

# Appendix 5B5 Water Supply

## 1 Results

The following results of the CalSim II model are included for water supply reporting for the following alternatives:

- No Action Alternative 051422
- Alternative 1A 051722
- Alternative 1B 051722
- Alternative 2 051722
- Alternative 3 051722

Table 5B4-1. River Operations Locations and Parameters

<b>Tile</b>	<b>Table Numbers</b>	<b>Figure Numbers</b>
CALSIM Water Supply Summary Report	5B5-1 to 5B5-8	5B5-1 to 5B5-14

## 2 Report Formats

Reports include tables comparing water supply of two alternatives (water supply by region and type, and water supply by type). Annual exceedance charts including all alternatives.

**Table 5B5-1. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Average**

				Alternative 1A 051722	No Action Alternative 051422	Alternative 1A 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>Sacramento River Hydrologic Region</b>						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,608 1,584	1,610 1,585	-2 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	174 154	173 153	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	207 178	206 177	0 1
CVP Ag	Contract Delivery (annual average - does not include Settlement)	(TAF/year)	Long Term Dry and Critical	272 163	272 161	0 2
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	953 908	953 908	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	30 21	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	4 5	0 0	4 5
CVP Ag -Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	24 47	0 0	24 47
<b>San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)</b>						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 814	852 814	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	259 246	259 246	0 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	378 190	377 189	1 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	11 20	0 0	11 20
<b>San Francisco Bay Hydrologic Region</b>						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	256 267	257 267	0 0
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	46 23	46 23	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	202 140	202 141	0 -1
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	10 22	0 0	10 22
<b>Central Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	41 25	0 0
<b>Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)</b>						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 11	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	757 393	754 392	3 1
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 44	79 43	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	632 340	631 340	1 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	3 6	0 0	3 6
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	3 6	0 0	3 6
<b>South Lahontan Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	251 167	252 168	0 -1
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	0 1	0 0	0 1
<b>South Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,290 748	1,287 743	4 5
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	8 4	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	77 192	0 0	77 192
<b>Total For All Regions</b>						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,458 6,736	8,319 6,428	139 307

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.

**Table 5B5-2. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages**

				Alternative 1A 051722	No Action Alternative 051422	Alternative 1A 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>North of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	272 163	272 161	0 2
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	354 355	354 354	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
CVP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	24 47	0 0	24 47
<b>Total CVP North of Delta</b>						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	626 518	626 515	0 3
<b>Total SWP North of Delta</b>						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
<b>Total Sites North of Delta</b>						
Total Sites Ag and M&I NOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	24 47	0 0	24 47
<b>Total North of Delta</b>						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	750 646	726 597	24 49
<b>South of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	1,181 606	1,177 605	4 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	126 104	126 104	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	643 345	642 346	1 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,793 1,064	1,790 1,060	4 4
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	3 6	0 0	3 6
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	87 215	0 0	87 215
<b>Total CVP South of Delta</b>						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,307 710	1,304 708	3 2
<b>Total SWP South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,436 1,409	2,431 1,405	5 4
<b>Total Sites South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	89 221	0 0	89 221
<b>Total South of Delta</b>						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,832 2,341	3,735 2,114	97 227

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.

**Table 5B5-3. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Average**

				Alternative 1B 051722	No Action Alternative 051422	Alternative 1B 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>Sacramento River Hydrologic Region</b>						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,608 1,584	1,610 1,585	-2 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	173 154	173 153	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	207 178	206 177	0 1
CVP Ag	Contract Delivery (annual average - does not include Settlement)	(TAF/year)	Long Term Dry and Critical	272 164	272 161	0 3
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	953 908	953 908	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	30 21	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	4 5	0 0	4 5
CVP Ag -Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 44	0 0	23 44
<b>San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)</b>						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 814	852 814	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	259 246	259 246	0 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	380 193	377 189	2 4
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	11 19	0 0	11 19
<b>San Francisco Bay Hydrologic Region</b>						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	257 267	257 267	0 1
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	46 24	46 23	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	202 140	202 141	0 -1
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	9 21	0 0	9 21
<b>Central Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	41 25	0 0
<b>Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)</b>						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 11	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	760 400	754 392	7 8
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 44	79 43	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	629 336	631 340	-1 -4
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	3 6	0 0	3 6
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 6	0 0	2 6
<b>South Lahontan Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	251 167	252 168	-1 -1
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	0 1	0 0	0 1
<b>South Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,289 749	1,287 743	2 7
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	8 4	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	73 182	0 0	73 182
<b>Total For All Regions</b>						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,454 6,728	8,319 6,428	135 300

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

**Table 5B5-4. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages**

				Alternative 1B 051722	No Action Alternative 051422	Alternative 1B 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>North of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	272 164	272 161	0 3
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	354 355	354 354	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
CVP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 44	0 0	23 44
<b>Total CVP North of Delta</b>						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	626 518	626 515	0 4
<b>Total SWP North of Delta</b>						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
<b>Total Sites North of Delta</b>						
Total Sites Ag and M&I NOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 44	0 0	23 44
<b>Total North of Delta</b>						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	749 644	726 597	24 47
<b>South of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	1,186 616	1,177 605	9 12
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	126 105	126 104	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	640 342	642 346	-1 -4
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,791 1,064	1,790 1,060	2 5
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 6	0 0	2 6
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	83 204	0 0	83 204
<b>Total CVP South of Delta</b>						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,312 721	1,304 708	9 13
<b>Total SWP South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,432 1,406	2,431 1,405	1 1
<b>Total Sites South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	85 210	0 0	85 210
<b>Total South of Delta</b>						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,829 2,337	3,735 2,114	95 223

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

**Table 5B5-5. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Average**

				Alternative 2 051722	No Action Alternative 051422	Alternative 2 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>Sacramento River Hydrologic Region</b>						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,608 1,584	1,610 1,585	-2 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	174 154	173 153	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	207 178	206 177	0 1
CVP Ag	Contract Delivery (annual average - does not include Settlement)	(TAF/year)	Long Term Dry and Critical	272 163	272 161	0 2
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	953 908	953 908	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 21	30 21	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	4 5	0 0	4 5
CVP Ag -Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 43	0 0	23 43
<b>San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)</b>						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 814	852 814	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	258 246	259 246	0 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	379 190	377 189	1 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	11 21	0 0	11 21
<b>San Francisco Bay Hydrologic Region</b>						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	256 267	257 267	0 0
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	45 23	46 23	-1 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	202 141	202 141	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	9 21	0 0	9 21
<b>Central Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	41 25	0 0
<b>Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)</b>						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 11	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	757 392	754 392	3 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 43	79 43	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	632 340	631 340	1 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	4 6	0 0	4 6
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 6	0 0	2 6
<b>South Lahontan Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	251 168	252 168	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	0 1	0 0	0 1
<b>South Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,289 747	1,287 743	3 4
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	8 4	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	72 179	0 0	72 179
<b>Total For All Regions</b>						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,451 6,719	8,319 6,428	132 290

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

**Table 5B5-6. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages**

				Alternative 2 051722	No Action Alternative 051422	Alternative 2 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>North of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	272 163	272 161	0 2
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	354 355	354 354	0 1
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
CVP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 43	0 0	23 43
<b>Total CVP North of Delta</b>						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	626 518	626 515	0 3
<b>Total SWP North of Delta</b>						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
<b>Total Sites North of Delta</b>						
Total Sites Ag and M&I NOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	23 43	0 0	23 43
<b>Total North of Delta</b>						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	749 643	726 597	23 46
<b>South of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	1,181 605	1,177 605	4 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	126 104	126 104	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	643 346	642 346	1 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,792 1,064	1,790 1,060	3 4
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 6	0 0	2 6
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	82 201	0 0	82 201
<b>Total CVP South of Delta</b>						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,307 709	1,304 708	3 1
<b>Total SWP South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,435 1,410	2,431 1,405	4 4
<b>Total Sites South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	84 206	0 0	84 206
<b>Total South of Delta</b>						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,826 2,325	3,735 2,114	91 212

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

**Table 5B5-7. CALSIM II Water Summary Report, by Region and Type, Long-Term Average and Dry and Critical Year Average**

				Alternative 3 051722	No Action Alternative 051422	Alternative 3 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>Sacramento River Hydrologic Region</b>						
CVP Settlement	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	1,609 1,584	1,610 1,585	-2 -1
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	174 154	173 153	0 1
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	207 179	206 177	1 3
CVP Ag	Contract Delivery (annual average - does not include Settlement)	(TAF/year)	Long Term Dry and Critical	274 168	272 161	2 7
SWP FRSA	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	953 908	953 908	0 0
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	30 22	30 21	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	4 5	0 0	4 5
CVP Ag -Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	21 37	0 0	21 37
<b>San Joaquin River Hydrologic Region (not including Friant-Kern and Madera Canal water users)</b>						
CVP Exchange	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	852 814	852 814	0 0
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	259 246	259 246	0 0
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	17 14	17 14	0 0
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	383 205	377 189	5 16
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	3 2	3 2	0 0
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	9 18	0 0	9 18
<b>San Francisco Bay Hydrologic Region</b>						
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	256 268	257 267	0 2
CVP Ag	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	46 25	46 23	0 2
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	202 141	202 141	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	8 18	0 0	8 18
<b>Central Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	41 25	41 25	0 0
<b>Tulare Lake Hydrologic Region (not including Friant-Kern Canal water users)</b>						
CVP Refuge Level 2	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	12 11	12 11	0 0
CVP Ag	Contract Delivery (annual average - includes Cross Valley Canal)	(TAF/year)	Long Term Dry and Critical	770 425	754 392	16 32
SWP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	79 44	79 43	0 0
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	627 341	631 340	-3 1
Refuge Level 4 - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	3 5	0 0	3 5
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 5	0 0	2 5
<b>South Lahontan Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	252 170	252 168	0 1
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	0 1	0 0	0 1
<b>South Coast Hydrologic Region</b>						
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,286 751	1,287 743	-1 8
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	8 4	8 4	0 0
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	60 145	0 0	60 145
<b>Total For All Regions</b>						
Total Supplies	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	8,445 6,736	8,319 6,428	125 308

Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

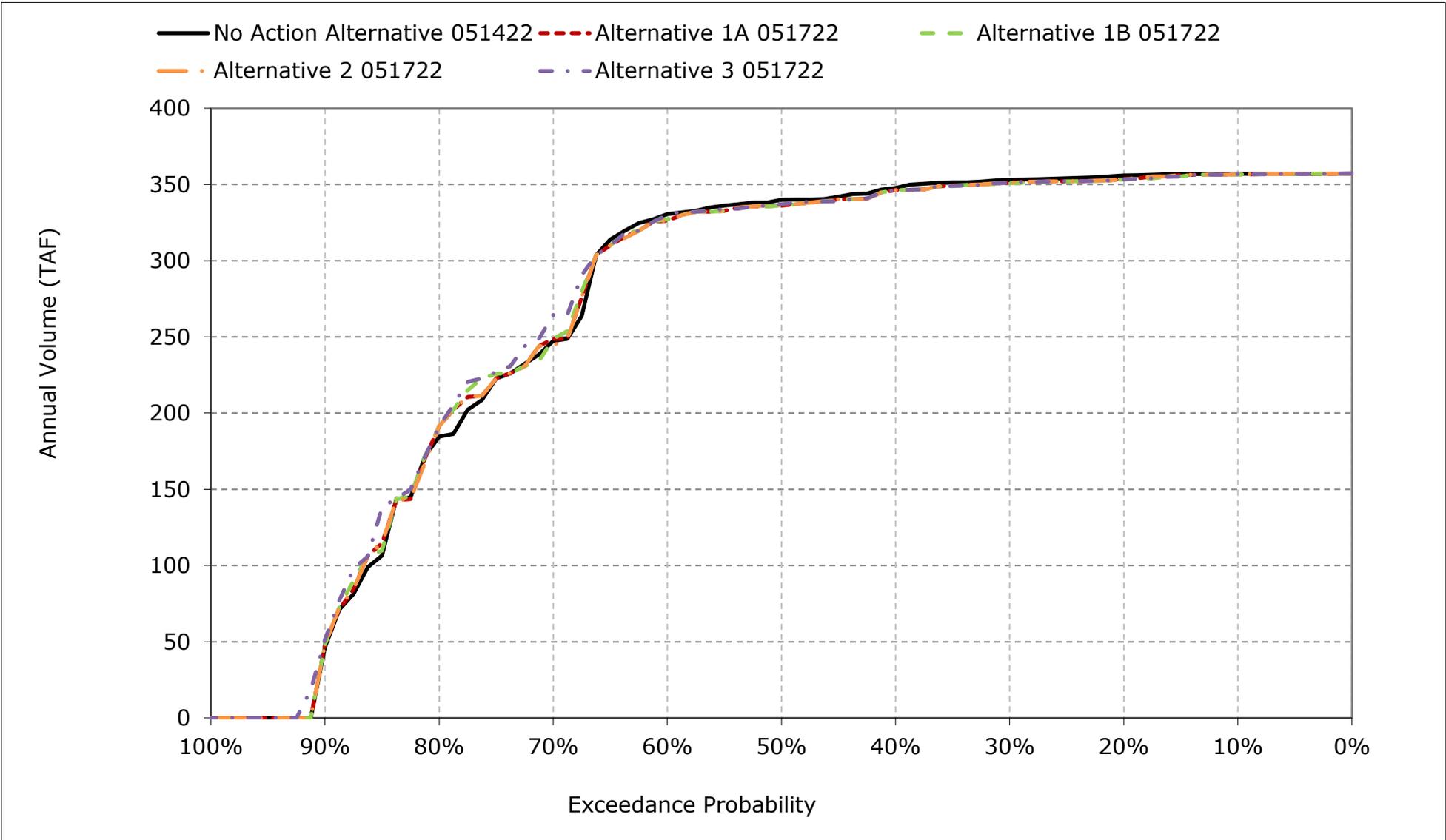
**Table 5B5-8. CALSIM II Water Supply Summary Report, by Type, Long-Term Average and Dry and Critical Year Averages**

				Alternative 3 051722	No Action Alternative 051422	Alternative 3 051722 minus No Action Alternative 051422
<b>Water Supply Reliability</b>						
<b>North of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	274 168	272 161	2 7
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	355 356	354 354	1 3
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	0 0	0 0	0 0
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
CVP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	21 37	0 0	21 37
<b>Total CVP North of Delta</b>						
Total CVP Ag and M&I NOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	629 524	626 515	3 10
<b>Total SWP North of Delta</b>						
Total SWP Ag and M&I NOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	100 82	100 82	0 0
<b>Total Sites North of Delta</b>						
Total Sites Ag and M&I NOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	21 37	0 0	21 37
<b>Total North of Delta</b>						
Total North of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	749 644	726 597	23 47
<b>South of Delta</b>						
CVP Ag	Contract Delivery (annual average; does not include Exchange)	(TAF/year)	Long Term Dry and Critical	1,199 655	1,177 605	22 51
CVP M&I	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	126 106	126 104	0 2
SWP Ag	Contract Delivery (including Article 21) (annual average)	(TAF/year)	Long Term Dry and Critical	638 347	642 346	-3 1
SWP M&I	Contract Delivery (including Article 21, includes transfers to SWP contractors) (annual average)	(TAF/year)	Long Term Dry and Critical	1,789 1,070	1,790 1,060	-1 10
SWP Ag - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	2 5	0 0	2 5
SWP M&I - Sites	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	68 163	0 0	68 163
<b>Total CVP South of Delta</b>						
Total CVP Ag and M&I SOD	Contract Delivery (CVP) (annual average)	(TAF/year)	Long Term Dry and Critical	1,325 761	1,304 708	21 52
<b>Total SWP South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (SWP) (annual average)	(TAF/year)	Long Term Dry and Critical	2,427 1,417	2,431 1,405	-4 12
<b>Total Sites South of Delta</b>						
Total SWP Ag and M&I SOD	Contract Delivery (annual average)	(TAF/year)	Long Term Dry and Critical	70 168	0 0	70 168
<b>Total South of Delta</b>						
Total South of Delta Ag and M&I Deliveries	Contract Delivery (CVP, SWP and other) (annual average)	(TAF/year)	Long Term Dry and Critical	3,822 2,346	3,735 2,114	87 232

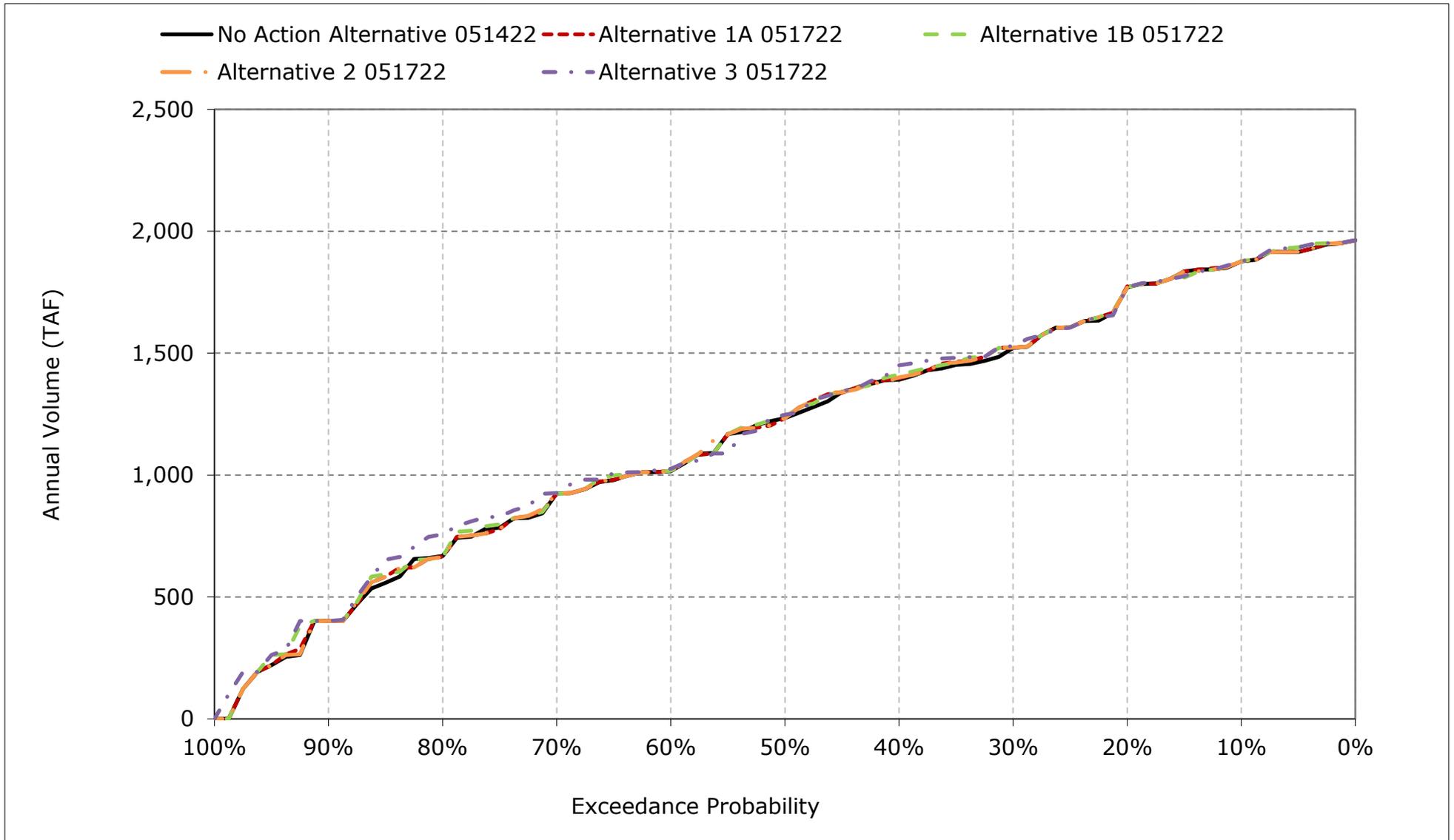
Notes:

1. Long Term is the average quantity for the period of Oct 1921 - Sep 2003.
2. Dry and Critical Years Average is the average quantity for the combination of the SWRCB D-1641 40-30-30 Dry and Critical years for the period of Oct 1921 - Sep 2003.
3. All scenarios are simulated at historical climate.

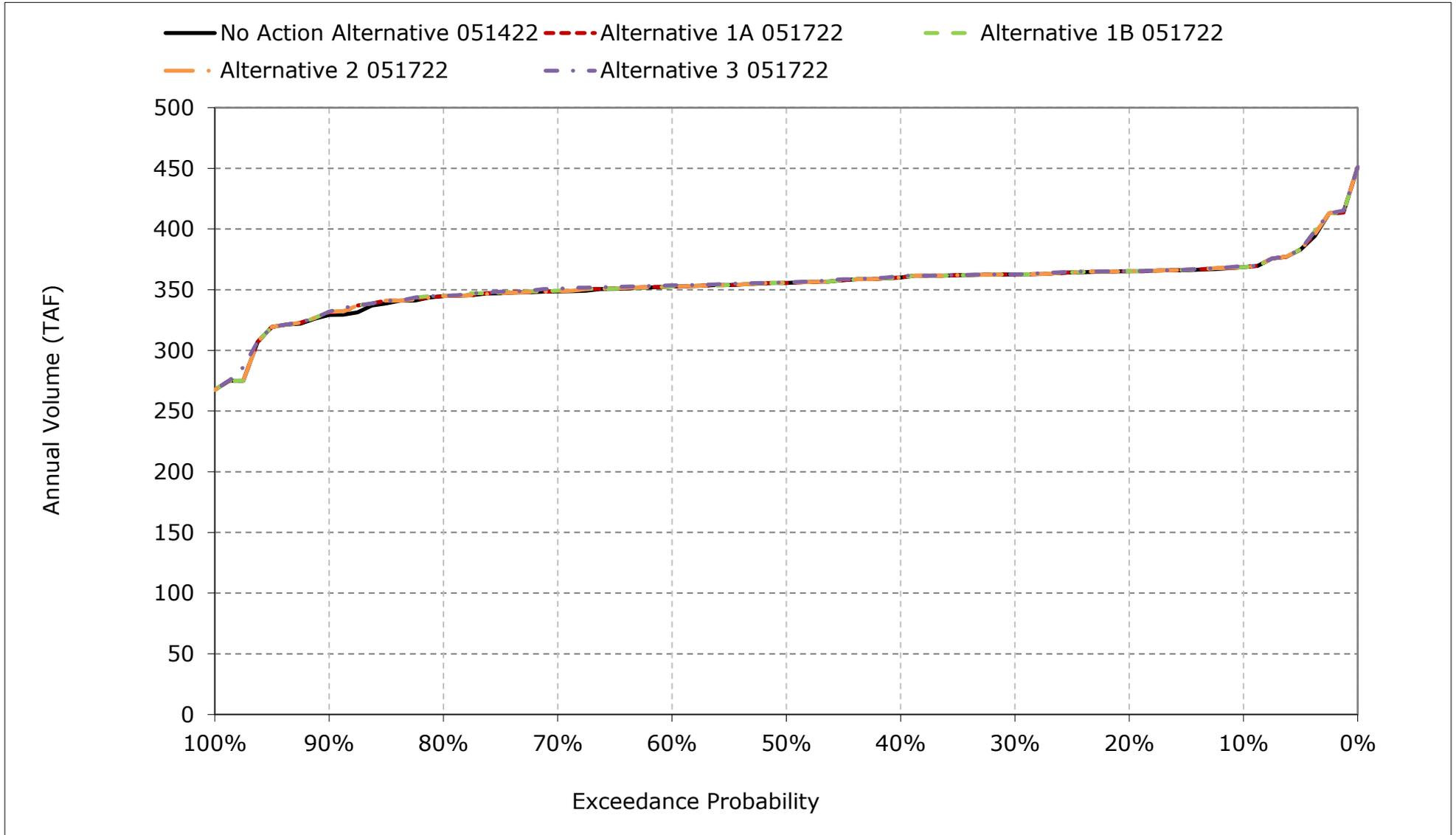
**Figure 5B5-1. CVP North of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)**



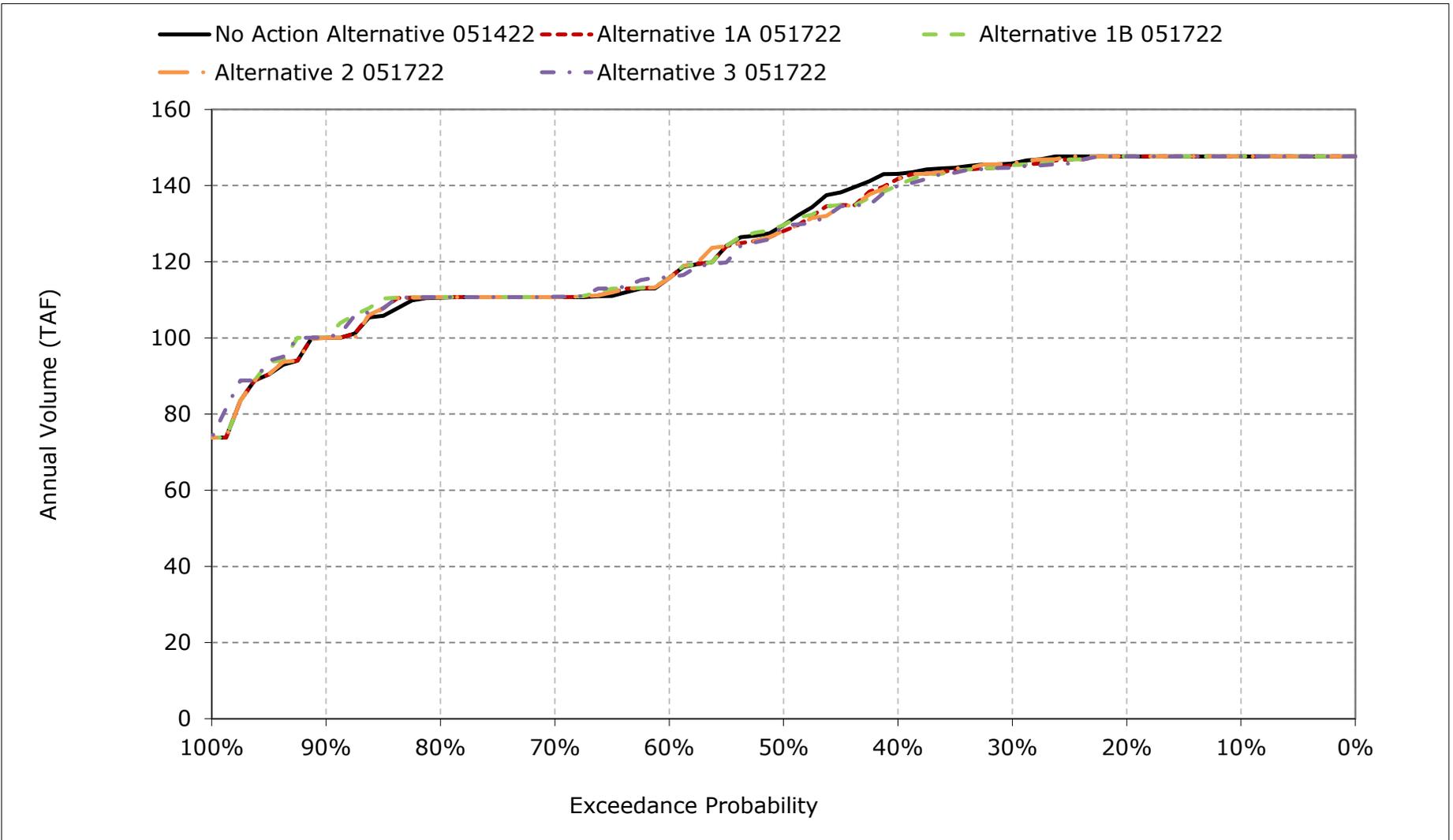
**Figure 5B5-2. CVP South of Delta Agricultural Water Service Contract Deliveries, Annual (Mar-Feb)**



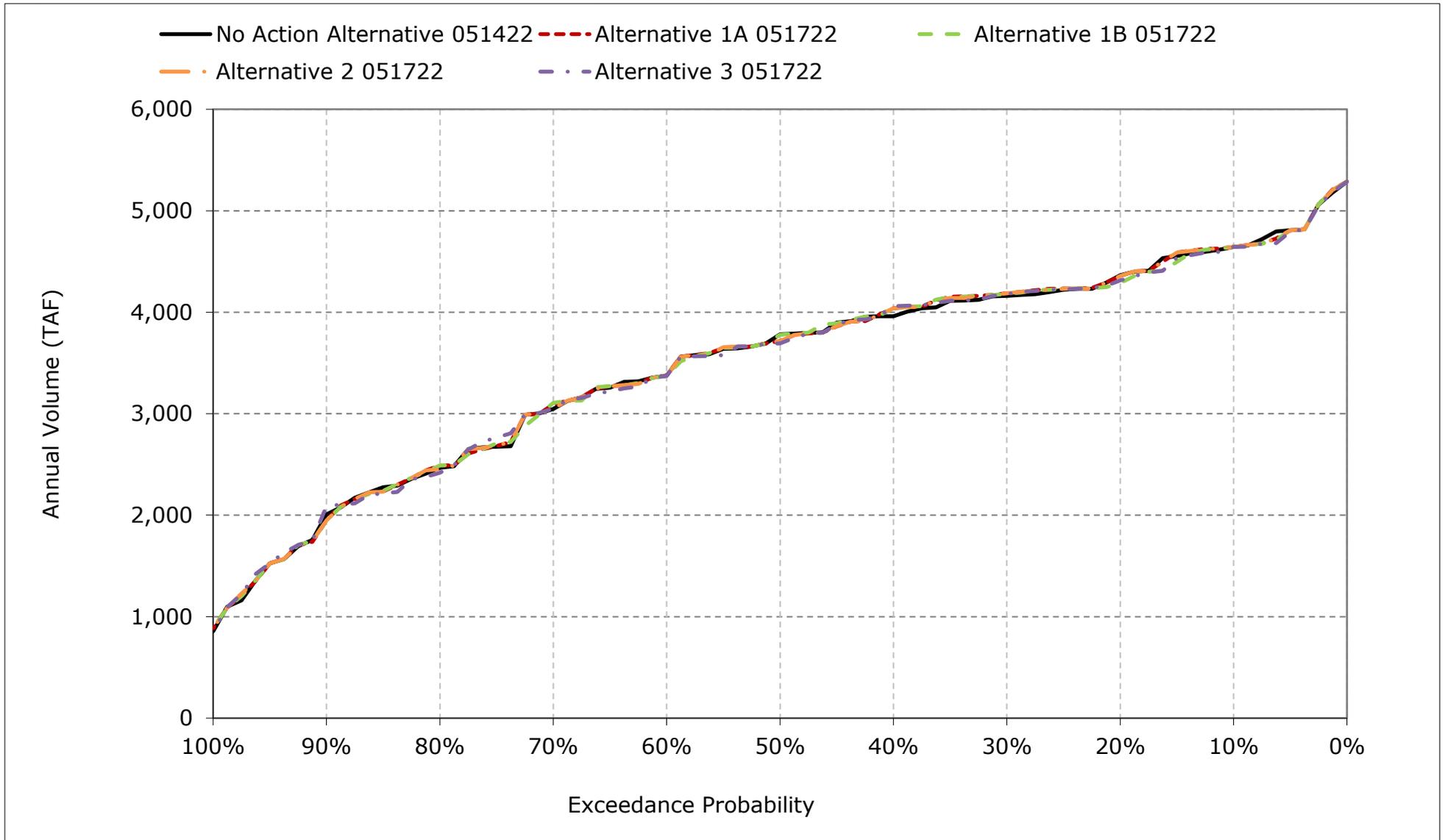
**Figure 5B5-3. CVP North of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)**



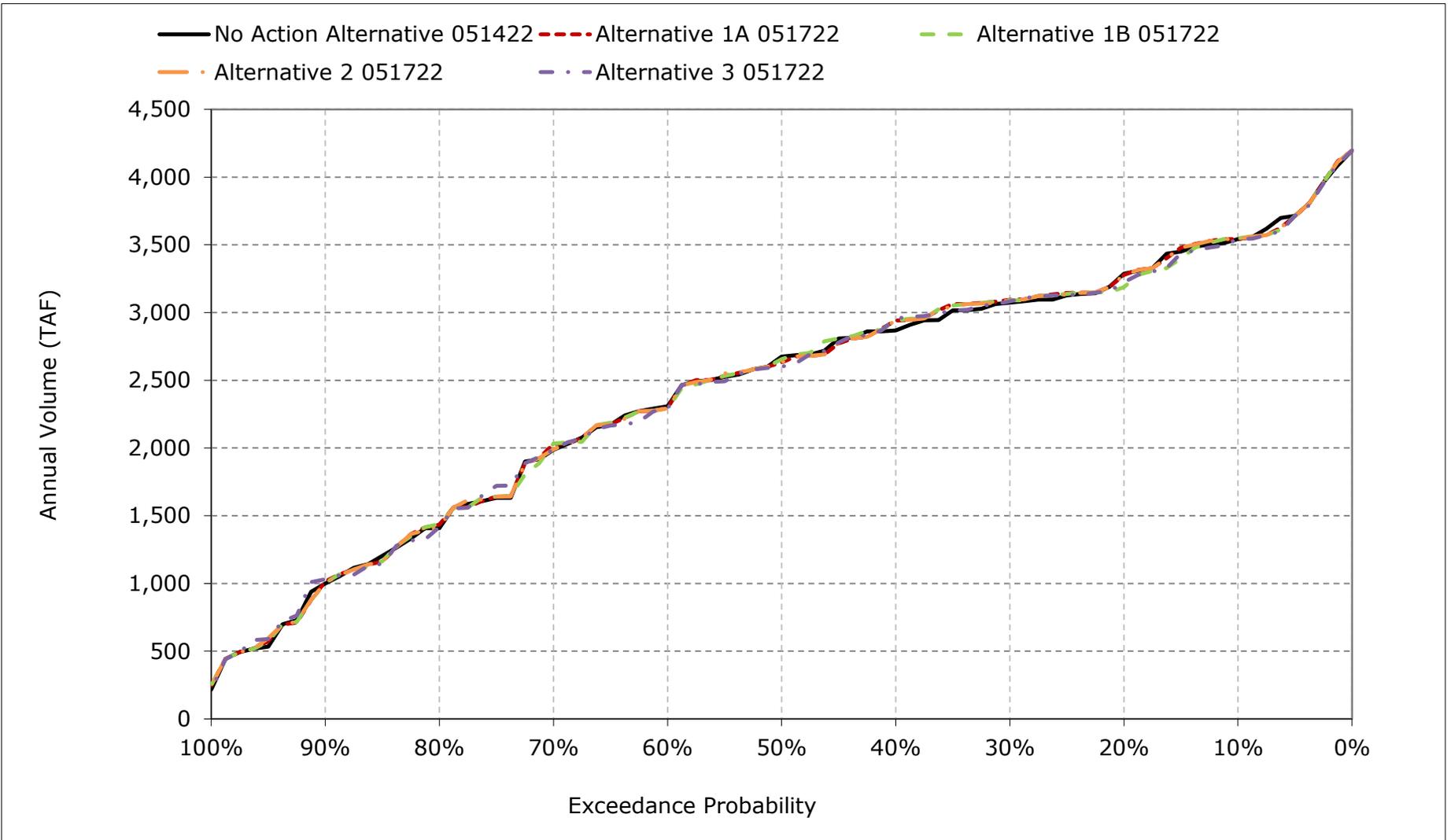
**Figure 5B5-4. CVP South of Delta M&I Water Service Contract Deliveries, Annual (Mar-Feb)**



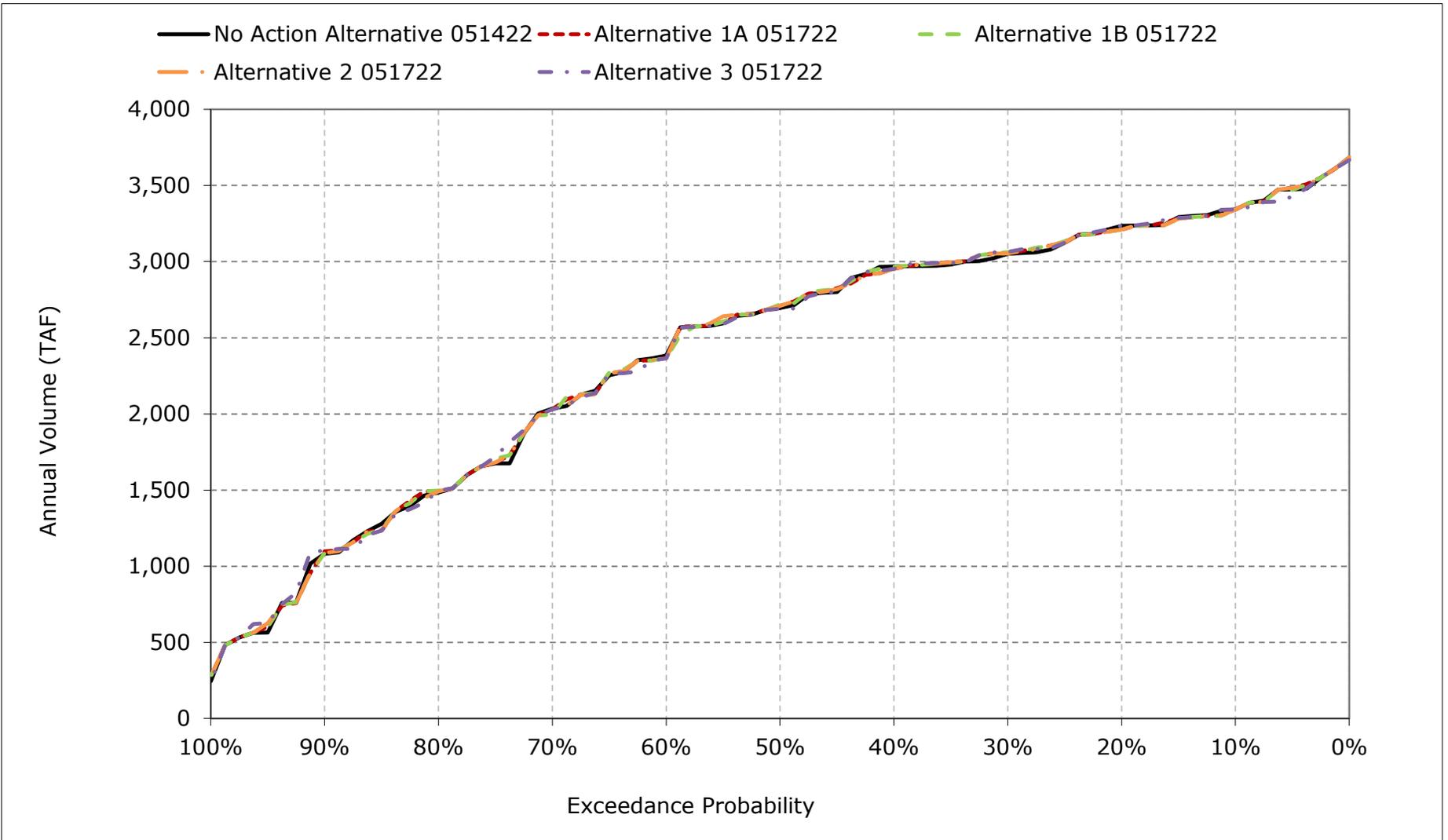
**Figure 5B5-5. Total SWP Deliveries, Annual (Jan-Dec)**



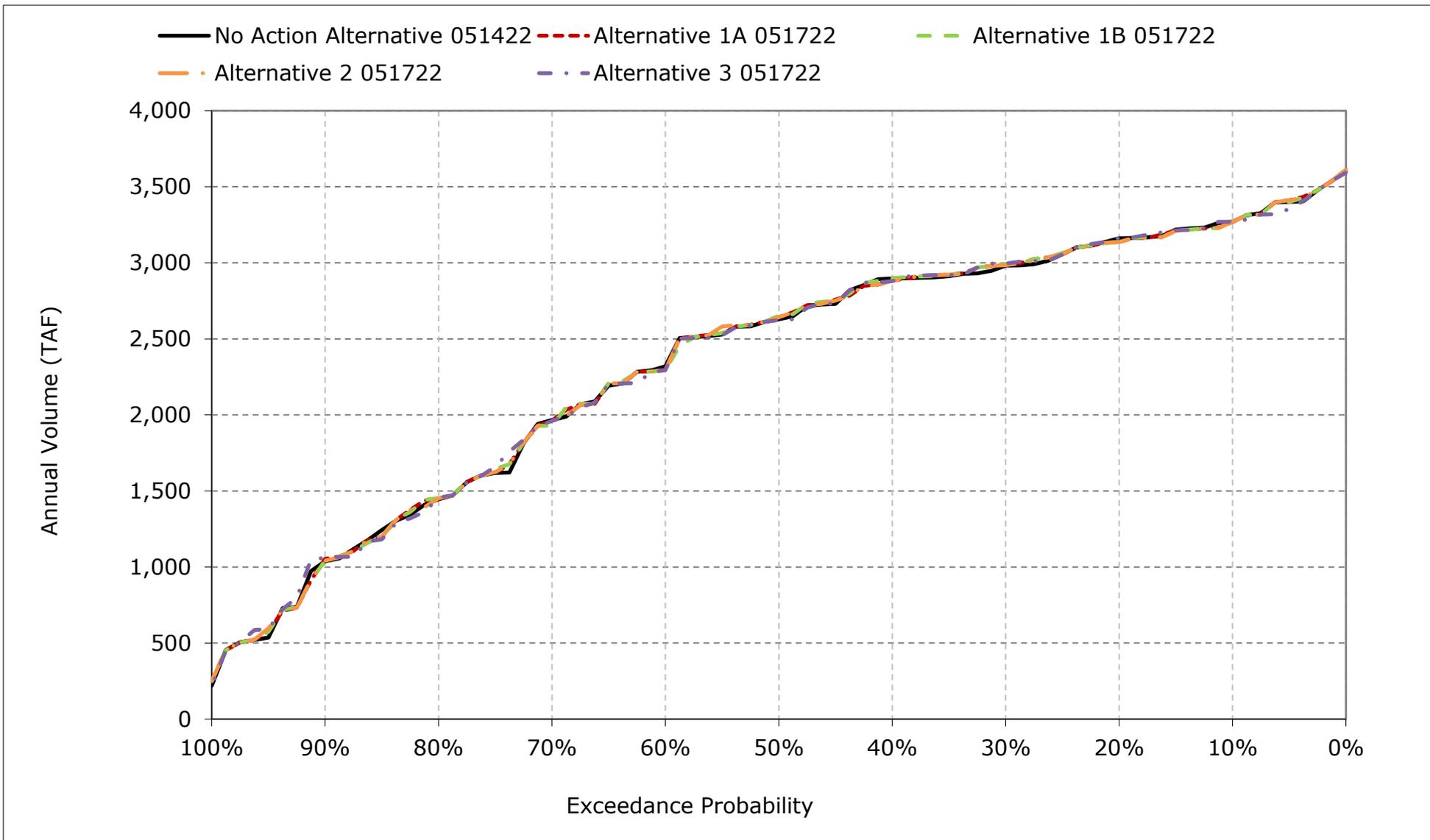
**Figure 5B5-6. Total SWP South of Delta Deliveries including Article 21 and 56, Annual (Jan-Dec)**



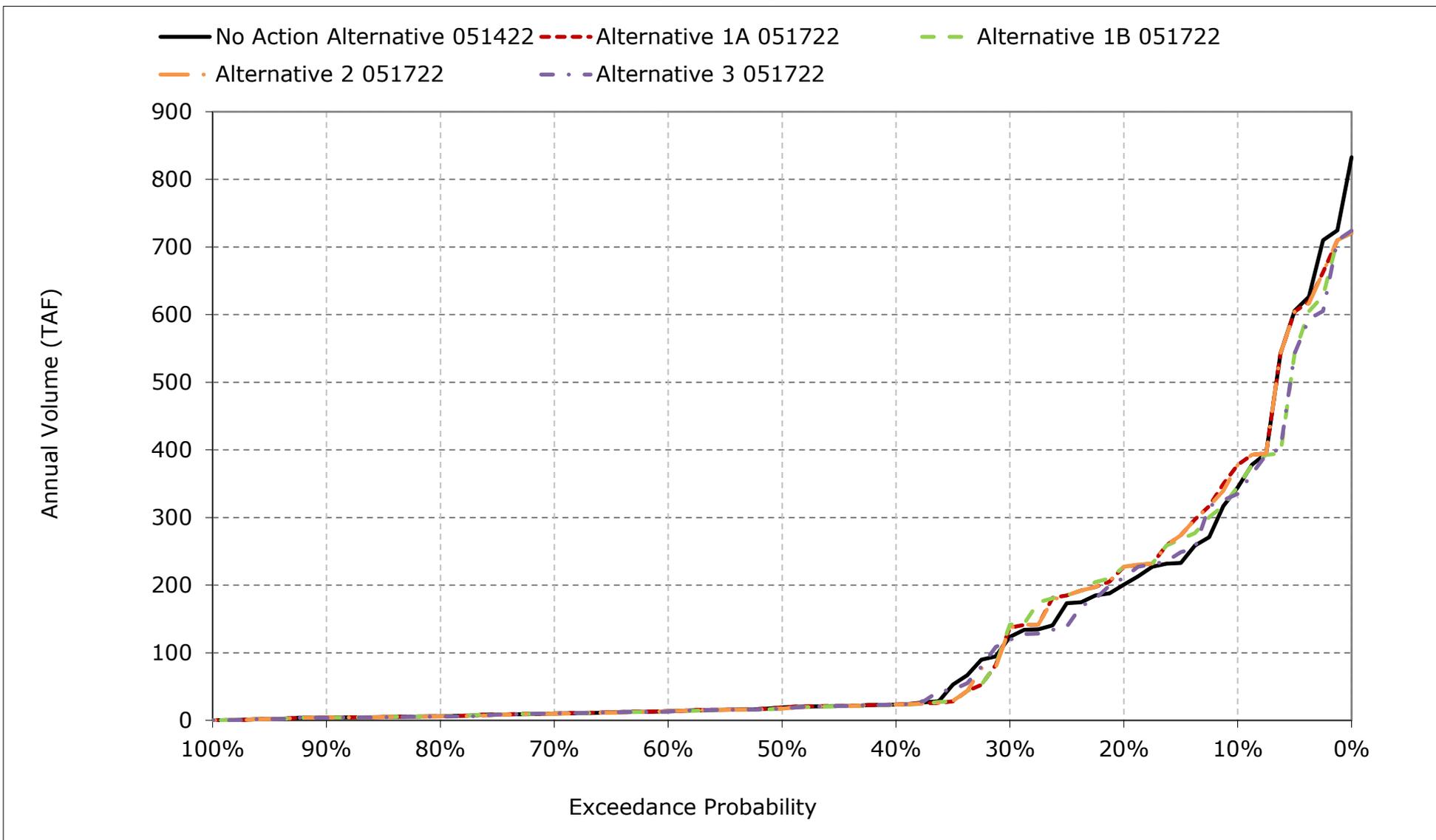
**Figure 5B5-7. SWP Table A Deliveries with Article 56, Annual (Jan-Dec)**



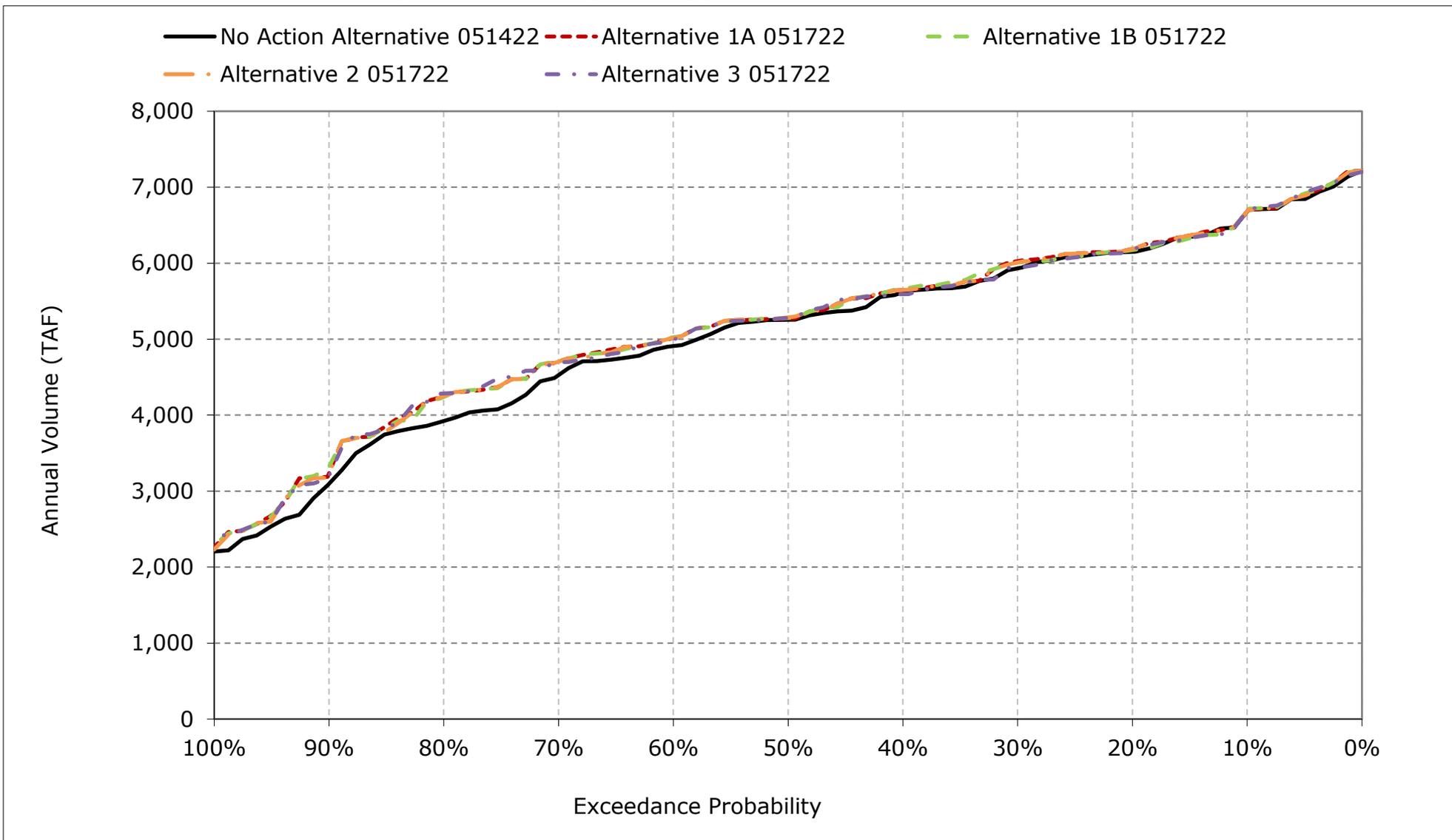
**Figure 5B5-8. SWP South of Delta Table A Deliveries with Article 56, Annual (Jan-Dec)**



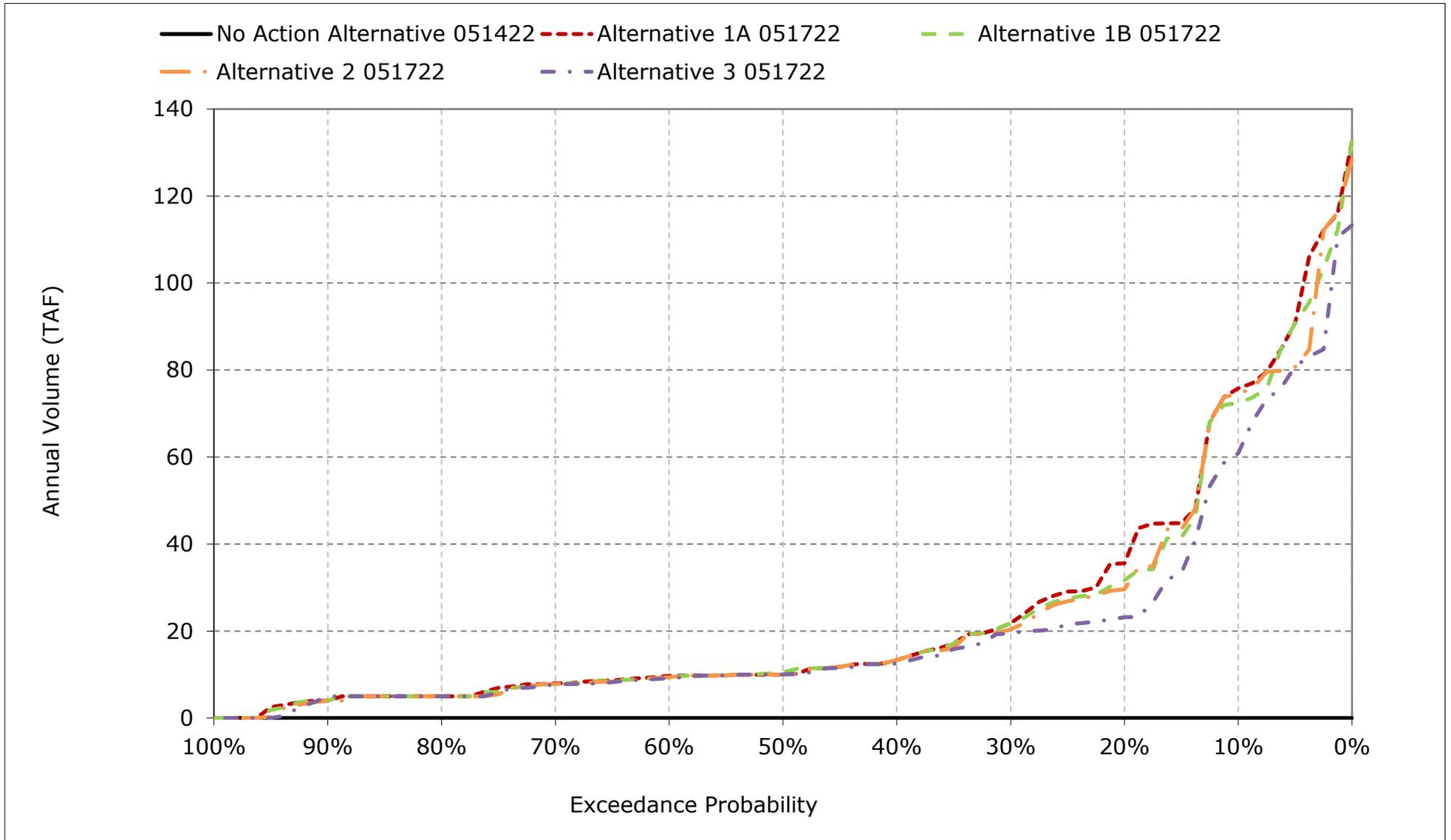
**Figure 5B5-9. SWP Article 21 Deliveries, Annual (Jan-Dec)**



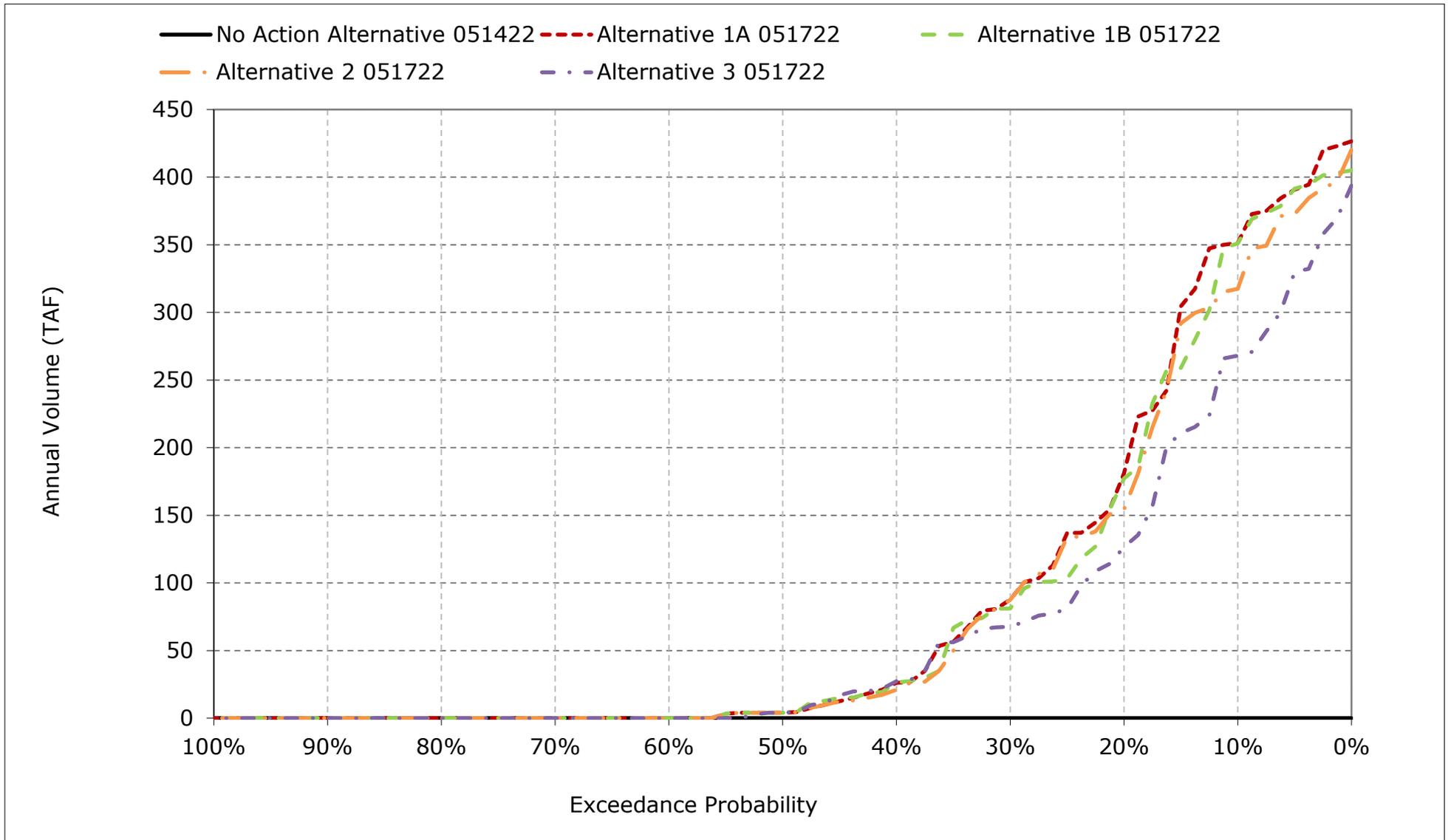
**Figure 5B5-10. Total Delta Exports, Annual (Oct-Sep)**



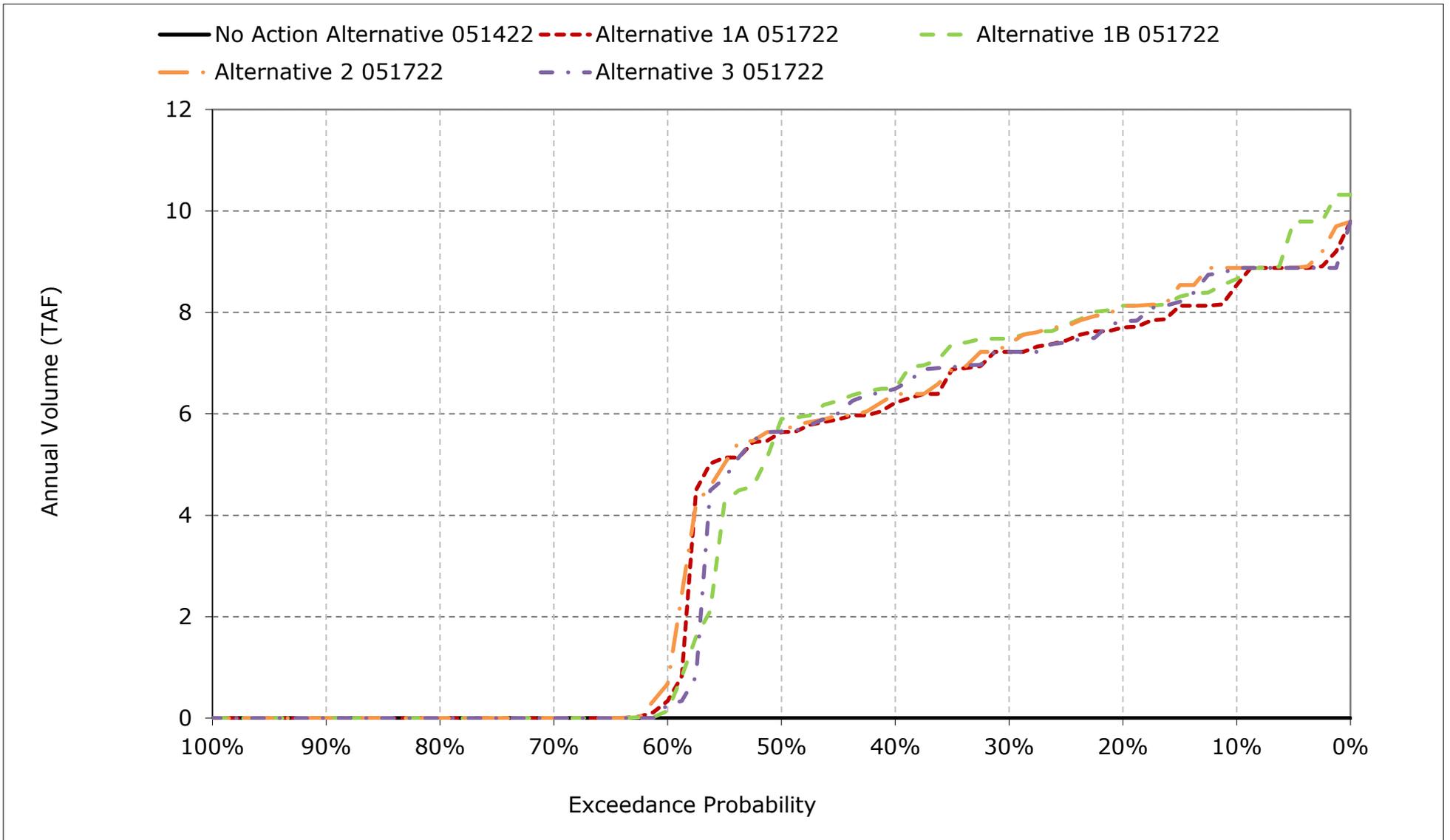
**Figure 5B5-11. Sites North of Delta Deliveries, Annual (Mar-Feb)**



**Figure 5B5-12. Sites South of Delta Deliveries, Annual (Jan-Dec)**



**Figure 5B5-13. Sites CVP Refuge Level 4 Deliveries - North of Delta, Annual (Mar-Feb)**



**Figure 5B5-14. Sites CVP Refuge Level 4 Deliveries - South of Delta, Annual (Mar-Feb)**

