



California High-Speed Rail: Operations Report

FY14-15, FY15-16 and Program Metrics

September 2015

Agenda

▶ Operations Report Metrics

- Executive Summary
- ROW
- 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 August 28st. As of that date, the Authority has secured legal possession of 335 parcels, with 288 delivered to the design-builder.
- ▶ Both CPI and CP2-3 delivery plans will be re-baselined in September per the terms of the contracts. The team has already engaged mitigation actions and identified early construction sections to determine top priority parcels to be delivered in these sections so that construction delays are minimized.
- ▶ The ROW dataset has been updated to incorporate 124 additional Local Agency parcels (current roadways). These parcels have now been defined (these parcels do not have Assessor's Parcel Numbers) as a result of the Transfer Agreements developed between the Authority and the Local Agency. The forecast anticipates delivery of these 124 additional public parcels by the end of November. The previously identified public parcels will be acquired based on the current schedules. These additional public parcels have not been incorporated into previously completed probabilistic analysis.
- ▶ 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. The probability analysis will be updated in October to evaluate the schedule risk and determine if the ROW delays continue to fall within the established contingency envelop of the CPI project.
- ▶ Results from the probabilistic analysis based on the August ROW delivery forecast indicate that forecasts for delivery are unlikely to be met, highlighting the need for an update to forecasts. There are several reasons for the delivery delays, including:
 - Inability to access Prop IA bonds due to legal challenges
 - Securing Fresno to Merced and Fresno to Bakersfield RODs and permits were delayed
 - Delay in finalizing Amendment 5 (FRA commitment was August 31, 2012; however, they did not finalize agreement until December 5, 2012)
 - FRA delayed access to ROW proceeds from December 5, 2012 until April 23, 2013 causing the need to update appraisals that caused additional delays in ROW acquisition
 - ROW plan was too aggressive when originally set. A new Plan will be established in September working with the DB
- ▶ 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.

Executive Summary

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
- ▶ 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. We are in the process of updating our forecast.
- ▶ July-2015 actual expenditures have not been received as of the publication of this Operations Report. The September-2015 Operations Reports actuals are zero as a result.
- ▶ 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

- ▶ CP I - Despite initial delays to construction activities, TPZP is progressing with construction at the Fresno River Bridge and is preparing to start construction at additional locations in the coming months.
- ▶ The increase in CP I earned value during the August pay period is primarily a result of revising the way the Contractor is compensated for administrative overhead incurred to date. This will not have a significant impact in the expenditure of ARRA funds.
- ▶ CP 2-3 - 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 its baseline schedule and corresponding ROW priorities.

Agenda

- ▶ Operations Report Metrics
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 - Back-Up ROW Information

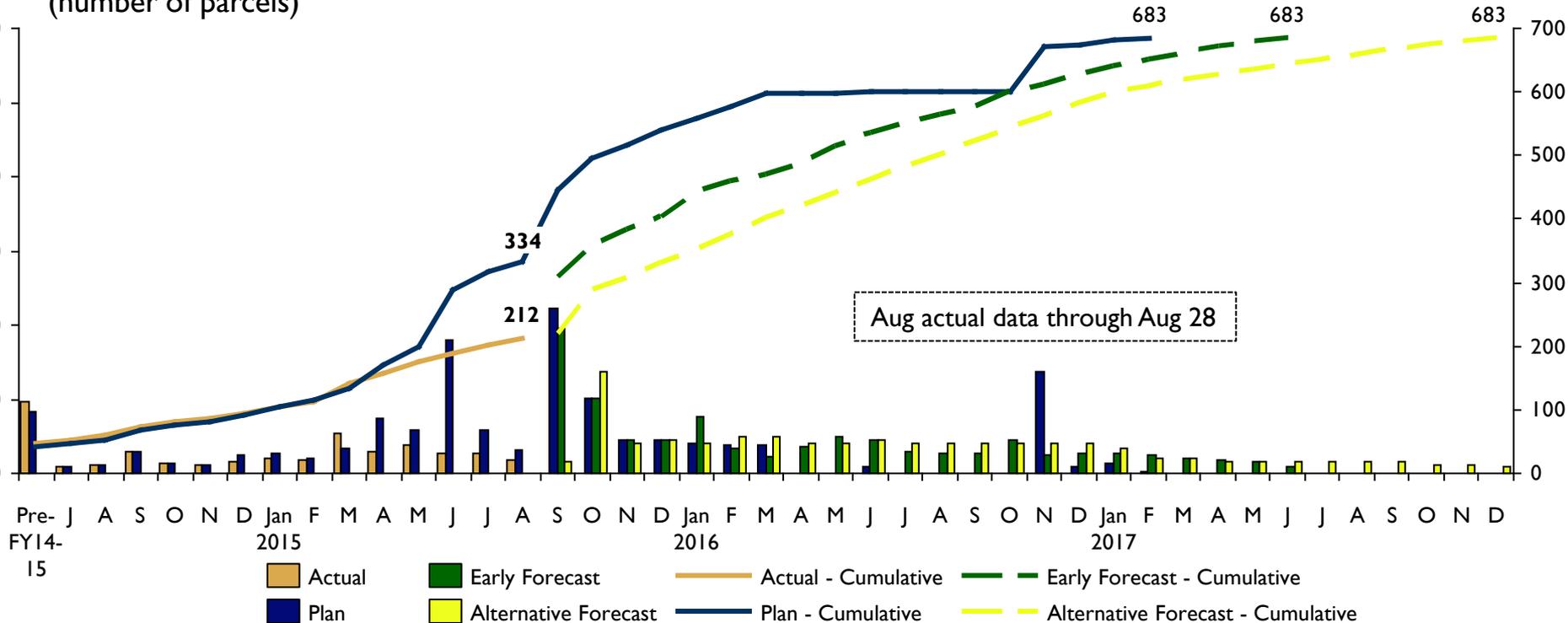
ROW Metrics - Context

- ▶ The following slides track parcels **delivered to design-builder (DB)**, which is the last step of the ROW process as well as several other key process steps.
 - 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 September/October per the new contract
 - 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 683) over time for two main reasons:
 - Any design refinement can impact alignment or width of needed ROW and as a result the counts of impacted parcels/parcels needed to be acquired can fluctuate up or down
 - The number of public property parcels were based upon 15% designs; as the ROW Transfer Agreements are being completed with the local agencies, the number of parcels is being refined

ROW – CP1 Parcels Delivered to Design-Build by Month

Plan vs. Actual vs. Forecast

CPI - Delivered to DB (number of parcels)



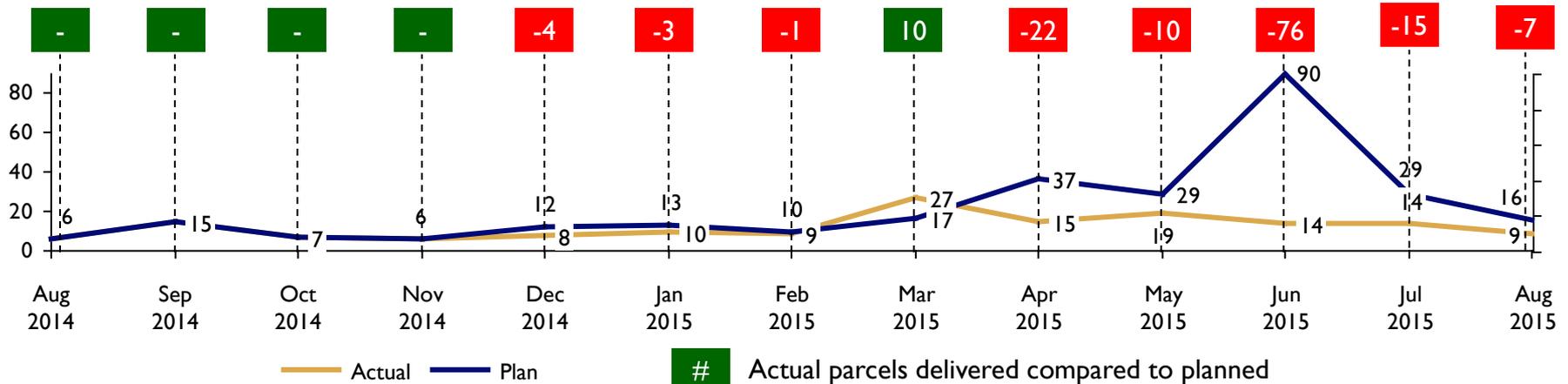
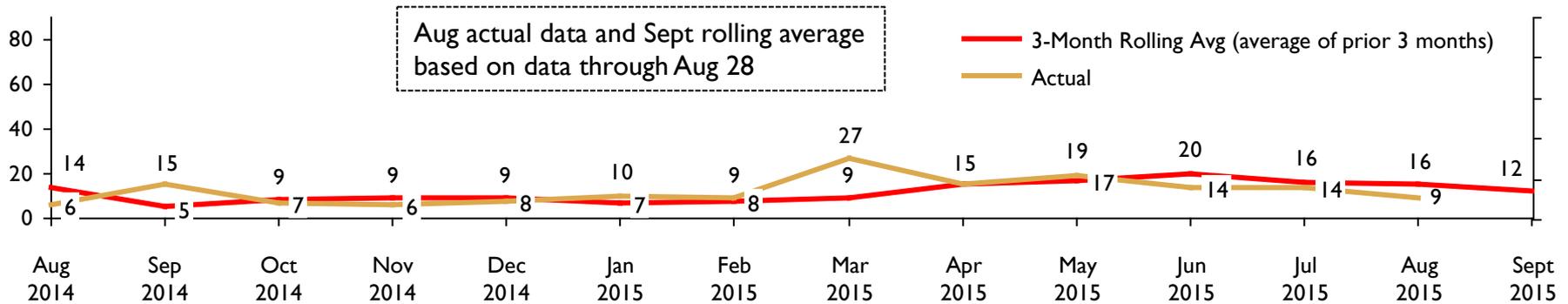
Notes:

1. The total number of parcels required for CPI has increased from 542 to 683 to reflect additional public roadway parcels that are now defined
2. "Plan": Negotiated schedule as of December 2014 plus public parcels (124), design changes (16) and 1 new parcel per request of the DB
3. "Early Forecast" and "Alternative Forecast": Early forecast will be continually refined based on expected delivery schedule. The Alternative Forecast is meant to reflect potential delays outside control of CHSRA and are more in line with historical delivery rates. Forecasts may exceed the plan in certain months as a result of the anticipated or actual delays from plan parcels scheduled earlier
4. 84 parcels with City of Fresno executed agreement scheduled for September delivery to DB once PWB approves them on September 1; 32 public parcels being delivered from County of Madera in October

Source: Aug 28, 2015 ROW Weekly Report

ROW – CP1 Historic Performance

CPI Performance (in number of parcels)



Notes:

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

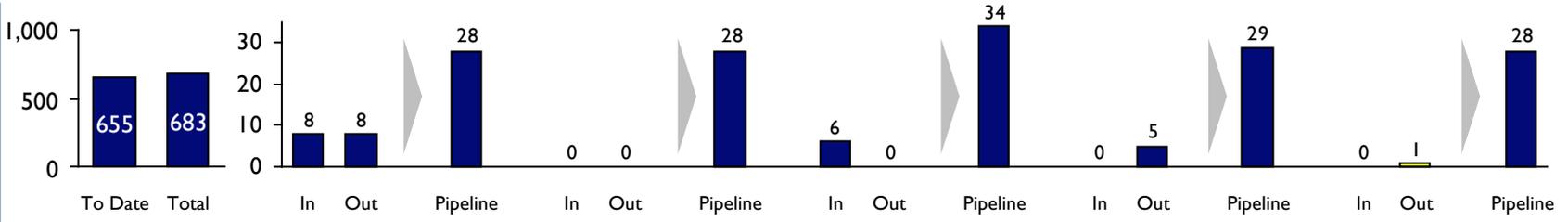
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

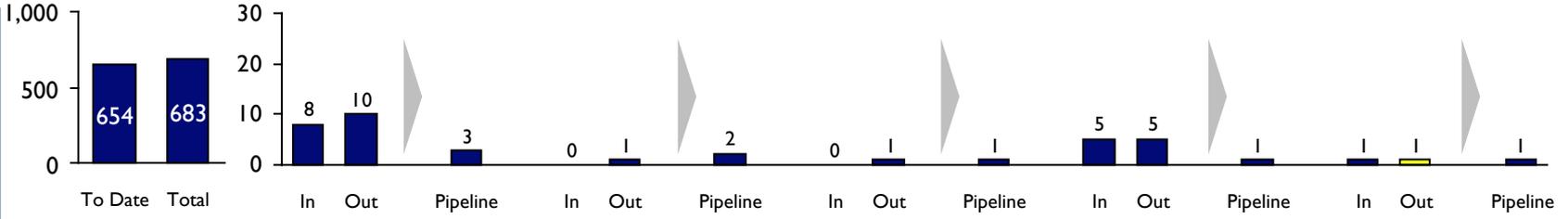


Appraisal



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

Just Compensation



- Pipeline nearly clear

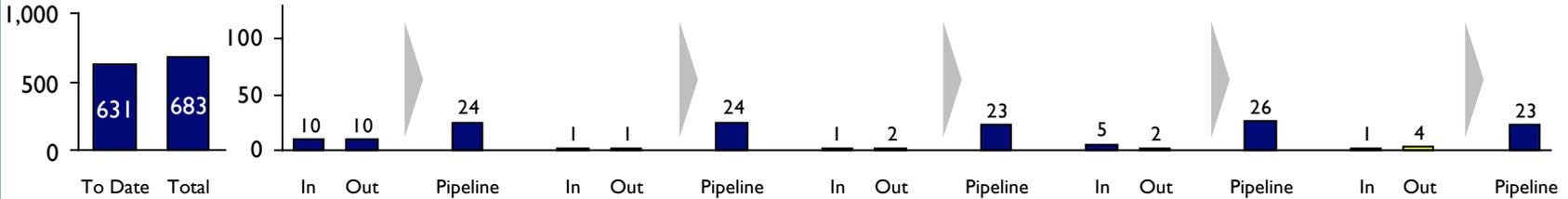
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

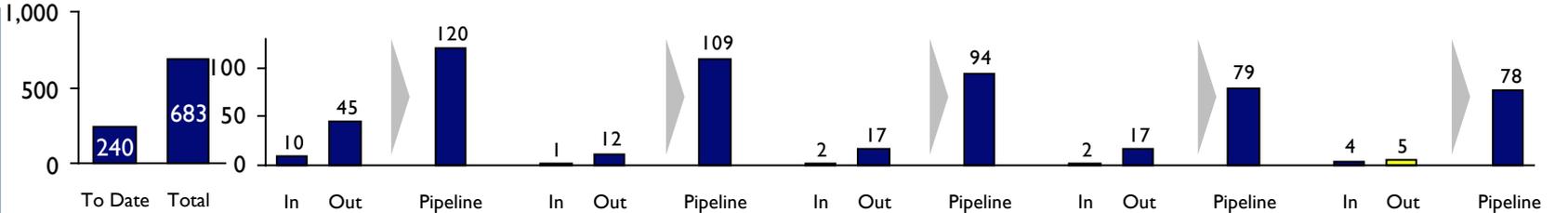
Completion April 2015 May 2015 June 2015 July 2015 **August 2015**

First Written Offer



- Pipeline consists of 20 railroad parcels and 2 state of California parcels that are handled through other means than First Written Offers

Negotiation Acquisition



- 29 agreements being processed and in escrow pending close of escrow (COE) and the balance pending property owner decision to sign or enter condemnation

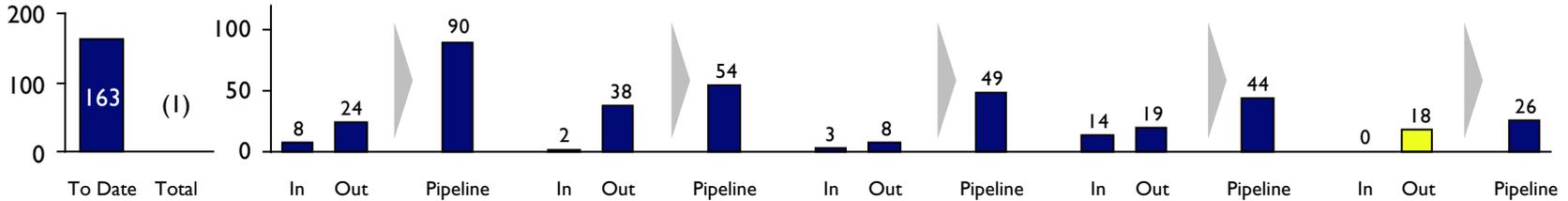
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

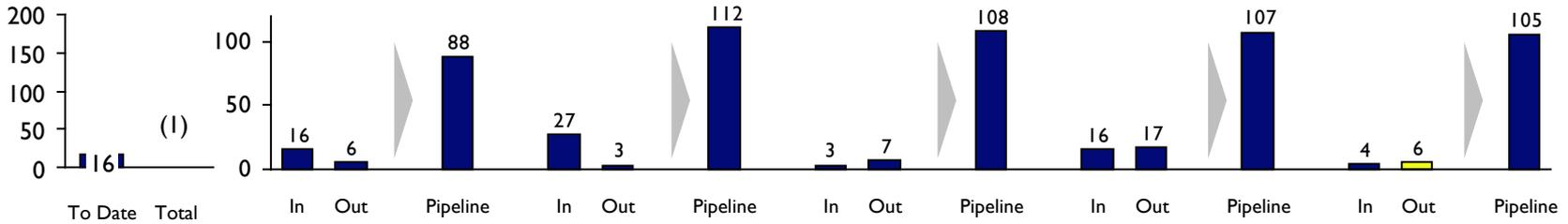
Completion April 2015 May 2015 June 2015 July 2015 August 2015

Condemnation



- Pipeline comprised of suit packages at Caltrans legal pending filing with the courts

Eminent Domain



- Pipeline exists pending court hearings seeking Orders of Possession

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

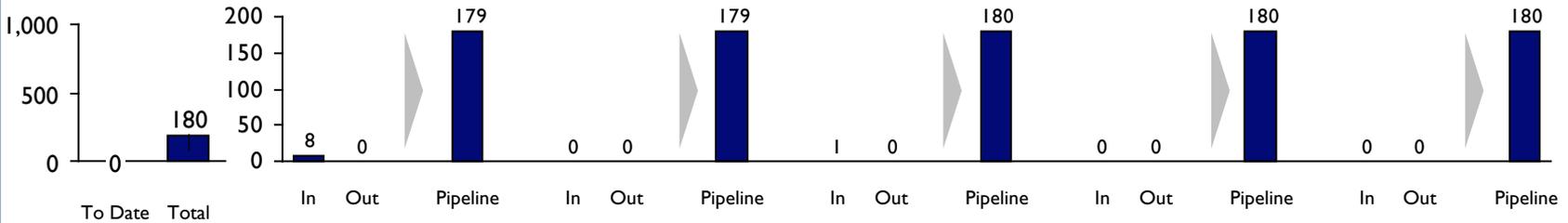
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

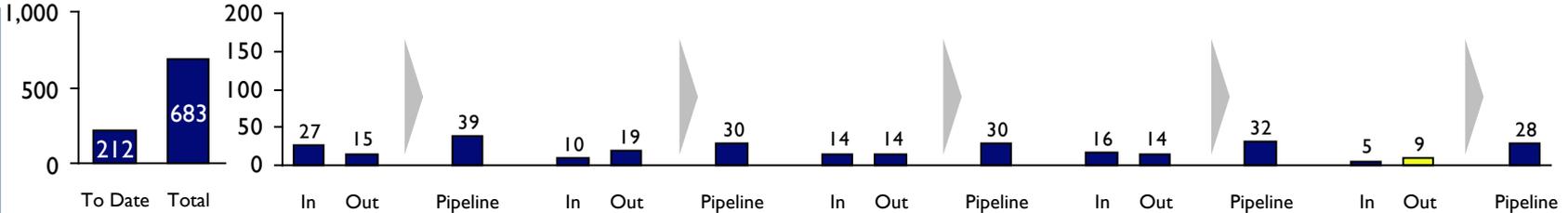


Public Agency



- 124 public parcels associated with roadway ROW are scheduled for delivery by November 30th. Other public parcels are scheduled individually.

Delivery



- 22 parcels require relocations, balance available to be transferred to DB

Source: August 28, 2015 ROW Weekly Report

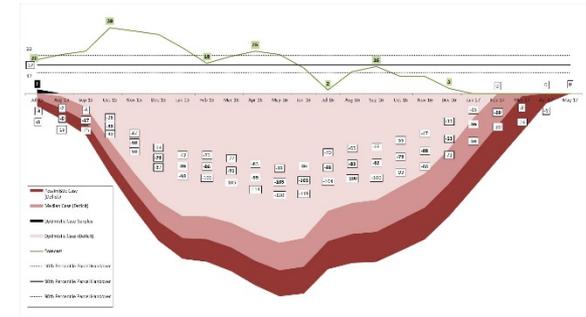
CP1 Probabilistic Analysis of Meeting CP1 Forecast

- ▶ 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 in October 2015

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

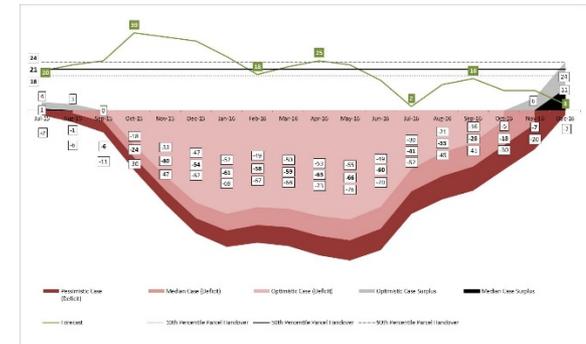
Past 6-Month Parcel Handover Rate

- 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.

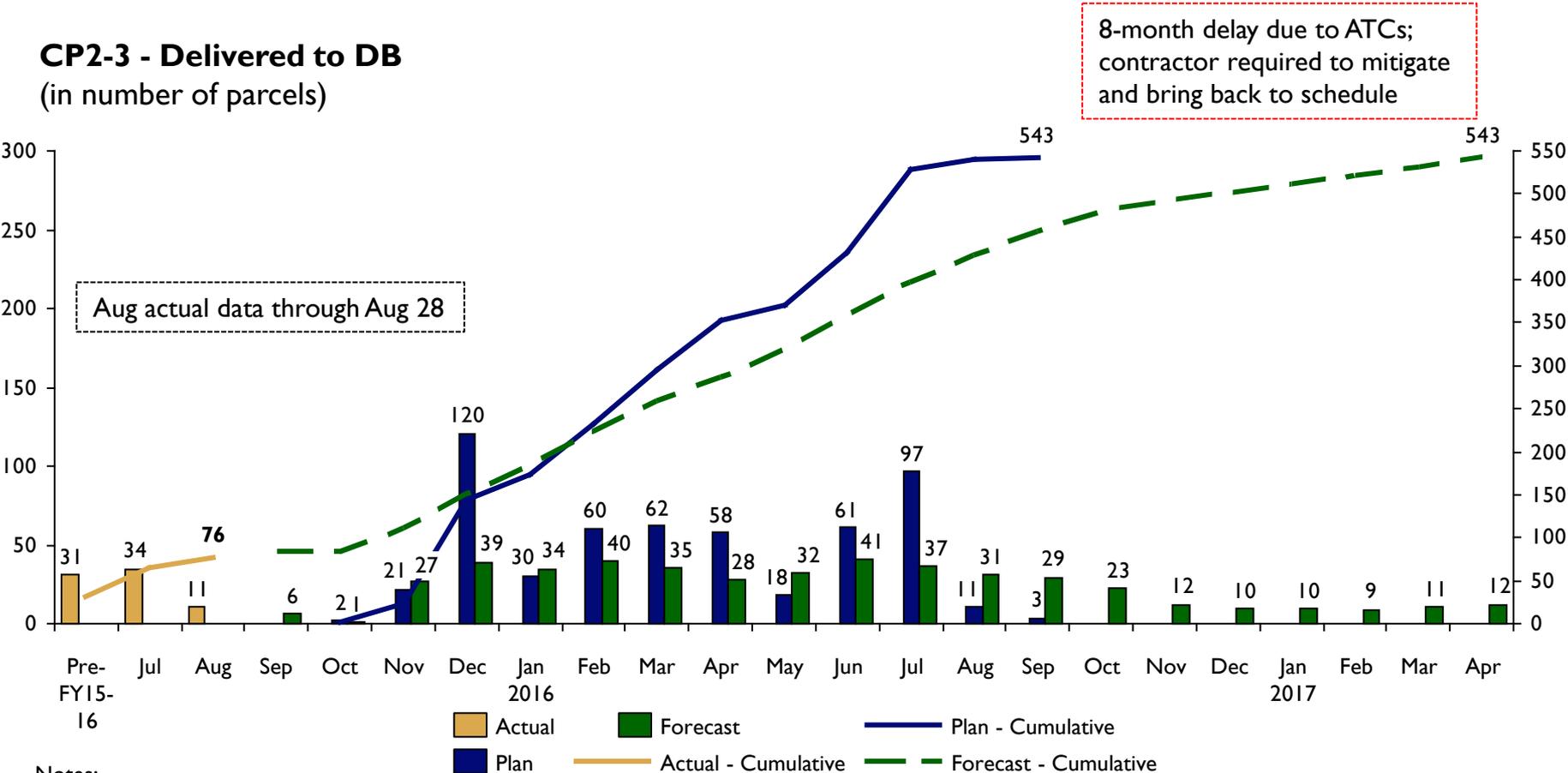


Notes: The deficits presented are in addition to the delays already accrued. Deficits measured against our own internal forecast NOT contractual obligations to the contractor.

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

Planned vs. Actual vs. Forecast

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



8-month delay due to ATCs; contractor required to mitigate and bring back to schedule

Aug actual data through Aug 28

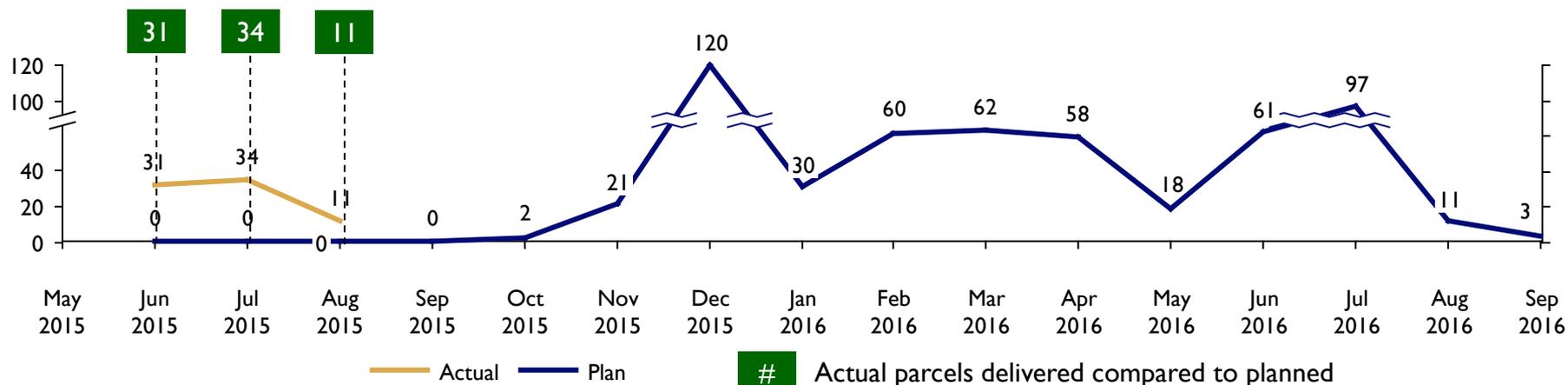
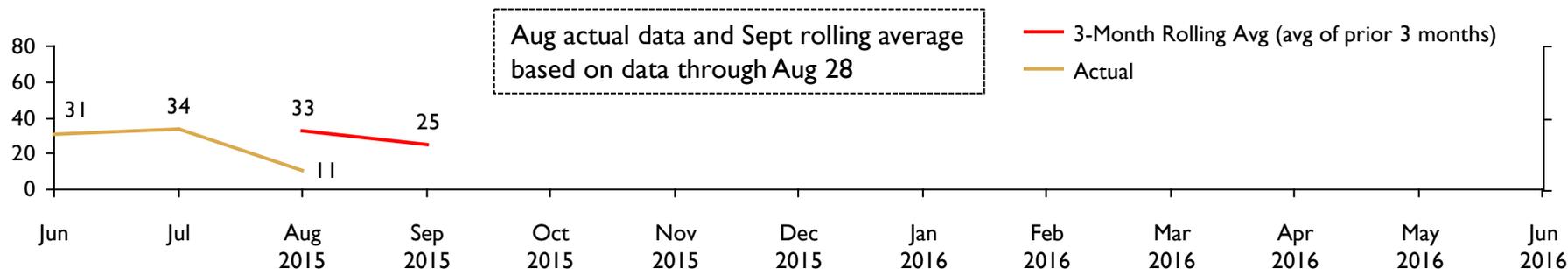
Notes:

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 increase once public parcels and design changes are accounted for; forecast will be revised once they are in

Source: August 28, 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 September/October
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

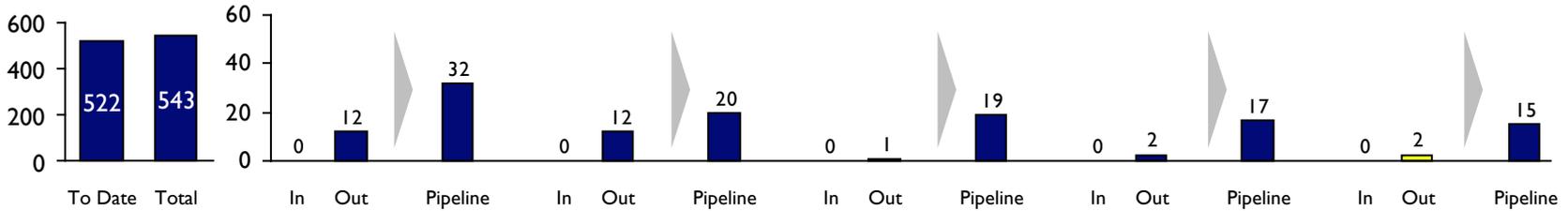
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

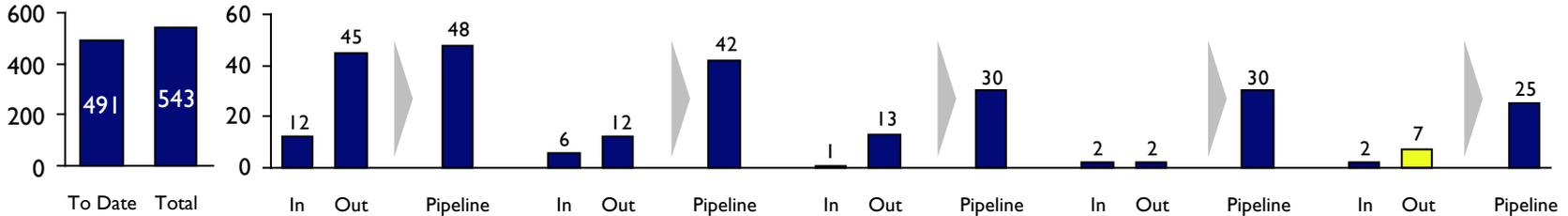
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Appraisal



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

Just Compensation



- Pipeline pending DGS setting Just Compensation

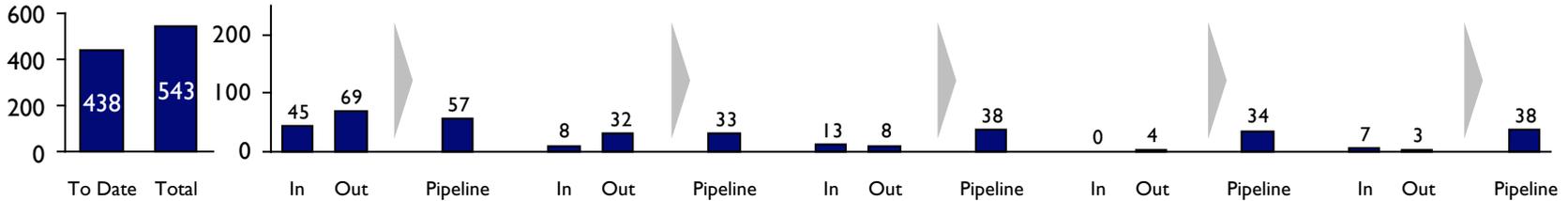
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

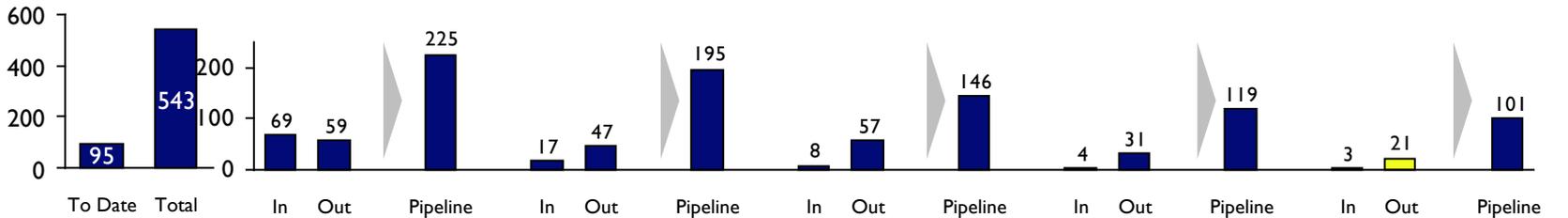


First Written Offer



- Pipeline consists of 24 railroad parcels and 12 that are under appraisal refinement

Negotiation Acquisition



- 59 agreements being processed to and in escrow pending close of escrow (COE) and the balance pending property owner decision to sign or enter condemnation

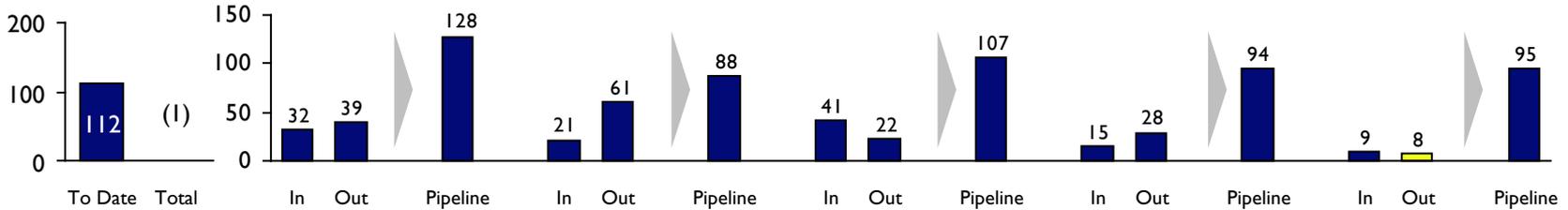
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

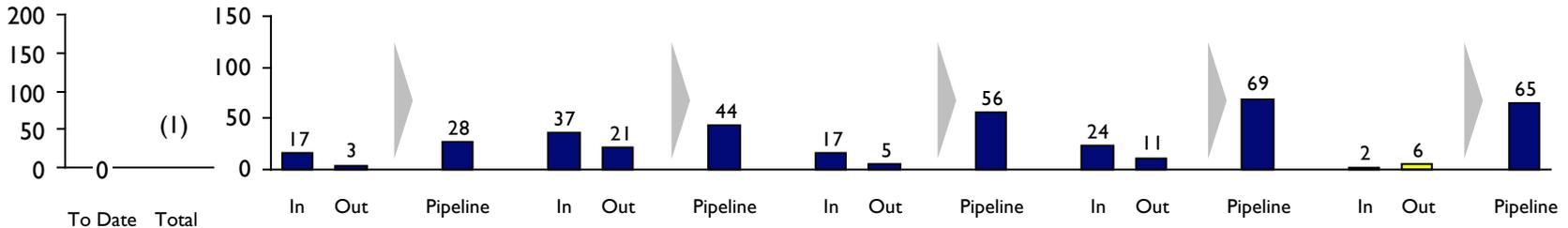
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Condemnation



- Pipeline comprised of suit packages at Caltrans legal pending filing with the courts

Eminent Domain



- Pipeline exists pending court hearings seeking Orders of Possession

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

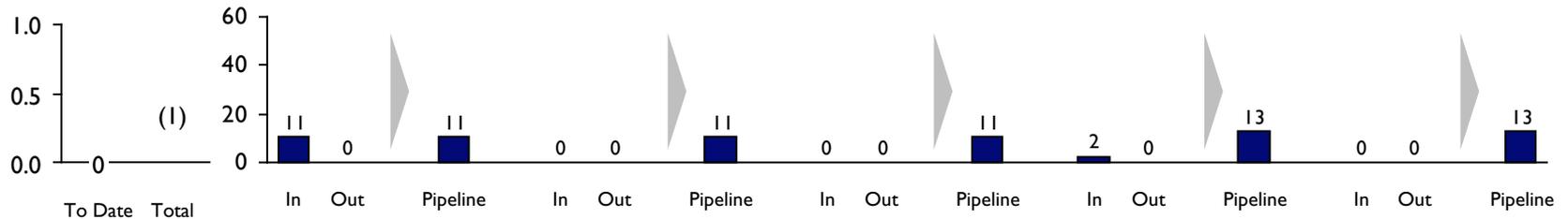
Source: August 28, 2015 ROW Weekly Report

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

Volume of Activity by Process (Flow) - Pipeline

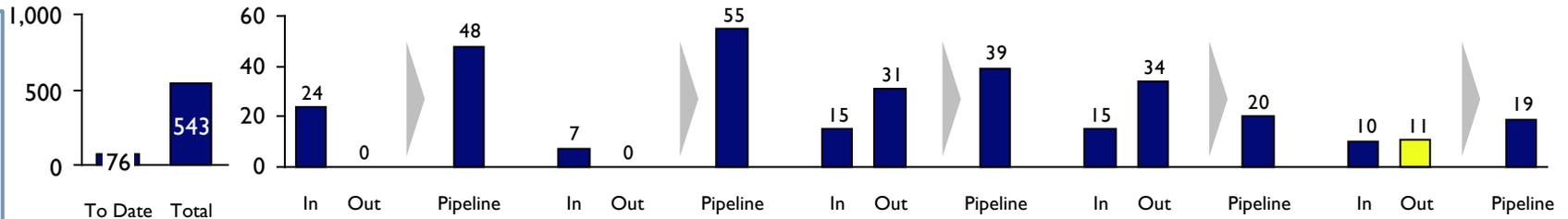
Completion April 2015 May 2015 June 2015 July 2015 August 2015

Public Agency



- Transfer agreements will be prepared with exhibits and increase the number of distinct parcels

Delivery



- 15 parcels require relocations, balance available to be transferred to DB

(1) Total number of public parcels to be identified

Source: August 28, 2015 ROW Weekly Report

Agenda

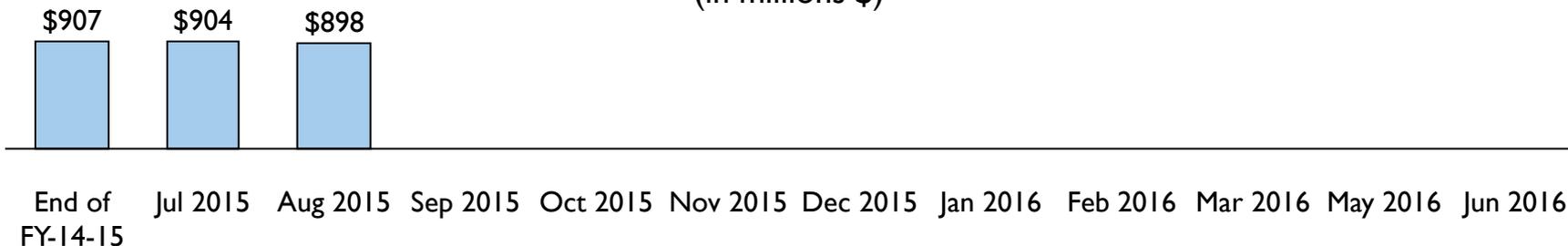
- ▶ Operations Report Metrics
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Contract Management Metrics - Context

- ▶ 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

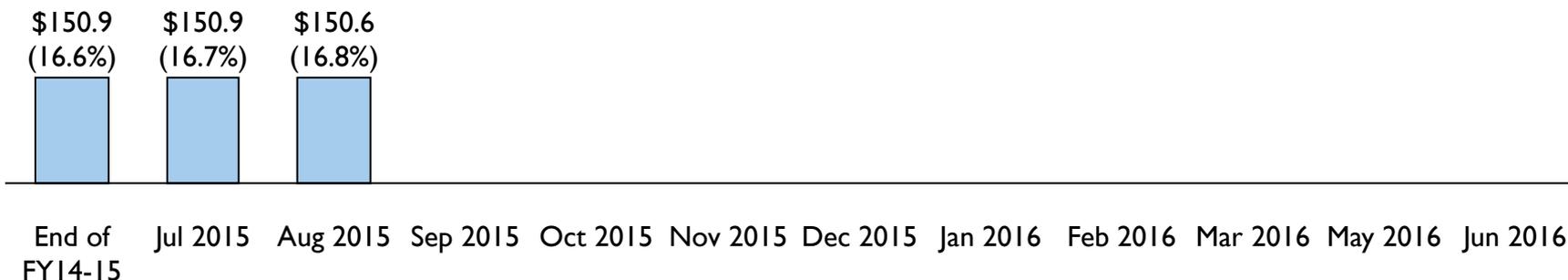
CP1 Contract Management – Contingency Value

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

Data as of: August 20, 2015

CP1 Contract Management Raw Data: Contingency Value

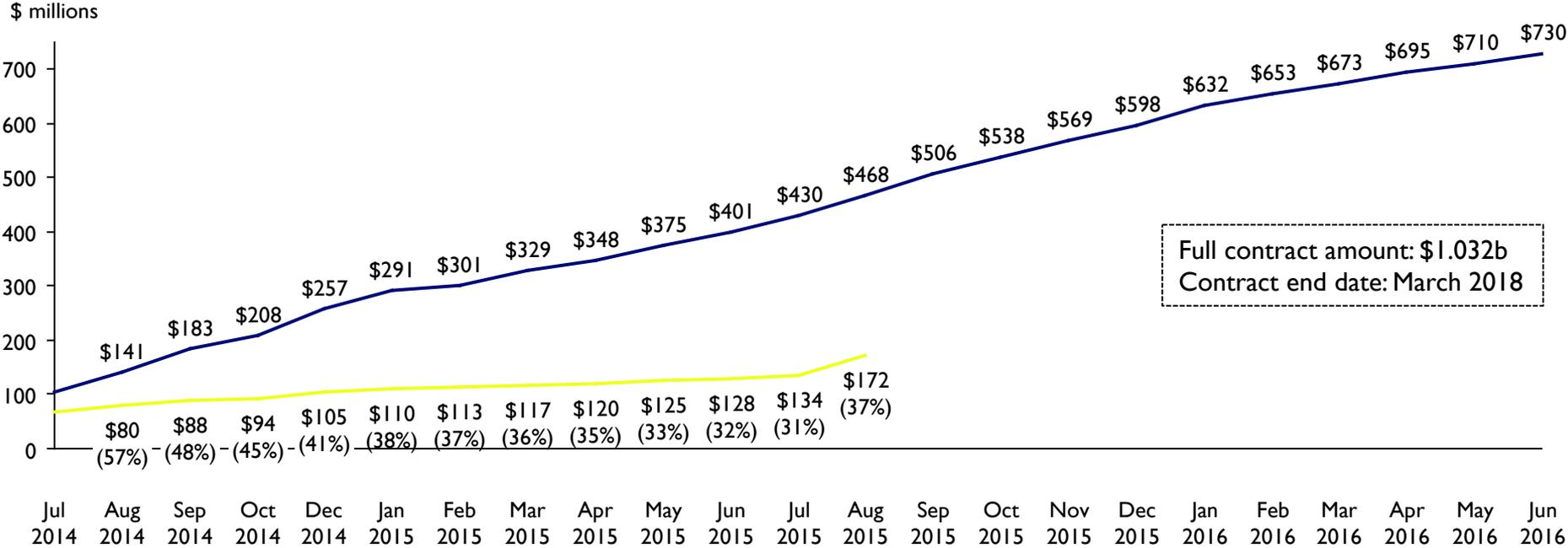
CPI – Contingency (millions \$)

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

Data as of: August 20, 2015

CP1 Contract Management – Schedule Performance Index

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



Full contract amount: \$1.032b
Contract end date: March 2018

— 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. Total amount earned refers to progress on the schedule, not approved contract invoices
3. The increase in the CP I earned value during the August pay period is primarily a result of revising the way the Contractor is compensated for administrative overhead incurred to date

Data as of: August 20, 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	\$127.9m	\$134.4m	\$171.5m										
Planned Value	\$400.8m	\$430.3m	\$468.0m										
Schedule Performance Index	32%	31%	37%										

Data as of: August 20, 2015

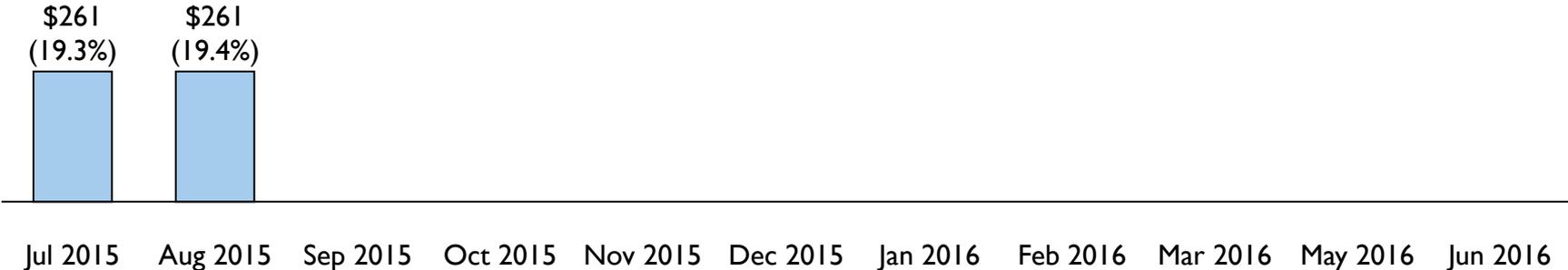
CP2-3 Contract Management – Contingency Value

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

Data as of: August 20, 2015

CP2-3 Contract Management Raw Data: Contingency Value

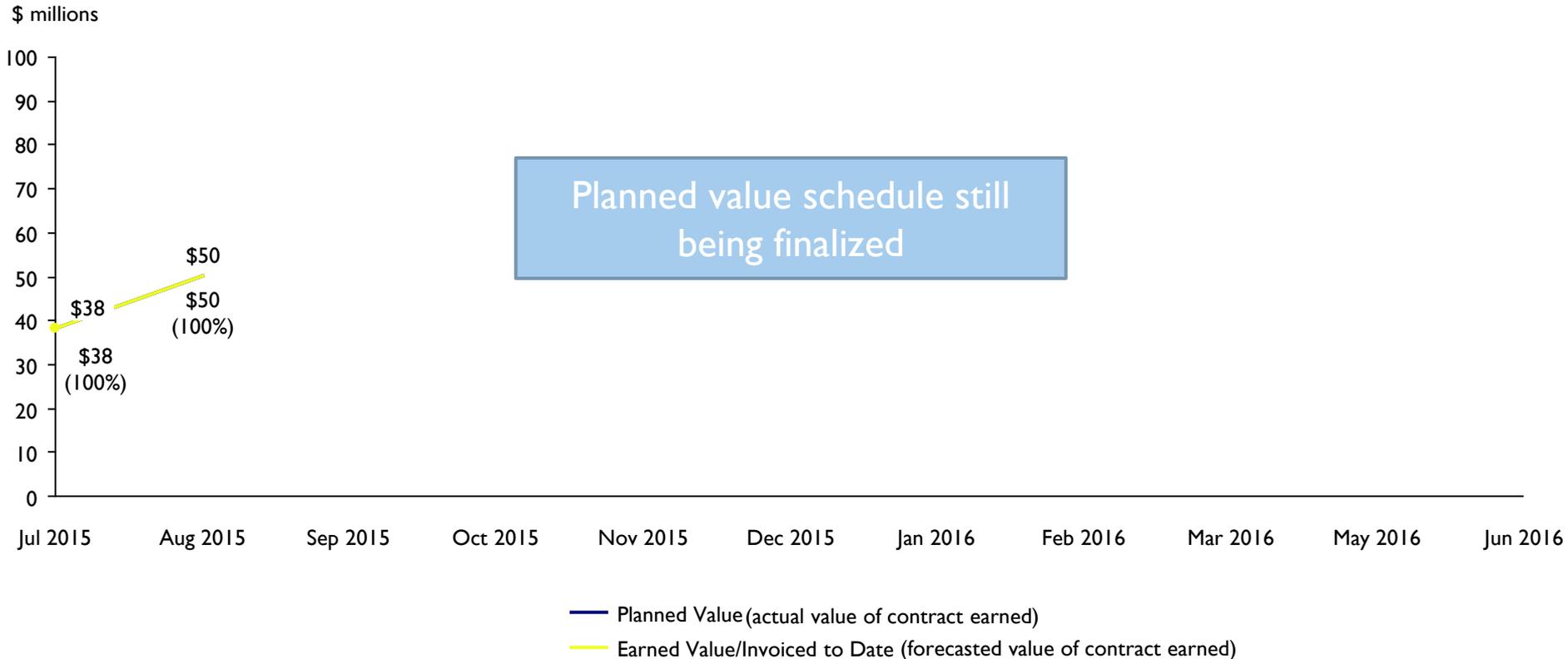
CP2-3 – Contingency (millions \$)

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

Data as of: August 20, 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

Data as of: August 20, 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										
Planned Value	\$38.1m	\$50.4m										
Schedule Performance Index	100%	100%										

Data as of: August 20, 2015

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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:
 - Budget expenditures: based on FCP budget
 - Forecast expenditures: will adjust monthly to show trajectory, based on performance
 - Actual expenditures: incorporated each month

- ▶ All data shown is at the end of each month
 - Numbers used reflect actual expenditures in the months they occur and 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 68% of FY14-15 budget, 25.9% of the federal ARRA fund and 100% of C&T fund

Total Expenditures to Date* (as of July 2015)

ARRA expenditures are 25.9% of federal ARRA grant funds and 10.4% of \$6.34b total budget

	TOTAL		Planning		Construction	
	Budget	Expended	Budget	Expend to Date	Budget	Expend to Date
ARRA Grant*	\$2.553b	\$0.662b	\$0.322b	\$0.274b	\$2.231b	\$0.388b
FY10 Grant	\$0.928b	\$-	\$-	\$-	\$0.928b	\$-
PROP IA**	\$2.563b	\$0.154b	\$0.192b	\$0.154b	\$2.372b	\$-
LOCAL	\$0.052b	\$-	\$0.052b	\$-	\$-	\$-
C&T (FY14/15 only)*	\$0.250b	\$0.250b	\$0.058	\$0.059b	\$0.191b	\$0.191b
Total	\$6.347b	\$1.066b	\$0.624b	\$0.487b	\$5.722b	\$0.579b

*Source: F&A Capital Outlay Report, Sept 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 July 2015)

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

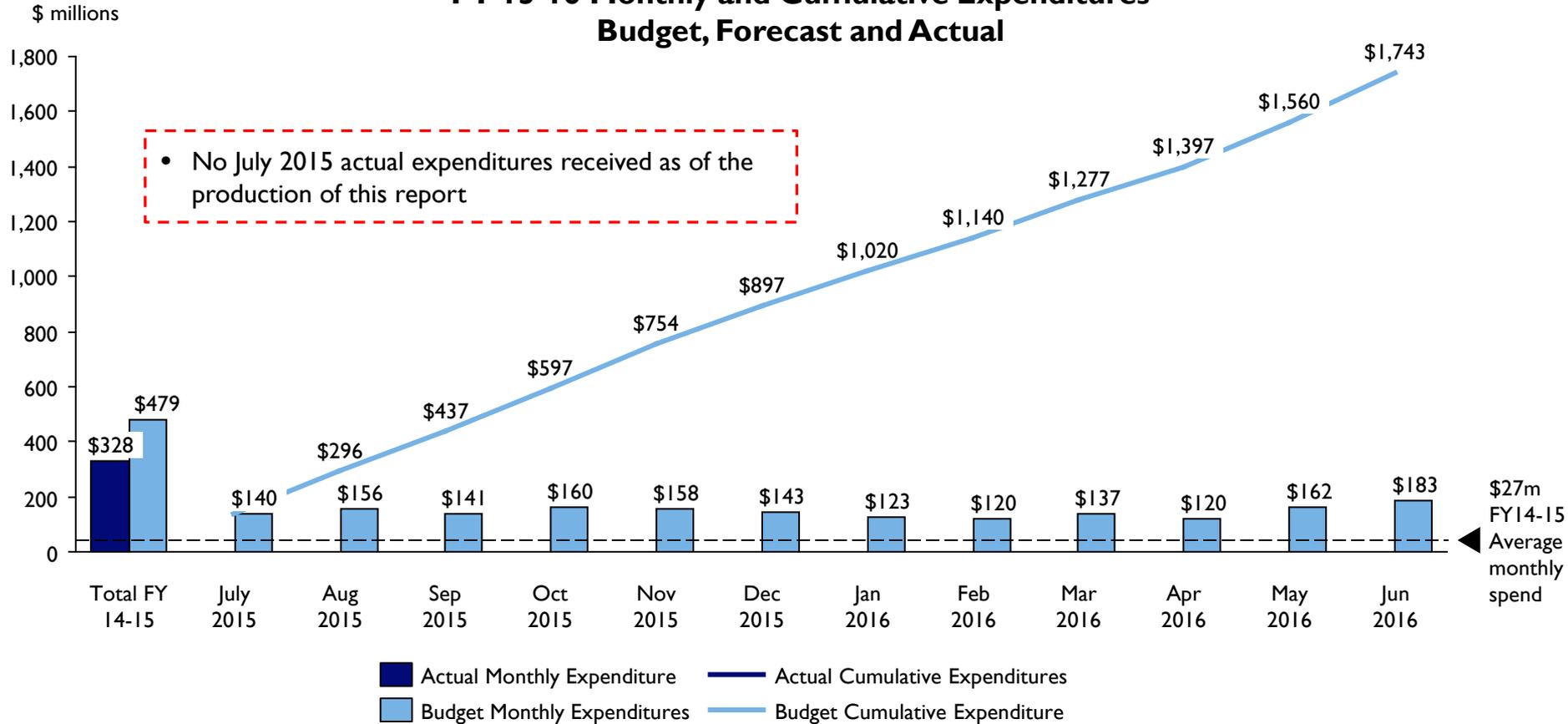
Total Appropriation	FY15-16 Budget		Expenditures to Date		Expenditures - % of Budget	
	June 30	July 31	June 30	July 31	June 30	July 31
\$7.292b	\$0.479b	\$1.74b	\$0.328b	\$0.000b	68%	0%

July expenditures have not been received as of the production of this report

*F&A Capital Outlay Report, Sept 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 – Sept 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											
Expense to Date												
Monthly expenditures												
Total FY Forecast	\$1.7b											

Source: F&A Capital Outlay and Expenditure Reports (Sept 2014 – Sept 2015)
Notes: Numbers may not add due to rounding

Agenda

- ▶ Operations Report Metrics
 - Executive Summary
 - ROW
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 - Risk
 - Back-Up ROW Information

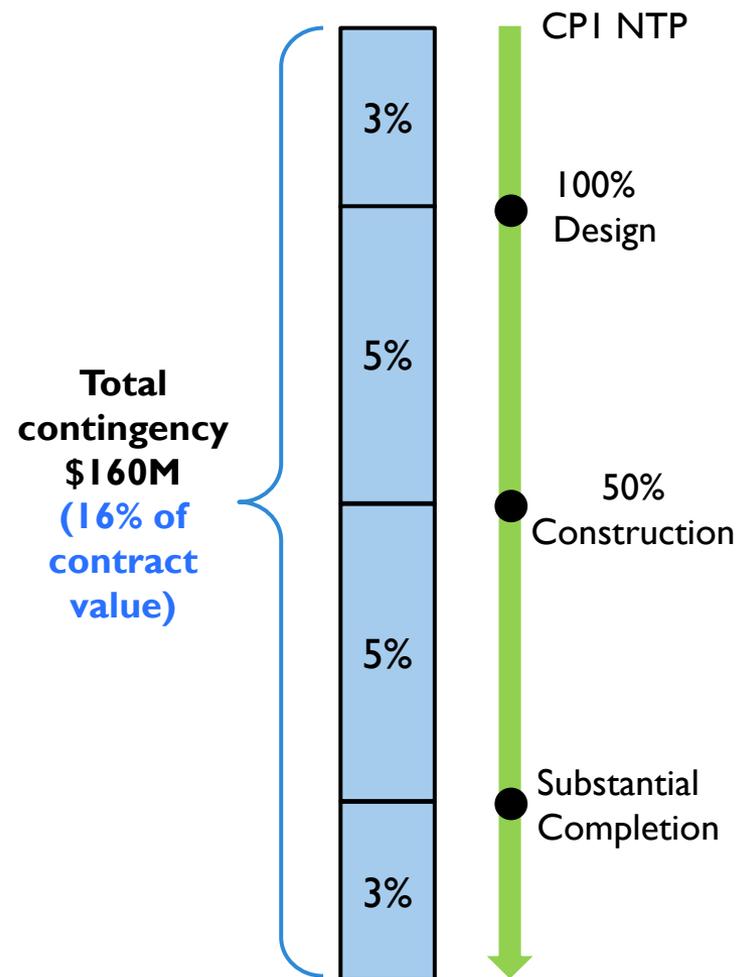
CP1 Contract – Current Contingency Level

Contract Milestones	CPI Contract Remaining Contingency	Major Change Orders Approved as of August 20, 2015
CPI Contract NTP	\$ 160.0 M	
As of 20-Aug-2015	\$ 150.6 M	<ul style="list-style-type: none"> • Class 1/2 Hazmat (\$5.25M) • Scope Changes - Revised Shear Wave Boring, Weed Abatement, etc. • Env. Permit Changes, etc. • Regulatory Changes - Archaeological, Biological, Native American monitoring (\$1.31M) • Ped. Arch Field Surveys • 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 CP I, a contingency of \$160 M 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.



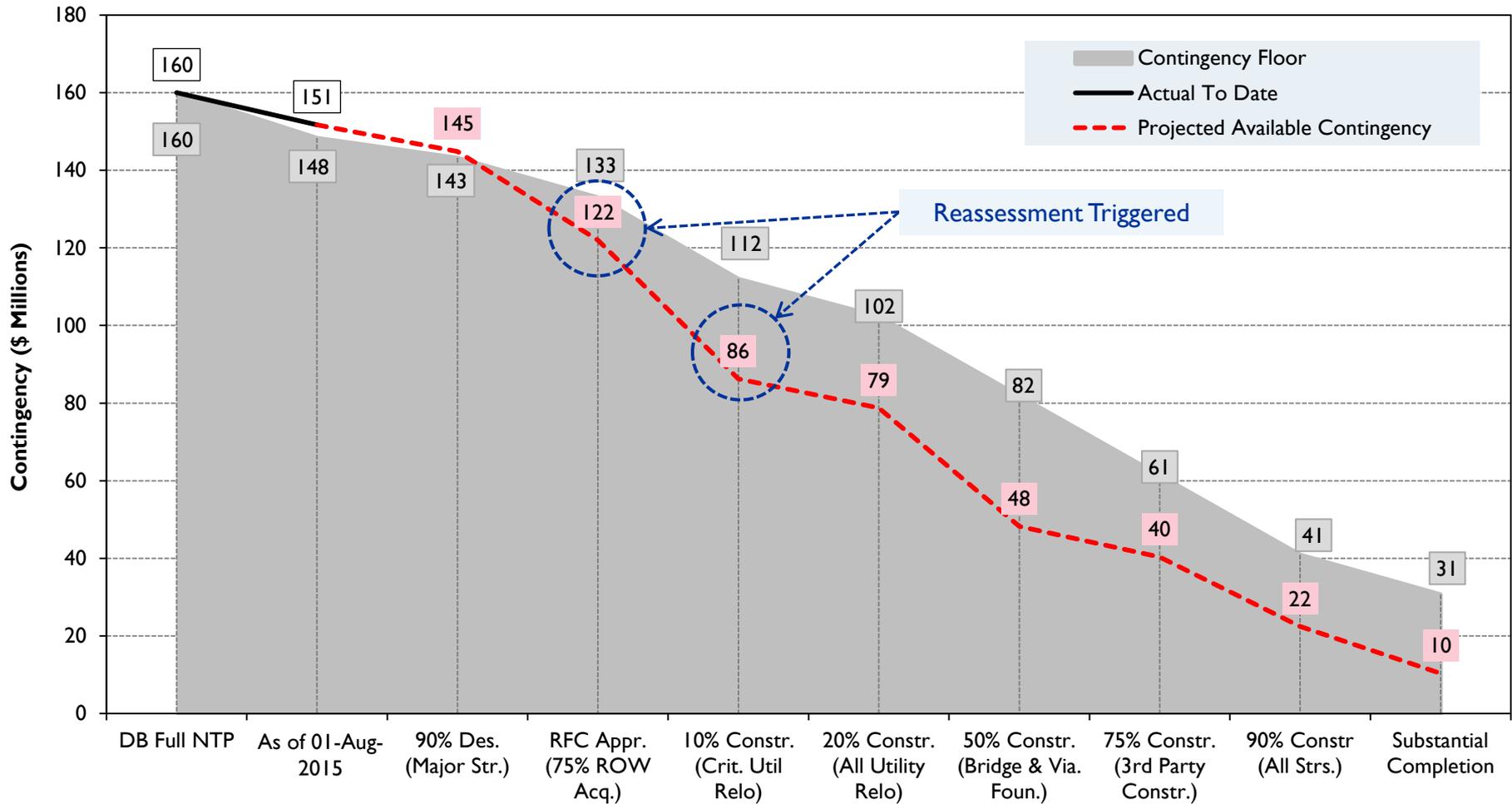
* Based on FTA Project and Construction Management Guidelines (July 2011)

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)
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



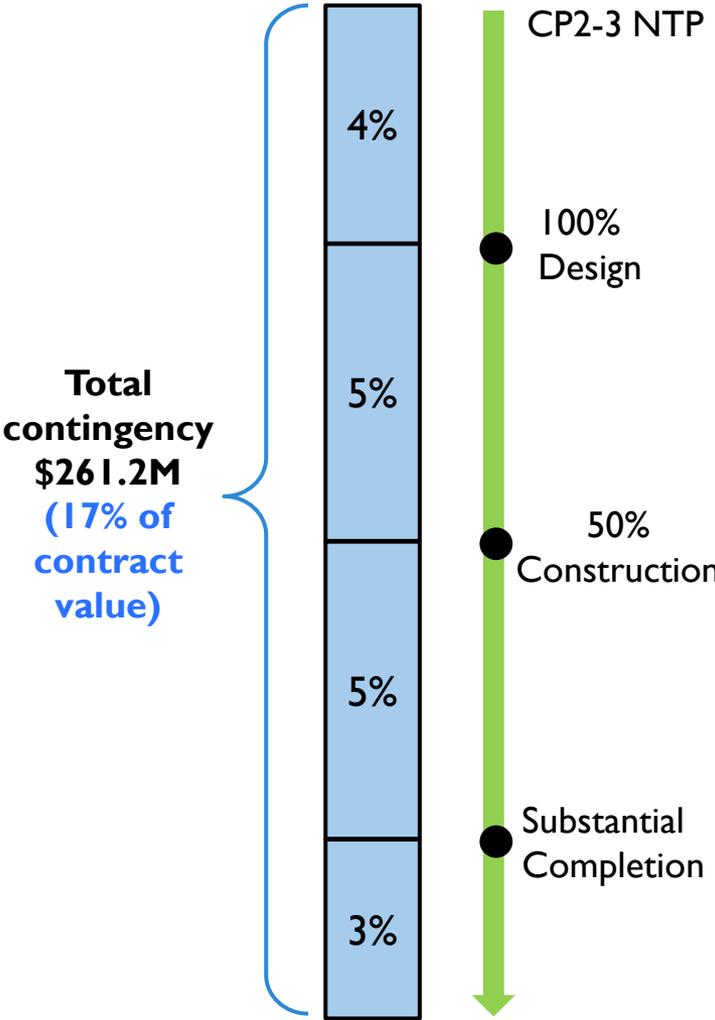
CP2-3 Contract Cost Summary

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
Total CP2-3 Contract D-B Cost	1,534,567,890
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 CP 2-3, a contingency of \$261.2 M or slightly over 17% of the contract value (base contract plus the PG&E provision sums and third party allowance), was set aside.
- ▶ 3% of the contract value or approximately \$46 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.



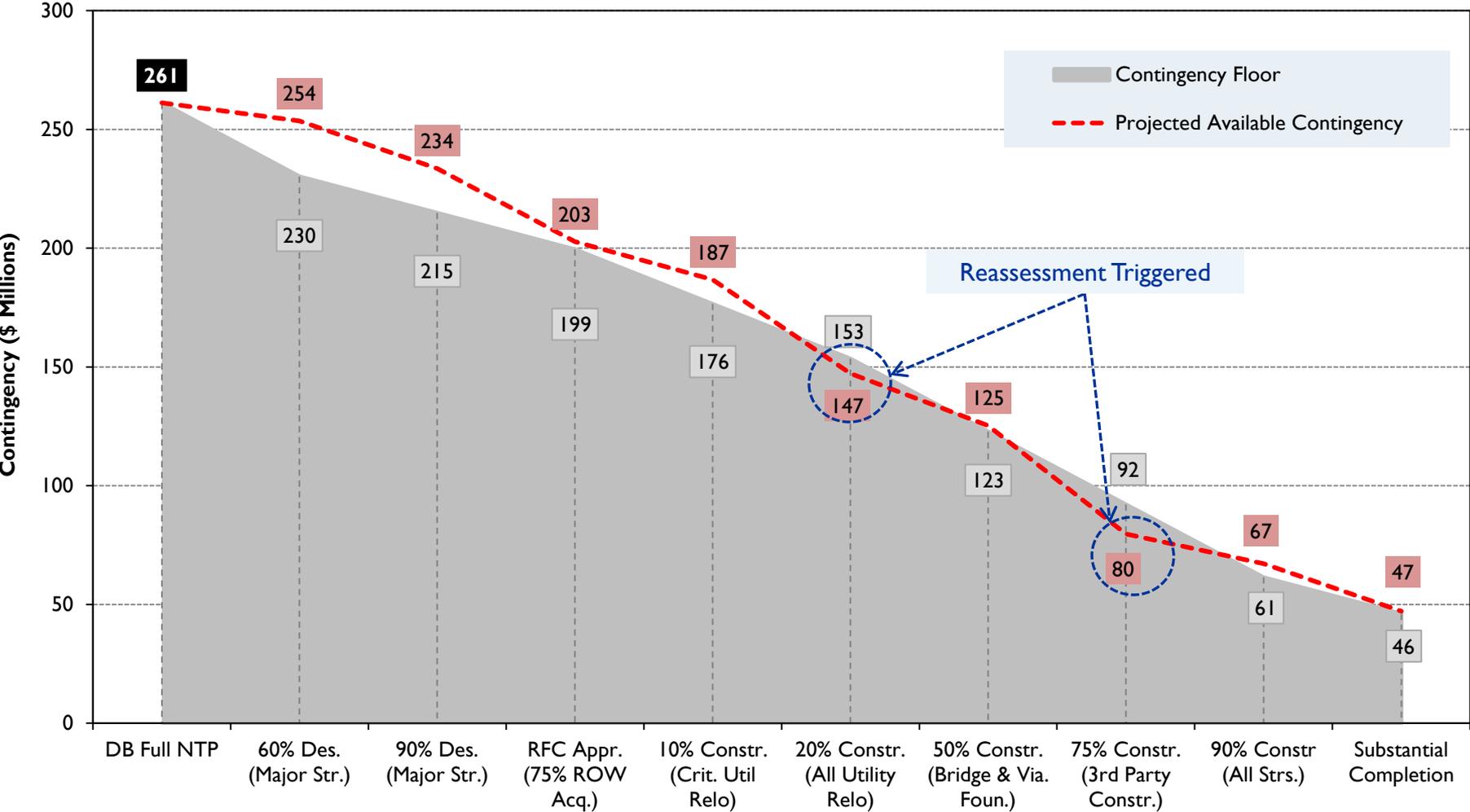
* Based on FTA Project and Construction Management Guidelines (July 2011)

Projected Available Contingency Level at Future Milestones

Contract Milestones	Projected Available Contingency (\$M)	Potential Risks Expected to Occur at Contract Milestones	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



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- ▶ Operations Report Metrics

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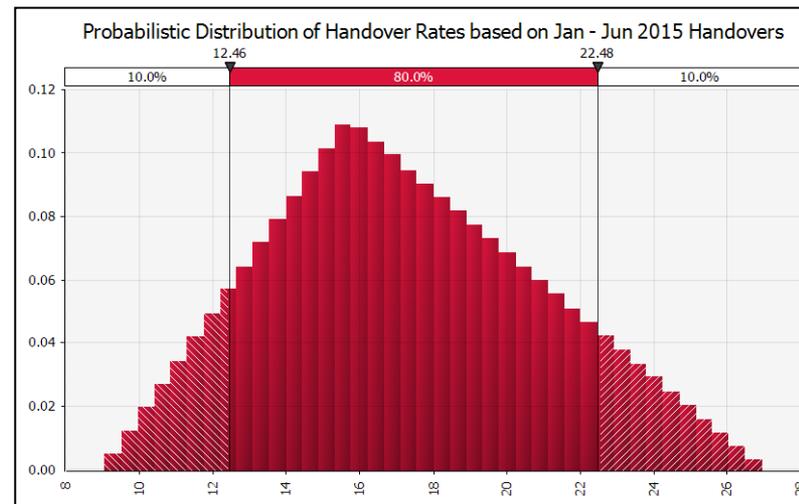
- Back-Up ROW Information

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.

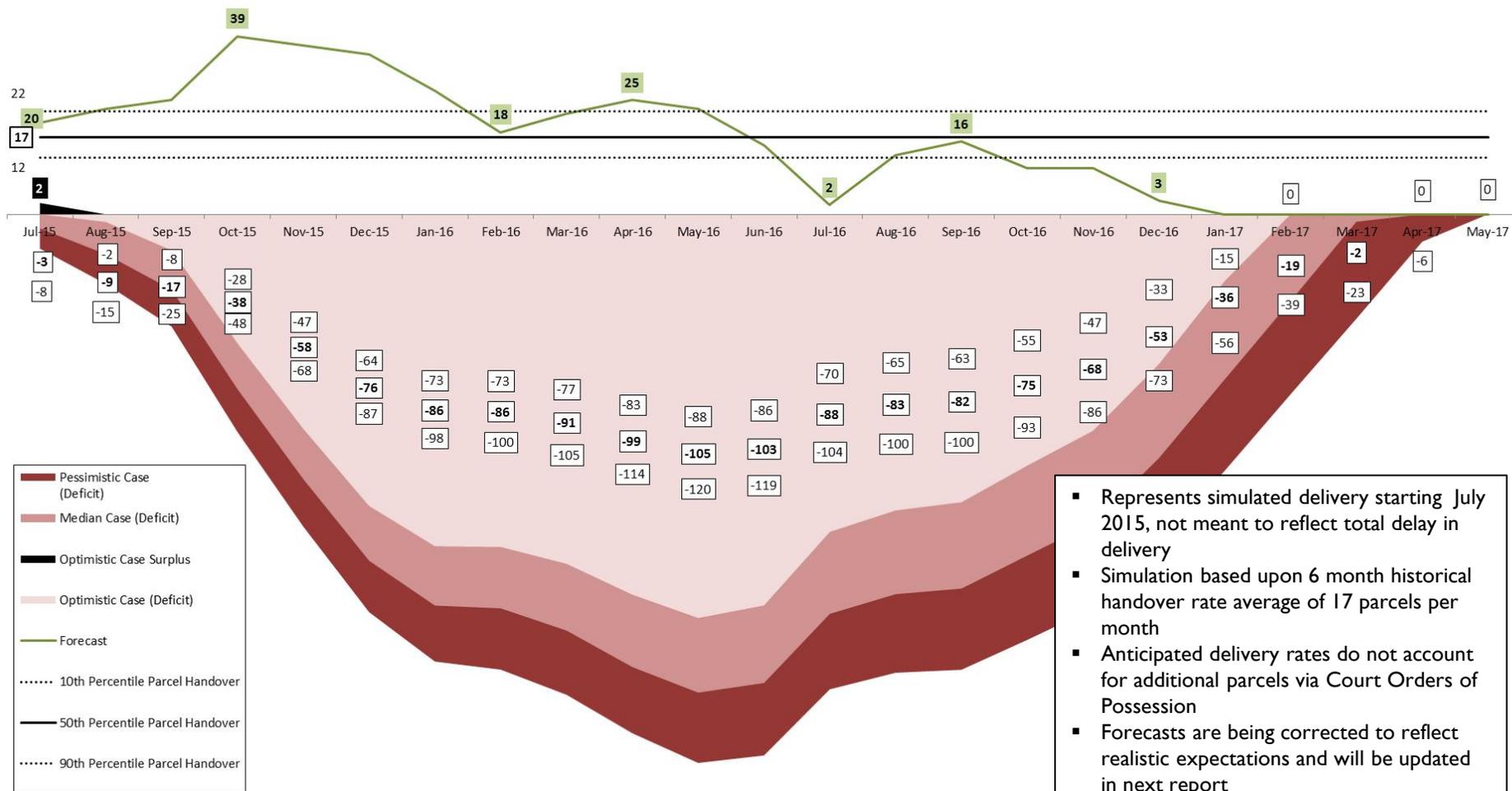
- Based on this analysis, the accumulated deficit of parcel delivery (iceberg) is large and reached 108 parcels in the median case
- The probability of handing over the requisite number of parcels by December 2016 is negligible
- It is projected that handover will not be complete until at least April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



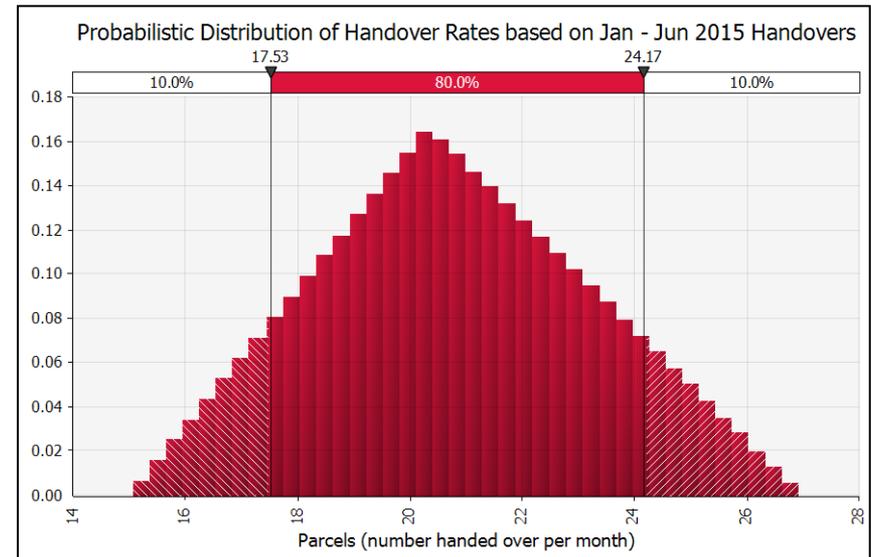
ROW – CPI: Probability of meeting or bettering forecast based upon 3 month’s results (March to May 2015)

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 CP I 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

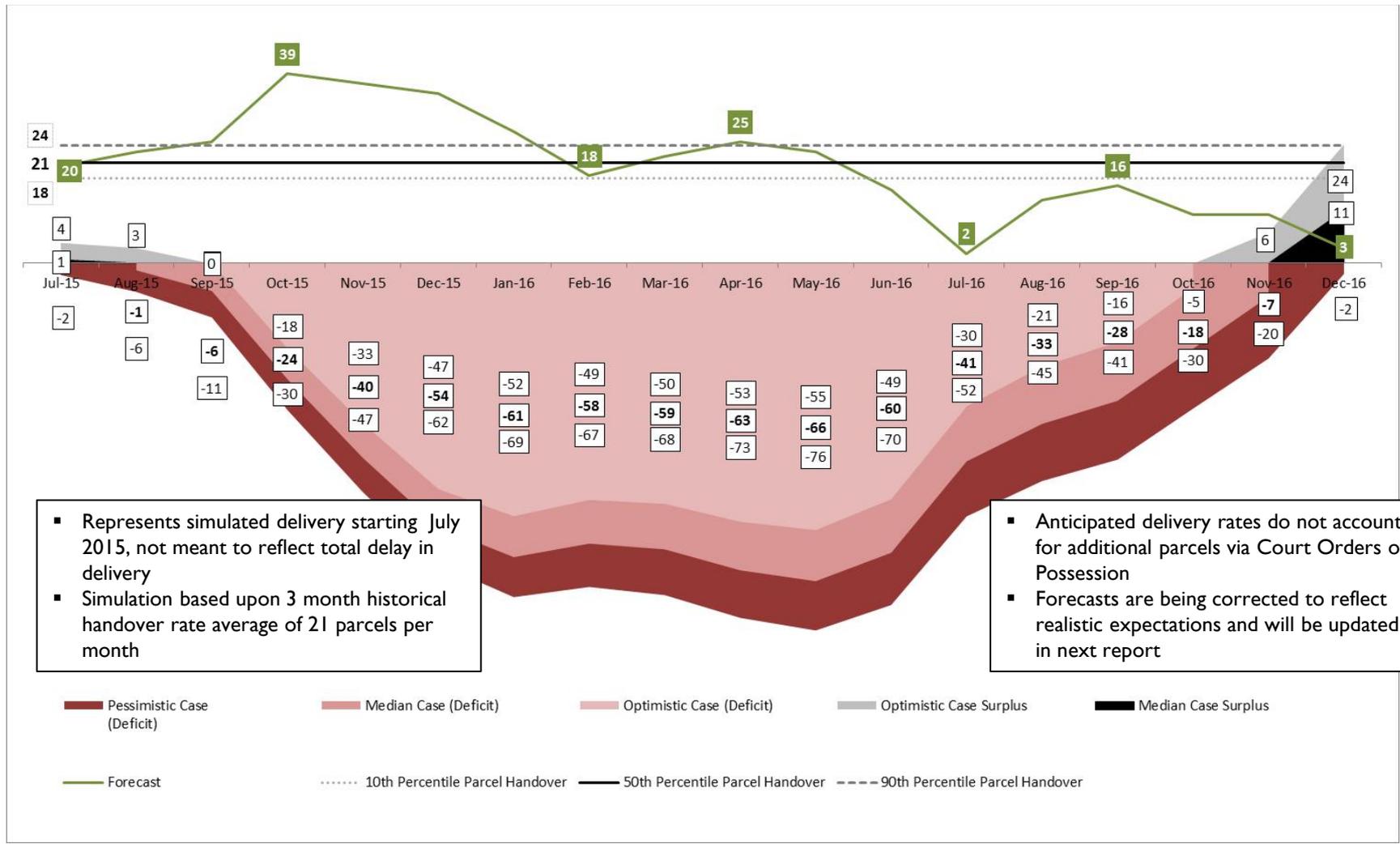




ROW – CPI: Projected surpluses and deficits end of July 2015 to end of December 2016 based upon 3 month's results (March to May 2015)

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

■ Pessimistic Case (Deficit)
 ■ Median Case (Deficit)
 ■ Optimistic Case (Deficit)
 ■ Optimistic Case Surplus
 ■ Median Case Surplus
— Forecast
 10th Percentile Parcel Handover
 — 50th Percentile Parcel Handover
 - - - 90th Percentile Parcel Handover