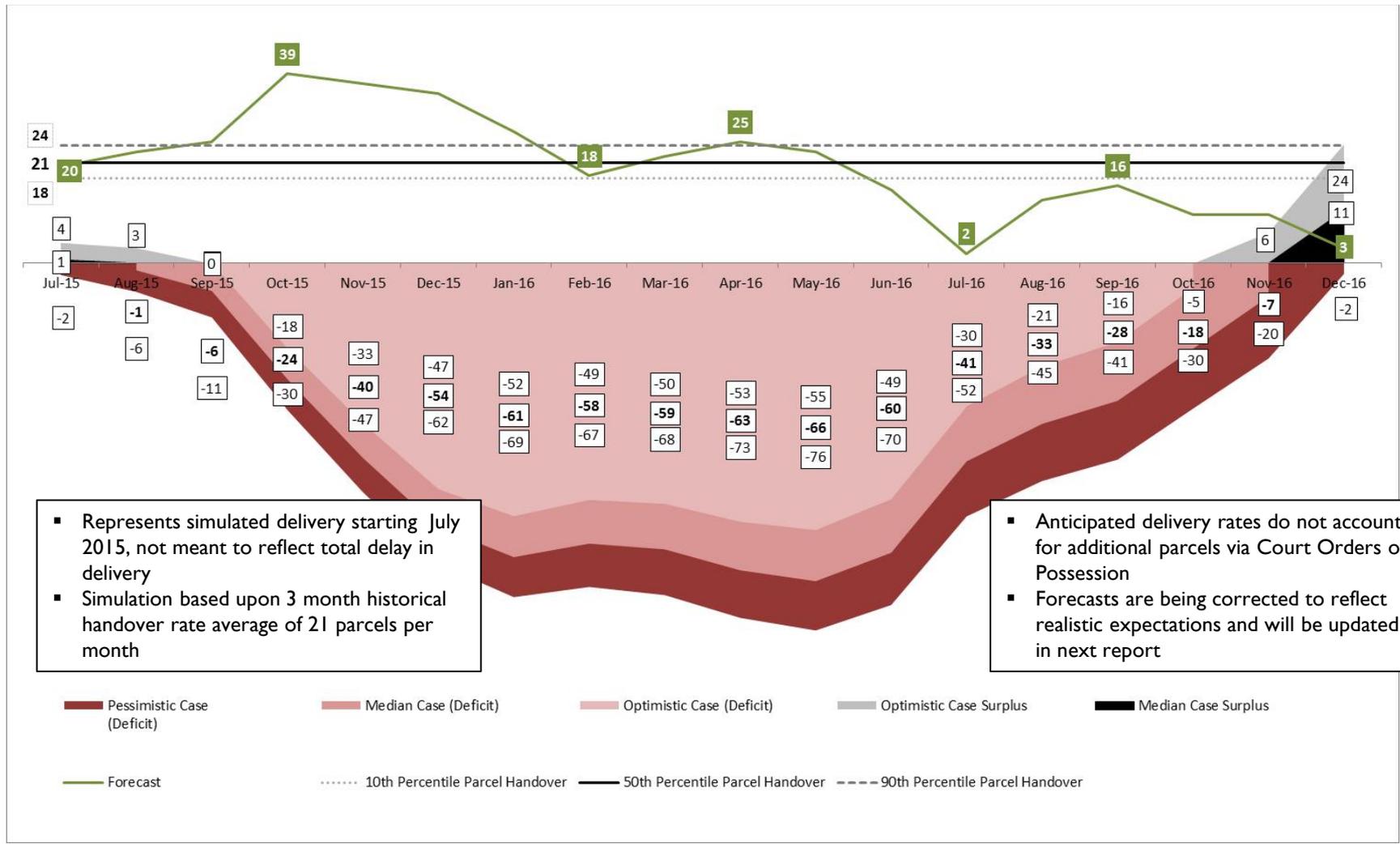




# ROW – CPI: Projected surpluses and deficits end of July 2015 to end of December 2016 based upon 3 month's results (March to May 2015)

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



- Represents simulated delivery starting July 2015, not meant to reflect total delay in delivery
- Simulation based upon 3 month historical handover rate average of 21 parcels per month

- Anticipated delivery rates do not account for additional parcels via Court Orders of Possession
- Forecasts are being corrected to reflect realistic expectations and will be updated in next report