CVP/SWP COST ALLOCATION
for BDCP Conservation Measure 1

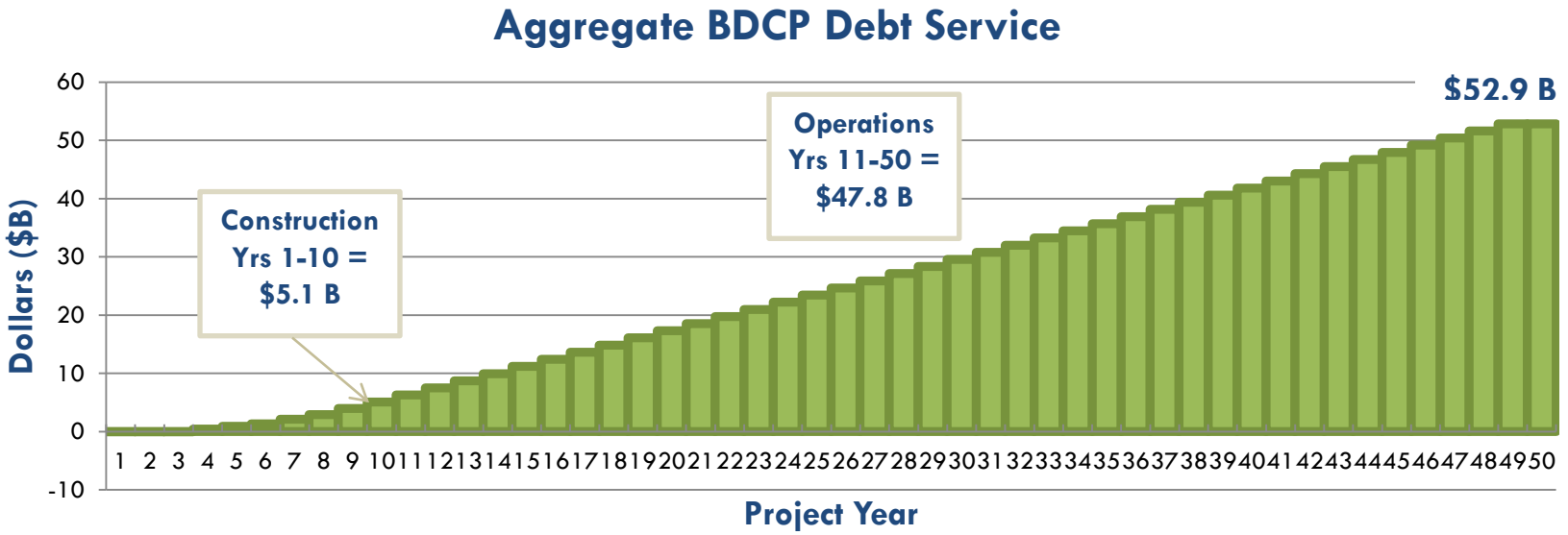
November 22, 2013

Proposal for CVP/SWP Cost Allocation

- "Costs follow the water"
- Construction Period (Years 1-10):
  - Agree upon initial split based on modeled BDCP long-term average deliveries
  - Agree upon limited triggers for adjustment (e.g. COA)
- Operations Period (Years 11-50):
  - First year of operations: true-up (if necessary) based on Decision Tree outcome and updated modeling of long-term average deliveries
  - Thereafter, 10-year true-ups based on actual long-term average CVP/SWP deliveries (Years 21, 31, 41, 51)

BDCP Costs and Debt Service

- CM1 construction, O&M and footprint mitigation
  - Total contractor costs = $16.9 B *(2012 dollars, BDCP Table 8-41)*
- Debt service payments = $52.9 B
  - Years 1-10, Construction: $ 5.1 B (Interest amortized Yrs 1-3)
  - Years 11-50, Operations: $ 47.8 B



BDCP Projected Water Supply

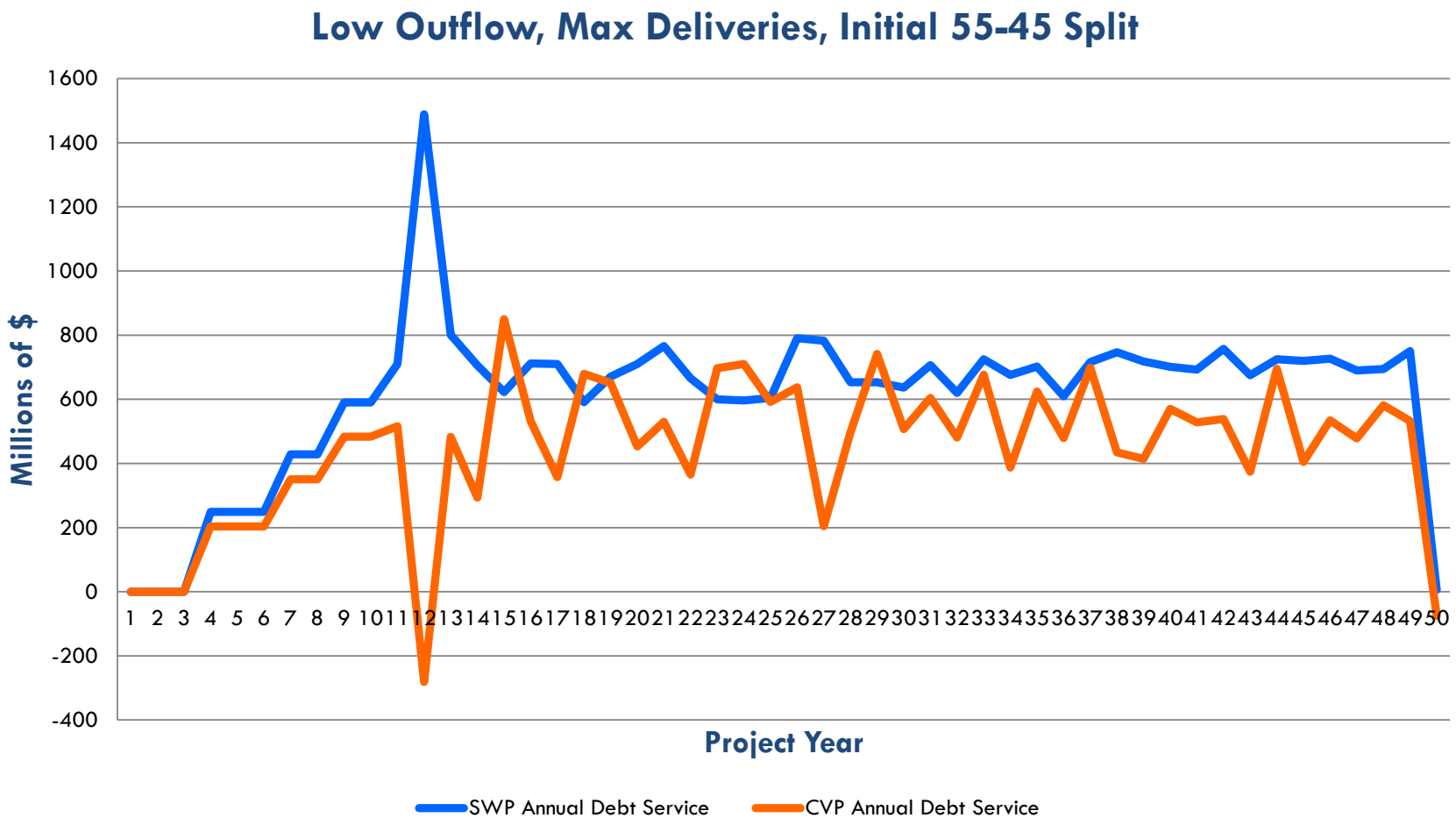
- Decision Tree Outflow Scenarios: High (HOS); Low (LOS)
- Long-Term Average Deliveries (82 years of hydrology)
  - But "costs follow the water" during 40-year operations period
- Look at 40-year Delivery Sequences: Highest and Lowest

	BDCP Low Outflow Scenario	BDCP High Outflow Scenario
Long-Term Average Deliveries	**5.6 MAF**	**4.7 MAF**
40-Year Highest Delivery Sequence (1936-1975 hydrology)	**6.2 MAF**	**5.1 MAF**
40-Year Lowest Delivery Sequence (1983-2003+1922-1940 hydrology)	**5.1 MAF**	**4.5 MAF**

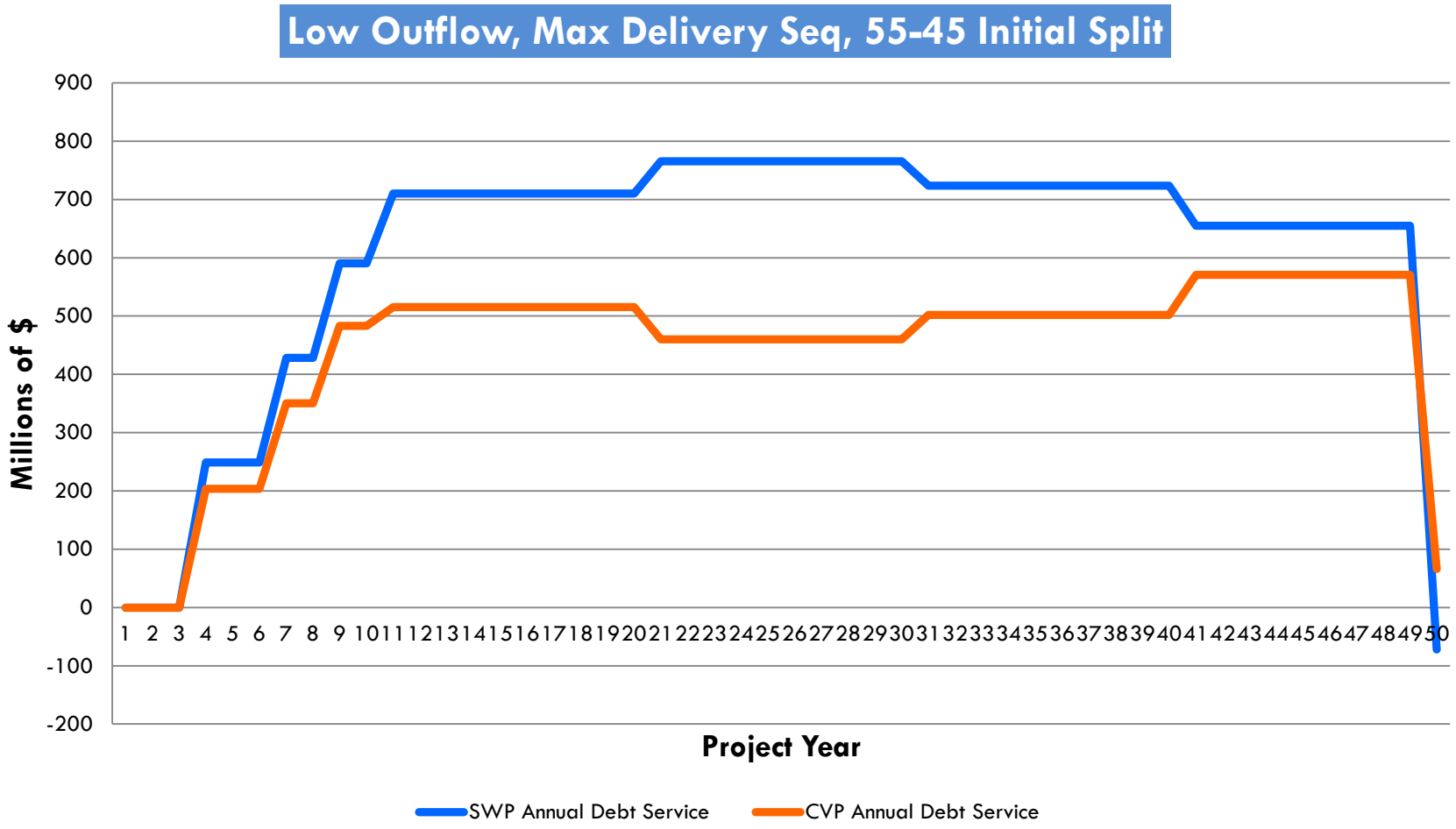
Results of "Costs follow the water"

Scenarios			SWP			CVP		
	Delta Outflow	40-Yr Delivery Sequence	Avg. Annual Supply (MAF)	% Supply and Debt	Debt Service ($B)	Avg. Annual Supply (MAF)	% Supply and Debt	Debt Service ($B)
1	Low	Maximum	3.59	57.9	30.6	2.61	42.1	22.3
2	Low	Minimum	2.88	56.8	30.0	2.19	43.2	22.8
3	High	Maximum	2.69	53.0	28.0	2.38	47.0	24.8
4	High	Minimum	2.37	53.2	28.1	2.09	46.8	24.8
Average			2.88	55.2	29.2	2.32	44.8	23.7

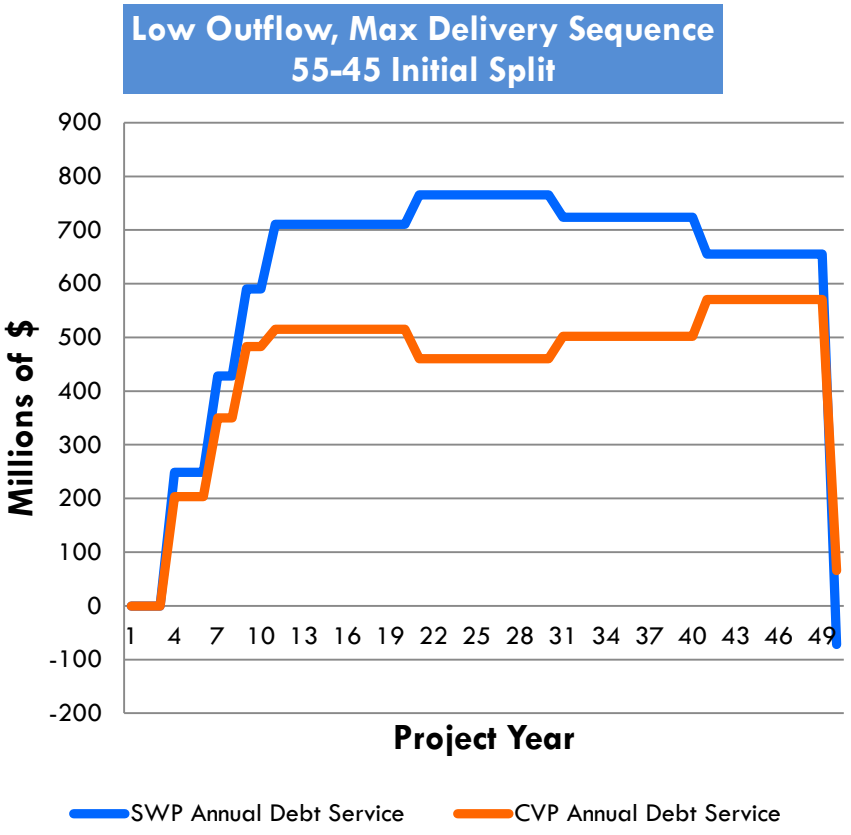
Annual Debt Service, Annual True-Up

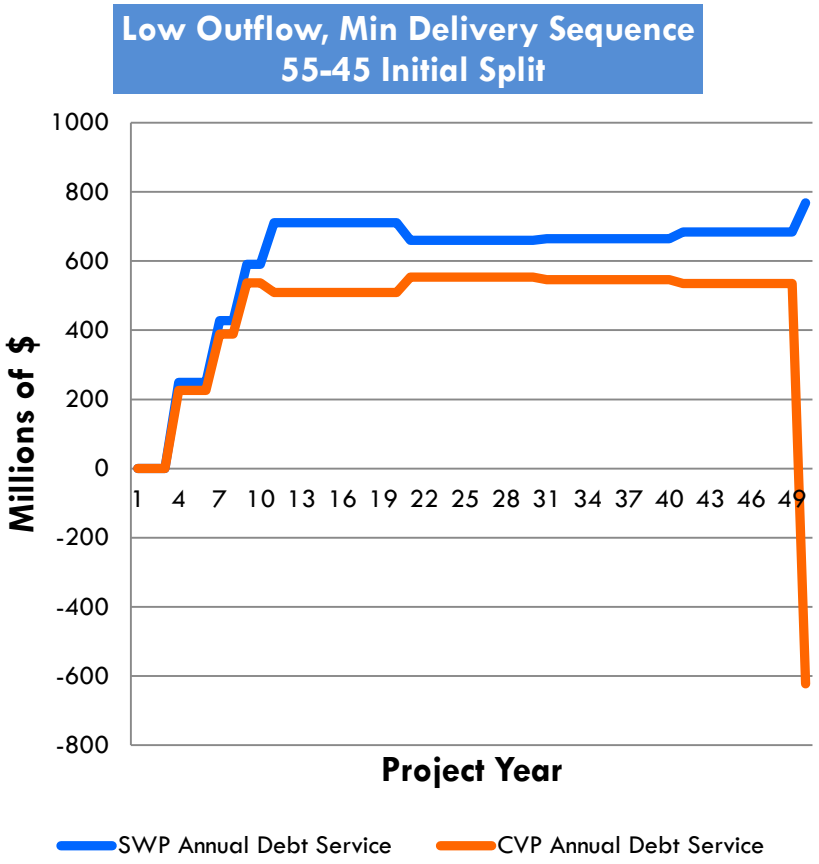


Annual Debt Service, 10-Year True-Ups

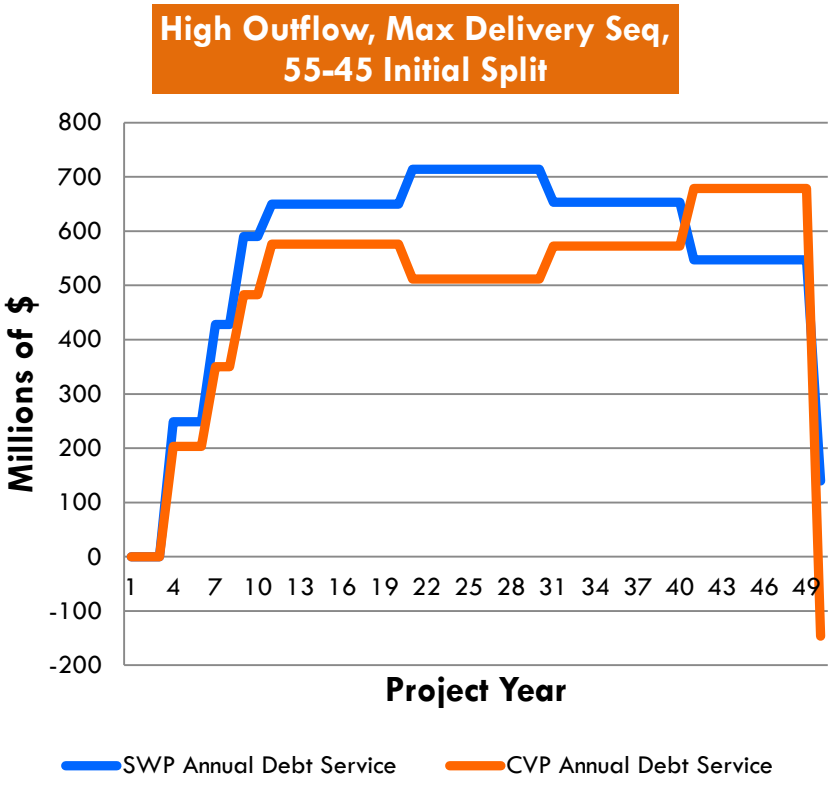


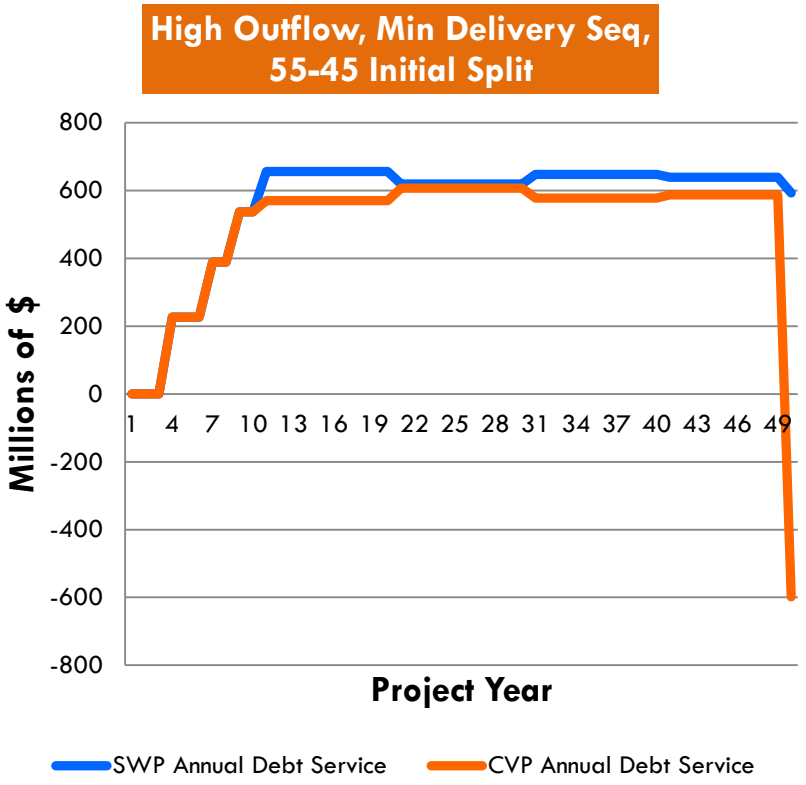
Annual Debt Service, 10-Year True-Ups Low Outflow Cases



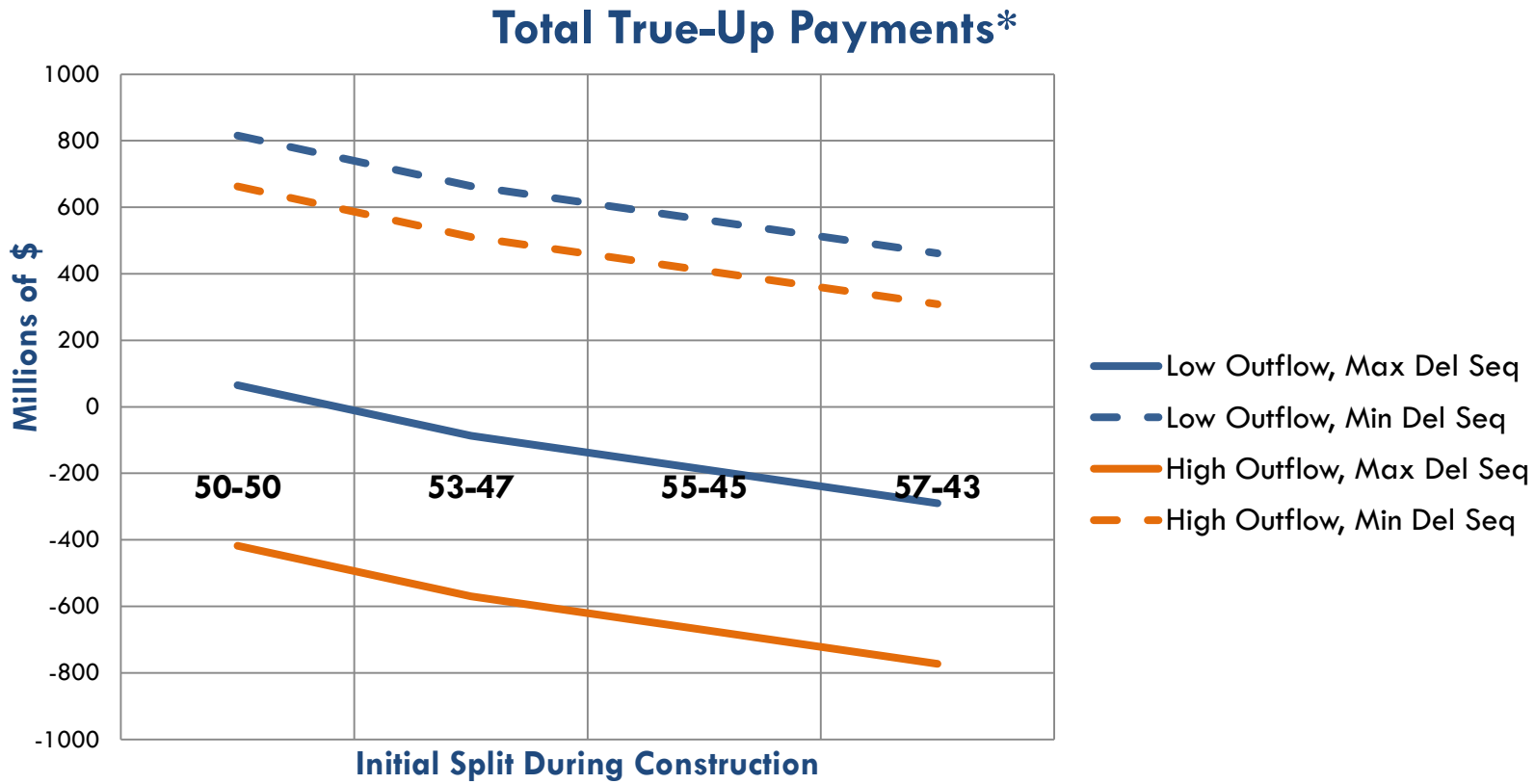


Annual Debt Service, 10-Year True-Ups High Outflow Cases



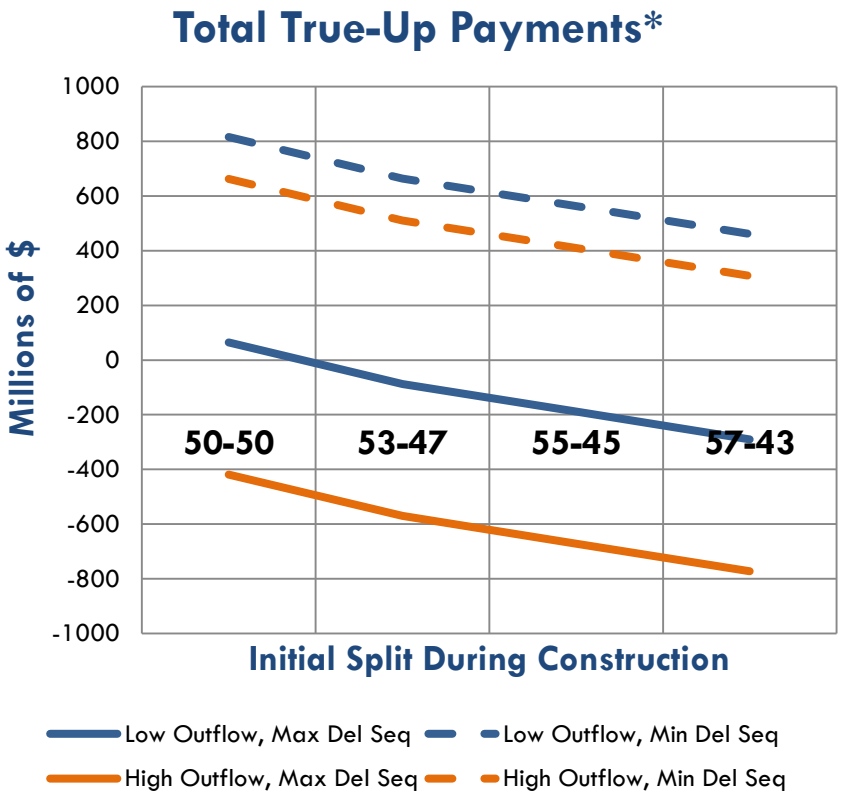


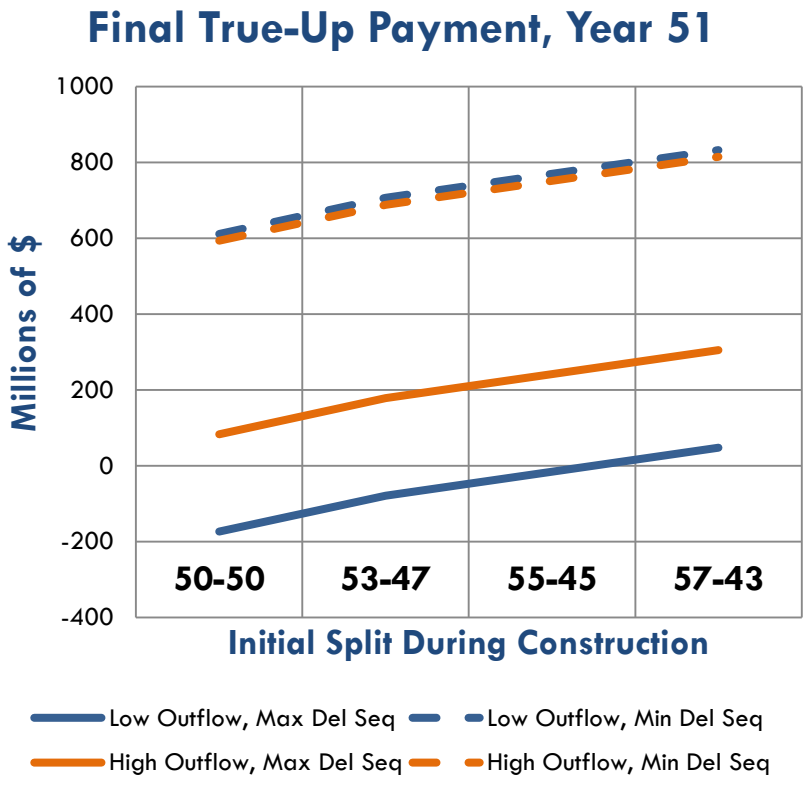
Effect of Initial Split on True-Ups



***A positive value means net true-ups from SWP to CVP.**
A negative value means net true-ups from CVP to SWP.

Effect of Initial Split on True-Ups





*A negative value means net true-ups from CVP to SWP.
A positive value means net true-ups from SWP to CVP.

Summary

- Volatility of "costs follow the water" can be smoothed out with periodic true-ups
- In 10-year true-up model, as initial split moves from 50-50 to 57-43:
  - ✓Total true-ups decrease
  - ✓Final true-up (Yr 51) increases
  - ✓Average true-ups over all outflow and delivery sequence scenarios are minimized at 55-45

Initial Split	50-50	53-47	55-45	57-43
Average true-up over all scenarios*	281	129	28	-73

*A positive value means net true-ups from SWP to CVP.
A negative value means net true-ups from CVP to SWP.

Policy Issues

1. "Costs follow the water" or alternative approach?
2. Initial CVP/SWP debt service split?
   - Minimize average adjustments?
   - Other criteria?
3. Construction period: Triggers for adjustments?
4. Operations: Time period for true-ups?
5. Other issues?