

COA Modeling Results

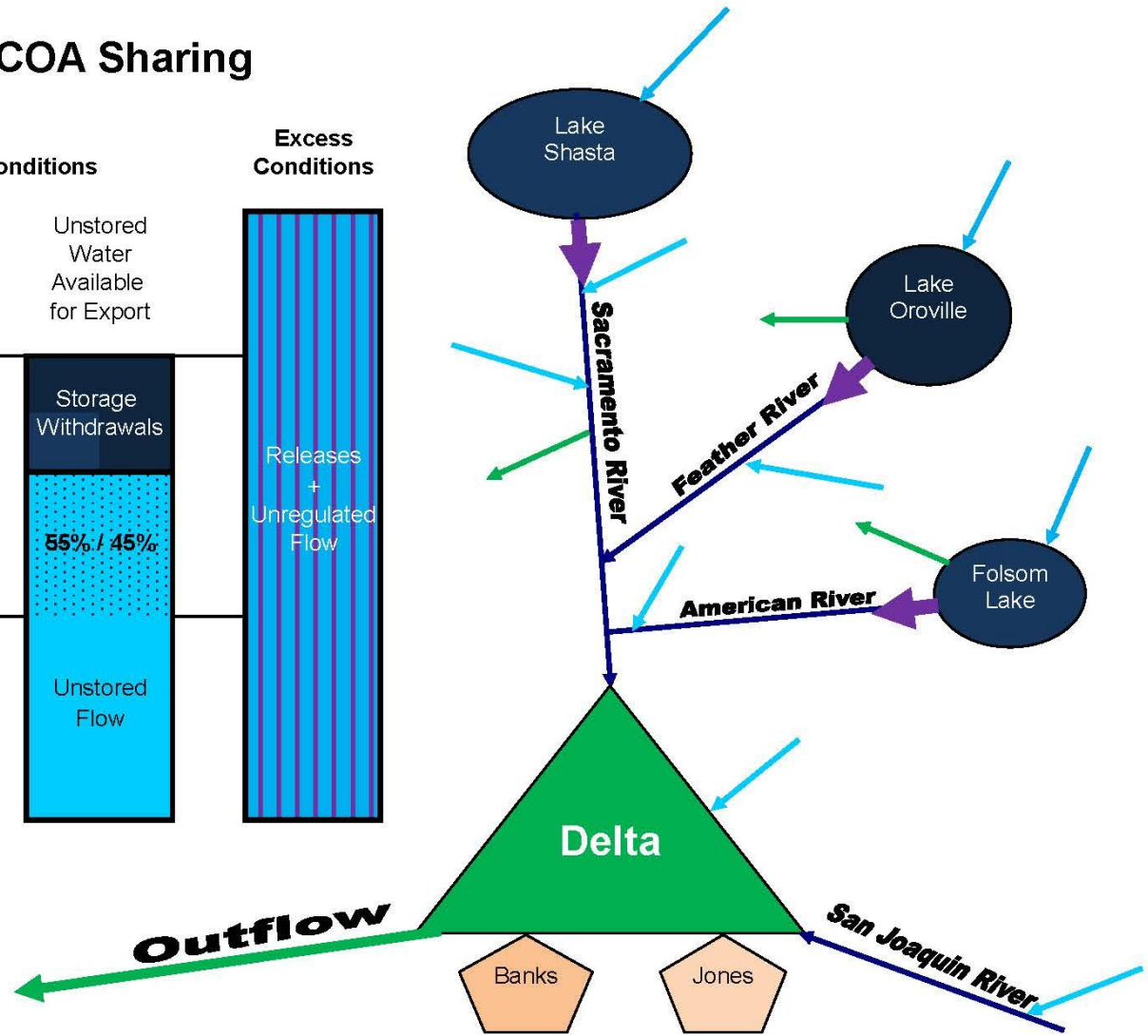
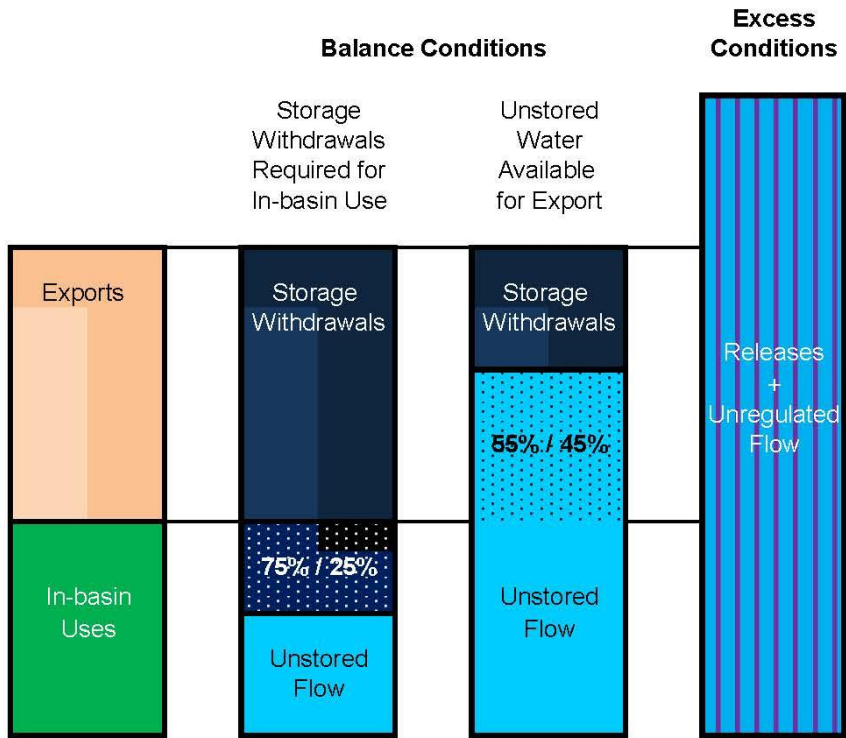
October 1, 2013

- Quick Review of COA Splits
- Operations Not Covered by COA
- Modeling Results

COA Splits Reviewed

- COA Percentages are:
 - Storage Withdrawals for In Basin Use: 75% CVP/
25% SWP
 - Export of Unstored Flows: 55% CVP/45% SWP

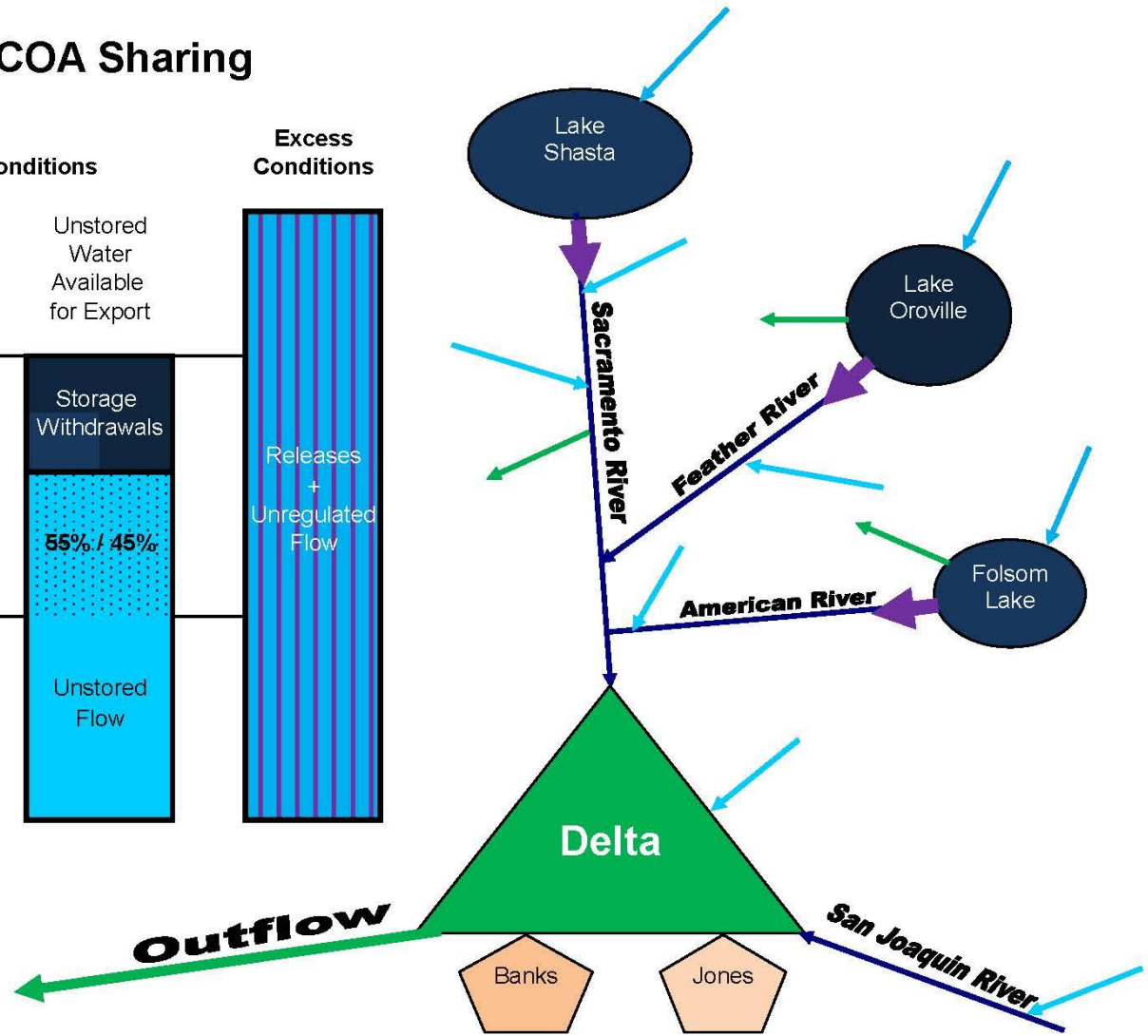
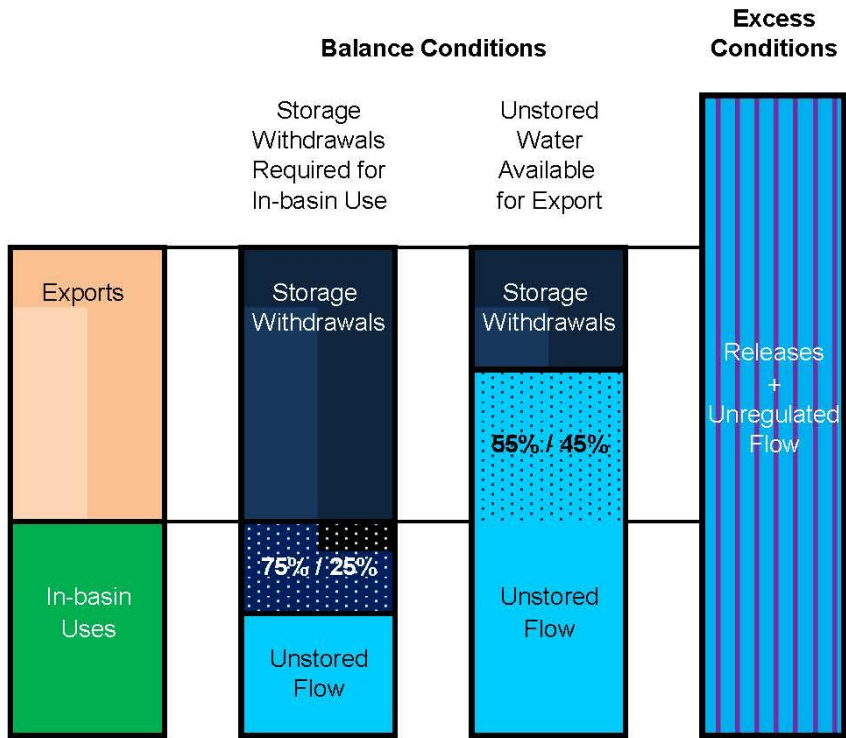
CVP/SWP COA Sharing



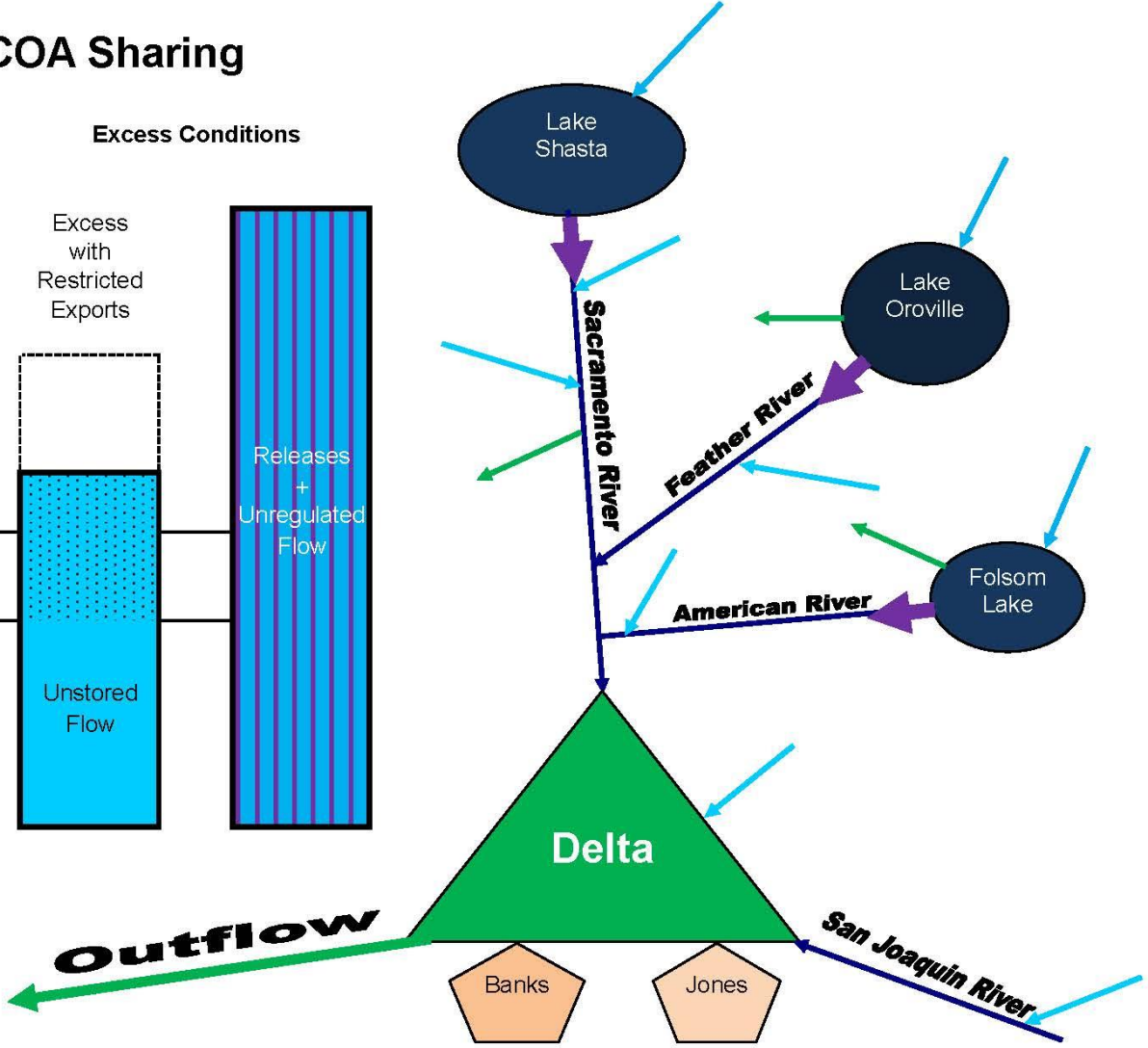
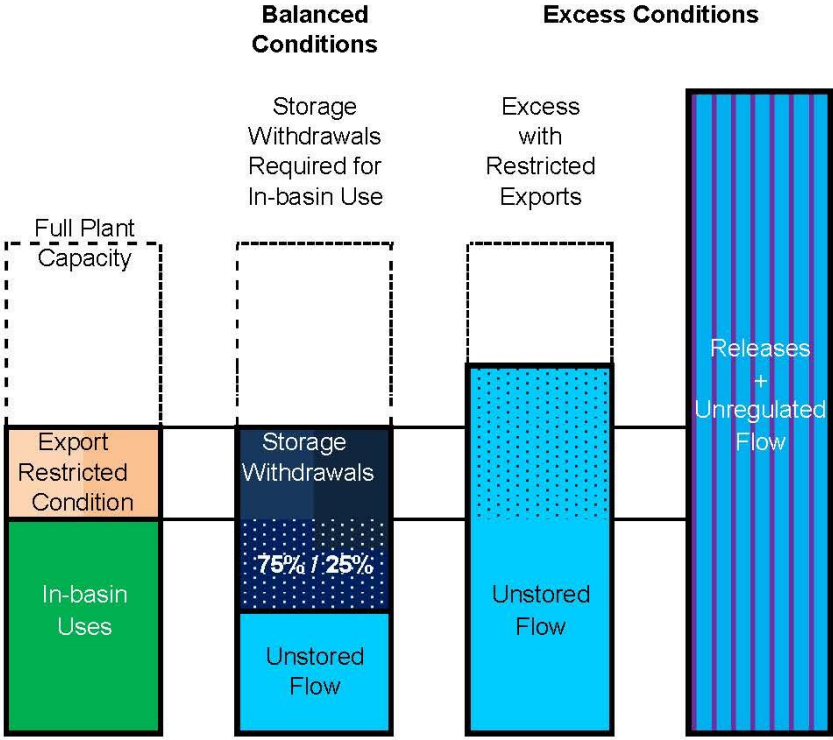
South Delta Export Constraints

- D1641
 - Sprint SJ pulse flow export constraint (1:1)
 - Export as % of Delta Inflow (35%/65%)
- BiOps
 - OMR (both USFWS and NMFS)
 - April-May I/E (NMFS)
- 50%/50% sharing of exports
 - Actual operations
 - Modeled under BDCP
- Frequency of South Delta constraints
 - increased with BiOps
 - projected to decrease with BDCP

CVP/SWP COA Sharing



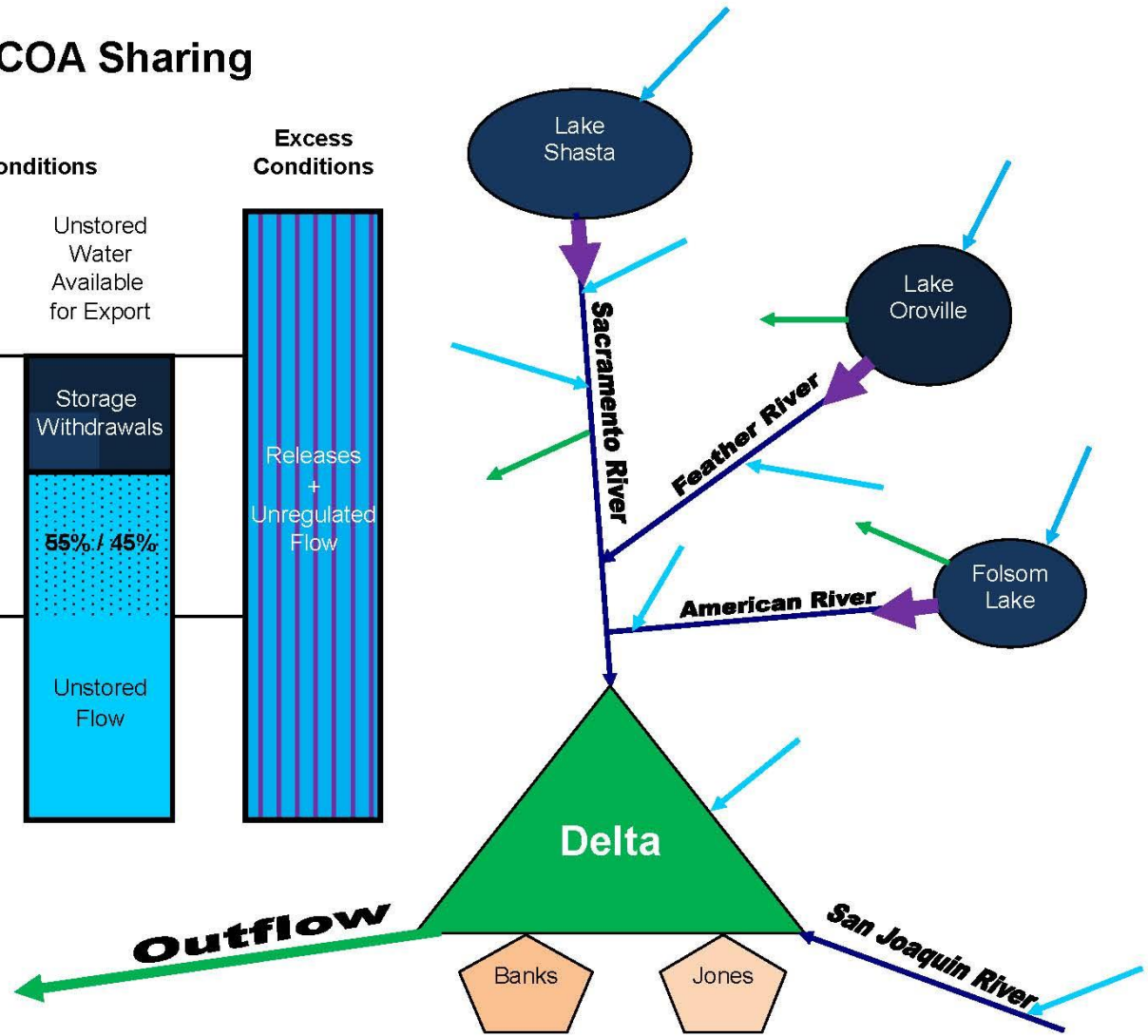
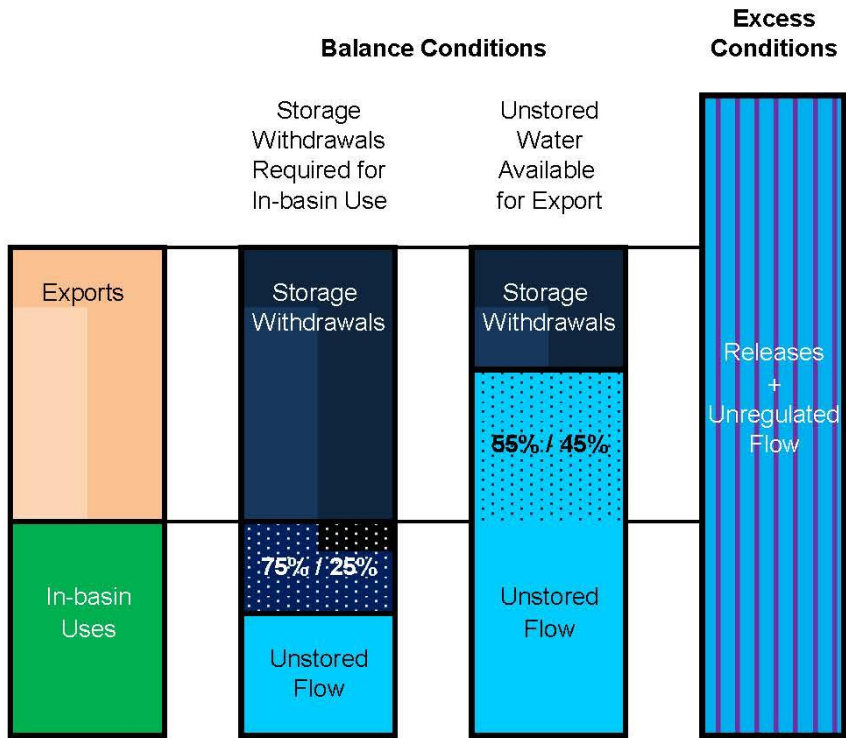
CVP/SWP COA Sharing



High Spring Outflow Operations

- Decision Tree Criteria under Alt.4 H4 (HOS)
- Higher release contribution from SWP than COA sharing formulas indicate for outflow criteria.
- Modeled as follows:
 - Reduction in CVP and SWP exports to minimum
 - Additional flow from Oroville above COA requirement
 - No payback of any CVP COA debt
 - No assumption of purchased flows

CVP/SWP COA Sharing

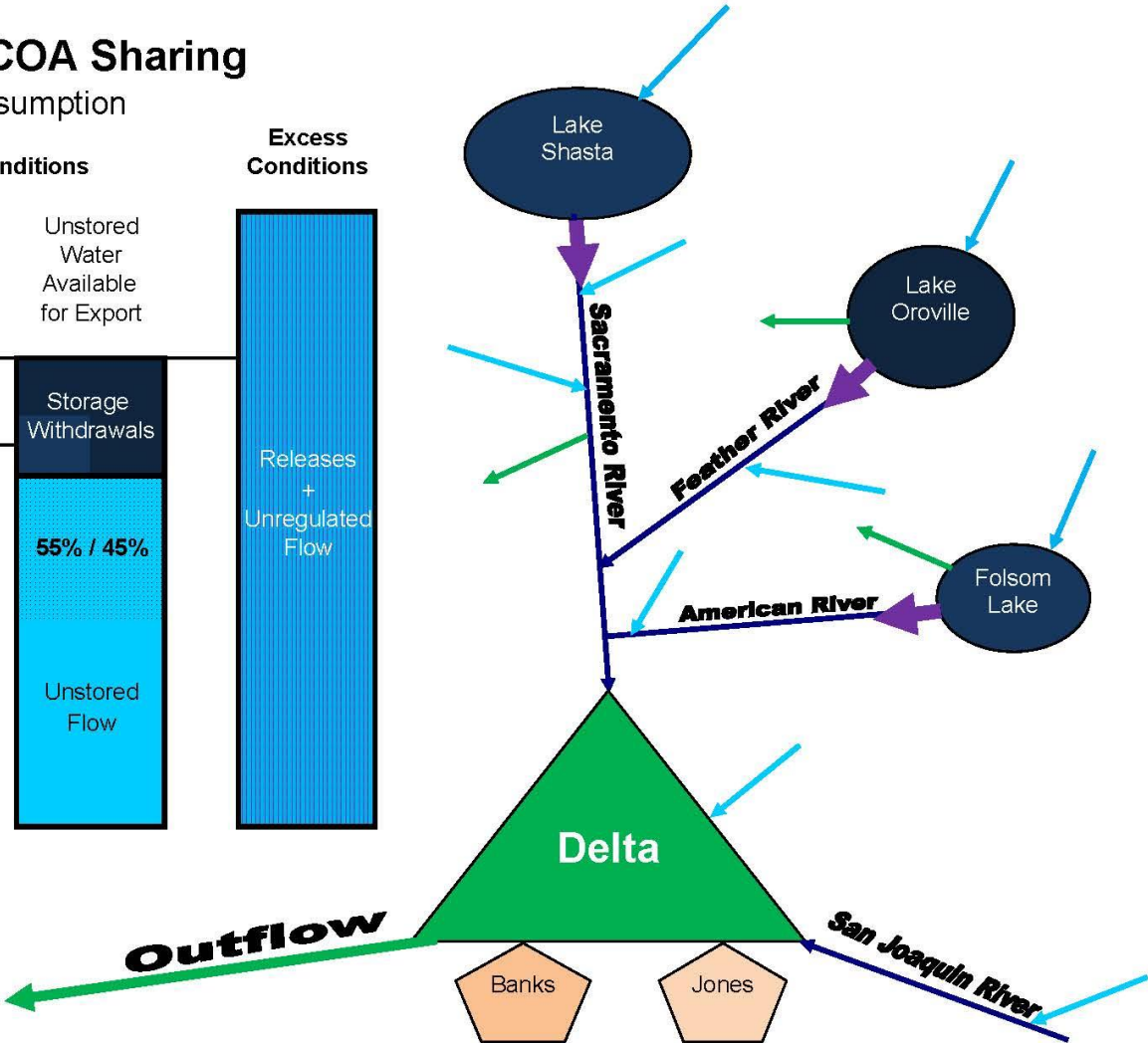
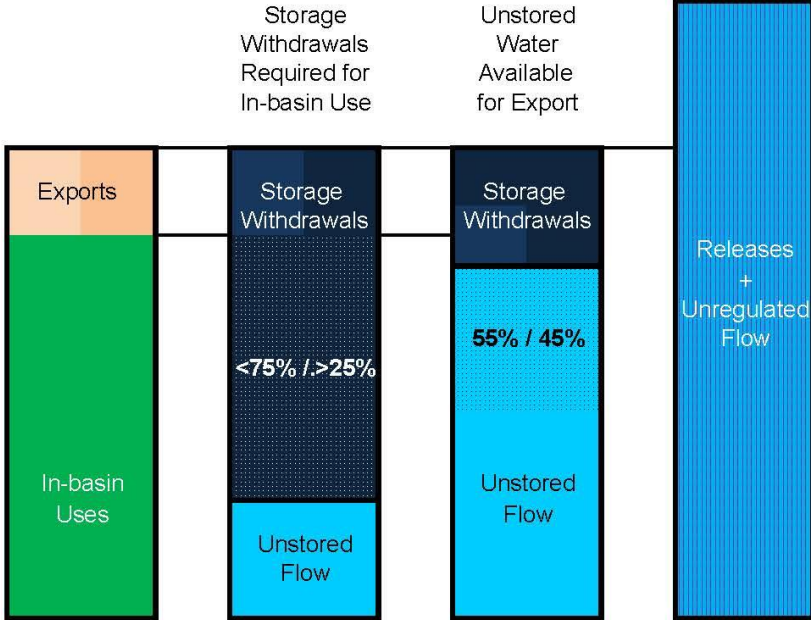


CVP/SWP COA Sharing

HOS Assumption

Balance Conditions

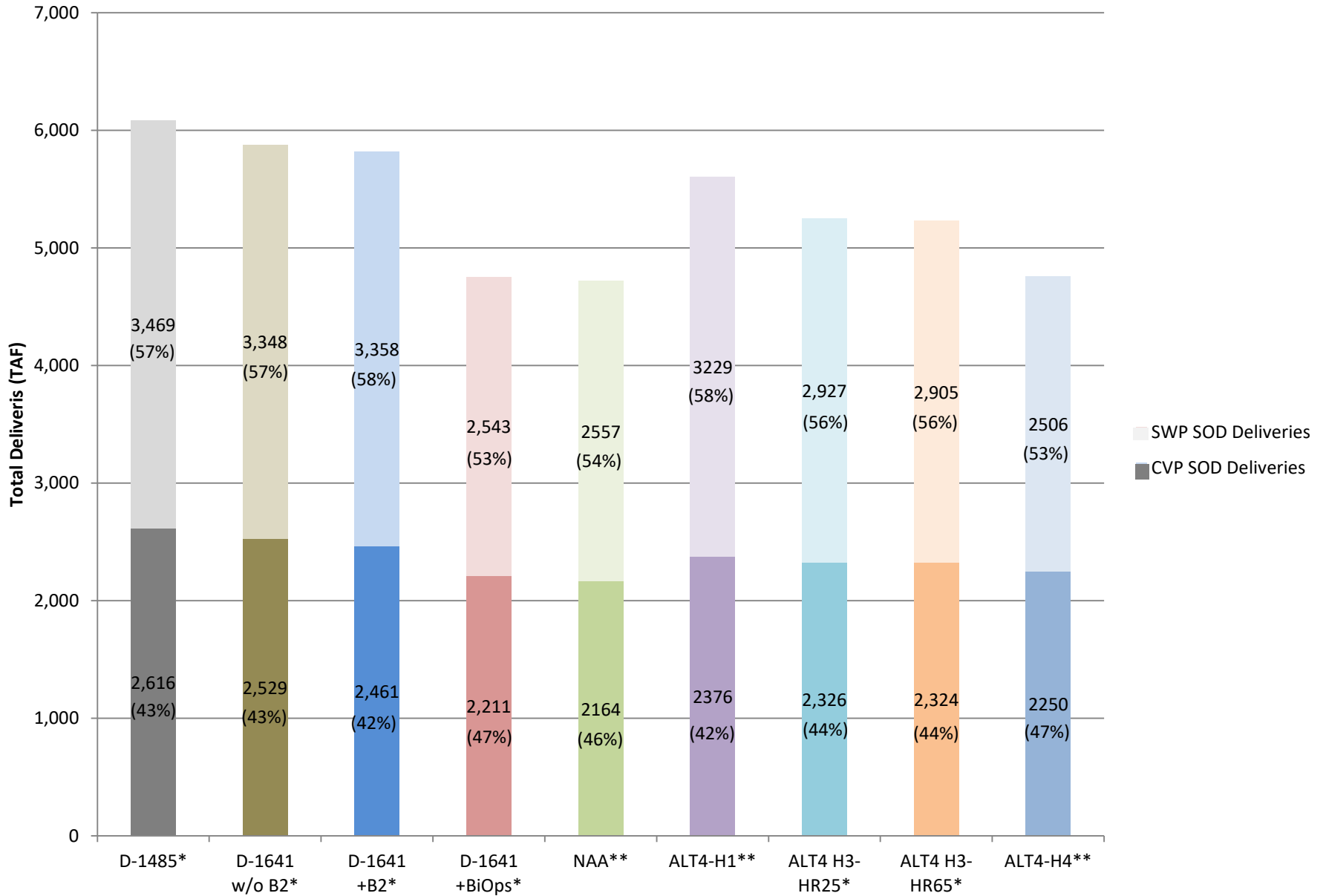
Excess Conditions



Modeling Results

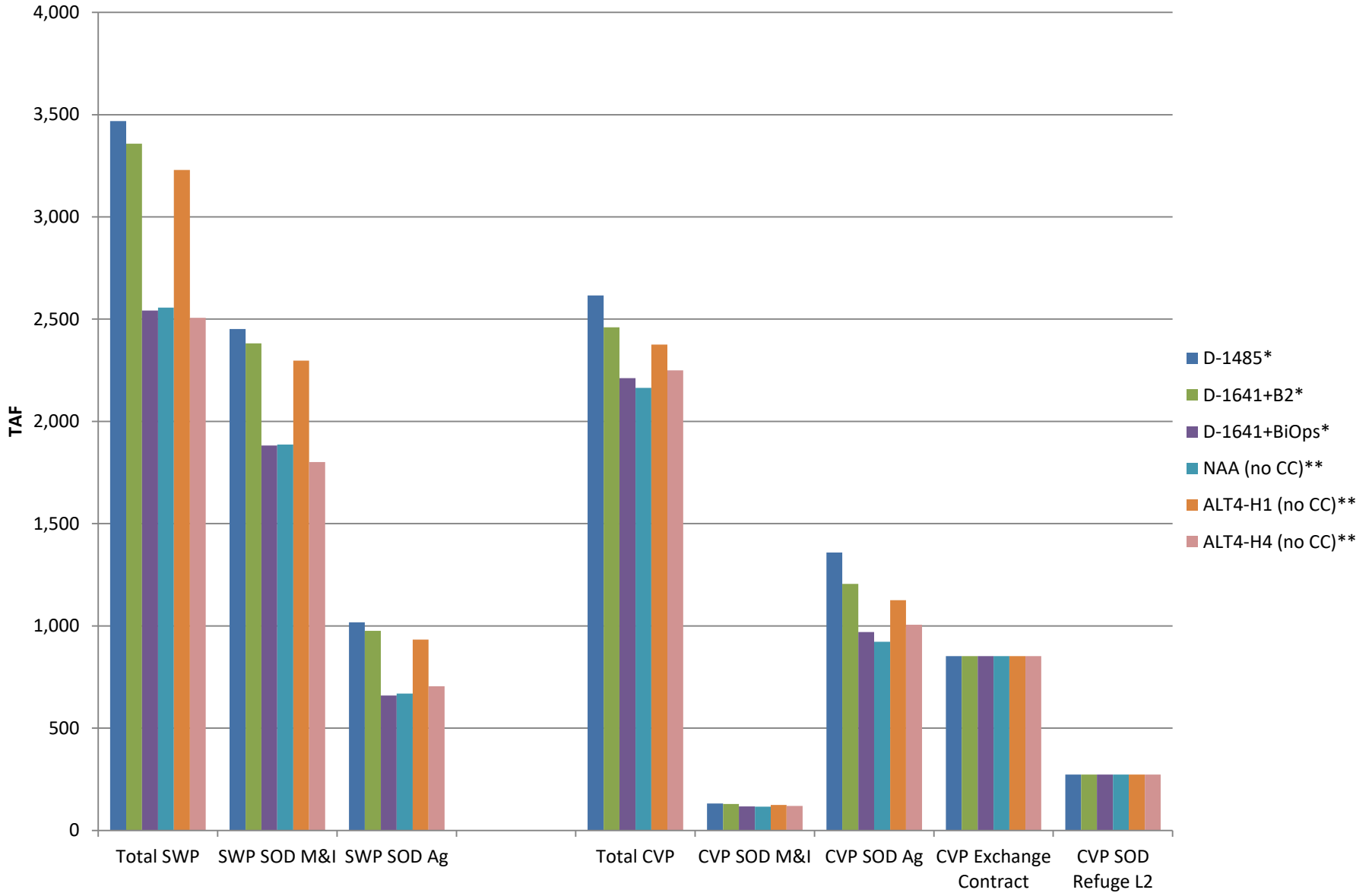
- * DWR BDO – Updated version of CALSIM (D-1485, D-1641, BiOp, Alt4-C3)
- ** CH2MHILL (NAA, Alt4-C1 (LOS), Alt4-C4(HOS))

Total CVP/SWP Annual Average Deliveries (1922-2003)

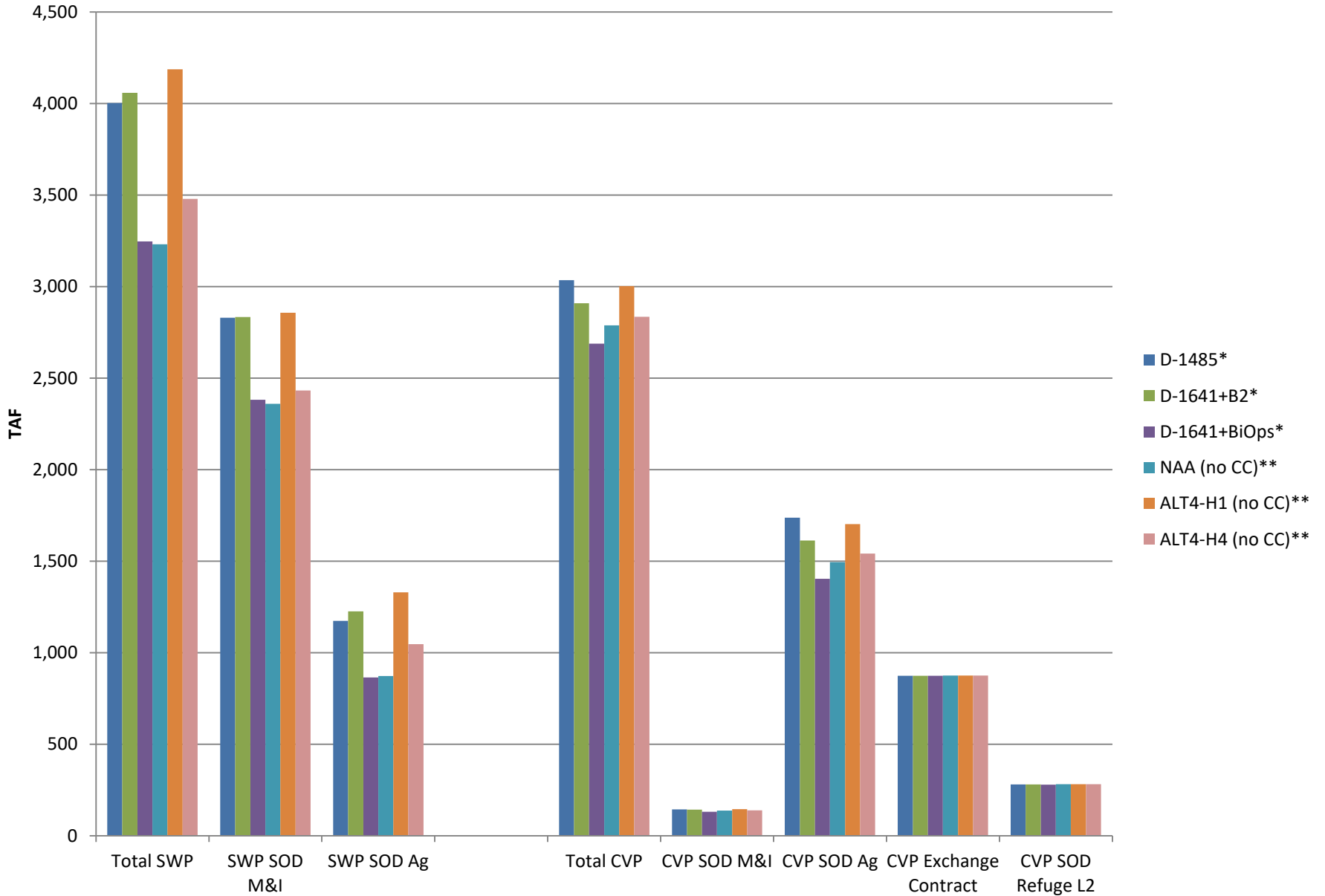


D-1485 through Alt4-HOS
breakdown by
User Classification and Year Type

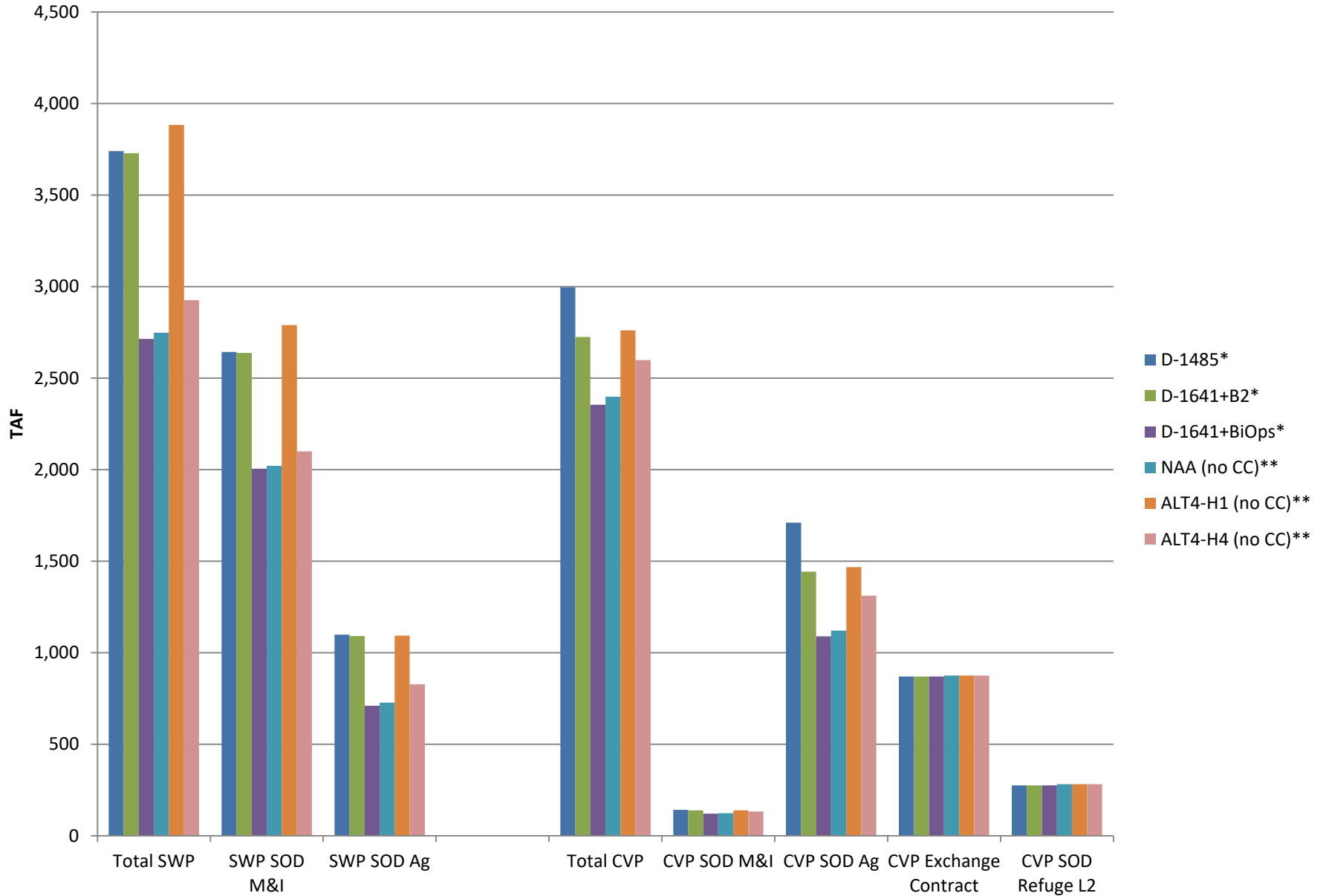
Long-Term Average Deliveries



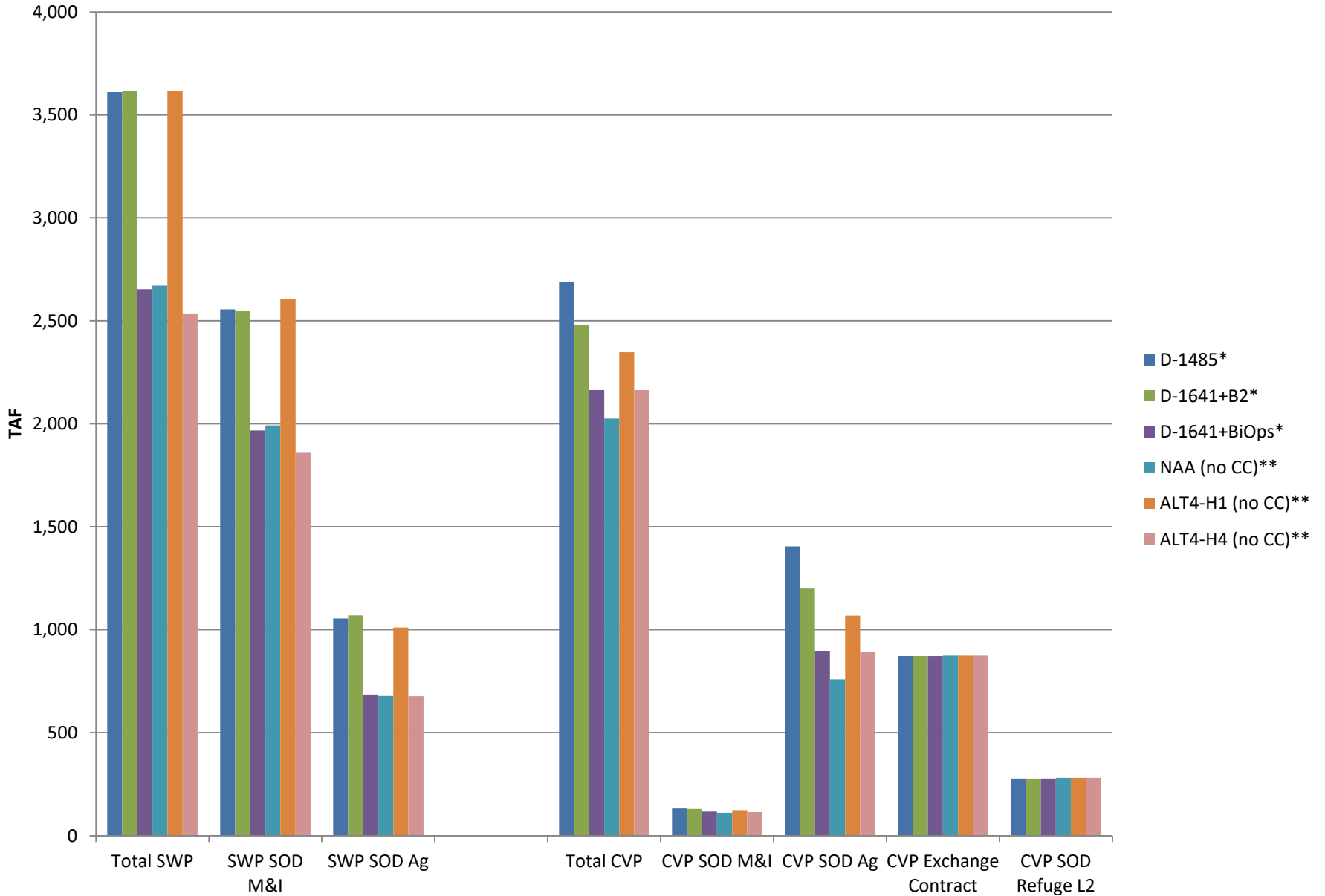
Wet Year Deliveries



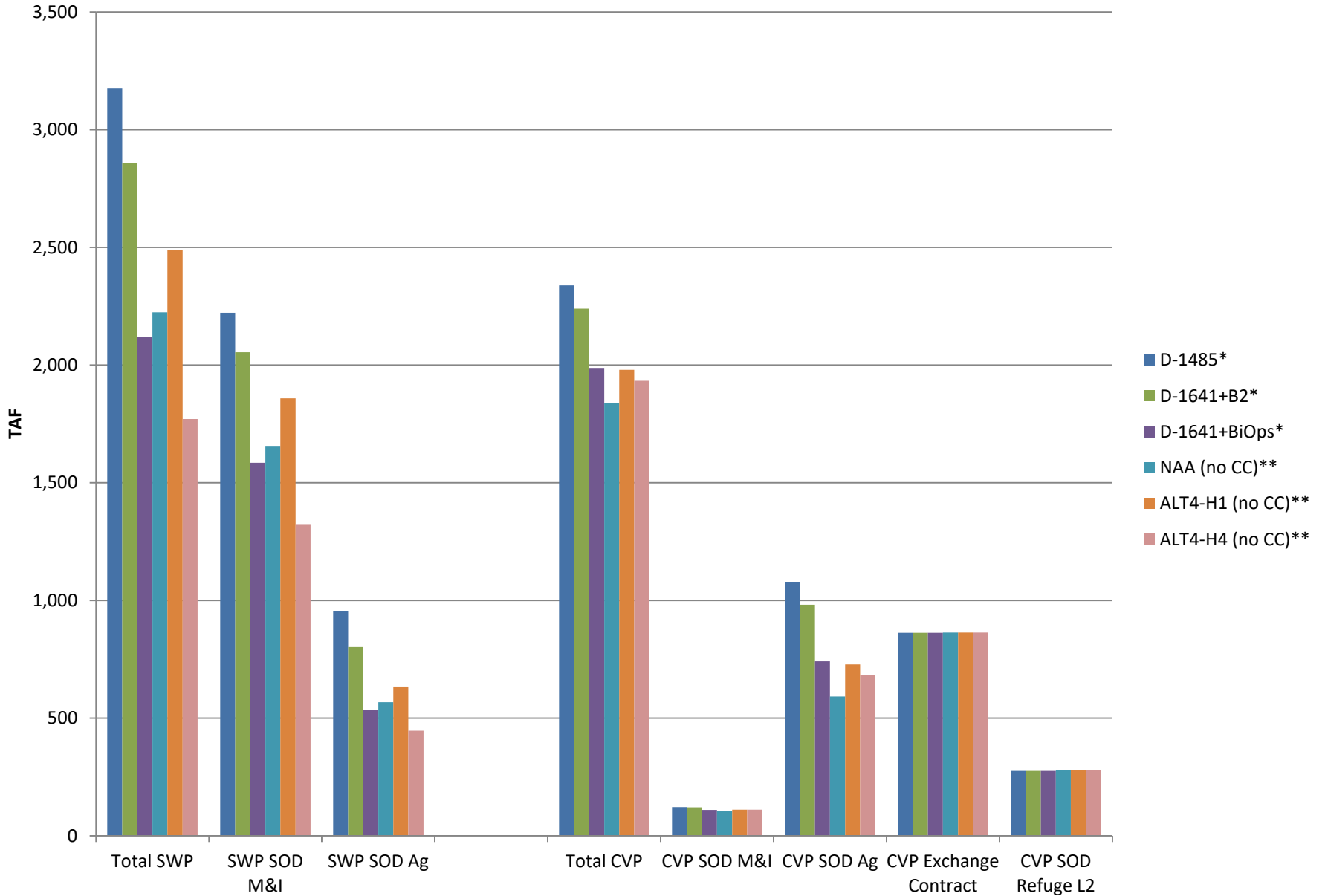
Above Normal Year Deliveries



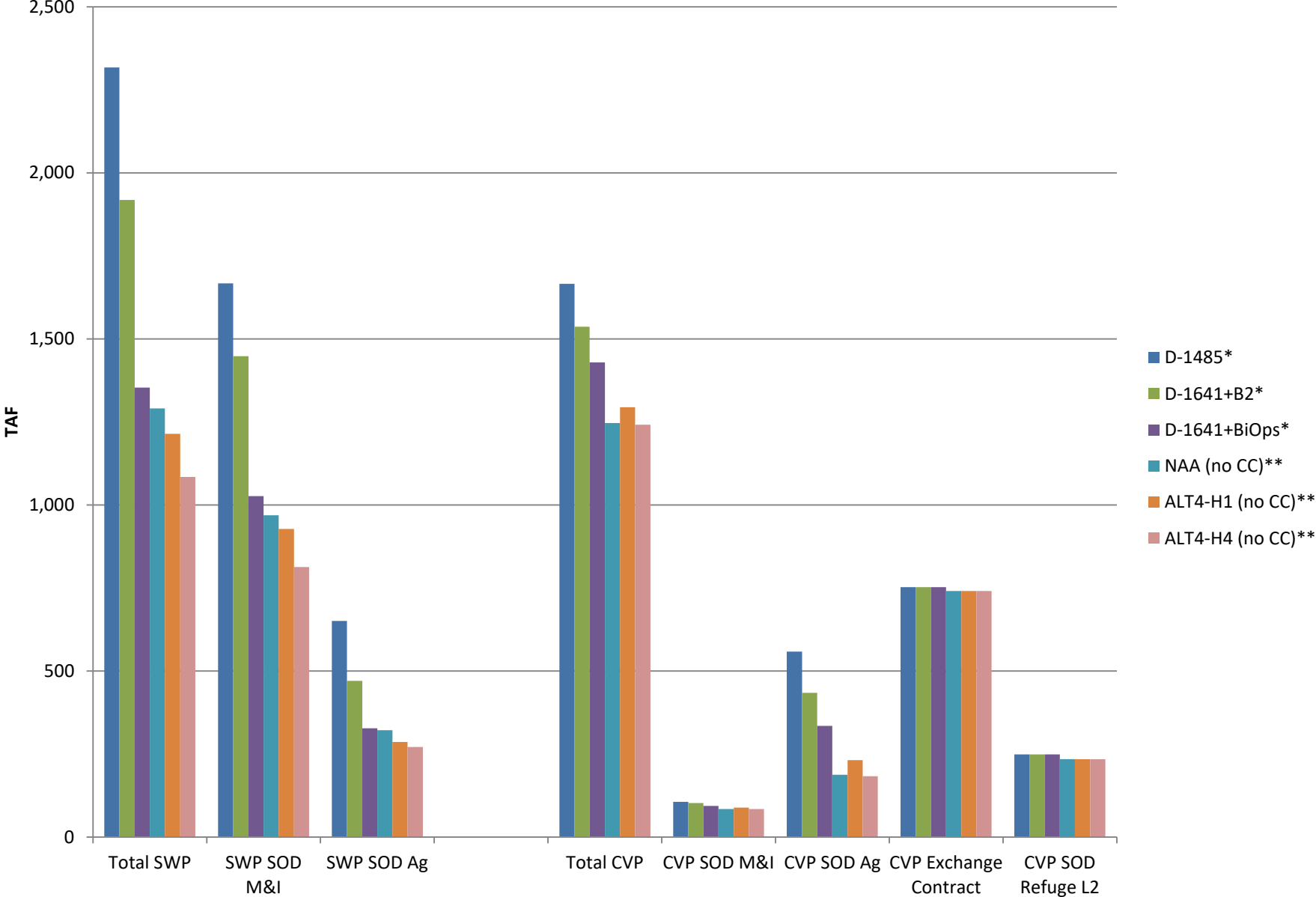
Below Normal Year Deliveries



Dry Year Deliveries

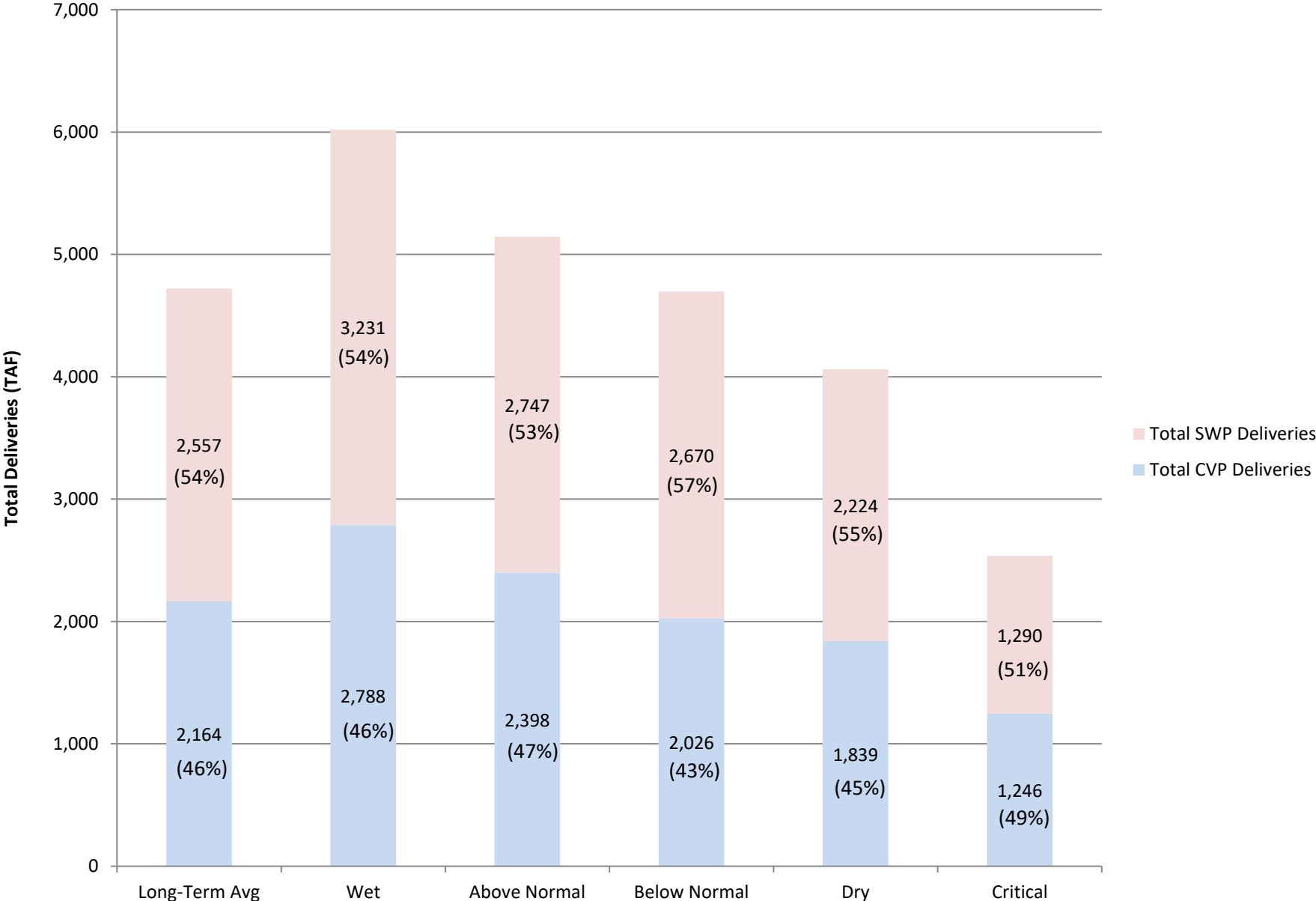


Critical Year Deliveries

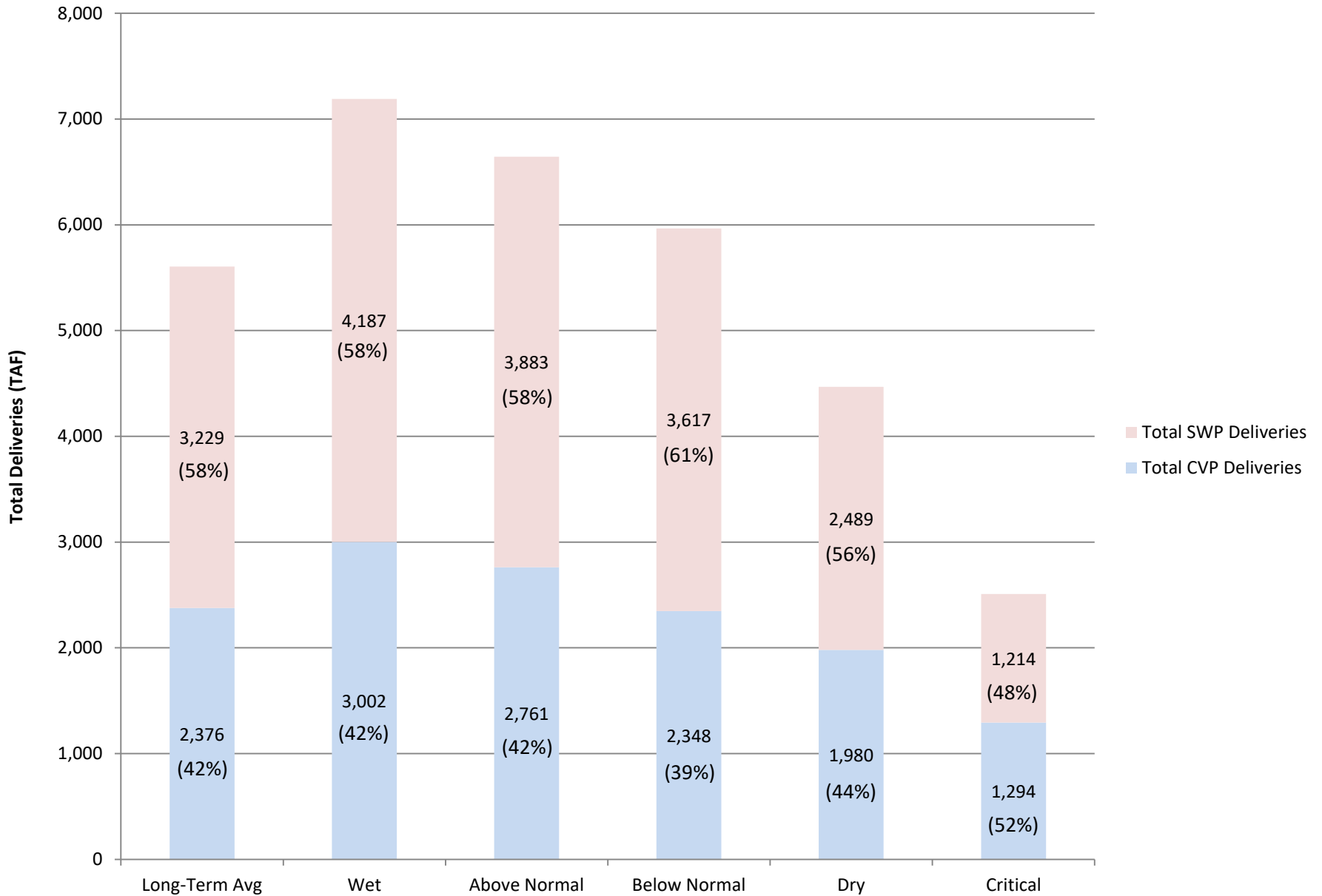


NAA, LOS, & HOS
Delivery Splits
by Year Type

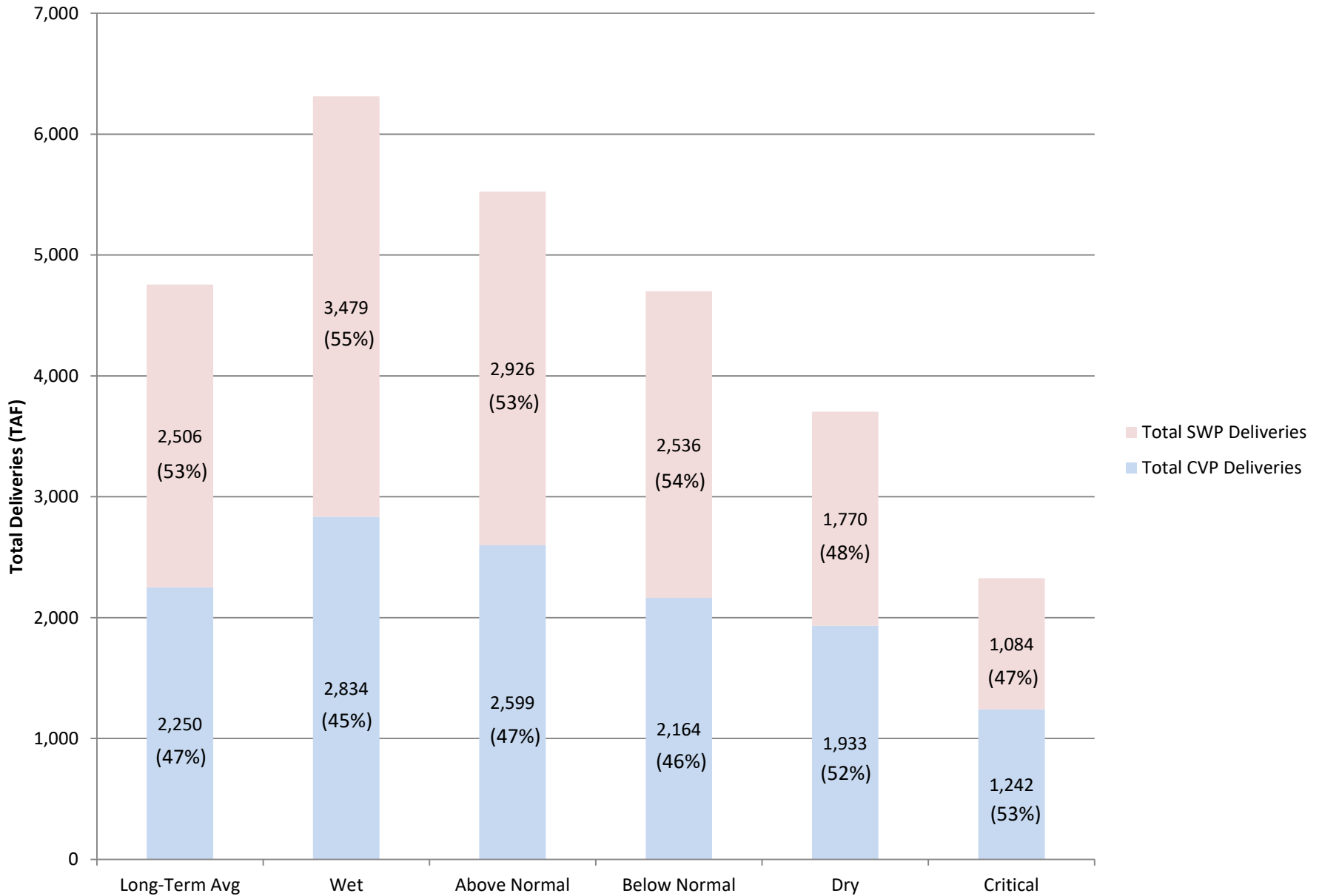
NAA Delivery Split



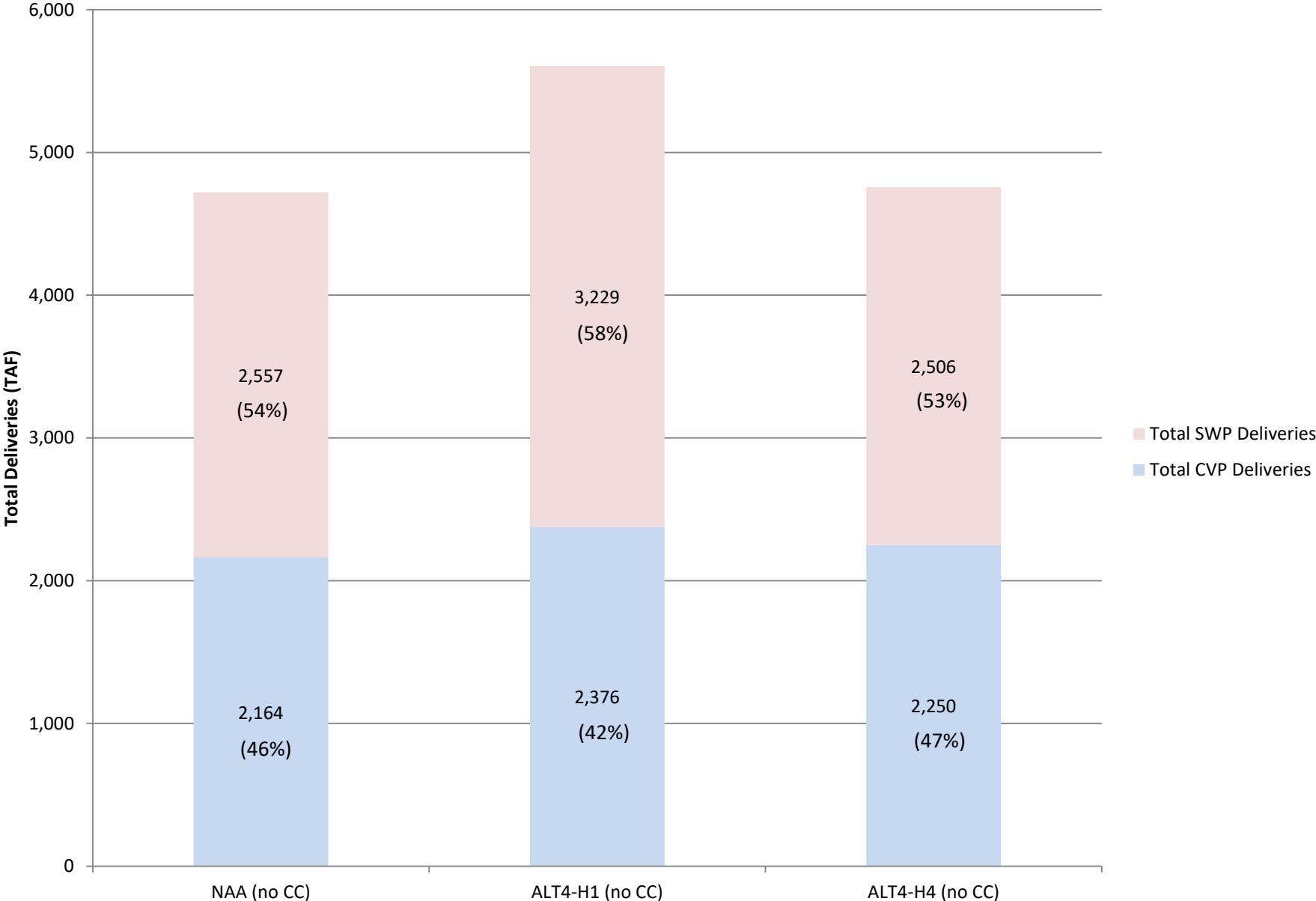
LOS Delivery Split



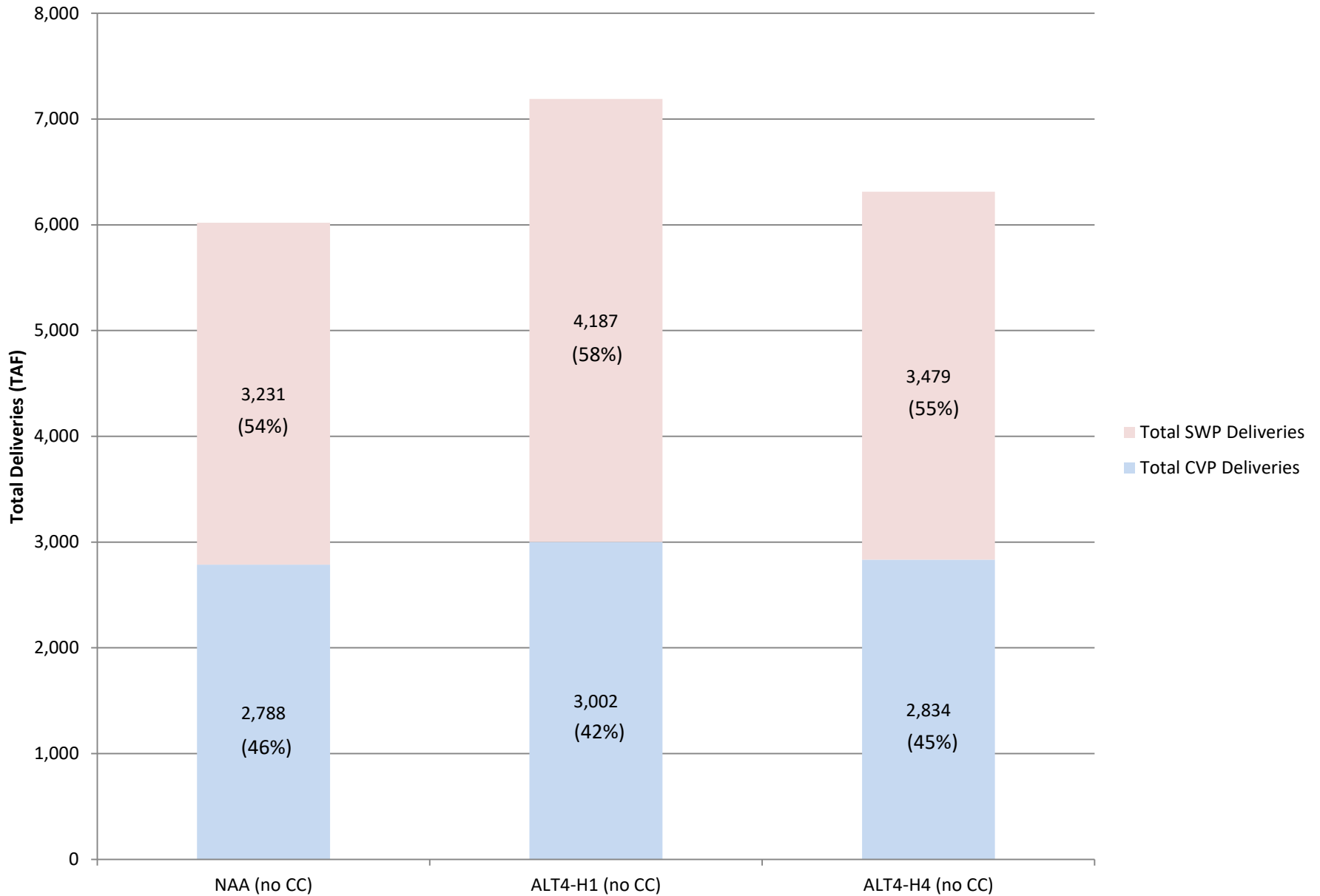
HOS Delivery Split



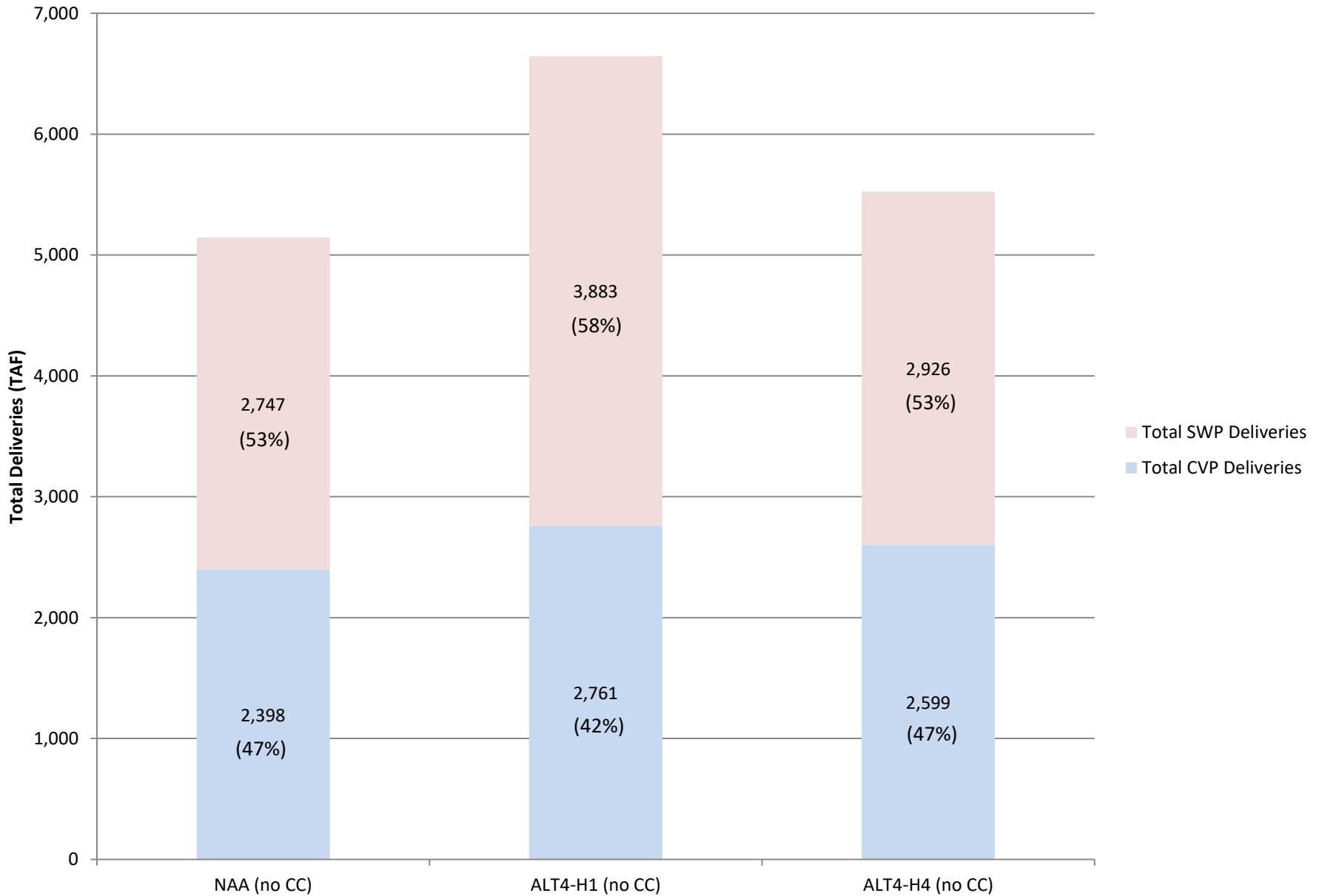
Long-Term Average Delivery Split



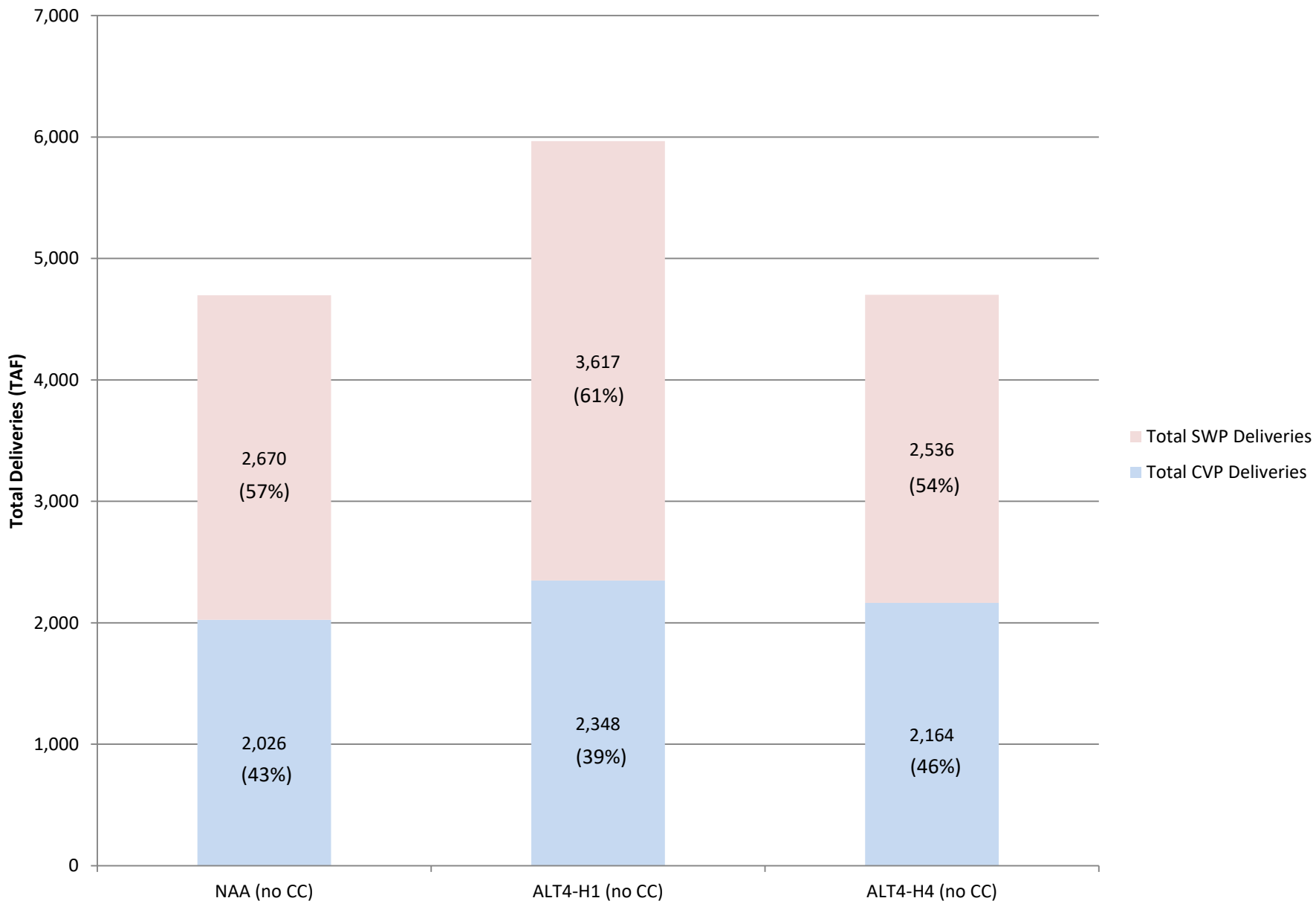
Wet Year Delivery Split



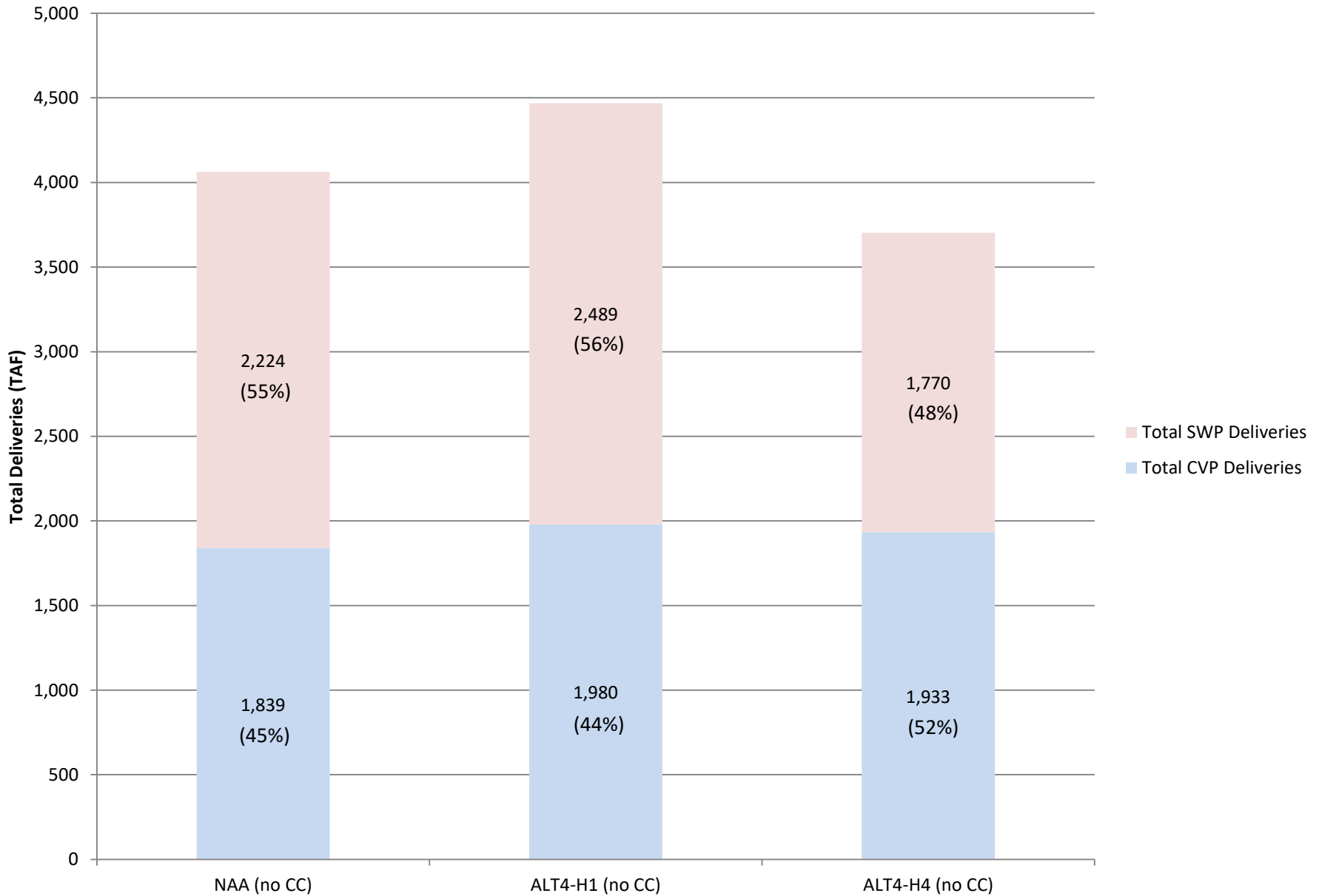
Above Normal Year Delivery Split



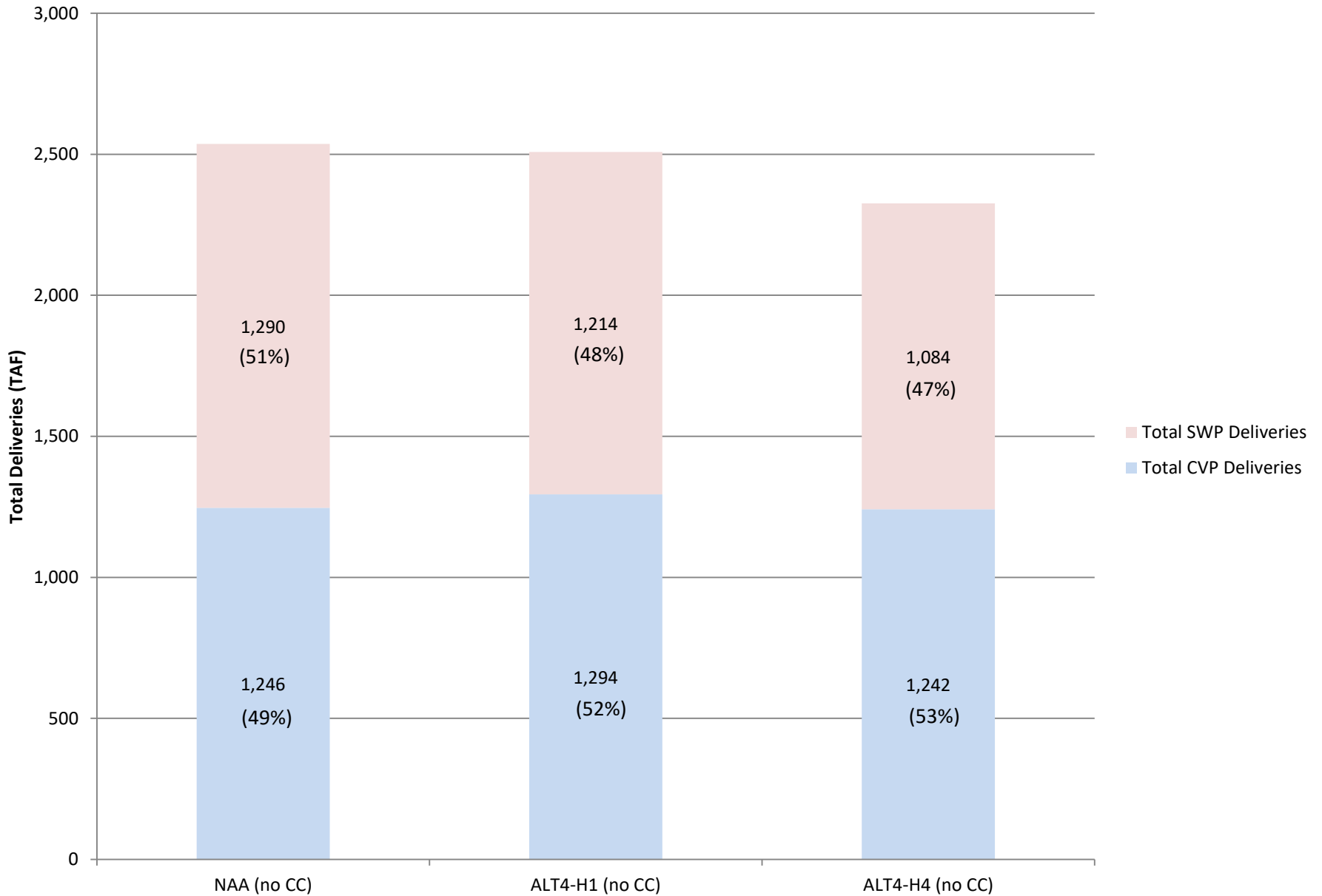
Below Normal Year Delivery Split



Dry Year Delivery Split

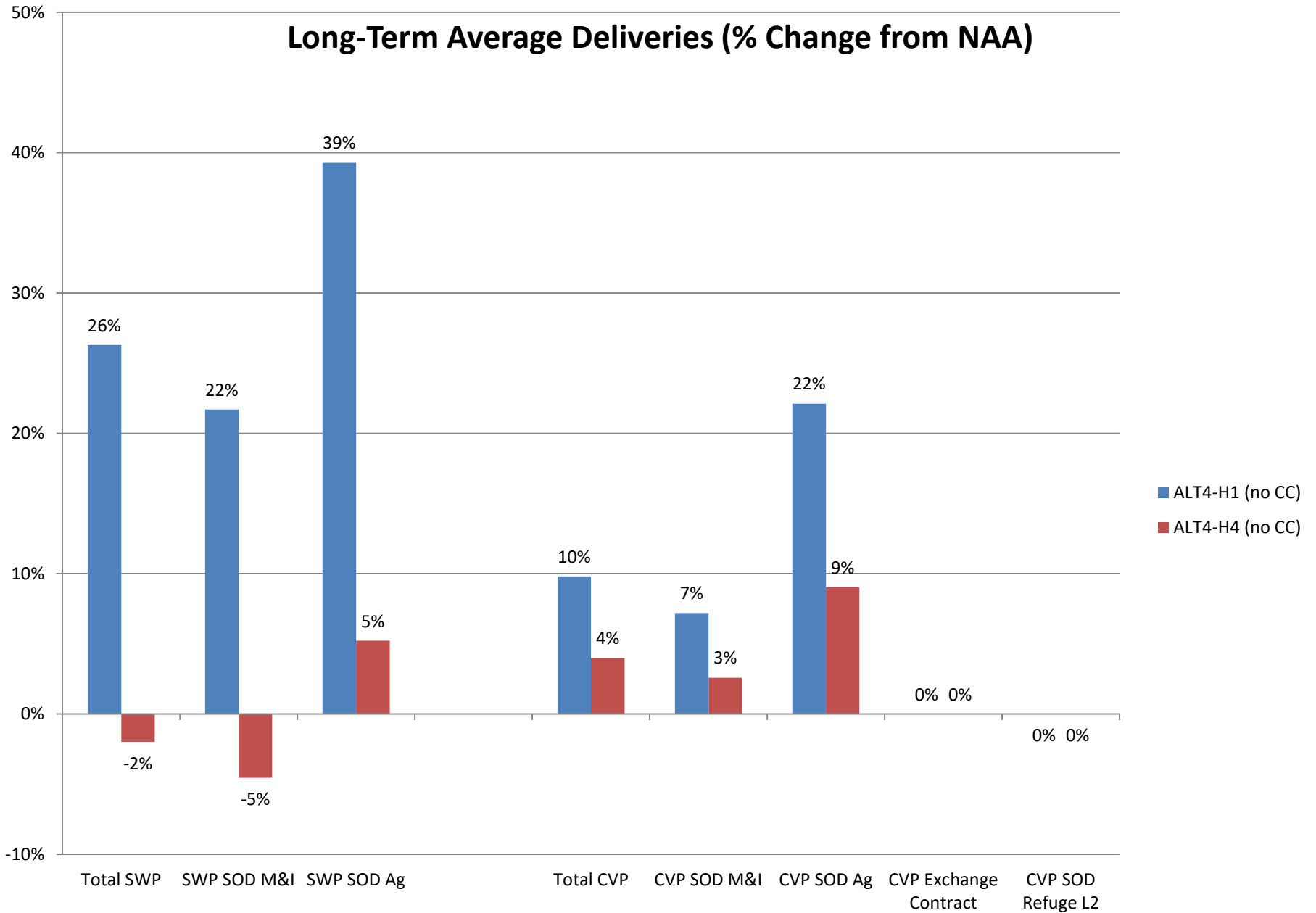


Critical Year Delivery Split

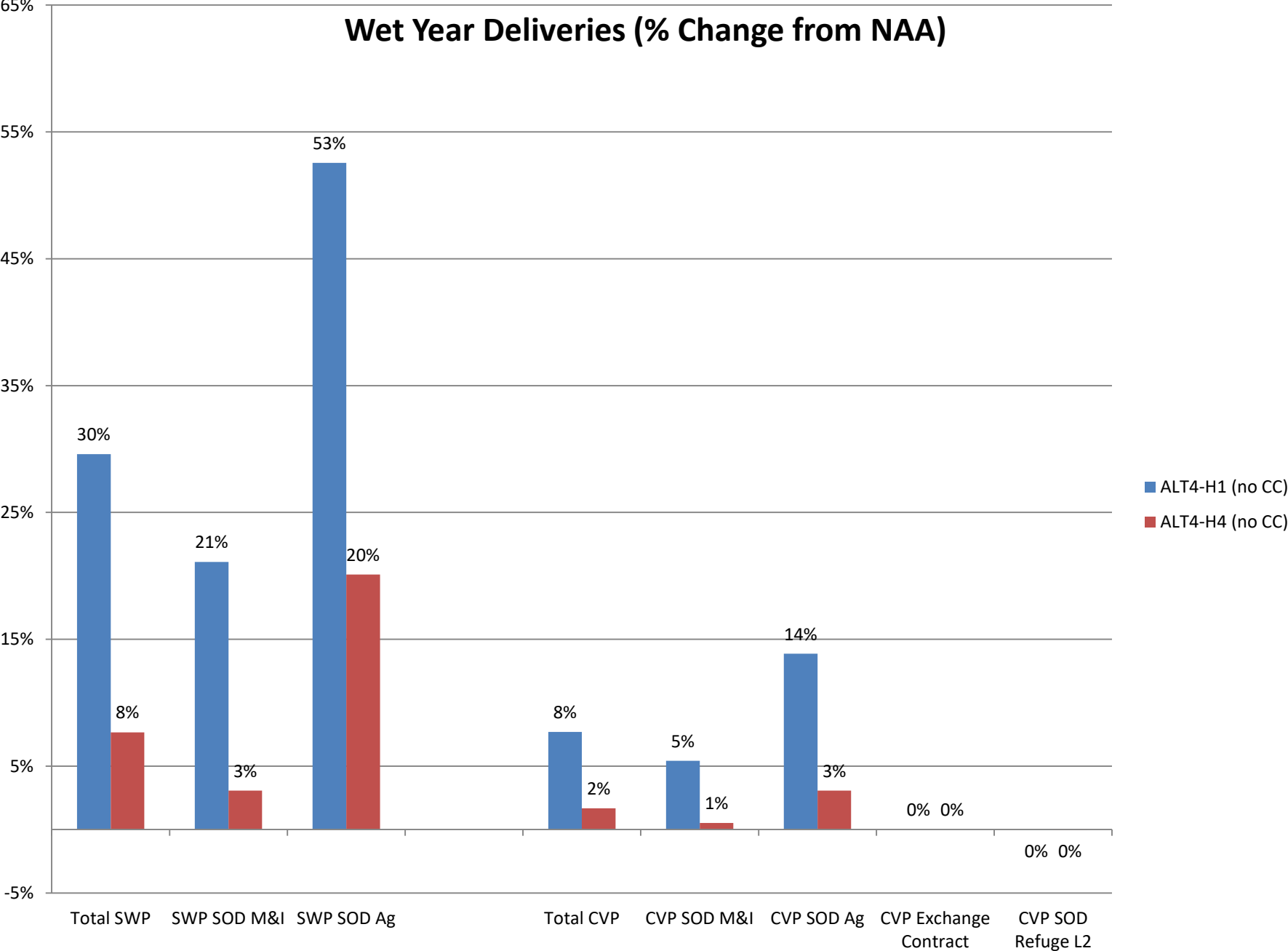


LOS & HOS
% Delivery Change
Compared with NAA

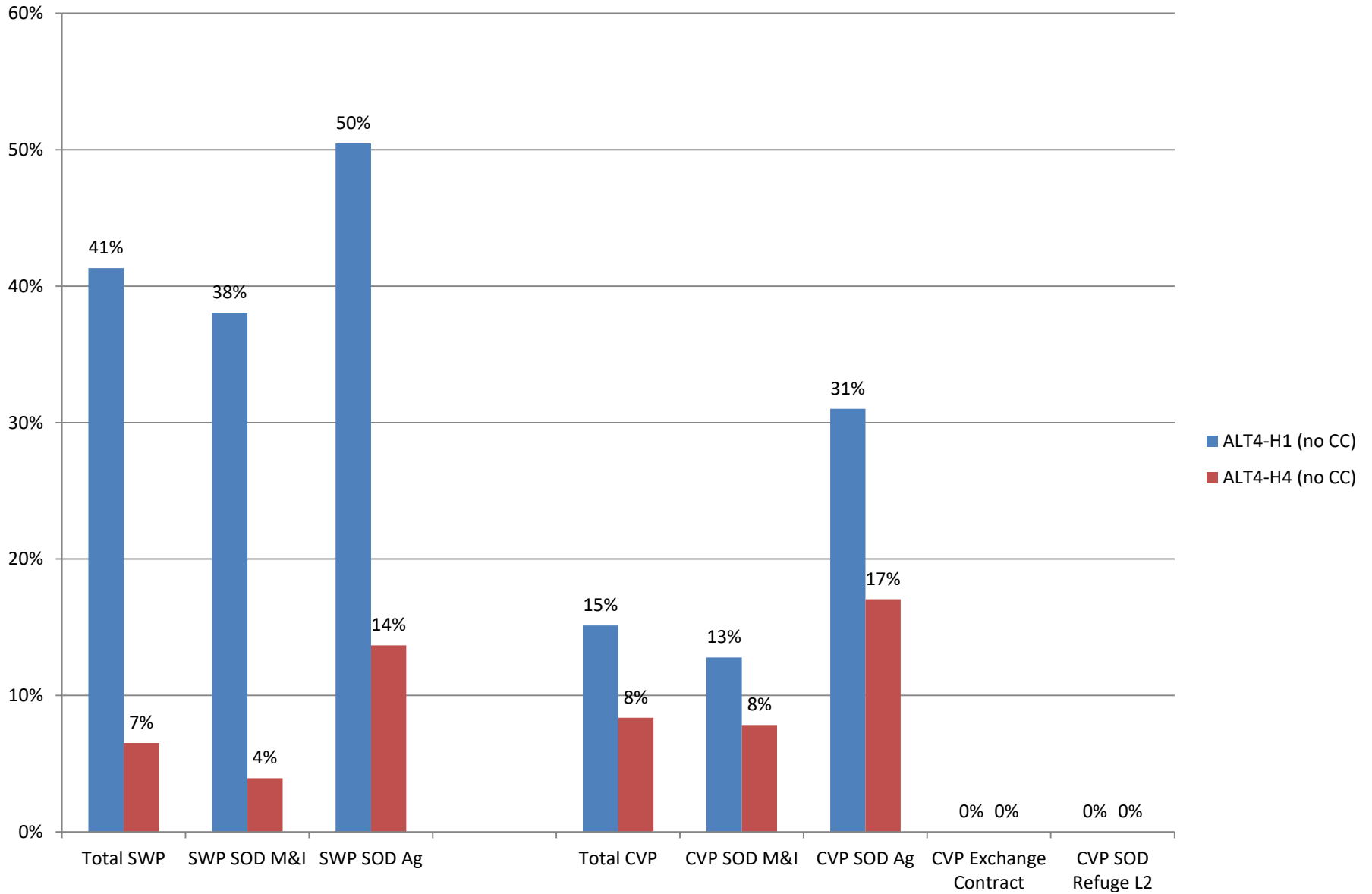
Long-Term Average Deliveries (% Change from NAA)



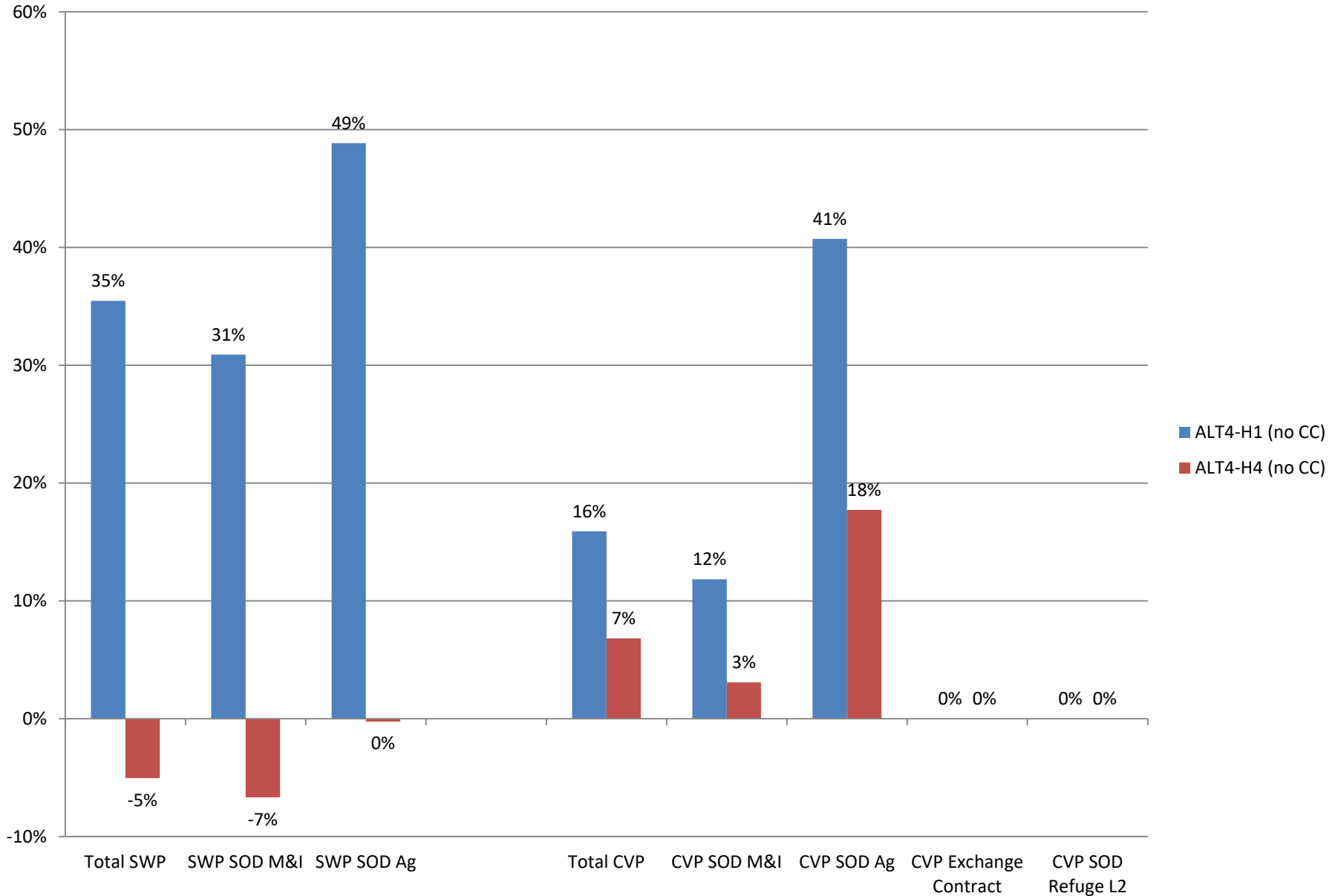
Wet Year Deliveries (% Change from NAA)



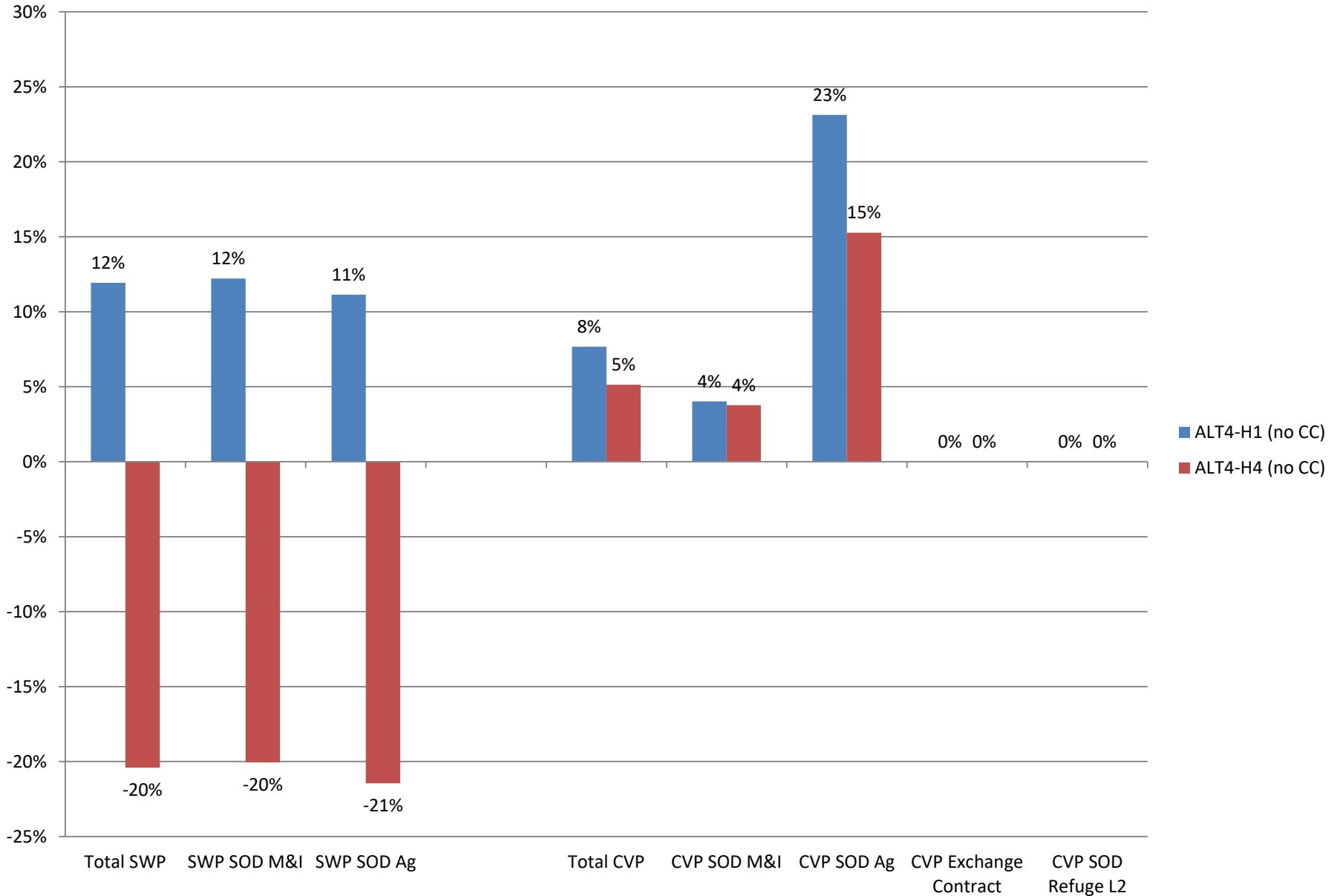
Above Normal Year Deliveries (% Change from NAA)



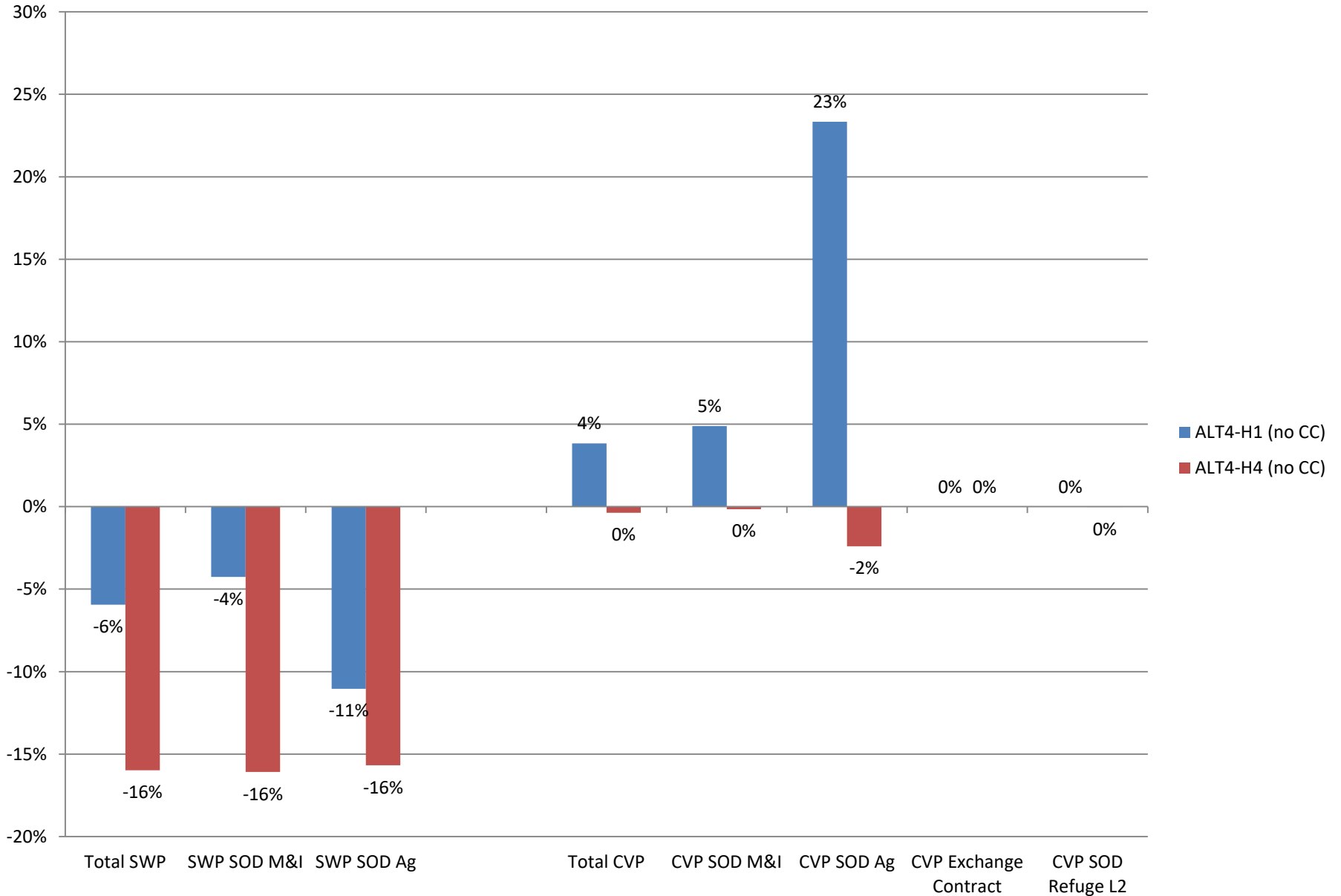
Below Normal Year Deliveries (% Change from NAA)



Dry Year Deliveries (% Change from NAA)



Critical Year Deliveries (% Change from NAA)



NAA, LOS, & HOS
Comparisons under
CC, SLR, and HR

Critical Year Deliveries

