# Table 239 No Action Alternative -Alternative 4 (Future)

**Alternative 4 (Future) vs No Action Alternative**
**Sacramento River at Rio Vista, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 75.6 | 98.8 | 89.0 | 85.4 | 82.9 | 91.5 | 89.0 | 89.0 | 93.9 | 92.7 | 97.6 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 22.0 | 1.2 | 3.7 | 9.8 | 14.6 | 2.4 | 4.9 | 1.2 | 1.2 | 6.1 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 1.2 | 0.0 | 7.3 | 0.0 | 1.2 | 2.4 | 6.1 | 9.8 | 3.7 | 1.2 | 1.2 | 0.0 |
| Net Change in % Exceedance: | 20.7 | 1.2 | -3.7 | 9.8 | 13.4 | 0.0 | -1.2 | -8.5 | -2.4 | 4.9 | -1.2 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 90.9 | 97.0 | 81.8 | 100.0 | 81.8 | 90.9 | 84.8 | 90.9 | 100.0 | 81.8 | 97.0 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 6.1 | 3.0 | 3.0 | 0.0 | 12.1 | 3.0 | 12.1 | 0.0 | 0.0 | 15.2 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 3.0 | 0.0 | 15.2 | 0.0 | 3.0 | 0.0 | 3.0 | 9.1 | 0.0 | 3.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 3.0 | 3.0 | -12.1 | 0.0 | 9.1 | 3.0 | 9.1 | -9.1 | 0.0 | 12.1 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 240 No Action Alternative -Alternative 4 (Future)

**Alternative 4 (Future) vs No Action Alternative**
**Yolo Bypass, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **-1.0 < X < 1.0** | 100.0 | 30.5 | 31.7 | 34.1 | 29.3 | 22.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 69.5 | 58.5 | 54.9 | 52.4 | 63.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1.0 (Total %)** | 0.0 | 69.5 | 67.1 | 65.9 | 70.7 | 78.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1.0 (Total %)** | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 69.5 | 65.9 | 65.9 | 70.7 | 78.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 69.5 | 58.5 | 54.9 | 52.4 | 63.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| **-1.0 < X < 1.0** | 100.0 | 75.8 | 69.7 | 48.5 | 30.3 | 12.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1 (Total %)** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1 (Total %)** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 241 No Action Alternative -Alternative 4 (Future)

## Alternative 4 (Future) vs No Action Alternative
## Delta Outflow, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 73.2 | 98.8 | 86.6 | 97.6 | 87.8 | 95.1 | 97.6 | 96.3 | 93.9 | 100.0 | 97.6 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 22.0 | 1.2 | 4.9 | 2.4 | 9.8 | 1.2 | 2.4 | 0.0 | 1.2 | 0.0 | 2.4 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 0.0 | 8.5 | 0.0 | 2.4 | 2.4 | 0.0 | 3.7 | 4.9 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 22.0 | 1.2 | -3.7 | 2.4 | 7.3 | -1.2 | 2.4 | -3.7 | -3.7 | 0.0 | 2.4 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| Low Flows (Upper 40% of Distribution) | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 54.5 | 97.0 | 84.8 | 100.0 | 75.8 | 90.9 | 100.0 | 90.9 | 93.9 | 100.0 | 100.0 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 33.3 | 3.0 | 12.1 | 0.0 | 18.2 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 0.0 | 0.0 | 3.0 | 0.0 | 6.1 | 3.0 | 0.0 | 9.1 | 6.1 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 33.3 | 3.0 | 9.1 | 0.0 | 12.1 | 0.0 | 0.0 | -9.1 | -6.1 | 0.0 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Long-Term and Water Year-Type Average of Sacramento River Delta Inflow Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 8,350 | 10,798 | 22,082 | 31,475 | 37,498 | 30,725 | 19,501 | 11,009 | 11,566 | 13,675 | 9,771 | 13,116 | 13,187 |
| Future - Alternative 5 | 8,372 | 10,695 | 21,739 | 30,880 | 36,894 | 30,403 | 19,496 | 11,002 | 11,561 | 13,674 | 9,765 | 13,112 | 13,069 |
| Difference | 22 | -103 | -343 | -596 | -604 | -321 | -5 | -8 | -5 | 0 | -7 | -4 | -118 |
| Percent Difference | 0% | -1% | -2% | -2% | -2% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 8,996 | 14,634 | 37,088 | 51,035 | 56,945 | 47,194 | 30,753 | 12,279 | 11,846 | 17,045 | 8,777 | 23,150 | 19,185 |
| Future - Alternative 5 | 9,000 | 14,383 | 36,363 | 50,229 | 56,220 | 46,849 | 30,782 | 12,286 | 11,847 | 17,046 | 8,760 | 23,139 | 19,015 |
| Difference | 4 | -251 | -725 | -805 | -725 | -345 | 30 | 7 | 1 | 1 | -17 | -11 | -170 |
| Percent Difference | 0% | -2% | -2% | -2% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 9,290 | 10,029 | 19,595 | 40,534 | 52,912 | 37,168 | 18,221 | 12,048 | 12,038 | 14,830 | 9,005 | 15,709 | 15,067 |
| Future - Alternative 5 | 9,456 | 9,948 | 19,204 | 39,596 | 52,210 | 36,648 | 18,223 | 12,048 | 12,037 | 14,830 | 9,000 | 15,709 | 14,919 |
| Difference | 166 | -81 | -391 | -938 | -701 | -520 | 2 | 0 | -1 | 0 | -4 | 0 | -148 |
| Percent Difference | 2% | -1% | -2% | -2% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 8,183 | 9,236 | 16,398 | 24,715 | 25,957 | 23,572 | 16,492 | 11,386 | 12,357 | 12,801 | 10,142 | 6,570 | 10,705 |
| Future - Alternative 5 | 8,181 | 9,217 | 16,201 | 23,971 | 25,220 | 23,202 | 16,438 | 11,367 | 12,366 | 12,784 | 10,143 | 6,570 | 10,576 |
| Difference | -2 | -19 | -198 | -744 | -737 | -370 | -55 | -19 | 9 | -17 | 0 | 0 | -128 |
| Percent Difference | 0% | 0% | -1% | -3% | -3% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 7,696 | 9,129 | 14,297 | 16,142 | 24,160 | 21,042 | 12,961 | 10,471 | 11,580 | 11,715 | 11,004 | 6,583 | 9,426 |
| Future - Alternative 5 | 7,696 | 9,092 | 14,202 | 15,859 | 23,621 | 20,721 | 12,940 | 10,444 | 11,584 | 11,699 | 11,004 | 6,583 | 9,347 |
| Difference | 0 | -36 | -95 | -283 | -539 | -321 | -21 | -27 | 4 | -16 | 1 | 0 | -79 |
| Percent Difference | 0% | 0% | -1% | -2% | -2% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 7,362 | 7,663 | 10,980 | 13,674 | 15,968 | 13,022 | 10,454 | 7,796 | 9,644 | 9,526 | 10,173 | 6,975 | 7,426 |
| Future - Alternative 5 | 7,353 | 7,660 | 10,939 | 13,483 | 15,749 | 12,985 | 10,448 | 7,796 | 9,592 | 9,567 | 10,167 | 6,974 | 7,395 |
| Difference | -9 | -3 | -41 | -191 | -218 | -36 | -6 | 0 | -53 | 40 | -6 | -1 | -31 |
| Percent Difference | 0% | 0% | 0% | -1% | -1% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% |

**Sacramento River Delta Inflow**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 9,235 | 17,027 | 51,654 | 65,553 | 69,785 | 60,402 | 45,827 | 14,062 | 14,775 | 19,566 | 11,080 | 23,931 |
| 20% | 8,769 | 12,121 | 31,691 | 57,934 | 63,984 | 51,170 | 26,603 | 12,353 | 13,371 | 17,266 | 10,982 | 23,302 |
| 30% | 8,164 | 10,380 | 21,194 | 41,318 | 55,940 | 41,821 | 18,011 | 11,604 | 12,742 | 14,296 | 10,796 | 21,171 |
| 40% | 7,981 | 9,237 | 17,702 | 28,066 | 43,996 | 30,782 | 15,285 | 11,092 | 11,853 | 13,342 | 10,577 | 15,579 |
| 50% | 7,891 | 8,609 | 16,336 | 22,928 | 32,847 | 22,574 | 13,363 | 10,364 | 11,233 | 12,636 | 10,333 | 6,896 |
| 60% | 7,870 | 7,940 | 13,685 | 19,586 | 22,299 | 17,435 | 12,171 | 9,646 | 10,701 | 12,343 | 9,683 | 6,650 |
| 70% | 7,816 | 7,863 | 12,583 | 14,988 | 18,509 | 15,725 | 11,343 | 9,037 | 10,289 | 11,773 | 8,734 | 6,595 |
| 80% | 7,655 | 7,666 | 9,913 | 12,874 | 16,673 | 13,489 | 10,154 | 8,418 | 9,791 | 11,041 | 8,421 | 6,535 |
| 90% | 6,420 | 6,929 | 9,262 | 10,998 | 14,384 | 11,578 | 8,911 | 7,956 | 8,712 | 9,884 | 7,899 | 6,418 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,350 | 10,798 | 22,082 | 31,475 | 37,498 | 30,725 | 19,501 | 11,009 | 11,566 | 13,675 | 9,771 | 13,116 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 8,996 | 14,634 | 37,088 | 51,035 | 56,945 | 47,194 | 30,753 | 12,279 | 11,846 | 17,045 | 8,777 | 23,150 |
| Above Normal | 9,290 | 10,029 | 19,595 | 40,534 | 52,912 | 37,168 | 18,221 | 12,048 | 12,038 | 14,830 | 9,005 | 15,709 |
| Below Normal | 8,183 | 9,236 | 16,398 | 24,715 | 25,957 | 23,572 | 16,492 | 11,386 | 12,357 | 12,801 | 10,142 | 6,570 |
| Dry | 7,696 | 9,129 | 14,297 | 16,142 | 24,160 | 21,042 | 12,961 | 10,471 | 11,580 | 11,715 | 11,004 | 6,583 |
| Critical | 7,362 | 7,663 | 10,980 | 13,674 | 15,968 | 13,022 | 10,454 | 7,796 | 9,644 | 9,526 | 10,173 | 6,975 |

**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 9,257 | 16,693 | 50,759 | 65,452 | 69,822 | 59,676 | 45,827 | 14,062 | 14,731 | 19,564 | 11,081 | 23,931 |
| 20% | 8,823 | 12,106 | 30,366 | 56,643 | 63,716 | 51,103 | 26,619 | 12,350 | 13,405 | 17,266 | 10,975 | 23,304 |
| 30% | 8,221 | 10,363 | 20,560 | 39,016 | 54,306 | 40,793 | 18,008 | 11,602 | 12,750 | 14,302 | 10,796 | 21,171 |
| 40% | 7,981 | 9,230 | 17,545 | 26,714 | 43,173 | 29,419 | 15,158 | 11,013 | 11,855 | 13,339 | 10,577 | 15,580 |
| 50% | 7,891 | 8,589 | 16,200 | 22,327 | 31,796 | 22,175 | 13,360 | 10,364 | 11,209 | 12,614 | 10,275 | 6,895 |
| 60% | 7,856 | 7,935 | 13,668 | 19,167 | 21,371 | 17,317 | 12,171 | 9,635 | 10,718 | 12,342 | 9,683 | 6,650 |
| 70% | 7,814 | 7,859 | 12,537 | 14,906 | 18,136 | 15,649 | 11,338 | 9,037 | 10,289 | 11,776 | 8,734 | 6,595 |
| 80% | 7,655 | 7,664 | 9,879 | 12,835 | 16,522 | 13,426 | 10,281 | 8,418 | 9,790 | 11,228 | 8,421 | 6,535 |
| 90% | 6,454 | 6,927 | 9,261 | 10,984 | 14,368 | 11,586 | 8,911 | 7,949 | 8,712 | 9,848 | 7,901 | 6,418 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,372 | 10,695 | 21,739 | 30,880 | 36,894 | 30,403 | 19,496 | 11,002 | 11,561 | 13,674 | 9,765 | 13,112 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 9,000 | 14,383 | 36,363 | 50,229 | 56,220 | 46,849 | 30,782 | 12,286 | 11,847 | 17,046 | 8,760 | 23,139 |
| Above Normal | 9,456 | 9,948 | 19,204 | 39,596 | 52,210 | 36,648 | 18,223 | 12,048 | 12,037 | 14,830 | 9,000 | 15,709 |
| Below Normal | 8,181 | 9,217 | 16,201 | 23,971 | 25,220 | 23,202 | 16,438 | 11,367 | 12,366 | 12,784 | 10,143 | 6,570 |
| Dry | 7,696 | 9,092 | 14,202 | 15,859 | 23,621 | 20,721 | 12,940 | 10,444 | 11,584 | 11,699 | 11,004 | 6,583 |
| Critical | 7,353 | 7,660 | 10,939 | 13,483 | 15,749 | 12,985 | 10,448 | 7,796 | 9,592 | 9,567 | 10,167 | 6,974 |

**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 23 | -334 | -894 | -100 | 37 | -726 | 0 | 0 | -44 | -2 | 0 | 0 |
| 20% | 54 | -16 | -1,326 | -1,291 | -268 | -67 | 17 | -2 | 33 | 0 | -7 | 2 |
| 30% | 58 | -17 | -634 | -2,302 | -1,635 | -1,028 | -3 | -2 | 8 | 6 | 1 | 0 |
| 40% | 0 | -7 | -157 | -1,352 | -824 | -1,363 | -127 | -78 | 2 | -3 | 0 | 1 |
| 50% | 0 | -20 | -136 | -601 | -1,051 | -399 | -3 | 0 | -25 | -21 | -58 | -1 |
| 60% | -14 | -5 | -18 | -419 | -928 | -118 | 0 | -11 | 17 | 0 | 0 | 0 |
| 70% | -2 | -5 | -46 | -82 | -373 | -76 | -5 | 0 | 0 | 3 | 0 | 0 |
| 80% | 0 | -2 | -34 | -39 | -151 | -63 | 127 | 0 | 0 | 187 | 0 | 0 |
| 90% | 34 | -2 | -1 | -14 | -16 | 8 | 0 | -7 | 0 | -36 | 1 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 22 | -103 | -343 | -596 | -604 | -321 | -5 | -8 | -5 | 0 | -7 | -4 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4 | -251 | -725 | -805 | -725 | -345 | 30 | 7 | 1 | 1 | -17 | -11 |
| Above Normal | 166 | -81 | -391 | -938 | -701 | -520 | 2 | 0 | -1 | 0 | -4 | 0 |
| Below Normal | -2 | -19 | -198 | -744 | -737 | -370 | -55 | -19 | 9 | -17 | 0 | 0 |
| Dry | 0 | -36 | -95 | -283 | -539 | -321 | -21 | -27 | 4 | -16 | 1 | 0 |
| Critical | -9 | -3 | -41 | -191 | -218 | -36 | -6 | 0 | -53 | 40 | -6 | -1 |

**Long-Term and Water Year-Type Average of Total CVP Deliveries North of the Delta Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 1,473 | 705 | 382 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 | 2,234 |
| Future - Alternative 5 | 1,473 | 705 | 383 | 224 | 235 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 | 2,234 |
| Difference | 0 | 0 | 1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 1,422 | 667 | 363 | 222 | 239 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,181 | 2,142 | 2,294 |
| Future - Alternative 5 | 1,422 | 667 | 363 | 223 | 240 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,180 | 2,142 | 2,294 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 1,457 | 694 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 | 2,288 |
| Future - Alternative 5 | 1,454 | 694 | 376 | 226 | 236 | 239 | 4,896 | 5,545 | 7,961 | 7,971 | 5,944 | 2,186 | 2,287 |
| Difference | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 1,574 | 746 | 411 | 234 | 233 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 | 2,280 |
| Future - Alternative 5 | 1,574 | 746 | 417 | 234 | 227 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 | 2,281 |
| Difference | 0 | 0 | 7 | 0 | -6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 2% | 0% | -3% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 | 2,233 |
| Future - Alternative 5 | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 | 2,233 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 | 2,004 |
| Future - Alternative 5 | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 | 2,004 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total CVP Deliveries North of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,805 | 942 | 487 | 299 | 267 | 609 | 6,547 | 6,089 | 8,526 | 8,483 | 6,489 | 2,345 |
| 20% | 1,755 | 883 | 457 | 252 | 247 | 417 | 5,972 | 5,927 | 8,171 | 8,021 | 6,143 | 2,197 |
| 30% | 1,658 | 800 | 416 | 226 | 238 | 324 | 5,606 | 5,855 | 8,035 | 7,830 | 5,984 | 2,126 |
| 40% | 1,589 | 744 | 392 | 214 | 238 | 246 | 5,384 | 5,734 | 7,885 | 7,765 | 5,908 | 2,076 |
| 50% | 1,479 | 674 | 372 | 213 | 238 | 223 | 5,166 | 5,604 | 7,789 | 7,720 | 5,830 | 1,992 |
| 60% | 1,378 | 629 | 349 | 213 | 232 | 214 | 4,809 | 5,360 | 7,687 | 7,626 | 5,729 | 1,927 |
| 70% | 1,309 | 601 | 337 | 211 | 230 | 212 | 4,680 | 5,116 | 7,576 | 7,431 | 5,626 | 1,790 |
| 80% | 1,217 | 552 | 310 | 198 | 212 | 212 | 4,277 | 4,968 | 7,405 | 7,212 | 5,449 | 1,713 |
| 90% | 1,119 | 511 | 297 | 183 | 206 | 199 | 3,070 | 4,539 | 7,117 | 7,088 | 5,246 | 1,500 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,473 | 705 | 382 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,422 | 667 | 363 | 222 | 239 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,181 | 2,142 |
| Above Normal | 1,457 | 694 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 |
| Below Normal | 1,574 | 746 | 411 | 234 | 233 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 |
| Dry | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 |
| Critical | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 |

**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,805 | 942 | 487 | 299 | 267 | 609 | 6,547 | 6,089 | 8,526 | 8,483 | 6,490 | 2,345 |
| 20% | 1,755 | 883 | 457 | 252 | 247 | 416 | 5,972 | 5,927 | 8,170 | 8,021 | 6,143 | 2,197 |
| 30% | 1,657 | 800 | 423 | 226 | 238 | 324 | 5,606 | 5,864 | 8,035 | 7,830 | 5,984 | 2,126 |
| 40% | 1,589 | 744 | 394 | 214 | 238 | 246 | 5,384 | 5,734 | 7,885 | 7,765 | 5,909 | 2,076 |
| 50% | 1,479 | 674 | 376 | 213 | 238 | 223 | 5,166 | 5,603 | 7,789 | 7,720 | 5,830 | 1,993 |
| 60% | 1,378 | 629 | 350 | 213 | 231 | 214 | 4,809 | 5,360 | 7,685 | 7,633 | 5,728 | 1,926 |
| 70% | 1,309 | 601 | 337 | 211 | 230 | 212 | 4,680 | 5,116 | 7,576 | 7,438 | 5,626 | 1,791 |
| 80% | 1,217 | 552 | 310 | 198 | 210 | 212 | 4,277 | 4,968 | 7,402 | 7,209 | 5,449 | 1,713 |
| 90% | 1,119 | 511 | 297 | 183 | 203 | 199 | 3,070 | 4,539 | 7,116 | 7,088 | 5,246 | 1,499 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,473 | 705 | 383 | 224 | 235 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,422 | 667 | 363 | 223 | 240 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,180 | 2,142 |
| Above Normal | 1,454 | 694 | 376 | 226 | 236 | 239 | 4,896 | 5,545 | 7,961 | 7,971 | 5,944 | 2,186 |
| Below Normal | 1,574 | 746 | 417 | 234 | 227 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 |
| Dry | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 |
| Critical | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 |

**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | -1 | 0 | 8 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 1 | 0 |
| 50% | 0 | 0 | 4 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 |
| 60% | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | -2 | 7 | -1 | -1 |
| 70% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 |
| 80% | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -1 | -3 | -2 | 0 | 0 |
| 90% | 0 | 0 | 0 | 0 | -3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 0 | 1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 0 | 7 | 0 | -6 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Dry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Long-Term and Water Year-Type Average of Total CVP Deliveries South of the Delta Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 2,541 | 1,483 | 1,013 | 1,043 | 1,435 | 1,900 | 2,274 | 3,350 | 4,776 | 5,105 | 4,521 | 3,213 | 1,977 |
| Future - Alternative 5 | 2,541 | 1,483 | 1,013 | 1,043 | 1,434 | 1,900 | 2,274 | 3,350 | 4,776 | 5,104 | 4,521 | 3,213 | 1,977 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,232 | 2,721 | 3,999 | 5,835 | 6,367 | 5,454 | 3,566 | 2,313 |
| Future - Alternative 5 | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,231 | 2,720 | 3,998 | 5,833 | 6,365 | 5,453 | 3,565 | 2,313 |
| Difference | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -1 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 2,596 | 1,530 | 1,079 | 1,152 | 1,565 | 2,038 | 2,507 | 3,669 | 5,292 | 5,715 | 4,982 | 3,398 | 2,150 |
| Future - Alternative 5 | 2,596 | 1,530 | 1,079 | 1,151 | 1,565 | 2,038 | 2,507 | 3,669 | 5,291 | 5,714 | 4,981 | 3,398 | 2,150 |
| Difference | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | -1 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 2,569 | 1,496 | 1,013 | 1,030 | 1,414 | 1,790 | 2,113 | 3,233 | 4,568 | 4,845 | 4,352 | 3,183 | 1,913 |
| Future - Alternative 5 | 2,570 | 1,496 | 1,013 | 1,031 | 1,416 | 1,792 | 2,114 | 3,232 | 4,568 | 4,845 | 4,351 | 3,183 | 1,914 |
| Difference | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | -1 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 2,498 | 1,450 | 976 | 989 | 1,372 | 1,737 | 2,052 | 3,009 | 4,201 | 4,404 | 4,029 | 3,068 | 1,802 |
| Future - Alternative 5 | 2,498 | 1,449 | 976 | 989 | 1,370 | 1,739 | 2,052 | 3,009 | 4,201 | 4,404 | 4,030 | 3,068 | 1,802 |
| Difference | 0 | 0 | -1 | -1 | -1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 2,345 | 1,334 | 839 | 773 | 1,100 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 | 1,447 |
| Future - Alternative 5 | 2,345 | 1,334 | 839 | 773 | 1,099 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 | 1,447 |
| Difference | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total CVP Deliveries South of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,941 | 1,798 | 1,415 | 1,688 | 2,240 | 2,237 | 2,991 | 4,427 | 6,543 | 7,218 | 6,075 | 3,780 |
| 20% | 2,680 | 1,582 | 1,131 | 1,233 | 1,686 | 2,097 | 2,545 | 3,727 | 5,389 | 5,832 | 5,065 | 3,423 |
| 30% | 2,638 | 1,550 | 1,086 | 1,155 | 1,563 | 2,032 | 2,485 | 3,587 | 5,156 | 5,552 | 4,863 | 3,357 |
| 40% | 2,592 | 1,514 | 1,037 | 1,069 | 1,461 | 1,991 | 2,369 | 3,431 | 4,896 | 5,239 | 4,638 | 3,283 |
| 50% | 2,558 | 1,488 | 1,001 | 1,006 | 1,392 | 1,953 | 2,330 | 3,318 | 4,708 | 5,013 | 4,475 | 3,229 |
| 60% | 2,543 | 1,477 | 986 | 979 | 1,342 | 1,867 | 2,220 | 3,270 | 4,627 | 4,915 | 4,405 | 3,206 |
| 70% | 2,503 | 1,445 | 943 | 909 | 1,280 | 1,698 | 2,023 | 3,147 | 4,424 | 4,671 | 4,227 | 3,144 |
| 80% | 2,317 | 1,285 | 758 | 649 | 946 | 1,506 | 1,789 | 2,595 | 3,551 | 3,699 | 3,435 | 2,852 |
| 90% | 2,252 | 1,229 | 666 | 483 | 770 | 1,506 | 1,565 | 2,402 | 3,208 | 3,212 | 3,156 | 2,749 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,541 | 1,483 | 1,013 | 1,043 | 1,435 | 1,900 | 2,274 | 3,350 | 4,776 | 5,105 | 4,521 | 3,213 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,232 | 2,721 | 3,999 | 5,835 | 6,367 | 5,454 | 3,566 |
| Above Normal | 2,596 | 1,530 | 1,079 | 1,152 | 1,565 | 2,038 | 2,507 | 3,669 | 5,292 | 5,715 | 4,982 | 3,398 |
| Below Normal | 2,569 | 1,496 | 1,013 | 1,030 | 1,414 | 1,790 | 2,113 | 3,233 | 4,568 | 4,845 | 4,352 | 3,183 |
| Dry | 2,498 | 1,450 | 976 | 989 | 1,372 | 1,737 | 2,052 | 3,009 | 4,201 | 4,404 | 4,029 | 3,068 |
| Critical | 2,345 | 1,334 | 839 | 773 | 1,100 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 |

**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,941 | 1,798 | 1,415 | 1,688 | 2,240 | 2,237 | 2,989 | 4,427 | 6,543 | 7,217 | 6,075 | 3,780 |
| 20% | 2,680 | 1,582 | 1,131 | 1,233 | 1,686 | 2,097 | 2,545 | 3,727 | 5,389 | 5,832 | 5,065 | 3,423 |
| 30% | 2,638 | 1,550 | 1,086 | 1,155 | 1,563 | 2,032 | 2,486 | 3,587 | 5,156 | 5,552 | 4,863 | 3,357 |
| 40% | 2,591 | 1,514 | 1,037 | 1,069 | 1,461 | 1,990 | 2,368 | 3,431 | 4,896 | 5,239 | 4,638 | 3,283 |
| 50% | 2,557 | 1,488 | 1,001 | 1,005 | 1,396 | 1,952 | 2,329 | 3,316 | 4,704 | 5,008 | 4,471 | 3,228 |
| 60% | 2,543 | 1,477 | 986 | 979 | 1,341 | 1,867 | 2,229 | 3,270 | 4,627 | 4,915 | 4,405 | 3,206 |
| 70% | 2,503 | 1,444 | 943 | 909 | 1,280 | 1,701 | 2,023 | 3,145 | 4,422 | 4,669 | 4,225 | 3,143 |
| 80% | 2,316 | 1,284 | 758 | 648 | 945 | 1,506 | 1,789 | 2,592 | 3,547 | 3,692 | 3,431 | 2,850 |
| 90% | 2,252 | 1,229 | 666 | 483 | 770 | 1,506 | 1,565 | 2,402 | 3,208 | 3,212 | 3,156 | 2,749 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,541 | 1,483 | 1,013 | 1,043 | 1,434 | 1,900 | 2,274 | 3,350 | 4,776 | 5,104 | 4,521 | 3,213 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,231 | 2,720 | 3,998 | 5,833 | 6,365 | 5,453 | 3,565 |
| Above Normal | 2,596 | 1,530 | 1,079 | 1,151 | 1,565 | 2,038 | 2,507 | 3,669 | 5,291 | 5,714 | 4,981 | 3,398 |
| Below Normal | 2,570 | 1,496 | 1,013 | 1,031 | 1,416 | 1,792 | 2,114 | 3,232 | 4,568 | 4,845 | 4,351 | 3,183 |
| Dry | 2,498 | 1,449 | 976 | 989 | 1,370 | 1,739 | 2,052 | 3,009 | 4,201 | 4,404 | 4,030 | 3,068 |
| Critical | 2,345 | 1,334 | 839 | 773 | 1,099 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 |

**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 |
| 50% | -1 | -1 | -1 | -1 | 3 | -1 | -1 | -2 | -4 | -5 | -3 | -1 |
| 60% | 0 | 0 | 0 | 0 | -1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 0 | 0 | -1 | -1 | 3 | 0 | -1 | -2 | -2 | -2 | -1 |
| 80% | -1 | -1 | -1 | -1 | -1 | 0 | 0 | -3 | -5 | -6 | -4 | -1 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -1 | -1 | -1 | 0 |
| Above Normal | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Below Normal | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 0 | -1 | -1 | -1 | 0 |
| Dry | 0 | 0 | -1 | -1 | -1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Long-Term and Water Year-Type Average of Total SWP Deliveries North of the Delta Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 1,383 | 1,394 | 894 | 328 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 | 1,154 |
| Future - Alternative 5 | 1,382 | 1,393 | 894 | 326 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 | 1,154 |
| Difference | 0 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 1,303 | 1,401 | 853 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 | 1,213 |
| Future - Alternative 5 | 1,316 | 1,417 | 863 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 | 1,215 |
| Difference | 13 | 16 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Percent Difference | 1% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 | 1,275 |
| Future - Alternative 5 | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 | 1,275 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 1,651 | 1,640 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 | 1,216 |
| Future - Alternative 5 | 1,651 | 1,639 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 | 1,216 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,083 | 2,985 | 2,385 | 1,750 | 1,136 |
| Future - Alternative 5 | 1,319 | 1,224 | 815 | 339 | 9 | 103 | 2,053 | 2,604 | 3,082 | 2,985 | 2,385 | 1,750 | 1,132 |
| Difference | -18 | -24 | -14 | -8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -4 |
| Percent Difference | -1% | -2% | -2% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 | 881 |
| Future - Alternative 5 | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 | 881 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total SWP Deliveries North of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,163 | 2,065 | 1,372 | 614 | 20 | 198 | 2,860 | 3,128 | 3,657 | 3,561 | 2,846 | 2,296 |
| 20% | 2,011 | 1,961 | 1,290 | 520 | 20 | 128 | 2,556 | 3,038 | 3,510 | 3,477 | 2,800 | 2,233 |
| 30% | 1,827 | 1,898 | 1,219 | 469 | 20 | 45 | 2,378 | 2,974 | 3,442 | 3,369 | 2,687 | 2,175 |
| 40% | 1,653 | 1,843 | 1,157 | 443 | 19 | 45 | 2,110 | 2,899 | 3,373 | 3,302 | 2,608 | 2,118 |
| 50% | 1,404 | 1,703 | 1,024 | 383 | 15 | 45 | 2,006 | 2,738 | 3,312 | 3,227 | 2,577 | 2,049 |
| 60% | 1,320 | 1,495 | 940 | 266 | 11 | 45 | 1,845 | 2,648 | 3,201 | 3,168 | 2,531 | 1,963 |
| 70% | 1,203 | 1,193 | 681 | 154 | 4 | 45 | 1,739 | 2,470 | 3,116 | 3,106 | 2,484 | 1,662 |
| 80% | 861 | 570 | 347 | 60 | 3 | 32 | 1,397 | 1,931 | 2,987 | 2,952 | 2,290 | 1,247 |
| 90% | 277 | 53 | 12 | 11 | 2 | 20 | 1,141 | 1,669 | 1,927 | 1,929 | 1,506 | 987 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,383 | 1,394 | 894 | 328 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,303 | 1,401 | 853 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 |
| Above Normal | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 |
| Below Normal | 1,651 | 1,640 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 |
| Dry | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,083 | 2,985 | 2,385 | 1,750 |
| Critical | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 |

**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,163 | 2,065 | 1,372 | 611 | 20 | 198 | 2,860 | 3,128 | 3,657 | 3,561 | 2,846 | 2,296 |
| 20% | 1,976 | 1,951 | 1,290 | 513 | 20 | 128 | 2,556 | 3,038 | 3,510 | 3,477 | 2,800 | 2,233 |
| 30% | 1,796 | 1,893 | 1,219 | 464 | 20 | 45 | 2,378 | 2,974 | 3,442 | 3,369 | 2,686 | 2,175 |
| 40% | 1,653 | 1,825 | 1,151 | 443 | 19 | 45 | 2,110 | 2,899 | 3,373 | 3,302 | 2,608 | 2,118 |
| 50% | 1,404 | 1,672 | 991 | 383 | 15 | 45 | 2,006 | 2,738 | 3,312 | 3,227 | 2,577 | 2,049 |
| 60% | 1,320 | 1,486 | 931 | 266 | 11 | 45 | 1,845 | 2,648 | 3,200 | 3,168 | 2,531 | 1,963 |
| 70% | 1,203 | 1,193 | 681 | 154 | 4 | 45 | 1,739 | 2,470 | 3,116 | 3,106 | 2,484 | 1,662 |
| 80% | 860 | 570 | 347 | 60 | 3 | 31 | 1,397 | 1,931 | 2,987 | 2,952 | 2,290 | 1,247 |
| 90% | 311 | 79 | 12 | 11 | 2 | 20 | 1,141 | 1,669 | 1,927 | 1,929 | 1,506 | 987 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,382 | 1,393 | 894 | 326 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,316 | 1,417 | 863 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 |
| Above Normal | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 |
| Below Normal | 1,651 | 1,639 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 |
| Dry | 1,319 | 1,224 | 815 | 339 | 9 | 103 | 2,053 | 2,604 | 3,082 | 2,985 | 2,385 | 1,750 |
| Critical | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 |

**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | -35 | -11 | 0 | -7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | -30 | -4 | 0 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | -17 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | -30 | -34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | -9 | -8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 |
| 70% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 34 | 26 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | -1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | -1 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 13 | 16 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | -18 | -24 | -14 | -8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Long-Term and Water Year-Type Average of Total SWP Deliveries South of the Delta Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 4,043 | 2,984 | 3,596 | 472 | 840 | 1,531 | 2,542 | 3,813 | 5,165 | 5,535 | 5,706 | 4,829 | 2,489 |
| Future - Alternative 5 | 4,042 | 2,980 | 3,581 | 469 | 838 | 1,522 | 2,533 | 3,804 | 5,157 | 5,530 | 5,700 | 4,824 | 2,484 |
| Difference | -1 | -4 | -15 | -3 | -2 | -9 | -10 | -9 | -8 | -4 | -6 | -6 | -5 |
| Percent Difference | 0% | 0% | 0% | -1% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 4,344 | 2,993 | 4,138 | 1,107 | 1,816 | 2,666 | 3,835 | 5,364 | 6,773 | 6,814 | 7,151 | 6,006 | 3,210 |
| Future - Alternative 5 | 4,355 | 2,994 | 4,105 | 1,106 | 1,813 | 2,664 | 3,834 | 5,363 | 6,771 | 6,812 | 7,149 | 6,004 | 3,208 |
| Difference | 10 | 1 | -33 | -1 | -3 | -1 | -1 | -1 | -2 | -2 | -2 | -2 | -2 |
| Percent Difference | 0% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 4,230 | 3,445 | 3,981 | 275 | 949 | 2,295 | 3,530 | 4,967 | 6,244 | 6,377 | 6,711 | 5,656 | 2,949 |
| Future - Alternative 5 | 4,220 | 3,439 | 3,973 | 253 | 948 | 2,291 | 3,527 | 4,964 | 6,239 | 6,371 | 6,707 | 5,651 | 2,945 |
| Difference | -10 | -7 | -8 | -21 | -1 | -4 | -3 | -4 | -5 | -5 | -4 | -4 | -5 |
| Percent Difference | 0% | 0% | 0% | -8% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 4,466 | 3,200 | 3,761 | 277 | 460 | 940 | 2,653 | 3,955 | 5,476 | 6,029 | 6,261 | 5,329 | 2,596 |
| Future - Alternative 5 | 4,461 | 3,196 | 3,757 | 276 | 459 | 894 | 2,636 | 3,950 | 5,468 | 6,020 | 6,248 | 5,319 | 2,589 |
| Difference | -5 | -4 | -4 | 0 | -1 | -47 | -17 | -4 | -8 | -9 | -13 | -11 | -7 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | -5% | -1% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 3,825 | 2,760 | 3,103 | 122 | 199 | 821 | 1,523 | 2,587 | 4,084 | 4,826 | 4,854 | 4,140 | 1,994 |
| Future - Alternative 5 | 3,819 | 2,752 | 3,096 | 122 | 196 | 818 | 1,502 | 2,560 | 4,070 | 4,829 | 4,854 | 4,137 | 1,988 |
| Difference | -6 | -9 | -7 | 0 | -3 | -2 | -22 | -27 | -13 | 3 | 1 | -2 | -5 |
| Percent Difference | 0% | 0% | 0% | 0% | -2% | 0% | -1% | -1% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 3,125 | 2,678 | 2,710 | 71 | 105 | 198 | 415 | 1,284 | 2,155 | 2,635 | 2,470 | 2,132 | 1,213 |
| Future - Alternative 5 | 3,122 | 2,674 | 2,703 | 71 | 105 | 197 | 409 | 1,278 | 2,144 | 2,620 | 2,453 | 2,117 | 1,208 |
| Difference | -3 | -4 | -8 | 0 | 0 | -1 | -6 | -6 | -11 | -16 | -17 | -15 | -5 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | -1% | 0% | -1% | -1% | -1% | -1% | 0% |

**Total SWP Deliveries South of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 6,024 | 4,586 | 5,669 | 1,962 | 2,014 | 2,905 | 4,303 | 5,987 | 7,491 | 7,386 | 7,710 | 6,606 |
| 20% | 5,428 | 4,361 | 5,320 | 595 | 1,939 | 2,706 | 3,782 | 5,413 | 6,881 | 7,045 | 7,177 | 6,208 |
| 30% | 5,007 | 4,042 | 4,484 | 231 | 1,754 | 2,547 | 3,546 | 4,855 | 6,162 | 6,469 | 6,763 | 5,710 |
| 40% | 4,894 | 3,793 | 4,121 | 172 | 634 | 2,500 | 3,396 | 4,756 | 6,020 | 6,231 | 6,634 | 5,517 |
| 50% | 4,695 | 3,368 | 3,879 | 145 | 305 | 1,970 | 3,227 | 4,579 | 5,814 | 6,154 | 6,532 | 5,440 |
| 60% | 4,383 | 2,362 | 3,600 | 104 | 193 | 456 | 2,566 | 3,547 | 5,530 | 5,944 | 6,369 | 5,228 |
| 70% | 2,920 | 2,054 | 2,708 | 91 | 137 | 337 | 1,514 | 2,544 | 4,505 | 5,640 | 5,920 | 4,934 |
| 80% | 2,451 | 1,296 | 1,887 | 72 | 112 | 220 | 520 | 2,078 | 3,482 | 4,247 | 3,946 | 3,332 |
| 90% | 1,299 | 897 | 964 | 56 | 55 | 146 | 301 | 1,184 | 1,956 | 2,357 | 2,163 | 1,854 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 4,043 | 2,984 | 3,596 | 472 | 840 | 1,531 | 2,542 | 3,813 | 5,165 | 5,535 | 5,706 | 4,829 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4,344 | 2,993 | 4,138 | 1,107 | 1,816 | 2,666 | 3,835 | 5,364 | 6,773 | 6,814 | 7,151 | 6,006 |
| Above Normal | 4,230 | 3,445 | 3,981 | 275 | 949 | 2,295 | 3,530 | 4,967 | 6,244 | 6,377 | 6,711 | 5,656 |
| Below Normal | 4,466 | 3,200 | 3,761 | 277 | 460 | 940 | 2,653 | 3,955 | 5,476 | 6,029 | 6,261 | 5,329 |
| Dry | 3,825 | 2,760 | 3,103 | 122 | 199 | 821 | 1,523 | 2,587 | 4,084 | 4,826 | 4,854 | 4,140 |
| Critical | 3,125 | 2,678 | 2,710 | 71 | 105 | 198 | 415 | 1,284 | 2,155 | 2,635 | 2,470 | 2,132 |

**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 6,027 | 4,586 | 5,670 | 1,965 | 2,014 | 2,904 | 4,306 | 5,988 | 7,493 | 7,390 | 7,707 | 6,606 |
| 20% | 5,430 | 4,362 | 5,319 | 595 | 1,939 | 2,681 | 3,783 | 5,413 | 6,881 | 7,037 | 7,166 | 6,209 |
| 30% | 5,007 | 4,042 | 4,484 | 233 | 1,748 | 2,584 | 3,547 | 4,855 | 6,161 | 6,496 | 6,778 | 5,705 |
| 40% | 4,894 | 3,772 | 4,112 | 172 | 615 | 2,486 | 3,347 | 4,756 | 6,020 | 6,233 | 6,635 | 5,523 |
| 50% | 4,683 | 3,356 | 3,869 | 145 | 308 | 1,942 | 3,227 | 4,570 | 5,805 | 6,155 | 6,532 | 5,437 |
| 60% | 4,351 | 2,366 | 3,526 | 107 | 193 | 456 | 2,509 | 3,437 | 5,488 | 5,940 | 6,348 | 5,226 |
| 70% | 2,959 | 2,042 | 2,499 | 91 | 137 | 335 | 1,470 | 2,534 | 4,488 | 5,642 | 5,901 | 4,936 |
| 80% | 2,467 | 1,299 | 1,886 | 72 | 111 | 219 | 525 | 2,095 | 3,512 | 4,279 | 3,975 | 3,353 |
| 90% | 1,299 | 894 | 956 | 56 | 55 | 145 | 297 | 1,171 | 1,934 | 2,330 | 2,138 | 1,848 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 4,042 | 2,980 | 3,581 | 469 | 838 | 1,522 | 2,533 | 3,804 | 5,157 | 5,530 | 5,700 | 4,824 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4,355 | 2,994 | 4,105 | 1,106 | 1,813 | 2,664 | 3,834 | 5,363 | 6,771 | 6,812 | 7,149 | 6,004 |
| Above Normal | 4,220 | 3,439 | 3,973 | 253 | 948 | 2,291 | 3,527 | 4,964 | 6,239 | 6,371 | 6,707 | 5,651 |
| Below Normal | 4,461 | 3,196 | 3,757 | 276 | 459 | 894 | 2,636 | 3,950 | 5,468 | 6,020 | 6,248 | 5,319 |
| Dry | 3,819 | 2,752 | 3,096 | 122 | 196 | 818 | 1,502 | 2,560 | 4,070 | 4,829 | 4,854 | 4,137 |
| Critical | 3,122 | 2,674 | 2,703 | 71 | 105 | 197 | 409 | 1,278 | 2,144 | 2,620 | 2,453 | 2,117 |

**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 3 | 1 | 1 | 3 | 0 | -1 | 3 | 1 | 2 | 4 | -2 | 0 |
| 20% | 2 | 0 | -1 | -1 | 0 | -25 | 0 | 0 | 1 | -9 | -11 | 1 |
| 30% | -1 | 0 | 0 | 2 | -6 | 36 | 1 | -1 | -1 | 27 | 15 | -5 |
| 40% | 0 | -21 | -10 | 0 | -19 | -15 | -50 | 0 | 0 | 2 | 1 | 6 |
| 50% | -12 | -12 | -10 | 0 | 4 | -28 | 0 | -9 | -8 | 1 | 0 | -3 |
| 60% | -33 | 4 | -75 | 3 | 0 | 0 | -57 | -110 | -42 | -4 | -21 | -2 |
| 70% | 39 | -12 | -209 | 0 | 0 | -2 | -44 | -9 | -17 | 2 | -19 | 2 |
| 80% | 16 | 3 | -1 | 0 | 0 | -1 | 5 | 17 | 30 | 32 | 29 | 21 |
| 90% | 0 | -3 | -9 | 0 | 0 | -1 | -3 | -13 | -22 | -27 | -24 | -6 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -4 | -15 | -3 | -2 | -9 | -10 | -9 | -8 | -4 | -6 | -6 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 10 | 1 | -33 | -1 | -3 | -1 | -1 | -1 | -2 | -2 | -2 | -2 |
| Above Normal | -10 | -7 | -8 | -21 | -1 | -4 | -3 | -4 | -5 | -5 | -4 | -4 |
| Below Normal | -5 | -4 | -4 | 0 | -1 | -47 | -17 | -4 | -8 | -9 | -13 | -11 |
| Dry | -6 | -9 | -7 | 0 | -3 | -2 | -22 | -27 | -13 | 3 | 1 | -2 |
| Critical | -3 | -4 | -8 | 0 | 0 | -1 | -6 | -6 | -11 | -16 | -17 | -15 |

**Long-Term and Water Year-Type Average of Fremont Weir Spill to Yolo Bypass Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 43 | 57 | 2,754 | 12,157 | 16,930 | 8,465 | 1,050 | 3 | 0 | 0 | 0 | 0 | 2,453 |
| Future - Alternative 5 | 43 | 162 | 3,104 | 12,792 | 17,614 | 8,794 | 1,050 | 3 | 0 | 0 | 0 | 0 | 2,579 |
| Difference | 0 | 105 | 350 | 635 | 684 | 329 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| Percent Difference | 0% | 185% | 13% | 5% | 4% | 4% | 0% | 0% | 0% | 0% | 0% | 0% | 5% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 135 | 180 | 7,592 | 34,147 | 41,220 | 23,151 | 3,236 | 10 | 0 | 0 | 0 | 0 | 6,503 |
| Future - Alternative 5 | 135 | 447 | 8,376 | 35,015 | 42,013 | 23,454 | 3,236 | 10 | 0 | 0 | 0 | 0 | 6,683 |
| Difference | 0 | 267 | 784 | 867 | 794 | 303 | 0 | 0 | 0 | 0 | 0 | 0 | 180 |
| Percent Difference | 0% | 148% | 10% | 3% | 2% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 3% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 946 | 9,205 | 25,241 | 6,208 | 14 | 0 | 0 | 0 | 0 | 0 | 2,432 |
| Future - Alternative 5 | 0 | 70 | 1,198 | 10,133 | 26,065 | 6,715 | 14 | 0 | 0 | 0 | 0 | 0 | 2,586 |
| Difference | 0 | 70 | 253 | 928 | 823 | 506 | 0 | 0 | 0 | 0 | 0 | 0 | 154 |
| Percent Difference | 0% | 0% | 27% | 10% | 3% | 8% | 0% | 0% | 0% | 0% | 0% | 0% | 6% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 1,390 | 583 | 1,456 | 737 | 137 | 0 | 0 | 0 | 0 | 0 | 257 |
| Future - Alternative 5 | 0 | 19 | 1,599 | 1,381 | 2,258 | 1,179 | 137 | 0 | 0 | 0 | 0 | 0 | 392 |
| Difference | 0 | 19 | 209 | 798 | 802 | 442 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| Percent Difference | 0% | 0% | 15% | 137% | 55% | 60% | 0% | 0% | 0% | 0% | 0% | 0% | 53% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 0 | 11 | 981 | 717 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| Future - Alternative 5 | 0 | 32 | 116 | 331 | 1,613 | 1,071 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| Difference | 0 | 32 | 116 | 321 | 632 | 353 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |
| Percent Difference | 0% | 0% | 0% | 2965% | 64% | 49% | 0% | 0% | 0% | 0% | 0% | 0% | 86% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Future - Alternative 5 | 0 | 3 | 39 | 209 | 304 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| Difference | 0 | 3 | 39 | 209 | 278 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| Percent Difference | 0% | 0% | 0% | 0% | 1067% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2340% |

**Fremont Weir Spill to Yolo Bypass**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 9,636 | 45,653 | 68,479 | 26,076 | 480 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 0 | 417 | 14,794 | 32,134 | 7,332 | 2 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 0 | 0 | 2,685 | 10,131 | 3,487 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | 0 | 83 | 4,103 | 180 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 0 | 0 | 0 | 501 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 43 | 57 | 2,754 | 12,157 | 16,930 | 8,465 | 1,050 | 3 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 135 | 180 | 7,592 | 34,147 | 41,220 | 23,151 | 3,236 | 10 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 0 | 946 | 9,205 | 25,241 | 6,208 | 14 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 0 | 1,390 | 583 | 1,456 | 737 | 137 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 0 | 0 | 11 | 981 | 717 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

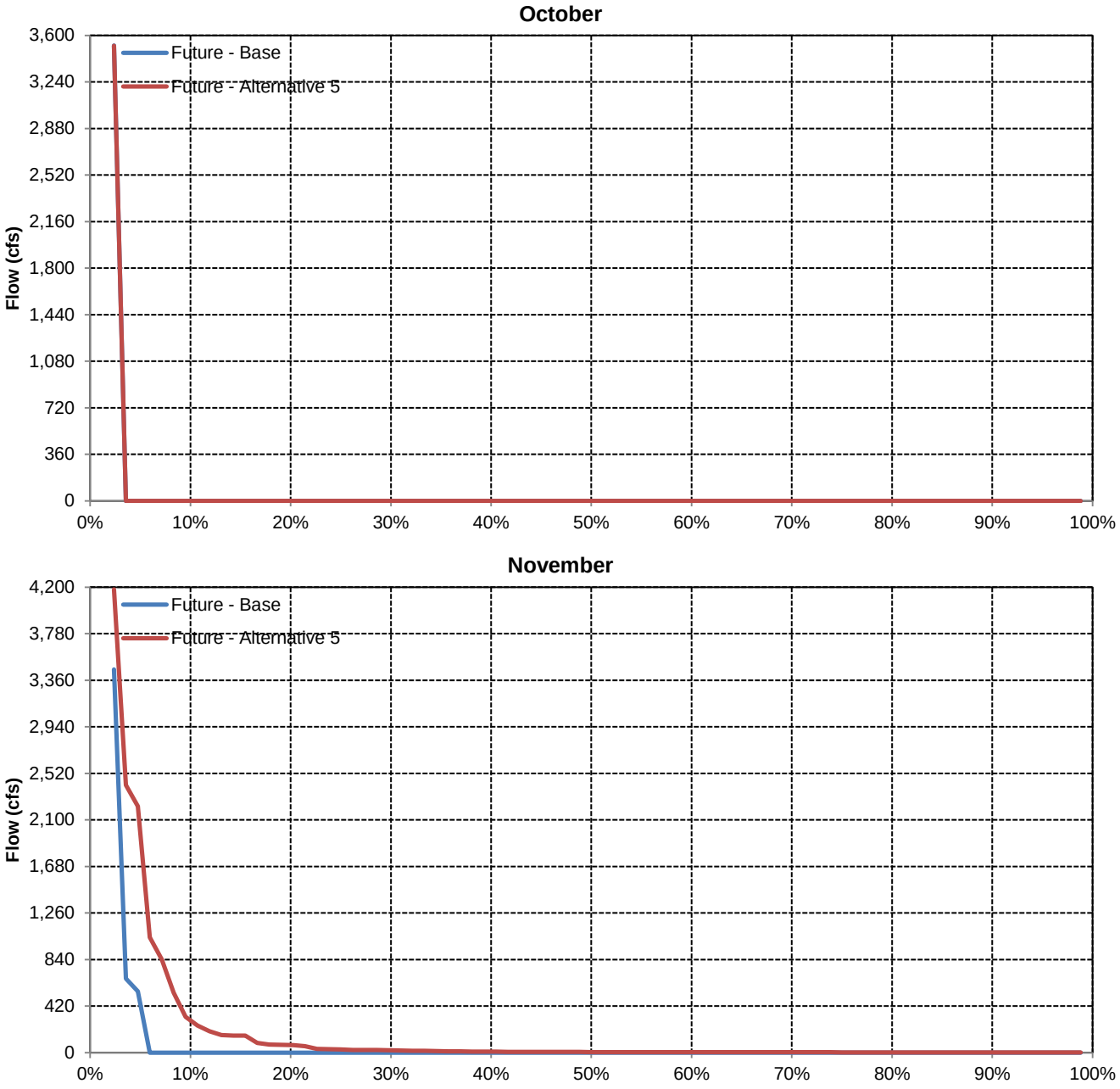
**Future - Alternative 5**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 229 | 9,793 | 45,653 | 68,636 | 26,337 | 480 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 61 | 2,077 | 15,735 | 32,643 | 7,645 | 2 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 19 | 450 | 4,701 | 11,442 | 4,002 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 8 | 249 | 1,876 | 5,422 | 1,514 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 5 | 124 | 816 | 2,273 | 477 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 4 | 29 | 441 | 1,033 | 230 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 4 | 9 | 96 | 421 | 130 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 3 | 5 | 24 | 170 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 3 | 3 | 9 | 29 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 43 | 162 | 3,104 | 12,792 | 17,614 | 8,794 | 1,050 | 3 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 135 | 447 | 8,376 | 35,015 | 42,013 | 23,454 | 3,236 | 10 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 70 | 1,198 | 10,133 | 26,065 | 6,715 | 14 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 19 | 1,599 | 1,381 | 2,258 | 1,179 | 137 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 32 | 116 | 331 | 1,613 | 1,071 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 3 | 39 | 209 | 304 | 62 | 0 | 0 | 0 | 0 | 0 | 0 |

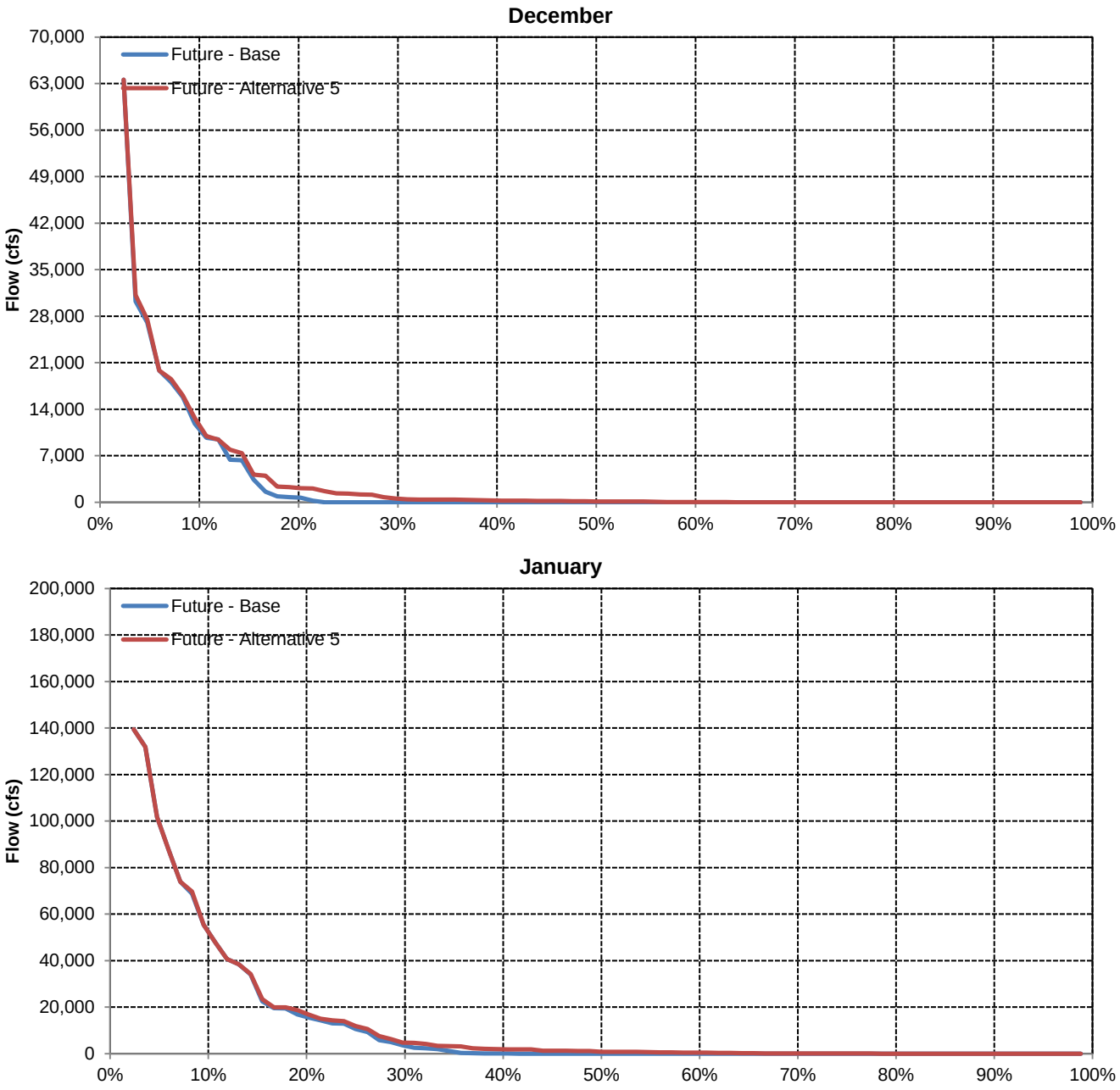
**Future - Alternative 5 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 229 | 157 | 0 | 157 | 261 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 61 | 1,660 | 942 | 508 | 314 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 19 | 450 | 2,016 | 1,311 | 514 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 8 | 249 | 1,793 | 1,319 | 1,334 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 5 | 124 | 816 | 1,772 | 477 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 4 | 29 | 441 | 1,030 | 230 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 4 | 9 | 96 | 421 | 130 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 3 | 5 | 24 | 170 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 3 | 3 | 9 | 29 | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 105 | 350 | 635 | 684 | 329 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 267 | 784 | 867 | 794 | 303 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 70 | 253 | 928 | 823 | 506 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 19 | 209 | 798 | 802 | 442 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 32 | 116 | 321 | 632 | 353 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 3 | 39 | 209 | 278 | 62 | 0 | 0 | 0 | 0 | 0 | 0 |

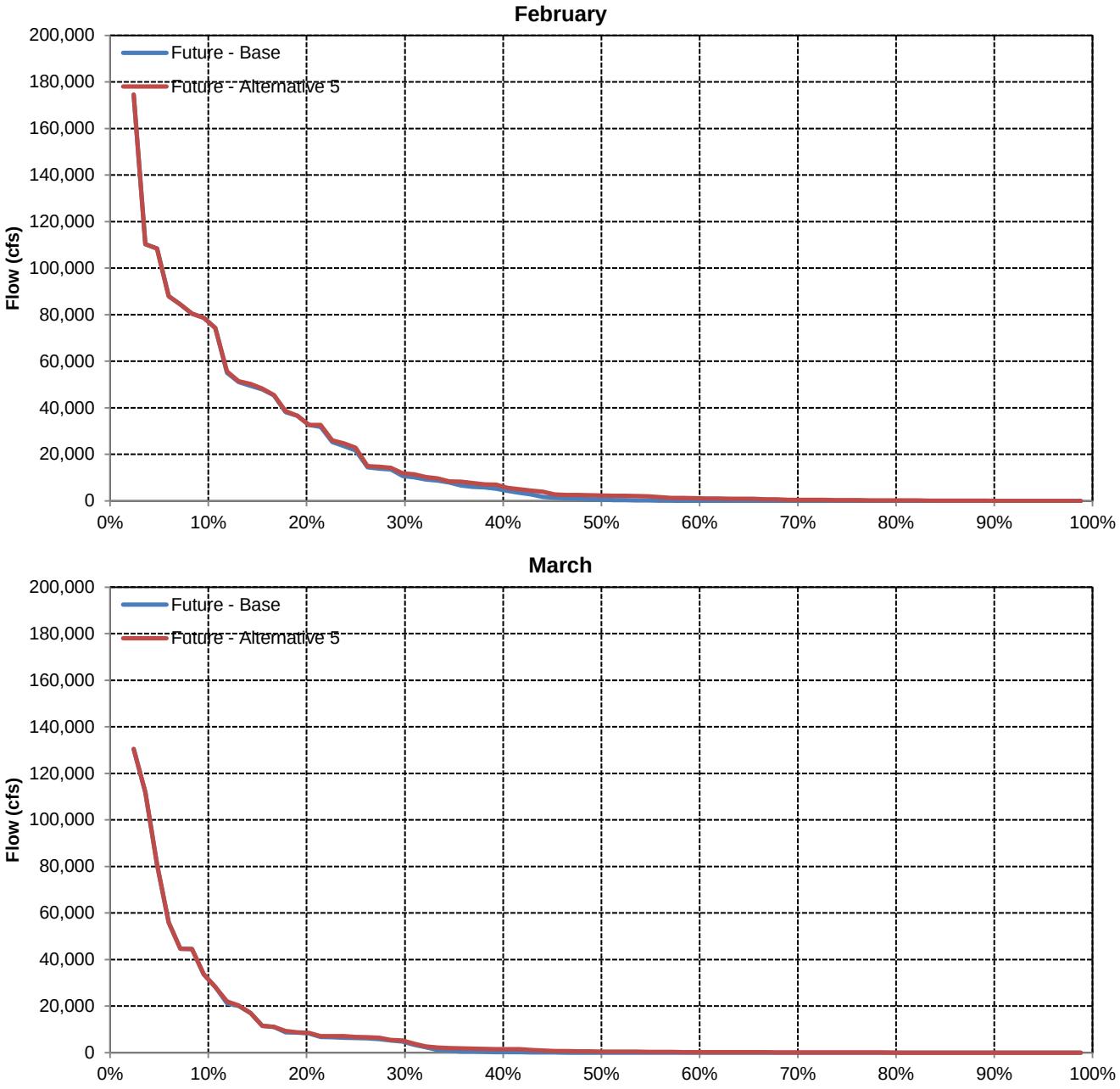
## Fremont Weir Spill to Yolo Bypass



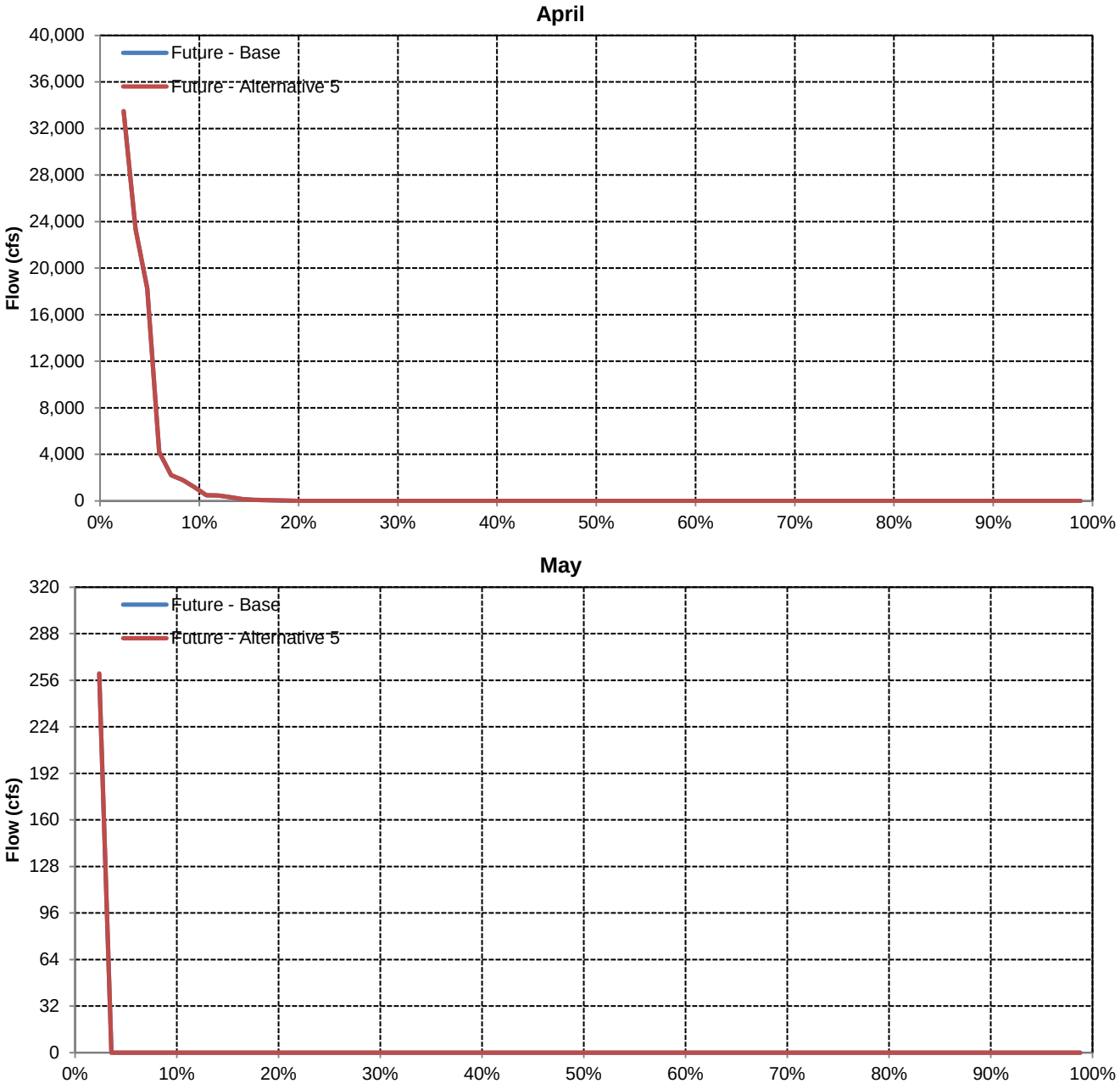
## Fremont Weir Spill to Yolo Bypass



## Fremont Weir Spill to Yolo Bypass

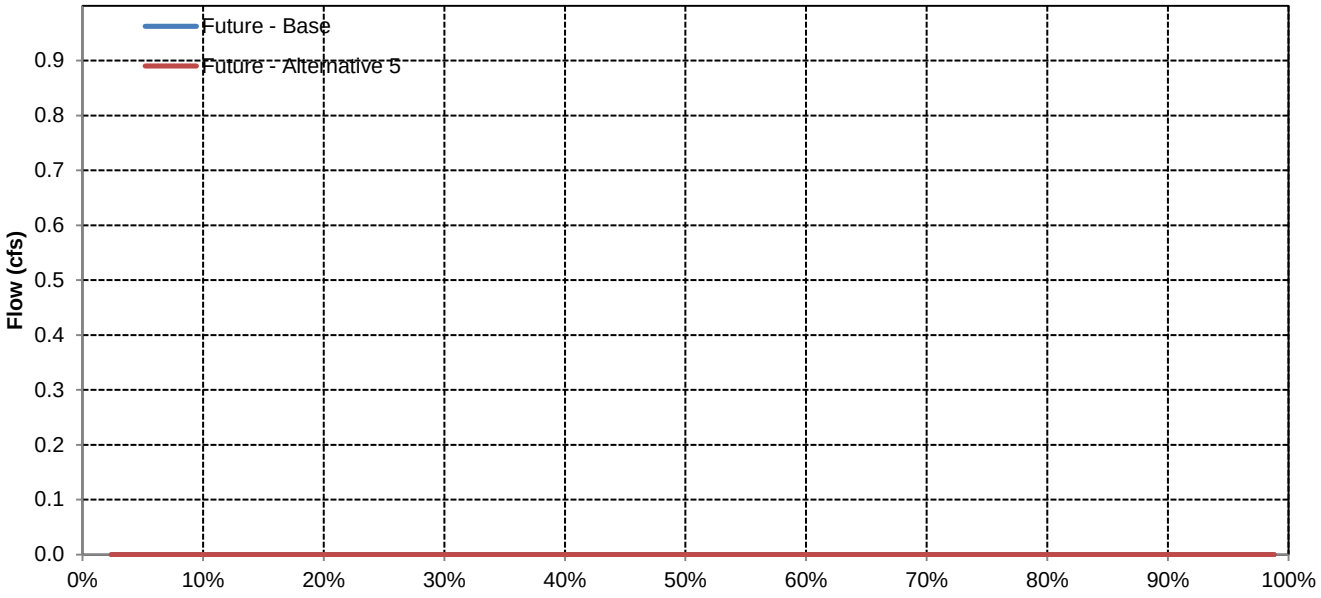


## Fremont Weir Spill to Yolo Bypass

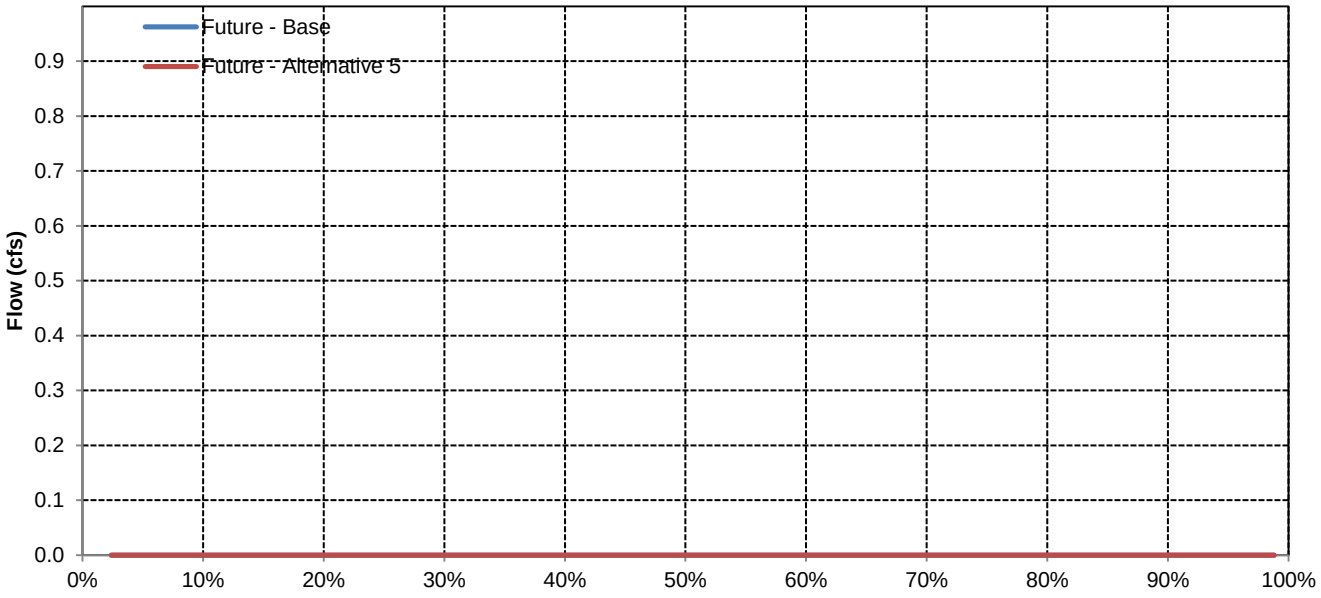


## Fremont Weir Spill to Yolo Bypass

### June

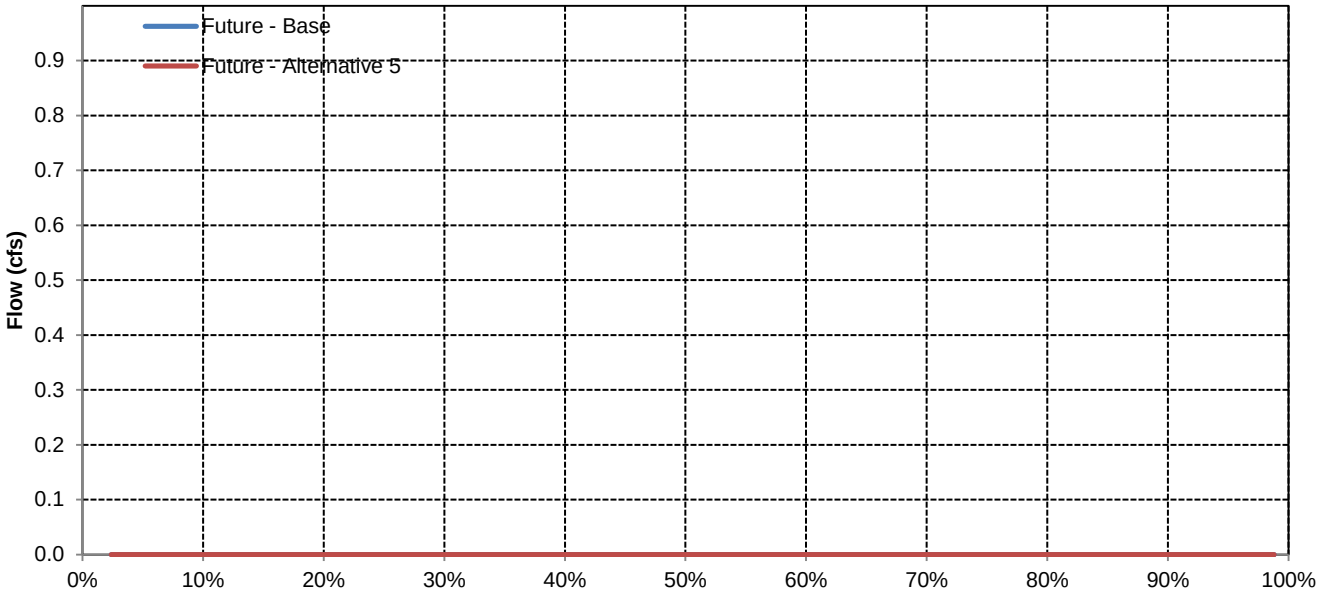



### July

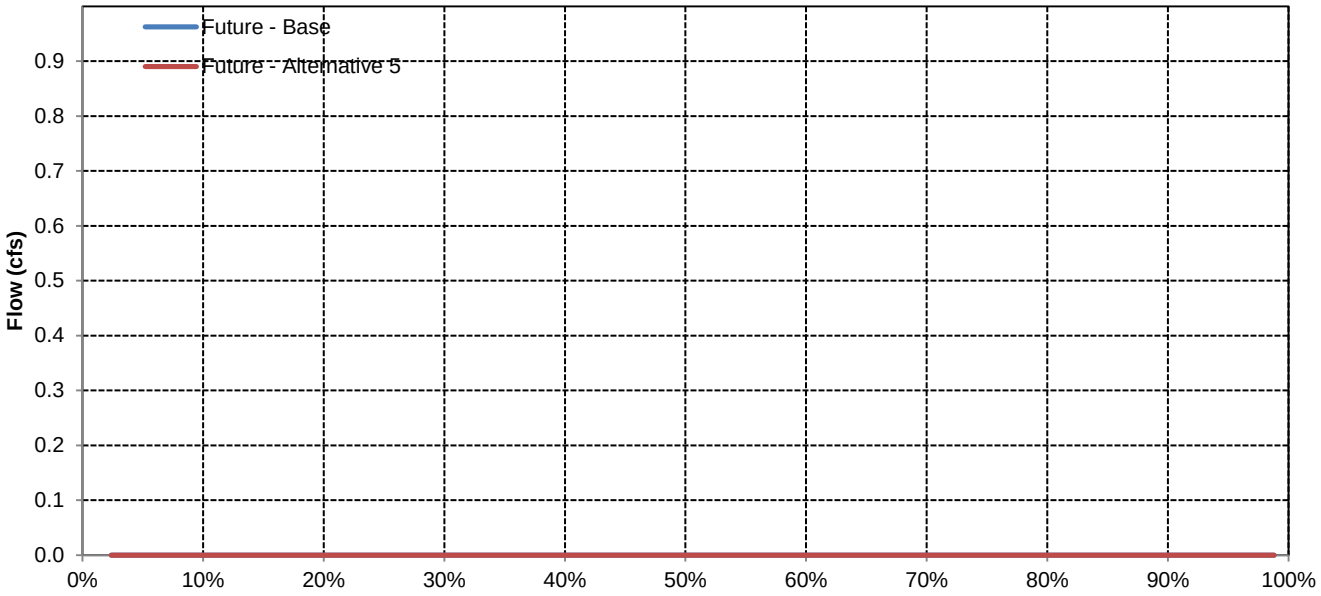


## Fremont Weir Spill to Yolo Bypass

### August




### September



**Long-Term and Water Year-Type Average of Sacramento River below Fremont Weir Under Future - Base and Future - Alternative 5**

| Analysis Period | October | November | December | January | February | March | April | May | June | July | August | September | Total (TAF) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Average Flow (cfs) | | | | | | |
| | | | | | | | Long-Term | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 9,206 | 10,728 | 19,728 | 30,030 | 35,978 | 31,028 | 17,571 | 10,459 | 13,675 | 15,358 | 11,273 | 13,824 | 13,150 |
| Future - Alternative 5 | 9,239 | 10,621 | 19,350 | 29,388 | 35,312 | 30,698 | 17,569 | 10,449 | 13,686 | 15,357 | 11,280 | 13,812 | 13,025 |
| Difference | 33 | -107 | -378 | -642 | -667 | -330 | -2 | -11 | 11 | -1 | 7 | -11 | -125 |
| Percent Difference | 0% | -1% | -2% | -2% | -2% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| | | | | | | | Water Year-Types | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 10,316 | 14,168 | 33,582 | 49,490 | 54,700 | 46,345 | 27,848 | 12,029 | 14,178 | 18,965 | 12,787 | 23,425 | 19,081 |
| Future - Alternative 5 | 10,324 | 13,902 | 32,791 | 48,621 | 53,954 | 46,045 | 27,848 | 12,025 | 14,178 | 18,959 | 12,761 | 23,409 | 18,900 |
| Difference | 8 | -265 | -791 | -869 | -747 | -300 | 0 | -4 | 0 | -6 | -26 | -16 | -181 |
| Percent Difference | 0% | -2% | -2% | -2% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 10,180 | 10,600 | 18,133 | 38,066 | 50,270 | 39,380 | 16,639 | 11,646 | 16,362 | 17,891 | 12,383 | 16,466 | 15,480 |
| Future - Alternative 5 | 10,368 | 10,520 | 17,681 | 37,085 | 49,533 | 38,882 | 16,642 | 11,646 | 16,366 | 17,885 | 12,379 | 16,466 | 15,327 |
| Difference | 188 | -80 | -452 | -981 | -737 | -498 | 2 | 0 | 4 | -6 | -4 | 1 | -153 |
| Percent Difference | 2% | -1% | -2% | -3% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 9,254 | 9,797 | 13,924 | 23,209 | 25,545 | 24,426 | 14,615 | 10,760 | 14,962 | 15,443 | 10,464 | 8,153 | 10,869 |
| Future - Alternative 5 | 9,281 | 9,775 | 13,714 | 22,414 | 24,743 | 23,985 | 14,615 | 10,700 | 15,073 | 15,437 | 10,549 | 8,151 | 10,744 |
| Difference | 28 | -22 | -210 | -795 | -803 | -441 | 0 | -60 | 111 | -6 | 85 | -2 | -126 |
| Percent Difference | 0% | 0% | -2% | -3% | -3% | -2% | 0% | -1% | 1% | 0% | 1% | 0% | -1% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 8,186 | 9,309 | 12,579 | 14,935 | 22,880 | 21,608 | 11,530 | 9,425 | 13,173 | 12,523 | 10,169 | 7,654 | 9,257 |
| Future - Alternative 5 | 8,185 | 9,277 | 12,470 | 14,614 | 22,212 | 21,255 | 11,522 | 9,425 | 13,216 | 12,503 | 10,160 | 7,632 | 9,169 |
| Difference | -1 | -33 | -109 | -320 | -668 | -354 | -8 | 0 | 43 | -20 | -9 | -22 | -89 |
| Percent Difference | 0% | 0% | -1% | -2% | -3% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | -1% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 7,552 | 6,764 | 9,375 | 13,050 | 15,447 | 13,038 | 9,429 | 7,372 | 9,565 | 9,855 | 9,692 | 7,025 | 7,121 |
| Future - Alternative 5 | 7,564 | 6,760 | 9,333 | 12,841 | 15,169 | 12,955 | 9,427 | 7,370 | 9,446 | 9,907 | 9,724 | 7,021 | 7,083 |
| Difference | 12 | -4 | -42 | -209 | -278 | -83 | -1 | -2 | -119 | 52 | 31 | -4 | -38 |
| Percent Difference | 0% | 0% | 0% | -2% | -2% | -1% | 0% | 0% | -1% | 1% | 0% | 0% | -1% |

**Sacramento River below Fremont Weir**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 11,897 | 16,169 | 45,741 | 61,582 | 63,120 | 58,501 | 40,381 | 14,264 | 19,317 | 20,306 | 15,937 | 23,746 |
| 20% | 10,789 | 13,042 | 30,986 | 52,000 | 59,936 | 50,976 | 24,134 | 12,203 | 18,036 | 19,458 | 13,060 | 23,231 |
| 30% | 9,787 | 11,409 | 19,616 | 42,207 | 50,229 | 42,750 | 16,494 | 11,100 | 17,030 | 17,789 | 11,135 | 21,443 |
| 40% | 9,396 | 10,373 | 16,258 | 31,518 | 42,508 | 33,844 | 14,502 | 10,319 | 14,771 | 17,206 | 10,721 | 14,835 |
| 50% | 9,004 | 9,580 | 14,683 | 22,826 | 32,845 | 25,125 | 12,720 | 9,227 | 12,760 | 16,197 | 10,366 | 9,351 |
| 60% | 8,421 | 8,564 | 12,034 | 17,536 | 23,964 | 20,148 | 10,605 | 8,847 | 11,697 | 14,641 | 10,117 | 8,213 |
| 70% | 7,953 | 7,746 | 10,580 | 14,086 | 19,326 | 17,034 | 9,863 | 8,329 | 10,907 | 12,994 | 9,872 | 7,627 |
| 80% | 6,644 | 6,697 | 8,469 | 11,527 | 15,457 | 13,796 | 9,349 | 7,855 | 9,488 | 11,435 | 9,571 | 7,237 |
| 90% | 6,027 | 5,916 | 7,135 | 10,183 | 12,838 | 10,799 | 8,626 | 7,207 | 8,168 | 9,224 | 9,229 | 6,510 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 9,206 | 10,728 | 19,728 | 30,030 | 35,978 | 31,028 | 17,571 | 10,459 | 13,675 | 15,358 | 11,273 | 13,824 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 10,316 | 14,168 | 33,582 | 49,490 | 54,700 | 46,345 | 27,848 | 12,029 | 14,178 | 18,965 | 12,787 | 23,425 |
| Above Normal | 10,180 | 10,600 | 18,133 | 38,066 | 50,270 | 39,380 | 16,639 | 11,646 | 16,362 | 17,891 | 12,383 | 16,466 |
| Below Normal | 9,254 | 9,797 | 13,924 | 23,209 | 25,545 | 24,426 | 14,615 | 10,760 | 14,962 | 15,443 | 10,464 | 8,153 |
| Dry | 8,186 | 9,309 | 12,579 | 14,935 | 22,880 | 21,608 | 11,530 | 9,425 | 13,173 | 12,523 | 10,169 | 7,654 |
| Critical | 7,552 | 6,764 | 9,375 | 13,050 | 15,447 | 13,038 | 9,429 | 7,372 | 9,565 | 9,855 | 9,692 | 7,025 |

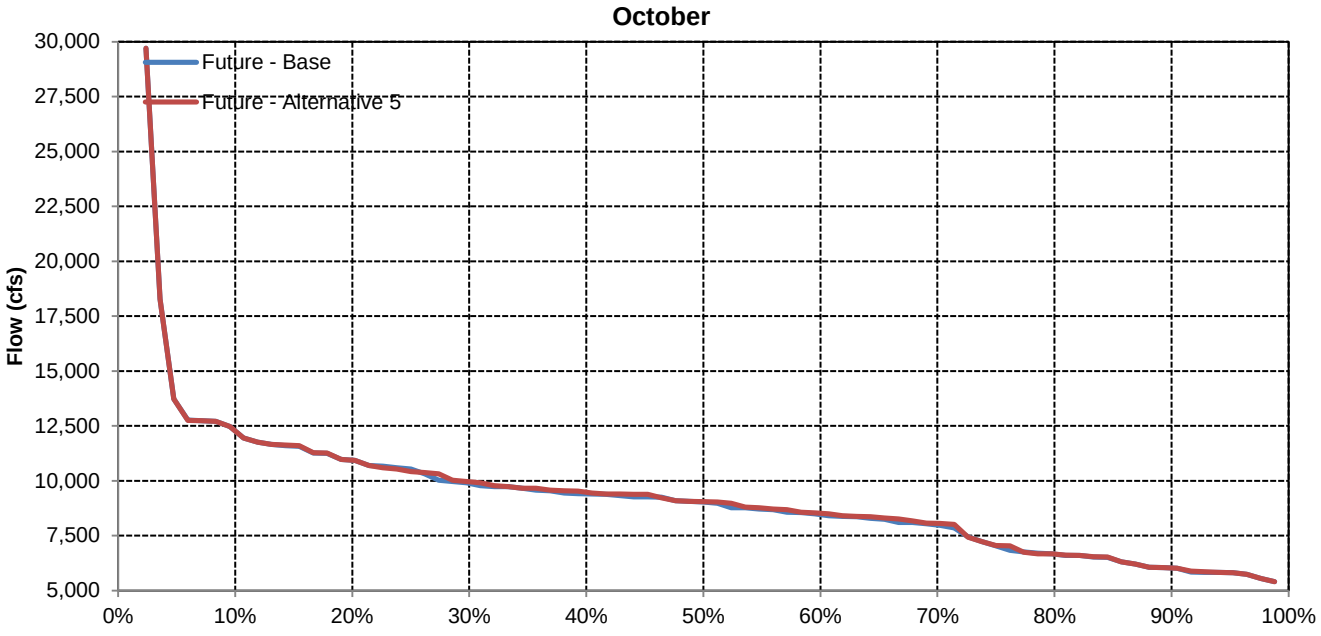
**Future - Alternative 5**

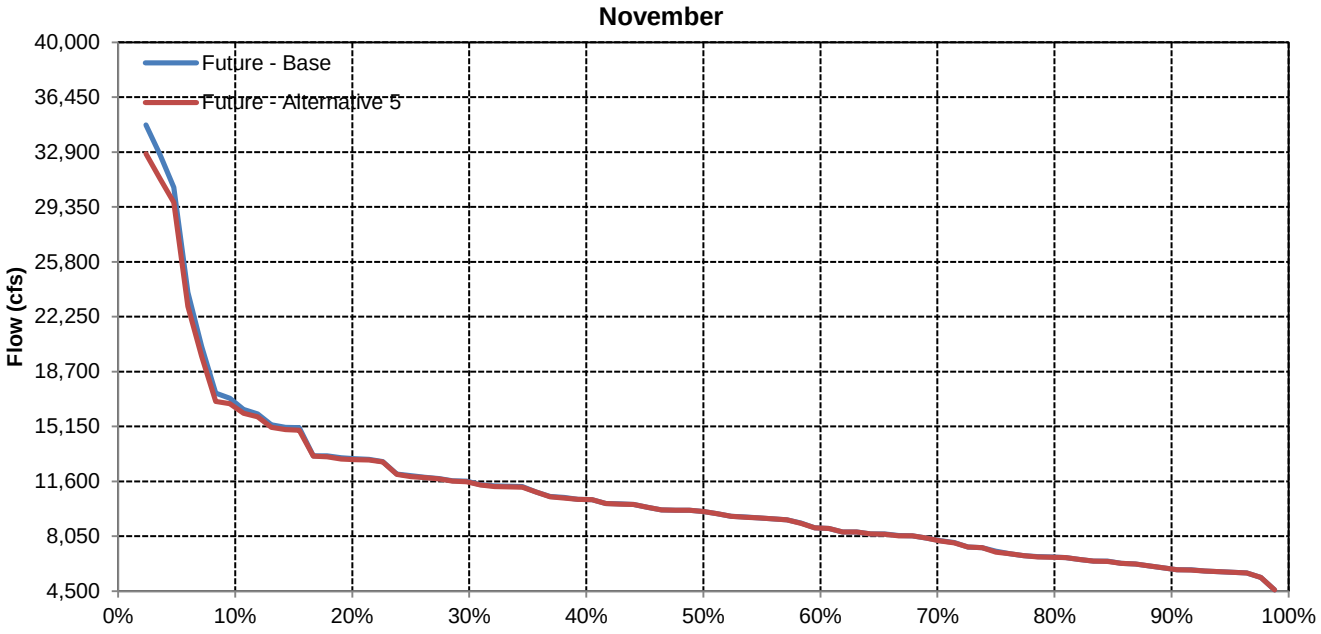
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 11,897 | 15,931 | 44,359 | 61,430 | 63,132 | 58,501 | 40,381 | 14,264 | 19,318 | 20,306 | 16,331 | 23,749 |
| 20% | 10,789 | 12,990 | 29,741 | 50,629 | 59,693 | 50,906 | 24,151 | 12,203 | 18,232 | 19,460 | 13,063 | 23,235 |
| 30% | 9,909 | 11,384 | 19,180 | 40,529 | 48,478 | 41,845 | 16,489 | 10,978 | 17,029 | 17,861 | 11,153 | 21,444 |
| 40% | 9,435 | 10,368 | 16,038 | 29,622 | 41,372 | 32,381 | 14,501 | 10,320 | 15,002 | 17,357 | 10,721 | 14,834 |
| 50% | 9,035 | 9,575 | 14,474 | 21,863 | 30,882 | 24,826 | 12,720 | 9,213 | 12,755 | 16,198 | 10,323 | 9,340 |
| 60% | 8,507 | 8,559 | 11,991 | 17,047 | 23,003 | 19,922 | 10,605 | 8,843 | 11,599 | 14,737 | 10,131 | 8,131 |
| 70% | 8,049 | 7,741 | 10,697 | 14,045 | 18,922 | 16,829 | 9,863 | 8,328 | 10,907 | 12,996 | 9,873 | 7,627 |
| 80% | 6,651 | 6,675 | 8,389 | 11,518 | 15,333 | 13,727 | 9,359 | 7,855 | 9,488 | 11,435 | 9,571 | 7,239 |
| 90% | 6,028 | 5,913 | 7,133 | 10,170 | 12,821 | 10,795 | 8,626 | 7,207 | 8,168 | 9,226 | 9,229 | 6,508 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 9,239 | 10,621 | 19,350 | 29,388 | 35,312 | 30,698 | 17,569 | 10,449 | 13,686 | 15,357 | 11,280 | 13,812 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 10,324 | 13,902 | 32,791 | 48,621 | 53,954 | 46,045 | 27,848 | 12,025 | 14,178 | 18,959 | 12,761 | 23,409 |
| Above Normal | 10,368 | 10,520 | 17,681 | 37,085 | 49,533 | 38,882 | 16,642 | 11,646 | 16,366 | 17,885 | 12,379 | 16,466 |
| Below Normal | 9,281 | 9,775 | 13,714 | 22,414 | 24,743 | 23,985 | 14,615 | 10,700 | 15,073 | 15,437 | 10,549 | 8,151 |
| Dry | 8,185 | 9,277 | 12,470 | 14,614 | 22,212 | 21,255 | 11,522 | 9,425 | 13,216 | 12,503 | 10,160 | 7,632 |
| Critical | 7,564 | 6,760 | 9,333 | 12,841 | 15,169 | 12,955 | 9,427 | 7,370 | 9,446 | 9,907 | 9,724 | 7,021 |

**Future - Alternative 5 Minus Future - Base**

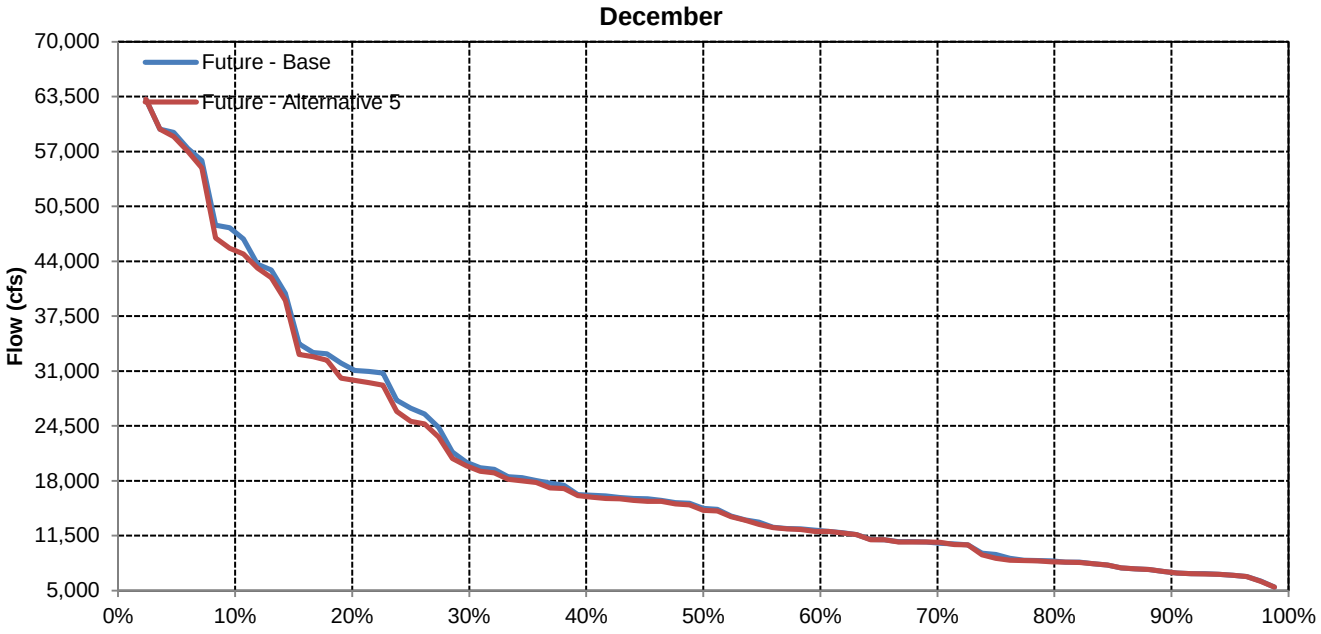
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | -239 | -1,382 | -152 | 12 | 0 | 0 | 0 | 1 | 0 | 394 | 4 |
| 20% | 0 | -52 | -1,245 | -1,371 | -242 | -69 | 17 | 0 | 196 | 2 | 3 | 4 |
| 30% | 122 | -25 | -436 | -1,678 | -1,751 | -905 | -6 | -122 | -1 | 71 | 18 | 1 |
| 40% | 39 | -5 | -220 | -1,897 | -1,136 | -1,463 | -1 | 1 | 231 | 151 | 0 | -1 |
| 50% | 32 | -4 | -209 | -963 | -1,963 | -299 | 0 | -14 | -5 | 1 | -43 | -11 |
| 60% | 86 | -5 | -43 | -489 | -960 | -226 | 0 | -4 | -98 | 96 | 14 | -81 |
| 70% | 96 | -5 | 116 | -41 | -405 | -205 | 0 | 0 | 0 | 2 | 1 | -1 |
| 80% | 7 | -23 | -80 | -9 | -124 | -70 | 9 | 0 | 0 | 0 | 0 | 2 |
| 90% | 0 | -2 | -2 | -12 | -18 | -5 | 0 | 0 | 0 | 1 | 1 | -1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 33 | -107 | -378 | -642 | -667 | -330 | -2 | -11 | 11 | -1 | 7 | -11 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 8 | -265 | -791 | -869 | -747 | -300 | 0 | -4 | 0 | -6 | -26 | -16 |
| Above Normal | 188 | -80 | -452 | -981 | -737 | -498 | 2 | 0 | 4 | -6 | -4 | 1 |
| Below Normal | 28 | -22 | -210 | -795 | -803 | -441 | 0 | -60 | 111 | -6 | 85 | -2 |
| Dry | -1 | -33 | -109 | -320 | -668 | -354 | -8 | 0 | 43 | -20 | -9 | -22 |
| Critical | 12 | -4 | -42 | -209 | -278 | -83 | -1 | -2 | -119 | 52 | 31 | -4 |

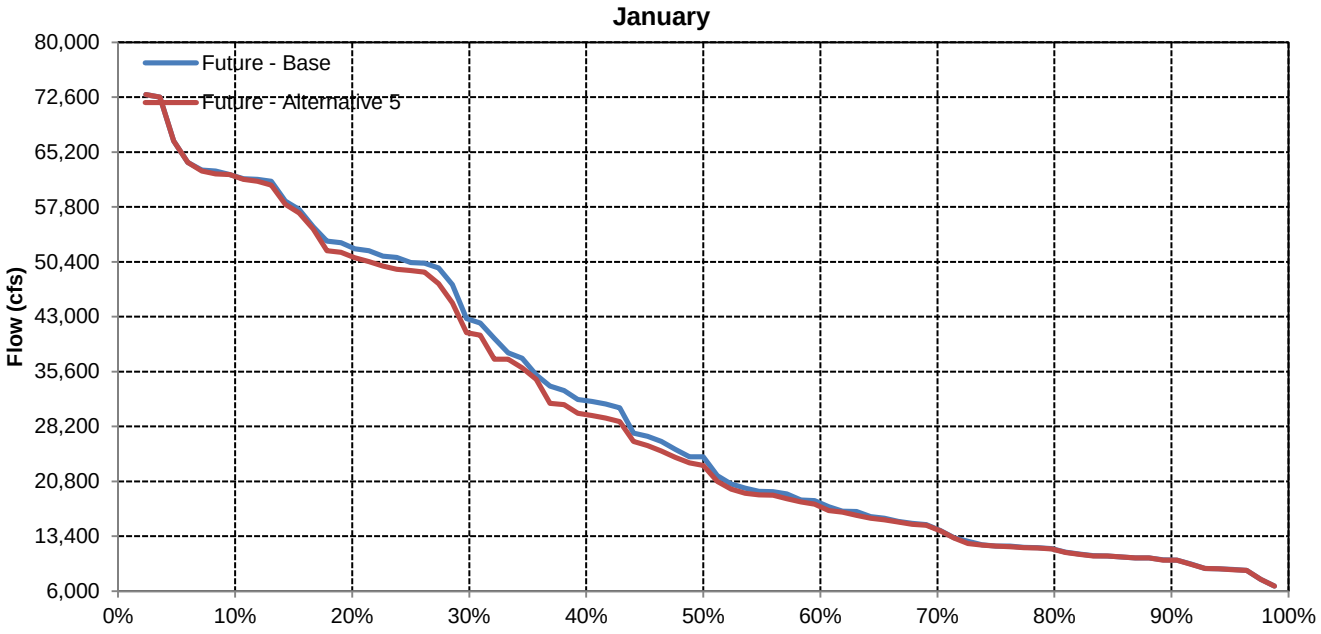
## Sacramento River below Fremont Weir



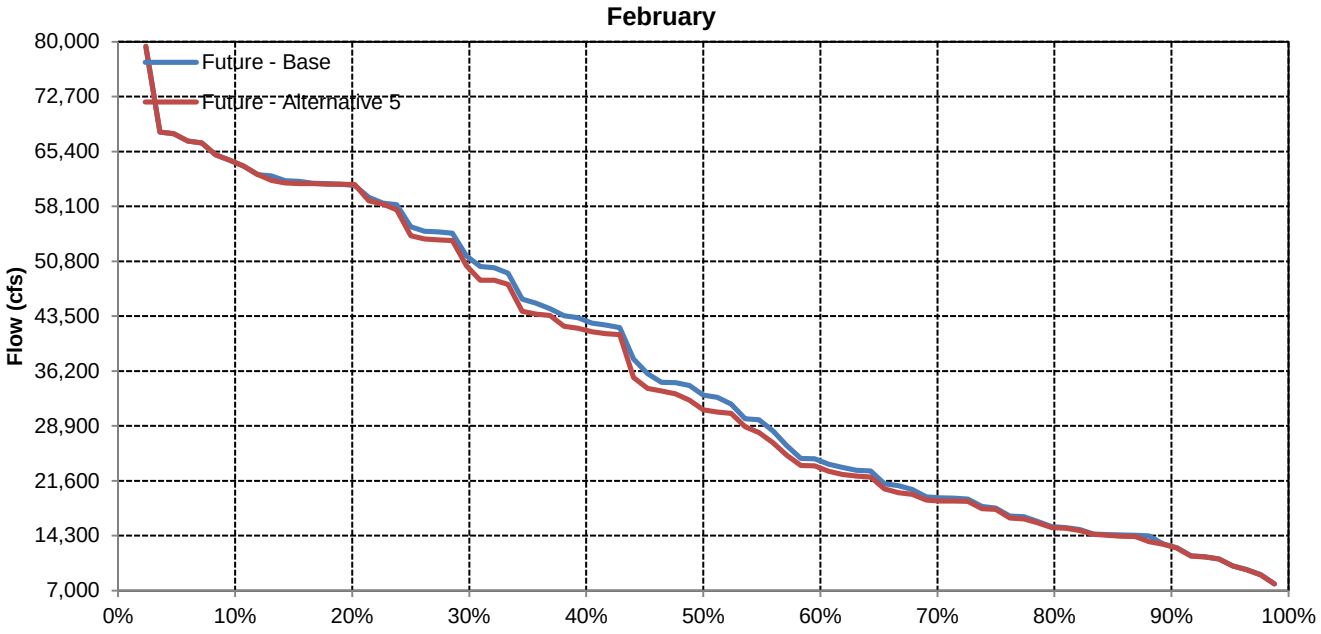



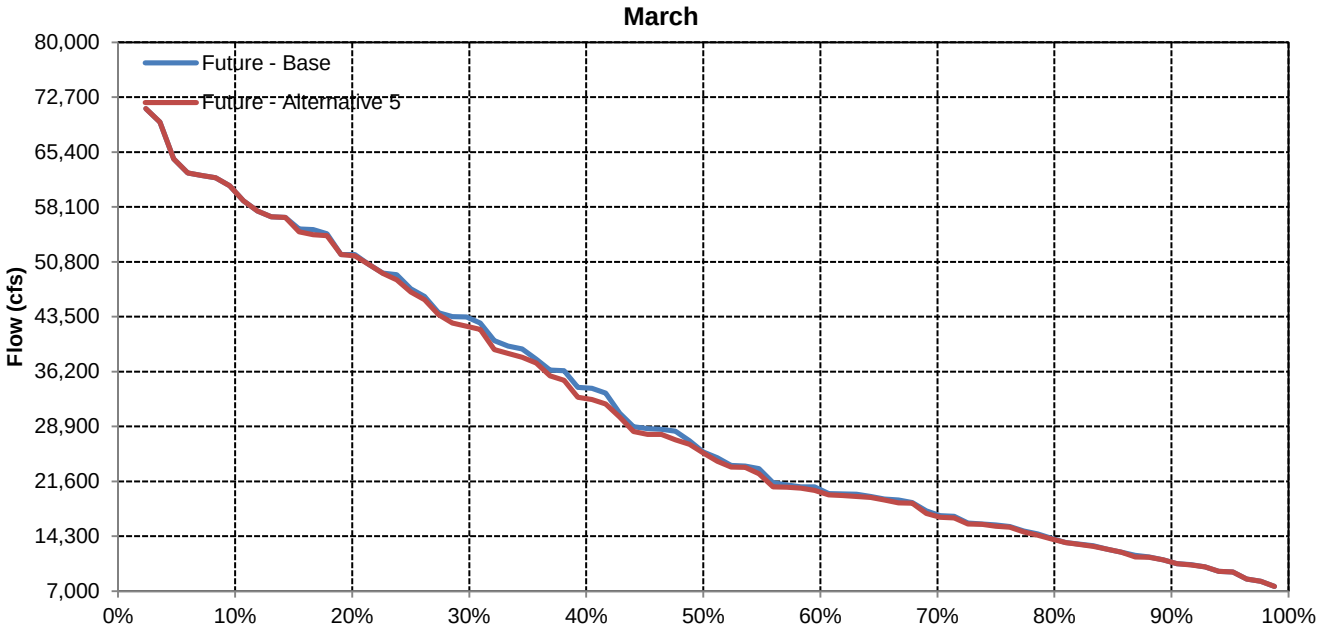
## Sacramento River below Fremont Weir



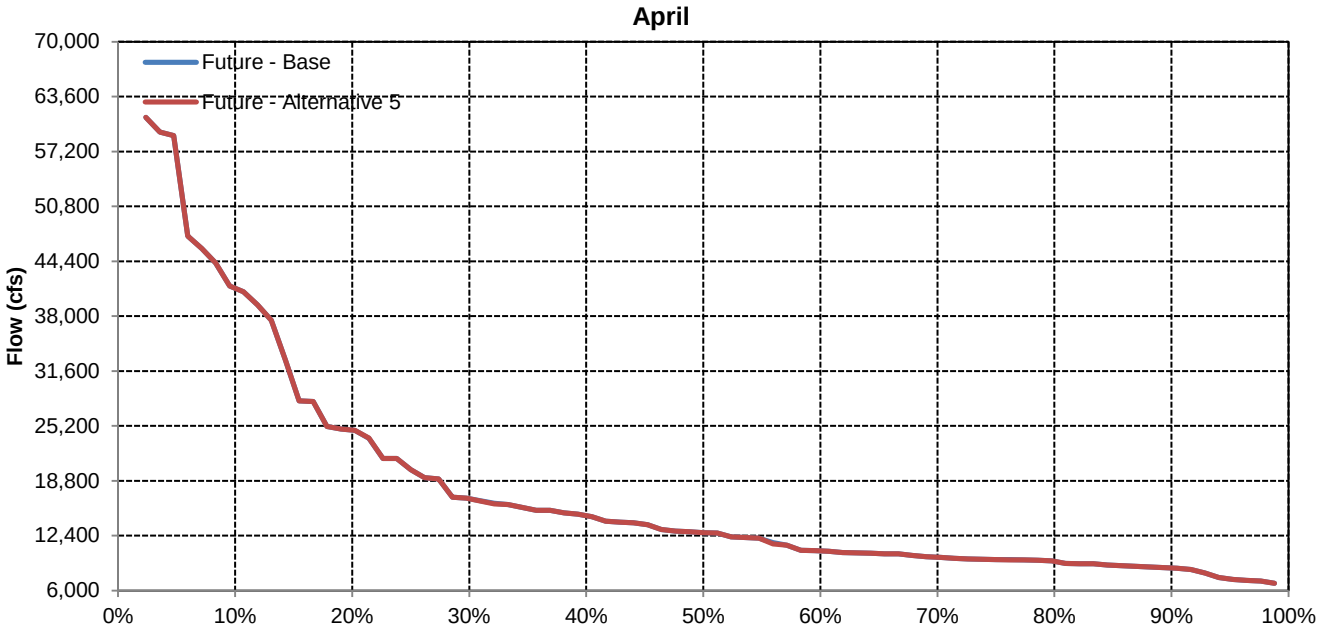



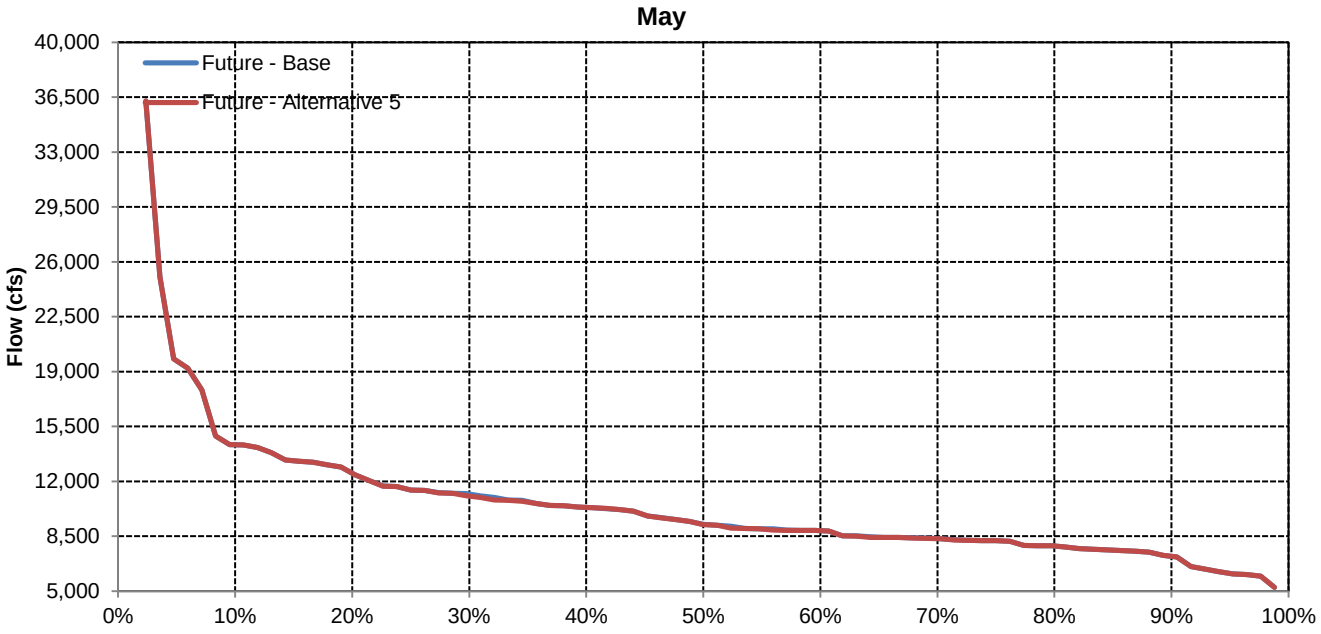
## Sacramento River below Fremont Weir



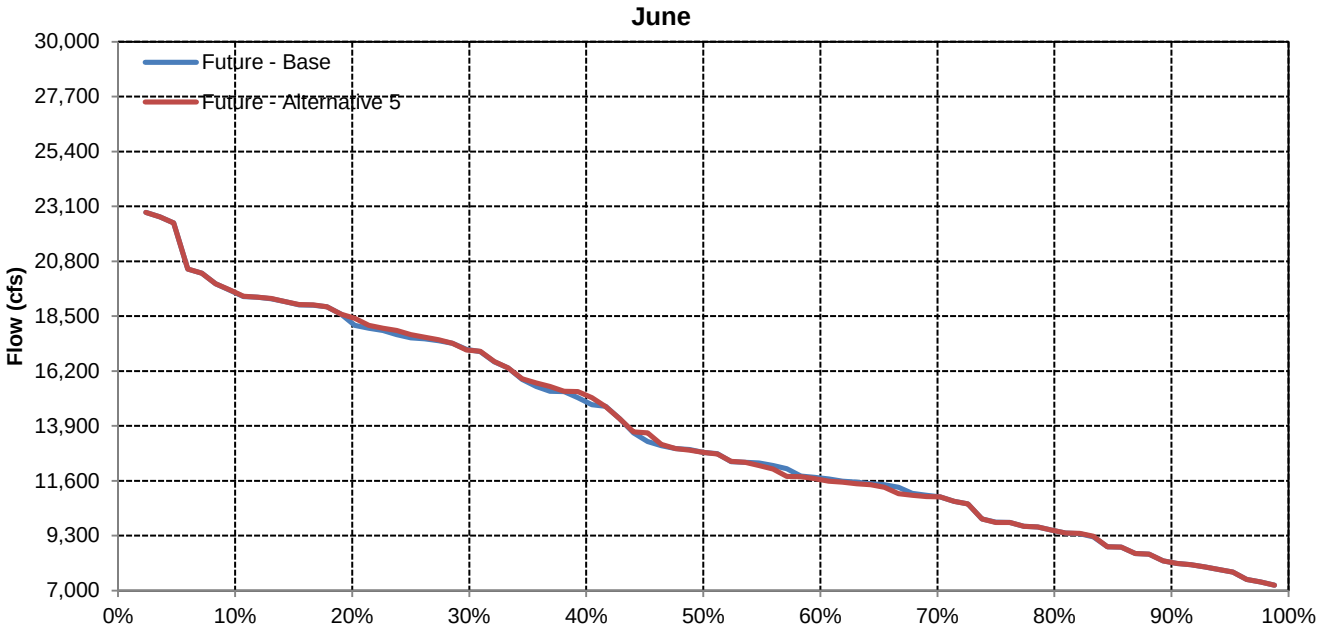



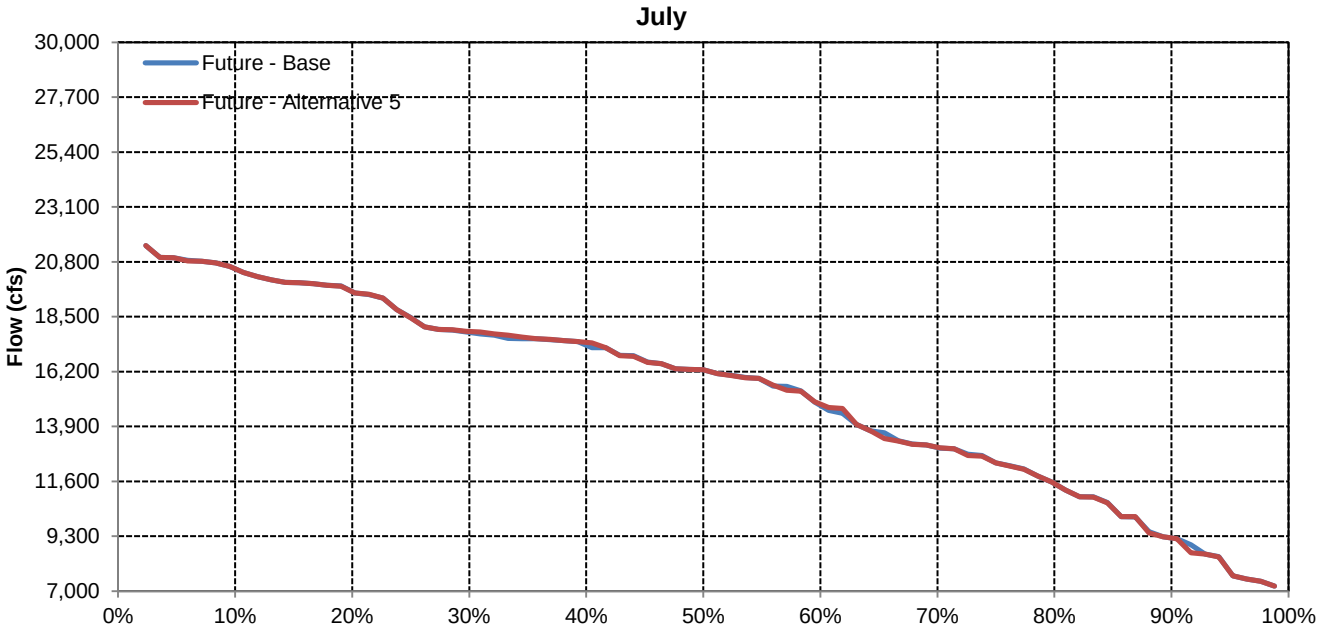
## Sacramento River below Fremont Weir



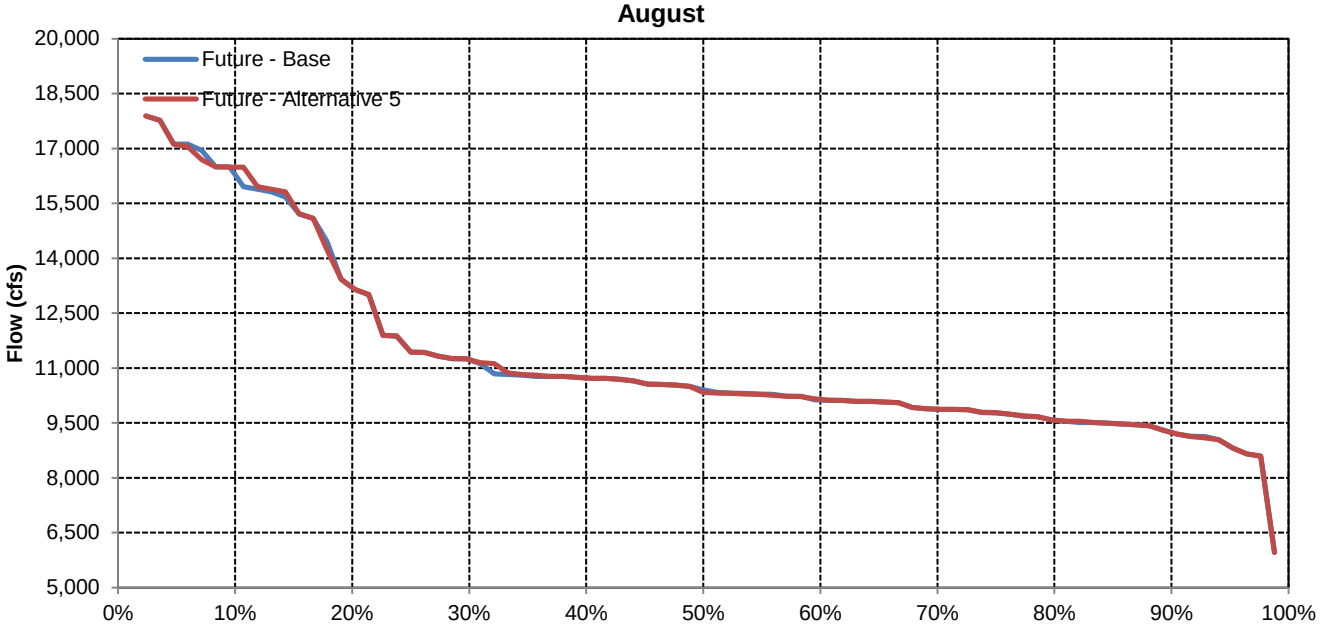
## Sacramento River below Fremont Weir



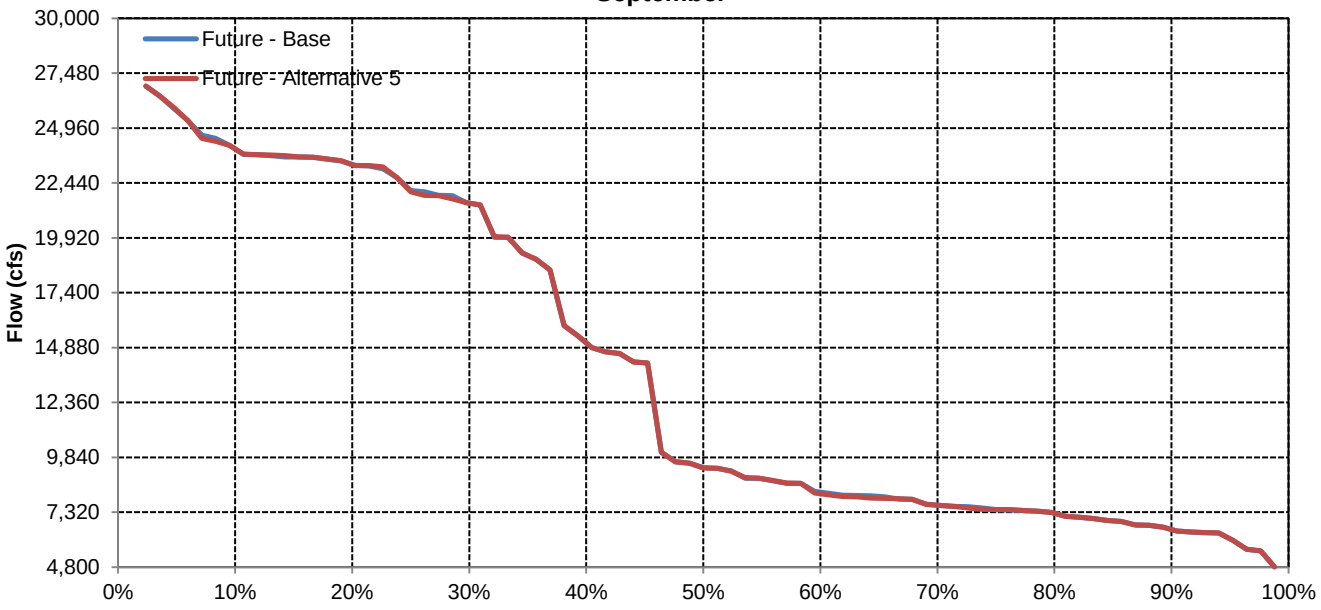



## Sacramento River below Fremont Weir

### August




### September



**Long-Term and Water Year-Type Average of Trinity Reservoir Under Future - Base and Future - Alternative 5**

| Analysis Period | October | November | December | January | February | March | April | May | June | July | August | September |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Average Storage (TAF) | | | | | | |
| | | | | | | Long-Term | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 1,111 | 1,121 | 1,232 | 1,403 | 1,575 | 1,712 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| Future - Alternative 5 | 1,111 | 1,120 | 1,232 | 1,403 | 1,575 | 1,711 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| Difference | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | Water Year-Types | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 1,184 | 1,226 | 1,437 | 1,697 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Future - Alternative 5 | 1,184 | 1,225 | 1,437 | 1,696 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,454 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,142 | 1,982 | 1,871 | 1,704 | 1,558 | 1,426 |
| Future - Alternative 5 | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,141 | 1,981 | 1,870 | 1,703 | 1,557 | 1,426 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -1 | -1 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 1,148 | 1,147 | 1,220 | 1,391 | 1,539 | 1,694 | 1,829 | 1,709 | 1,610 | 1,441 | 1,284 | 1,186 |
| Future - Alternative 5 | 1,147 | 1,147 | 1,220 | 1,391 | 1,539 | 1,695 | 1,829 | 1,710 | 1,611 | 1,441 | 1,284 | 1,186 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 1,094 | 1,097 | 1,151 | 1,222 | 1,376 | 1,529 | 1,615 | 1,477 | 1,361 | 1,178 | 1,006 | 915 |
| Future - Alternative 5 | 1,093 | 1,096 | 1,150 | 1,221 | 1,375 | 1,528 | 1,613 | 1,475 | 1,359 | 1,176 | 1,005 | 915 |
| Difference | -1 | -2 | -1 | -1 | -1 | -2 | -2 | -2 | -2 | -2 | -1 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 875 | 866 | 898 | 942 | 1,012 | 1,077 | 1,102 | 1,022 | 960 | 834 | 714 | 656 |
| Future - Alternative 5 | 875 | 865 | 897 | 942 | 1,012 | 1,078 | 1,102 | 1,023 | 961 | 835 | 714 | 656 |
| Difference | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Trinity Reservoir**

**Future - Base**

| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,479 | 1,484 | 1,672 | 1,900 | 2,000 | 2,100 | 2,298 | 2,170 | 1,995 | 1,863 | 1,717 | 1,564 |
| 20% | 1,385 | 1,408 | 1,506 | 1,818 | 2,000 | 2,100 | 2,233 | 2,088 | 1,943 | 1,791 | 1,642 | 1,492 |
| 30% | 1,303 | 1,305 | 1,445 | 1,638 | 1,926 | 2,068 | 2,167 | 2,006 | 1,865 | 1,697 | 1,520 | 1,382 |
| 40% | 1,248 | 1,223 | 1,368 | 1,593 | 1,752 | 1,981 | 2,113 | 1,903 | 1,752 | 1,562 | 1,407 | 1,270 |
| 50% | 1,152 | 1,181 | 1,273 | 1,421 | 1,599 | 1,771 | 1,933 | 1,771 | 1,616 | 1,443 | 1,289 | 1,178 |
| 60% | 1,079 | 1,102 | 1,198 | 1,304 | 1,496 | 1,662 | 1,745 | 1,636 | 1,564 | 1,378 | 1,236 | 1,106 |
| 70% | 968 | 957 | 1,102 | 1,205 | 1,371 | 1,486 | 1,591 | 1,531 | 1,412 | 1,229 | 1,083 | 1,000 |
| 80% | 775 | 791 | 913 | 1,023 | 1,256 | 1,390 | 1,496 | 1,376 | 1,279 | 1,090 | 931 | 846 |
| 90% | 627 | 632 | 678 | 825 | 933 | 1,013 | 1,056 | 1,036 | 957 | 837 | 680 | 625 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,111 | 1,121 | 1,232 | 1,403 | 1,575 | 1,712 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,184 | 1,226 | 1,437 | 1,697 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Above Normal | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,142 | 1,982 | 1,871 | 1,704 | 1,558 | 1,426 |
| Below Normal | 1,148 | 1,147 | 1,220 | 1,391 | 1,539 | 1,694 | 1,829 | 1,709 | 1,610 | 1,441 | 1,284 | 1,186 |
| Dry | 1,094 | 1,097 | 1,151 | 1,222 | 1,376 | 1,529 | 1,615 | 1,477 | 1,361 | 1,178 | 1,006 | 915 |
| Critical | 875 | 866 | 898 | 942 | 1,012 | 1,077 | 1,102 | 1,022 | 960 | 834 | 714 | 656 |

**Future - Alternative 5**

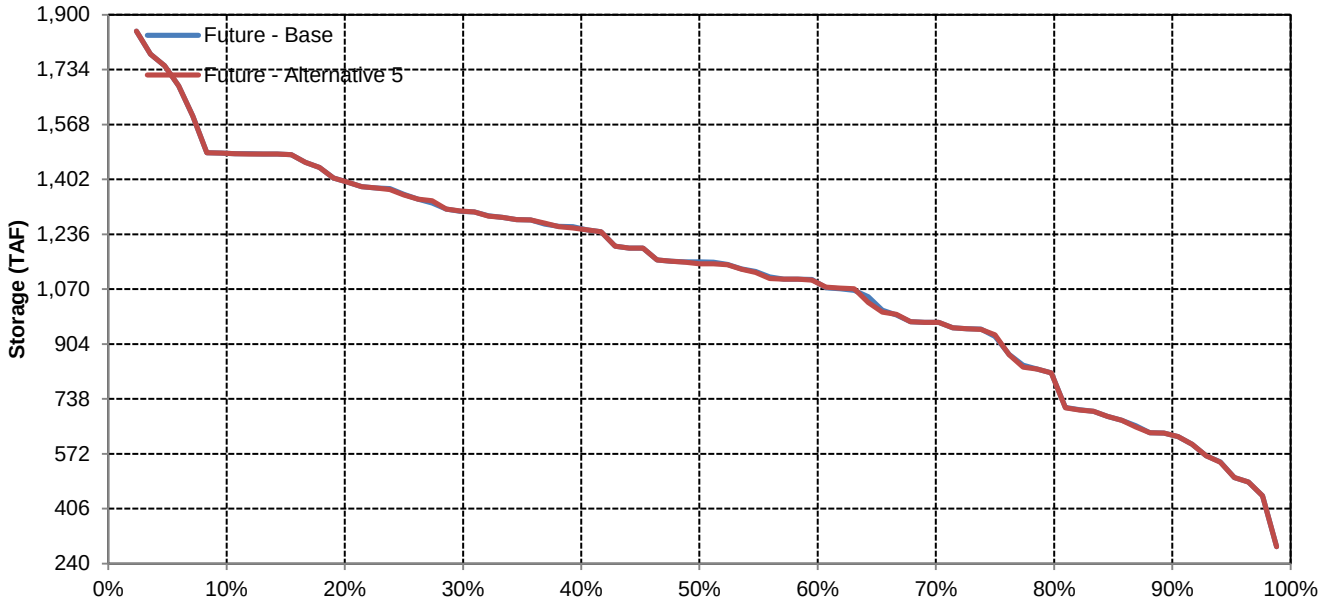
| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,479 | 1,484 | 1,672 | 1,900 | 2,000 | 2,100 | 2,298 | 2,170 | 1,995 | 1,863 | 1,717 | 1,564 |
| 20% | 1,385 | 1,408 | 1,506 | 1,817 | 2,000 | 2,100 | 2,233 | 2,088 | 1,940 | 1,791 | 1,642 | 1,492 |
| 30% | 1,303 | 1,305 | 1,440 | 1,637 | 1,926 | 2,068 | 2,167 | 2,006 | 1,865 | 1,697 | 1,520 | 1,382 |
| 40% | 1,248 | 1,223 | 1,368 | 1,592 | 1,752 | 1,980 | 2,113 | 1,903 | 1,753 | 1,562 | 1,407 | 1,270 |
| 50% | 1,147 | 1,180 | 1,272 | 1,421 | 1,596 | 1,774 | 1,936 | 1,770 | 1,615 | 1,443 | 1,288 | 1,178 |
| 60% | 1,080 | 1,101 | 1,197 | 1,304 | 1,494 | 1,660 | 1,746 | 1,639 | 1,550 | 1,375 | 1,233 | 1,105 |
| 70% | 968 | 957 | 1,100 | 1,204 | 1,374 | 1,491 | 1,590 | 1,531 | 1,412 | 1,230 | 1,083 | 1,000 |
| 80% | 774 | 790 | 910 | 1,021 | 1,252 | 1,390 | 1,498 | 1,375 | 1,278 | 1,090 | 929 | 846 |
| 90% | 627 | 632 | 679 | 825 | 933 | 1,013 | 1,056 | 1,036 | 957 | 837 | 680 | 625 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,111 | 1,120 | 1,232 | 1,403 | 1,575 | 1,711 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,184 | 1,225 | 1,437 | 1,696 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,454 |
| Above Normal | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,141 | 1,981 | 1,870 | 1,703 | 1,557 | 1,426 |
| Below Normal | 1,147 | 1,147 | 1,220 | 1,391 | 1,539 | 1,695 | 1,829 | 1,710 | 1,611 | 1,441 | 1,284 | 1,186 |
| Dry | 1,093 | 1,096 | 1,150 | 1,221 | 1,375 | 1,528 | 1,613 | 1,475 | 1,359 | 1,176 | 1,005 | 915 |
| Critical | 875 | 865 | 897 | 942 | 1,012 | 1,078 | 1,102 | 1,023 | 961 | 835 | 714 | 656 |

**Future - Alternative 5 Minus Future - Base**

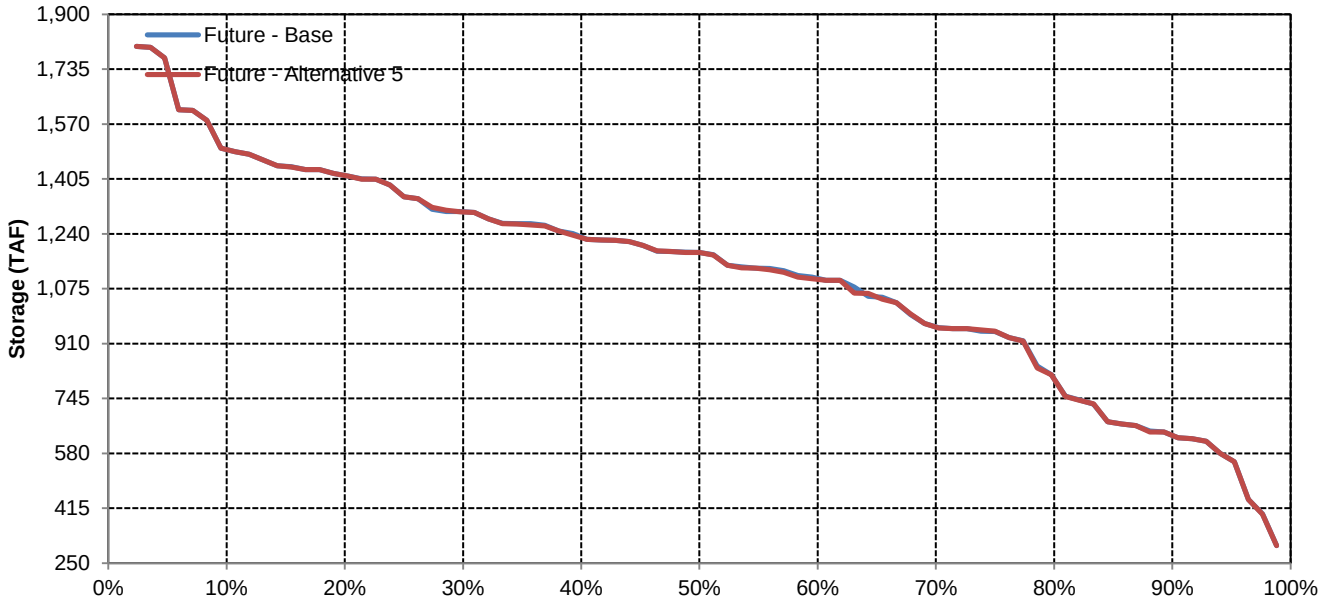
| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | 0 |
| 30% | 0 | 0 | -5 | -1 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 |
| 40% | 0 | 0 | 0 | -1 | 0 | 0 | -1 | 0 | 1 | 0 | 0 | 0 |
| 50% | -5 | 0 | -1 | 0 | -3 | 3 | 3 | -1 | 0 | 0 | -1 | -1 |
| 60% | 1 | -1 | -1 | 0 | -2 | -1 | 1 | 3 | -14 | -3 | -3 | -2 |
| 70% | 0 | 0 | -2 | -1 | 3 | 5 | -1 | 0 | 0 | 1 | 0 | 0 |
| 80% | 0 | 0 | -2 | -2 | -3 | 0 | 2 | 0 | -1 | 0 | -2 | 1 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -1 | -1 | -1 |
| Below Normal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | -1 | -2 | -1 | -1 | -1 | -2 | -2 | -2 | -2 | -2 | -1 | -1 |
| Critical | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Trinity Reservoir

### October

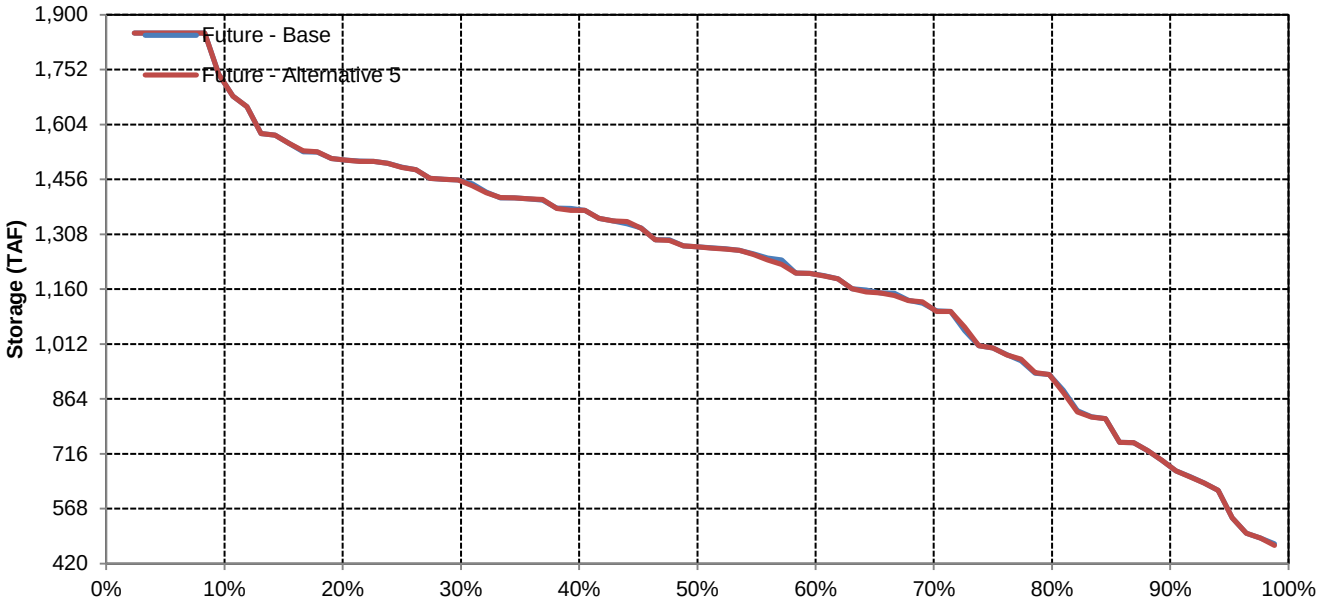



### November

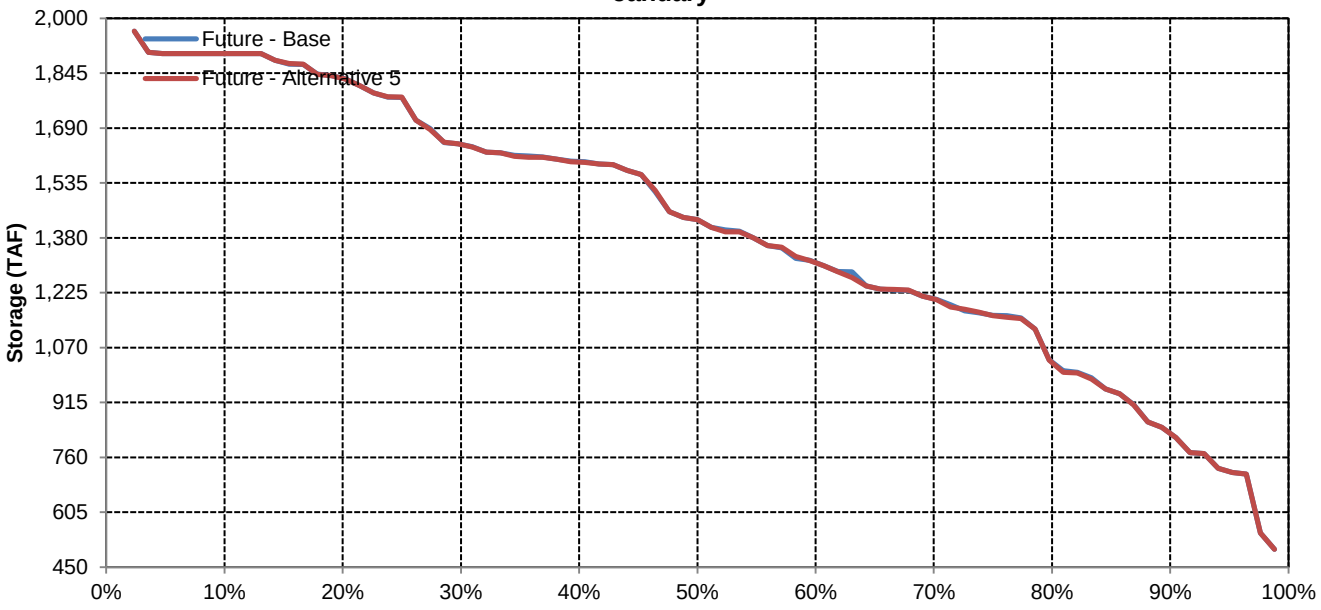


## Trinity Reservoir

### December

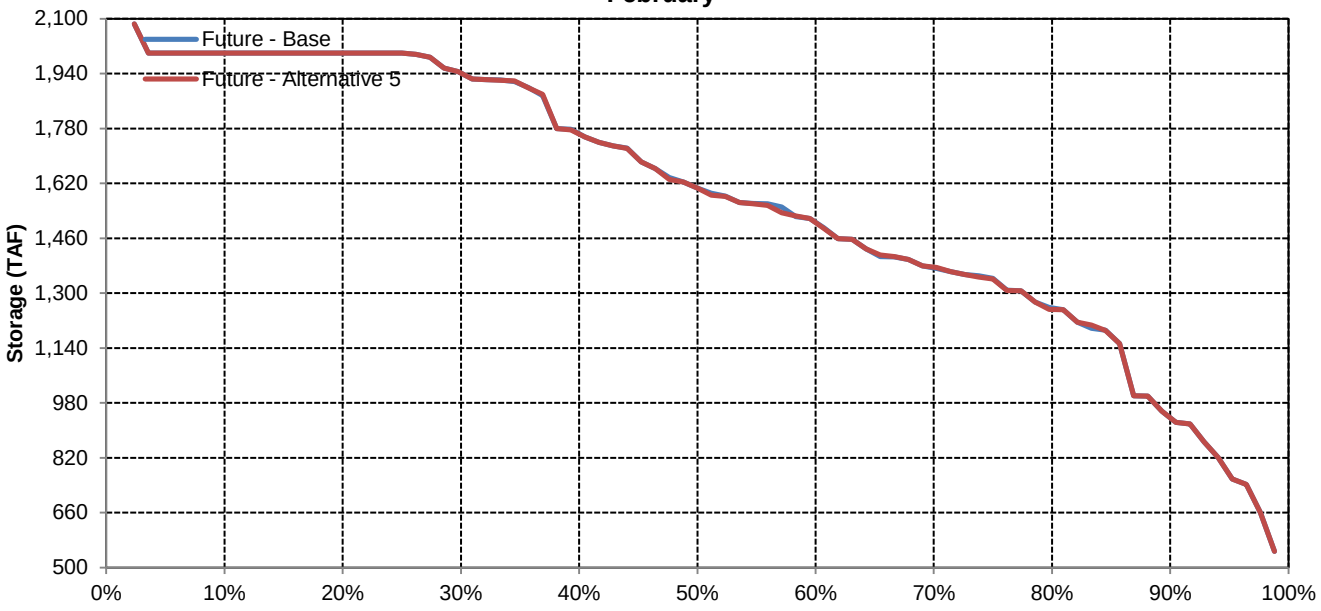



### January

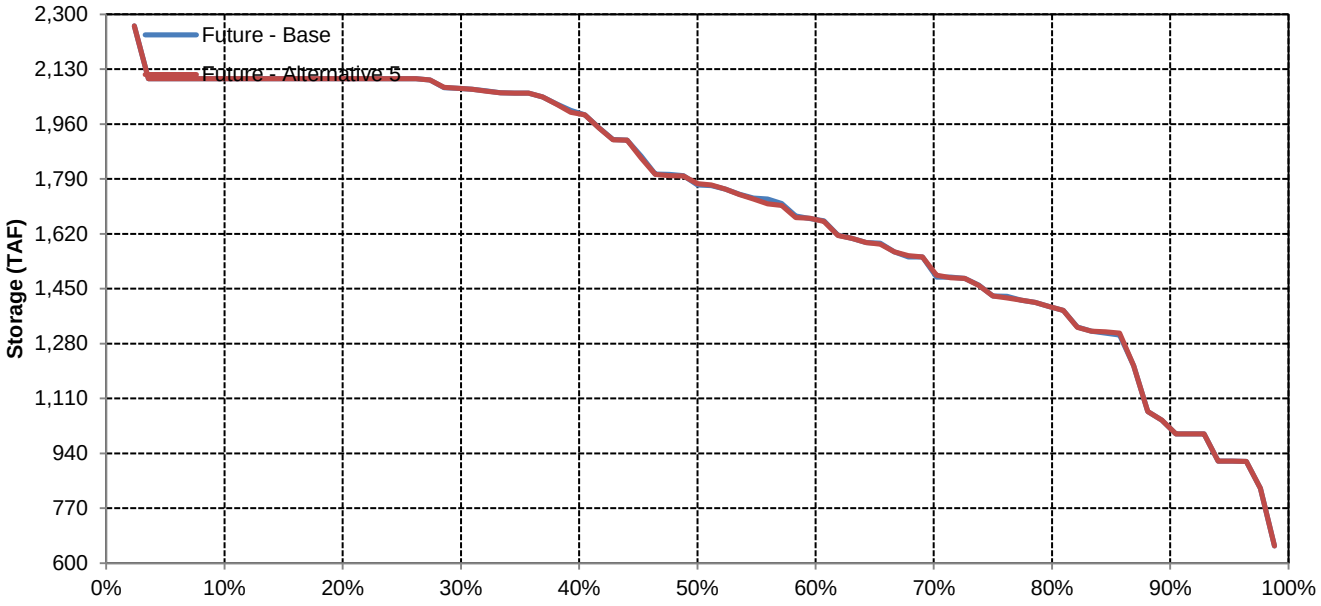


## Trinity Reservoir

### February

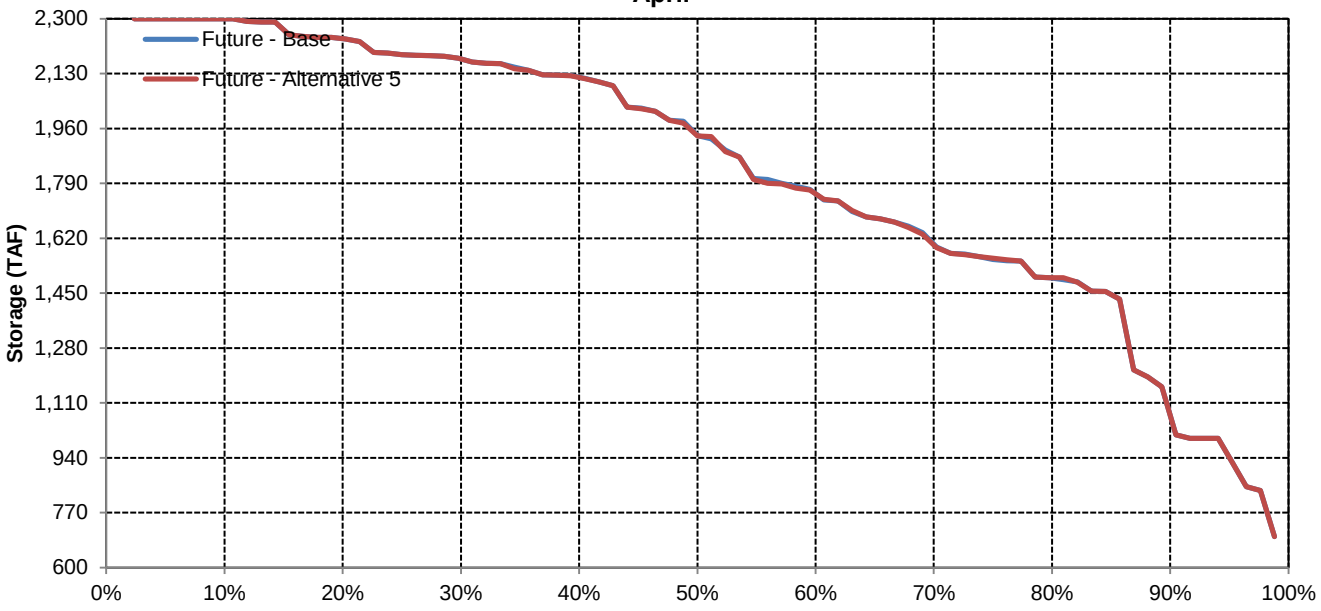



### March

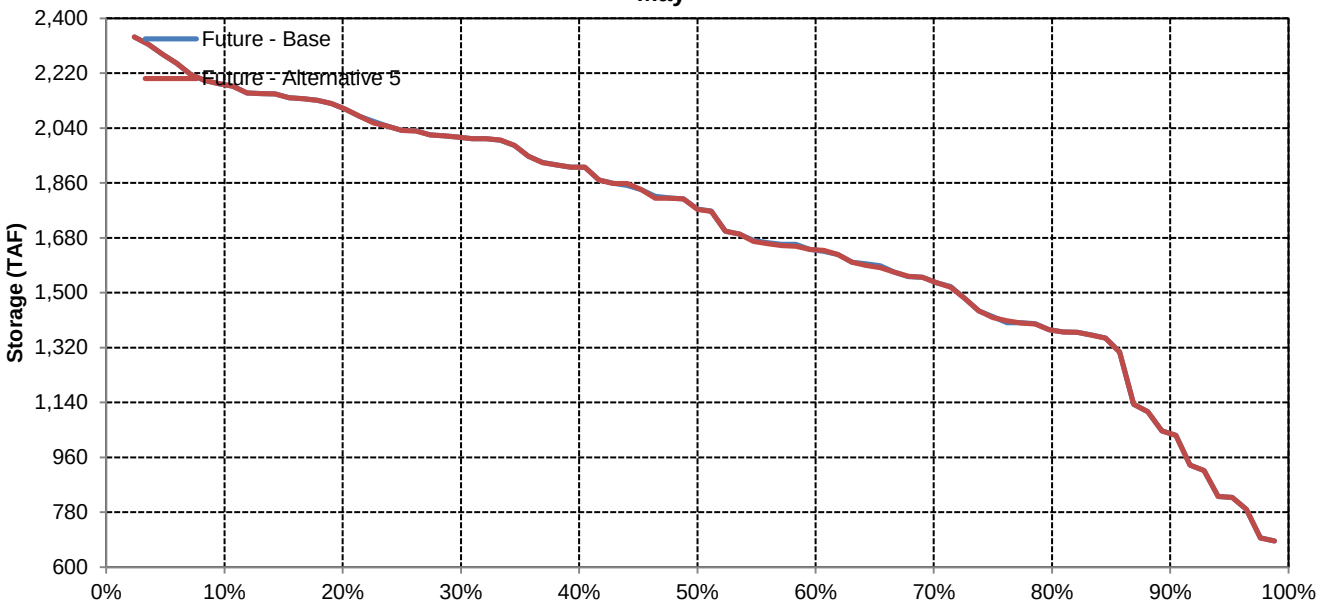


## Trinity Reservoir

### April

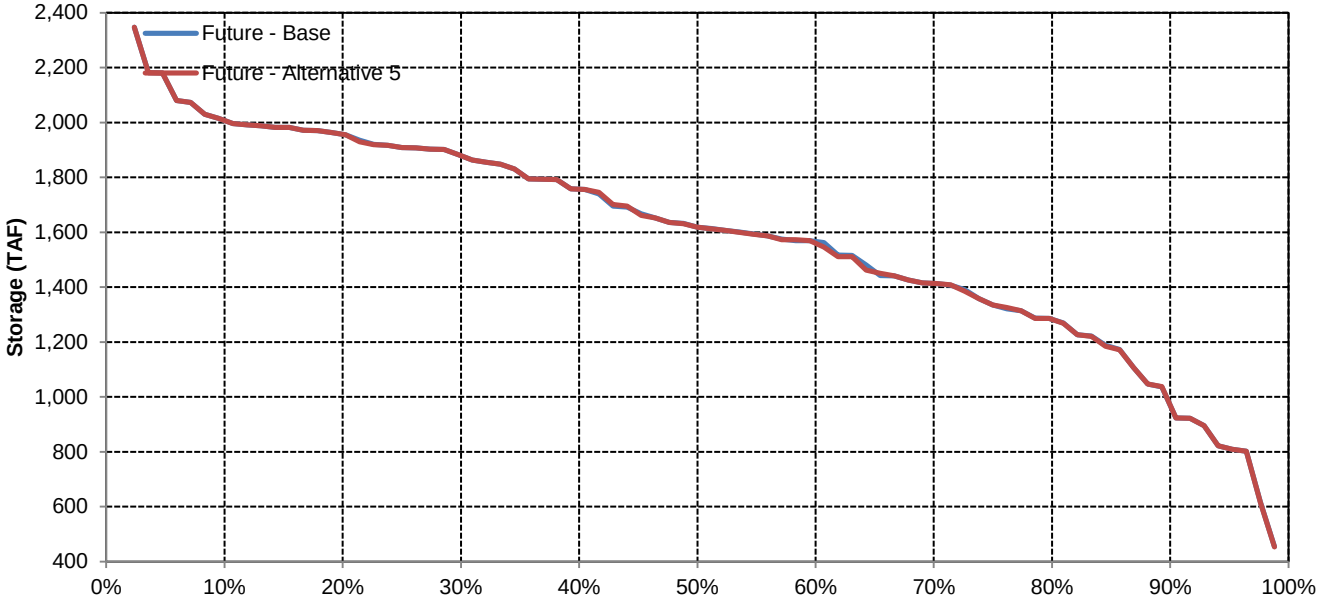



### May

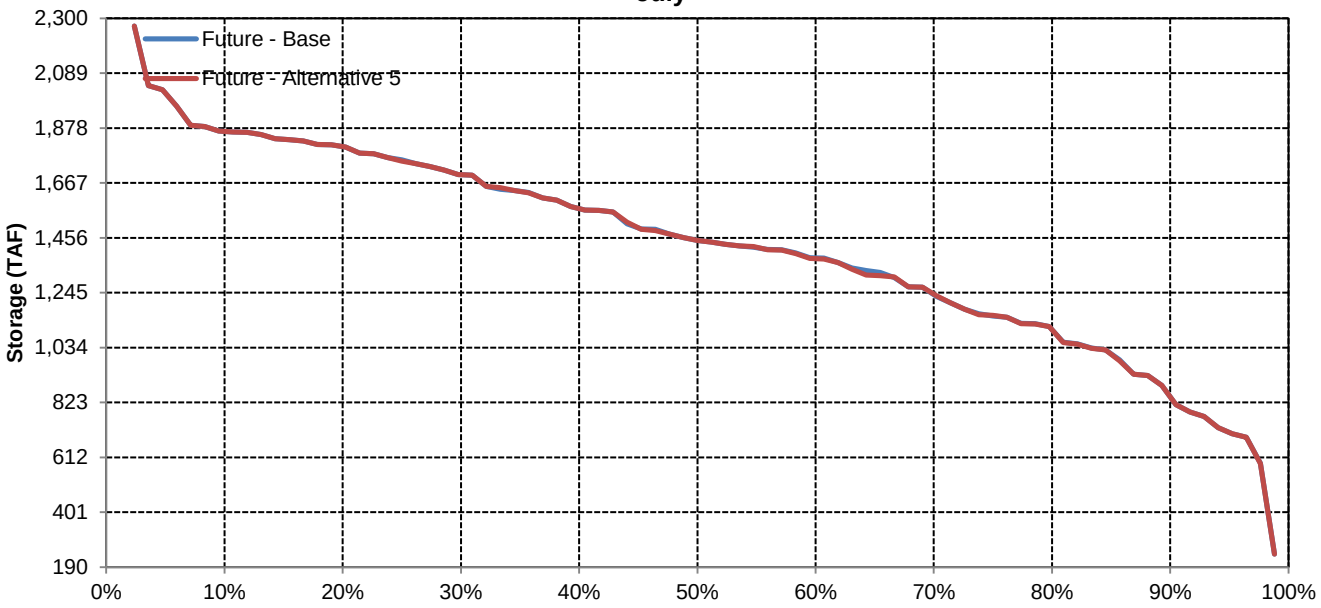


## Trinity Reservoir

### June

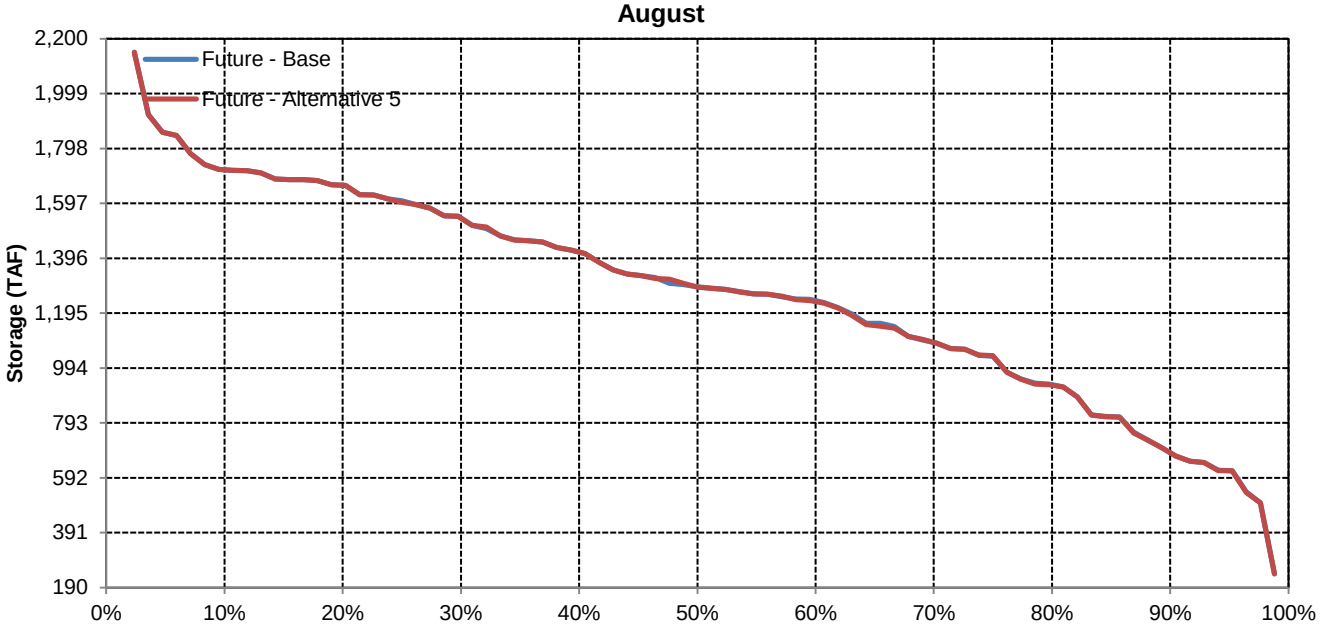



### July

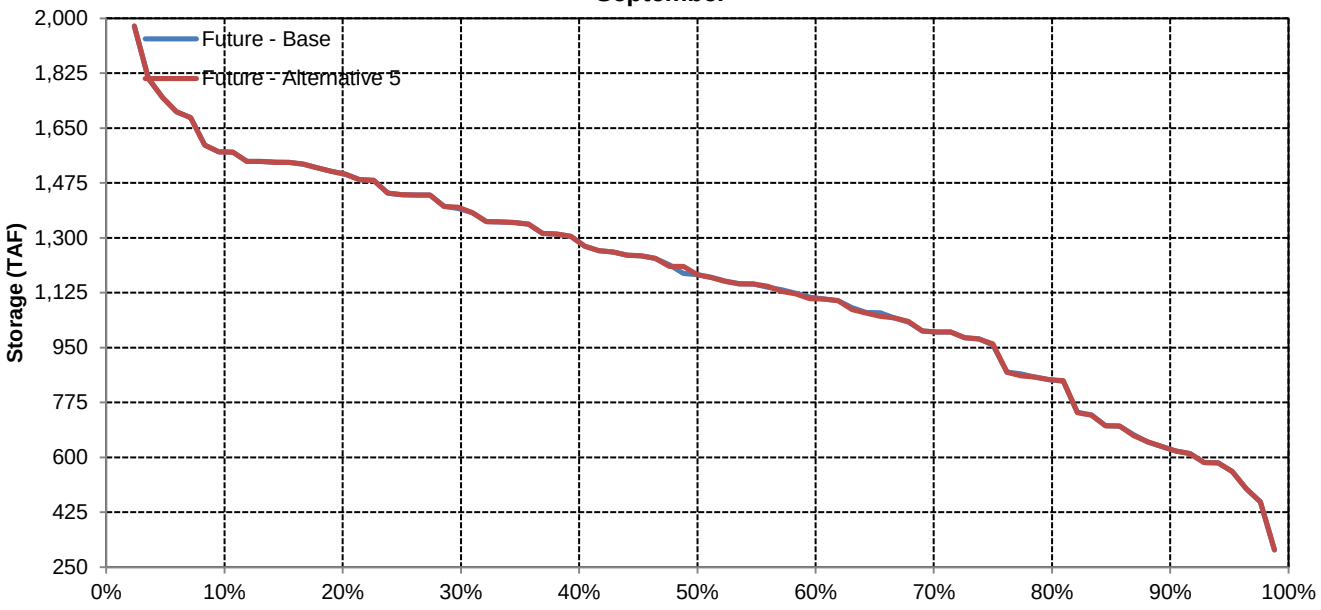


## Trinity Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Shasta Reservoir Storage Under Future - Base and Future - Alternative 5**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 2,225 | 2,278 | 2,586 | 2,961 | 3,277 | 3,633 | 3,825 | 3,712 | 3,230 | 2,717 | 2,459 | 2,291 |
| Future - Alternative 5 | 2,224 | 2,277 | 2,586 | 2,960 | 3,276 | 3,633 | 3,825 | 3,712 | 3,229 | 2,716 | 2,459 | 2,291 |
| Difference | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 2,396 | 2,480 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,242 | 2,994 | 2,526 |
| Future - Alternative 5 | 2,395 | 2,479 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,241 | 2,993 | 2,525 |
| Difference | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 2,332 | 2,398 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,287 | 3,779 | 3,188 | 2,931 | 2,693 |
| Future - Alternative 5 | 2,325 | 2,391 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,288 | 3,780 | 3,188 | 2,932 | 2,693 |
| Difference | -6 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 2,275 | 2,333 | 2,490 | 3,019 | 3,412 | 3,836 | 4,073 | 3,949 | 3,396 | 2,900 | 2,674 | 2,743 |
| Future - Alternative 5 | 2,279 | 2,338 | 2,494 | 3,022 | 3,416 | 3,840 | 4,076 | 3,952 | 3,394 | 2,898 | 2,674 | 2,743 |
| Difference | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | -2 | -2 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 2,104 | 2,169 | 2,417 | 2,659 | 3,189 | 3,593 | 3,618 | 3,403 | 2,899 | 2,449 | 2,182 | 2,205 |
| Future - Alternative 5 | 2,101 | 2,167 | 2,414 | 2,657 | 3,186 | 3,591 | 3,616 | 3,402 | 2,899 | 2,449 | 2,183 | 2,206 |
| Difference | -3 | -2 | -3 | -3 | -2 | -2 | -2 | -1 | 0 | 0 | 0 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 1,906 | 1,851 | 1,965 | 2,171 | 2,385 | 2,631 | 2,519 | 2,310 | 1,855 | 1,394 | 1,094 | 1,067 |
| Future - Alternative 5 | 1,904 | 1,850 | 1,963 | 2,170 | 2,383 | 2,629 | 2,517 | 2,308 | 1,853 | 1,392 | 1,093 | 1,066 |
| Difference | -1 | -1 | -1 | -1 | -2 | -2 | -2 | -2 | -1 | -1 | -1 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Shasta Reservoir Storage**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 3,037 | 3,187 | 3,321 | 3,635 | 3,916 | 4,241 | 4,482 | 4,552 | 4,171 | 3,512 | 3,194 | 2,972 |
| 20% | 2,810 | 2,927 | 3,266 | 3,539 | 3,777 | 4,102 | 4,372 | 4,324 | 3,882 | 3,302 | 3,029 | 2,858 |
| 30% | 2,671 | 2,735 | 3,191 | 3,403 | 3,662 | 4,022 | 4,251 | 4,224 | 3,719 | 3,170 | 2,942 | 2,679 |
| 40% | 2,416 | 2,533 | 2,985 | 3,335 | 3,537 | 3,963 | 4,176 | 4,142 | 3,568 | 3,039 | 2,823 | 2,536 |
| 50% | 2,317 | 2,324 | 2,754 | 3,252 | 3,445 | 3,839 | 4,109 | 3,953 | 3,350 | 2,880 | 2,669 | 2,439 |
| 60% | 2,245 | 2,200 | 2,545 | 2,973 | 3,289 | 3,597 | 4,009 | 3,839 | 3,203 | 2,755 | 2,499 | 2,338 |
| 70% | 2,020 | 2,057 | 2,269 | 2,767 | 3,252 | 3,417 | 3,756 | 3,608 | 3,154 | 2,594 | 2,360 | 2,110 |
| 80% | 1,757 | 1,817 | 2,045 | 2,429 | 2,913 | 3,266 | 3,216 | 2,997 | 2,618 | 2,141 | 1,806 | 1,824 |
| 90% | 884 | 1,011 | 1,336 | 1,917 | 2,378 | 2,633 | 2,534 | 2,407 | 1,951 | 1,420 | 978 | 956 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,225 | 2,278 | 2,586 | 2,961 | 3,277 | 3,633 | 3,825 | 3,712 | 3,230 | 2,717 | 2,459 | 2,291 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,396 | 2,480 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,242 | 2,994 | 2,526 |
| Above Normal | 2,332 | 2,398 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,287 | 3,779 | 3,188 | 2,931 | 2,693 |
| Below Normal | 2,275 | 2,333 | 2,490 | 3,019 | 3,412 | 3,836 | 4,073 | 3,949 | 3,396 | 2,900 | 2,674 | 2,743 |
| Dry | 2,104 | 2,169 | 2,417 | 2,659 | 3,189 | 3,593 | 3,618 | 3,403 | 2,899 | 2,449 | 2,182 | 2,205 |
| Critical | 1,906 | 1,851 | 1,965 | 2,171 | 2,385 | 2,631 | 2,519 | 2,310 | 1,855 | 1,394 | 1,094 | 1,067 |

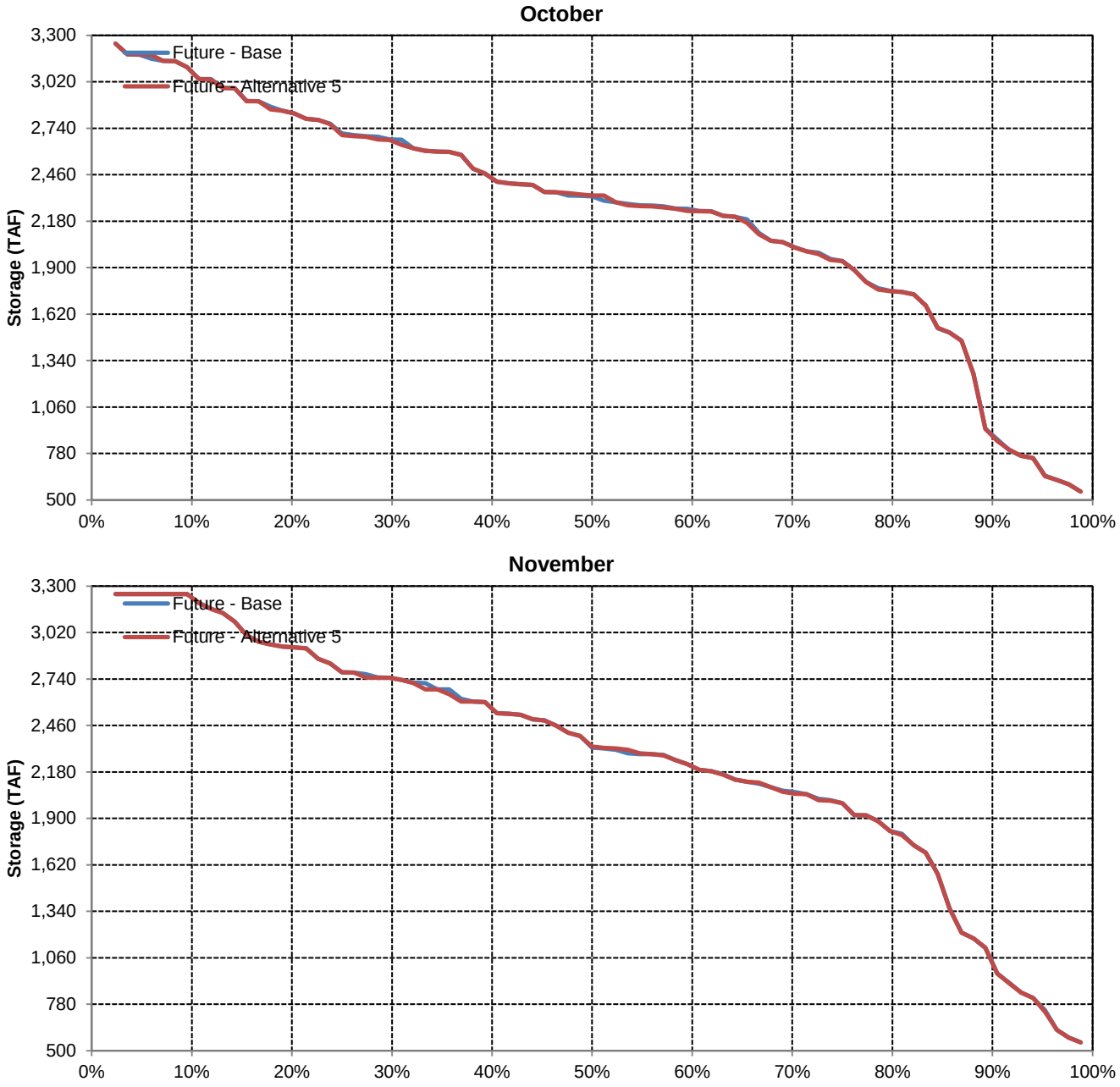
**Future - Alternative 5**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 3,036 | 3,187 | 3,321 | 3,635 | 3,916 | 4,241 | 4,487 | 4,552 | 4,171 | 3,506 | 3,194 | 2,972 |
| 20% | 2,810 | 2,927 | 3,266 | 3,539 | 3,777 | 4,102 | 4,372 | 4,324 | 3,882 | 3,302 | 3,029 | 2,858 |
| 30% | 2,642 | 2,736 | 3,191 | 3,403 | 3,662 | 4,012 | 4,251 | 4,224 | 3,719 | 3,170 | 2,942 | 2,679 |
| 40% | 2,416 | 2,533 | 2,980 | 3,335 | 3,537 | 3,963 | 4,176 | 4,143 | 3,568 | 3,026 | 2,823 | 2,535 |
| 50% | 2,335 | 2,329 | 2,754 | 3,252 | 3,446 | 3,839 | 4,109 | 3,953 | 3,352 | 2,880 | 2,669 | 2,439 |
| 60% | 2,241 | 2,200 | 2,543 | 2,973 | 3,289 | 3,624 | 4,009 | 3,836 | 3,203 | 2,769 | 2,503 | 2,345 |
| 70% | 2,019 | 2,049 | 2,278 | 2,765 | 3,252 | 3,417 | 3,757 | 3,635 | 3,155 | 2,594 | 2,355 | 2,107 |
| 80% | 1,757 | 1,814 | 2,037 | 2,428 | 2,916 | 3,270 | 3,215 | 2,992 | 2,612 | 2,141 | 1,806 | 1,823 |
| 90% | 878 | 1,011 | 1,338 | 1,919 | 2,371 | 2,627 | 2,534 | 2,407 | 1,951 | 1,420 | 975 | 954 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,224 | 2,277 | 2,586 | 2,960 | 3,276 | 3,633 | 3,825 | 3,712 | 3,229 | 2,716 | 2,459 | 2,291 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,395 | 2,479 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,241 | 2,993 | 2,525 |
| Above Normal | 2,325 | 2,391 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,288 | 3,780 | 3,188 | 2,932 | 2,693 |
| Below Normal | 2,279 | 2,338 | 2,494 | 3,022 | 3,416 | 3,840 | 4,076 | 3,952 | 3,394 | 2,898 | 2,674 | 2,743 |
| Dry | 2,101 | 2,167 | 2,414 | 2,657 | 3,186 | 3,591 | 3,616 | 3,402 | 2,899 | 2,449 | 2,183 | 2,206 |
| Critical | 1,904 | 1,850 | 1,963 | 2,170 | 2,383 | 2,629 | 2,517 | 2,308 | 1,853 | 1,392 | 1,093 | 1,066 |

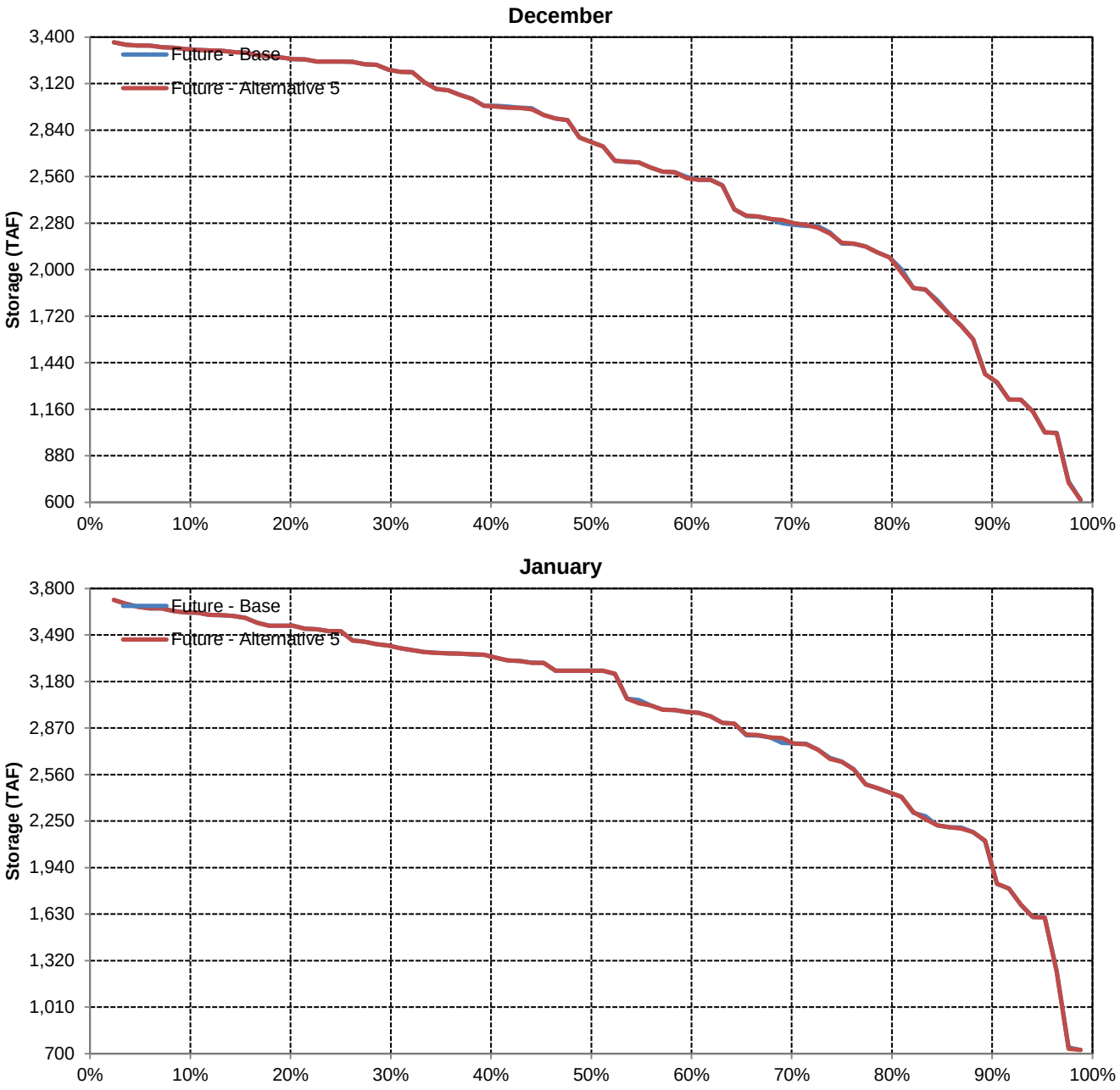
**Future - Alternative 5 Minus Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | -1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | -6 | 0 | 0 |
| 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | -29 | 0 | 0 | 0 | 0 | -11 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | -6 | 0 | -1 | 0 | 0 | 1 | 0 | -13 | 0 | -1 |
| 50% | 18 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 60% | -4 | 0 | -1 | 0 | 0 | 27 | 0 | -3 | 0 | 14 | 4 | 7 |
| 70% | -2 | -8 | 9 | -2 | 0 | 0 | 1 | 27 | 1 | 0 | -5 | -3 |
| 80% | -1 | -3 | -8 | 0 | 3 | 4 | -1 | -5 | -6 | -1 | -1 | -1 |
| 90% | -6 | 0 | 2 | 1 | -7 | -6 | 0 | 0 | 0 | 0 | -3 | -3 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | -1 | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 |
| Above Normal | -6 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | -2 | -2 | 0 | 0 |
| Dry | -3 | -2 | -3 | -3 | -2 | -2 | -2 | -1 | 0 | 0 | 0 | 1 |
| Critical | -1 | -1 | -1 | -1 | -2 | -2 | -2 | -2 | -1 | -1 | -1 | -1 |

## Shasta Reservoir Storage

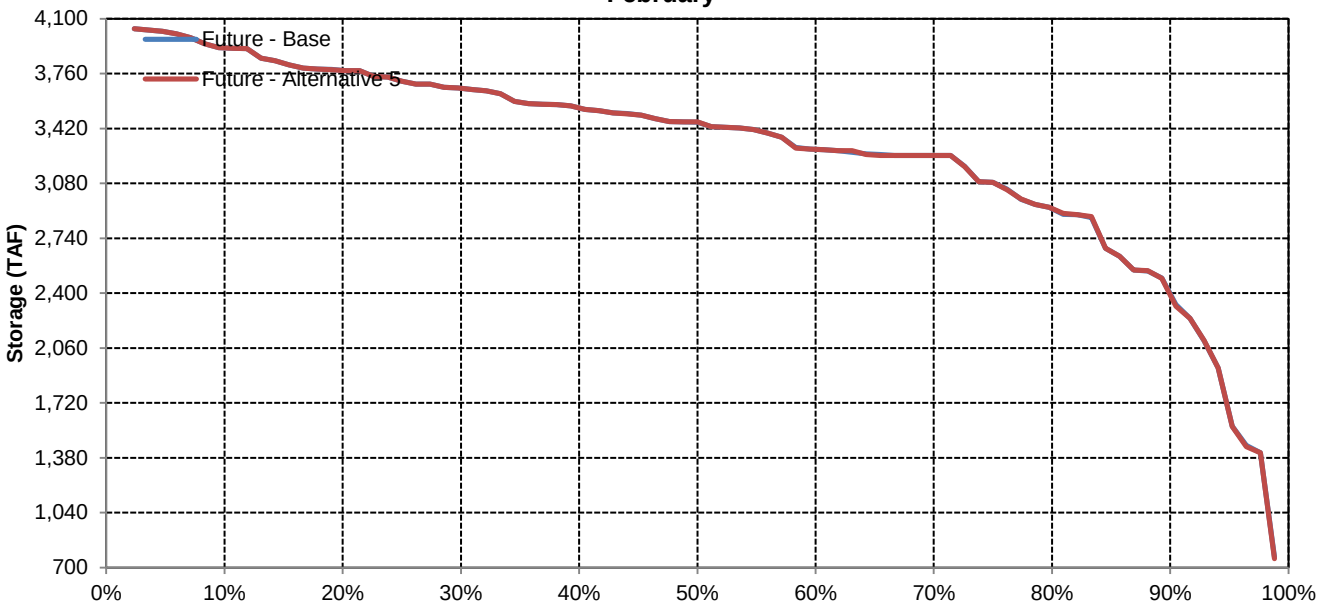


## Shasta Reservoir Storage

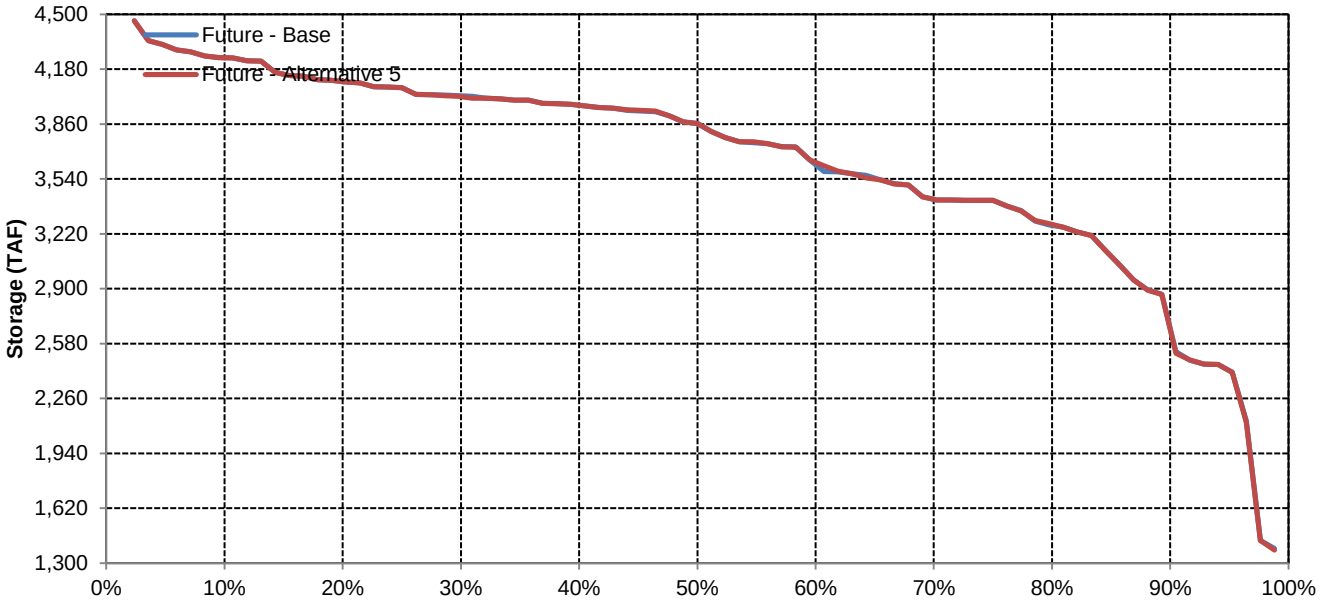


## Shasta Reservoir Storage

### February

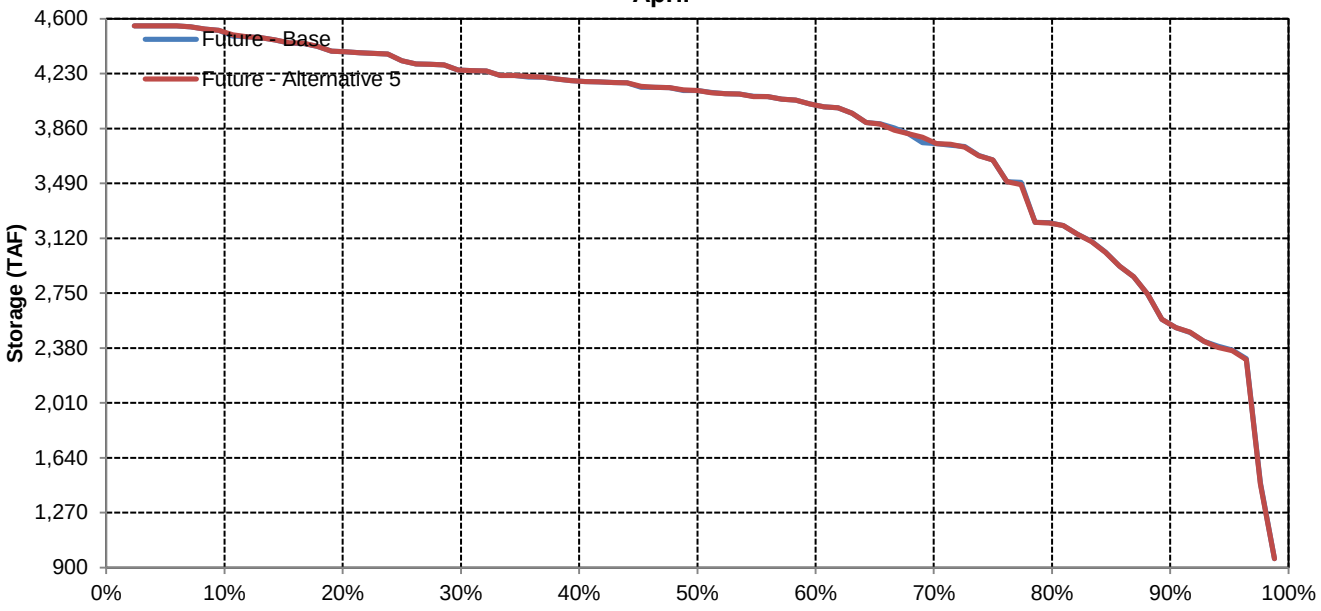



### March

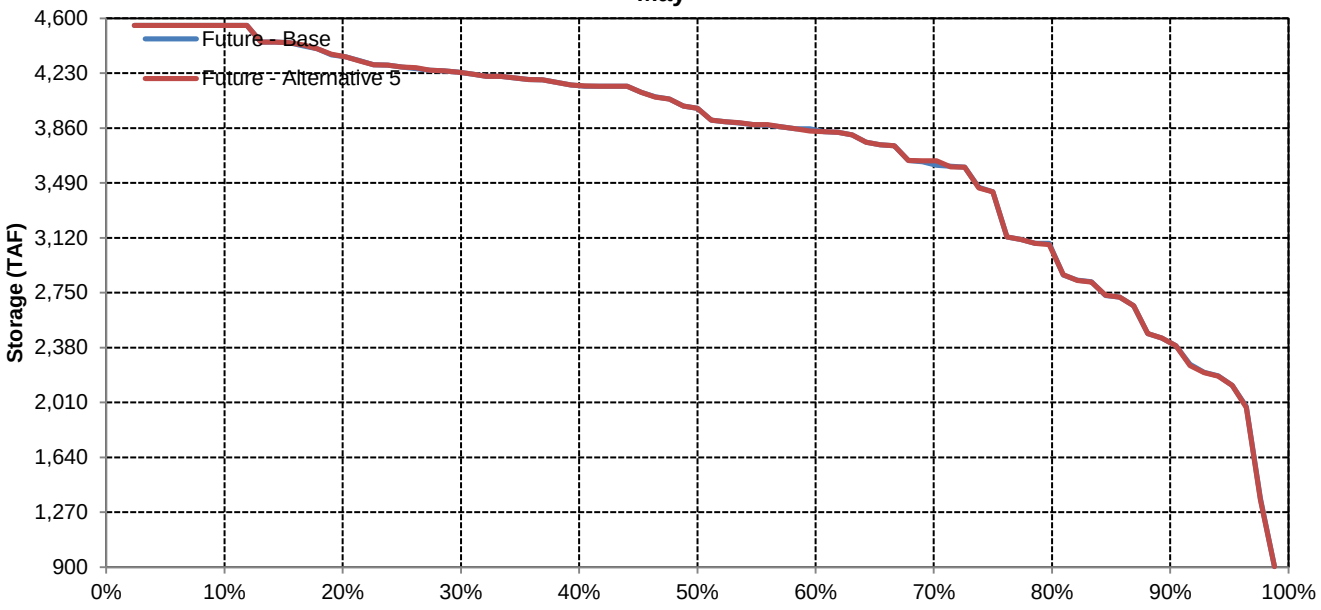


## Shasta Reservoir Storage

### April

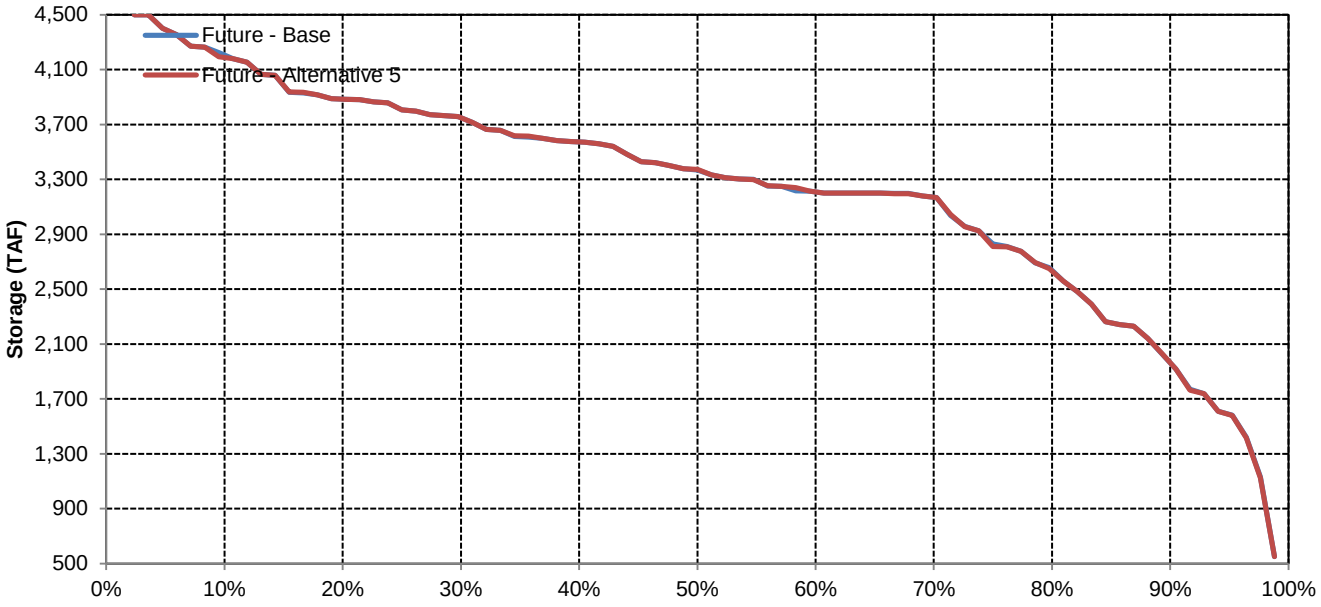



### May

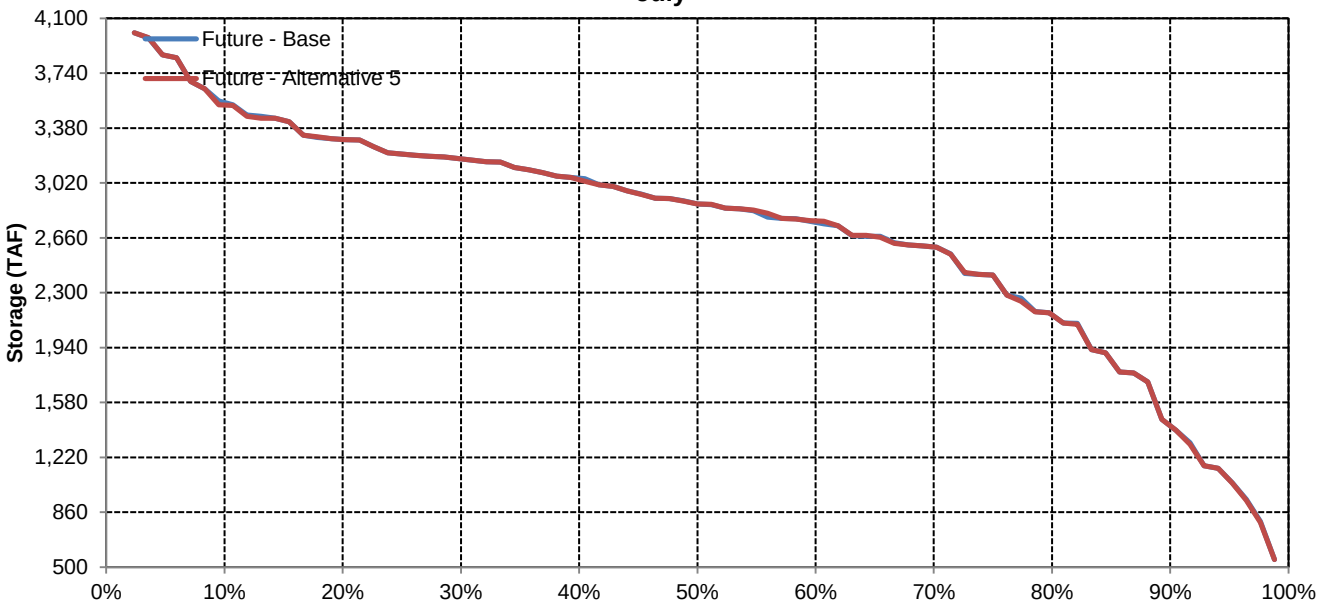


## Shasta Reservoir Storage

### June

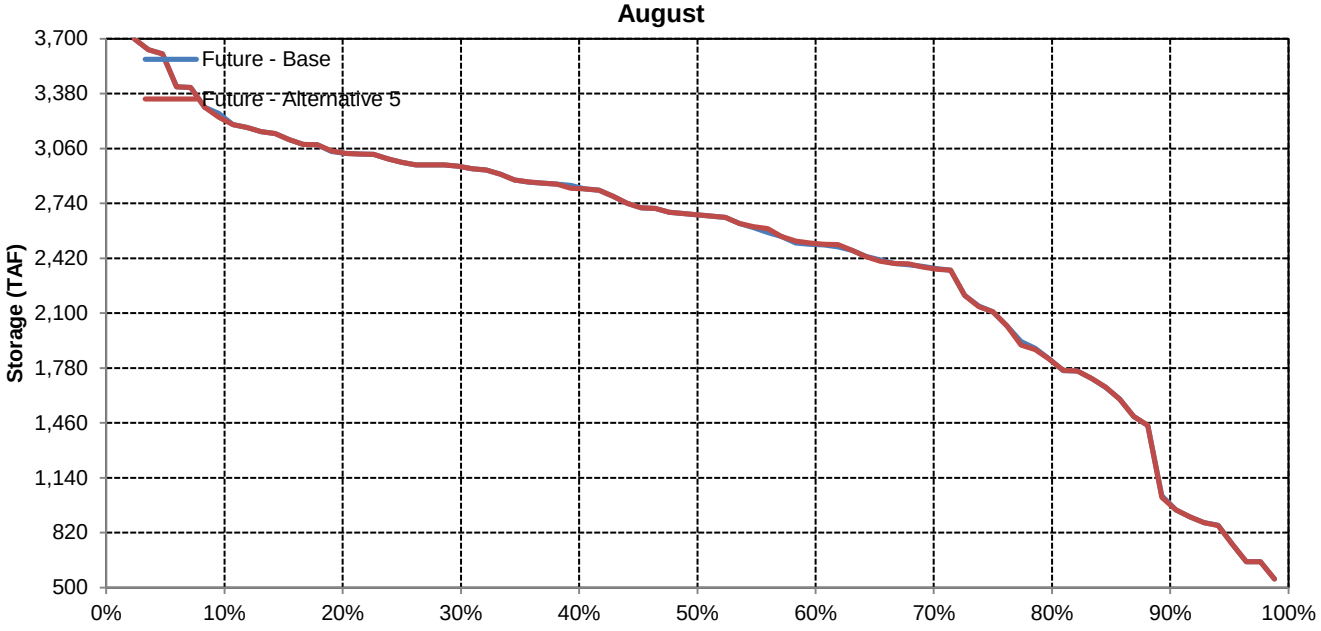



### July

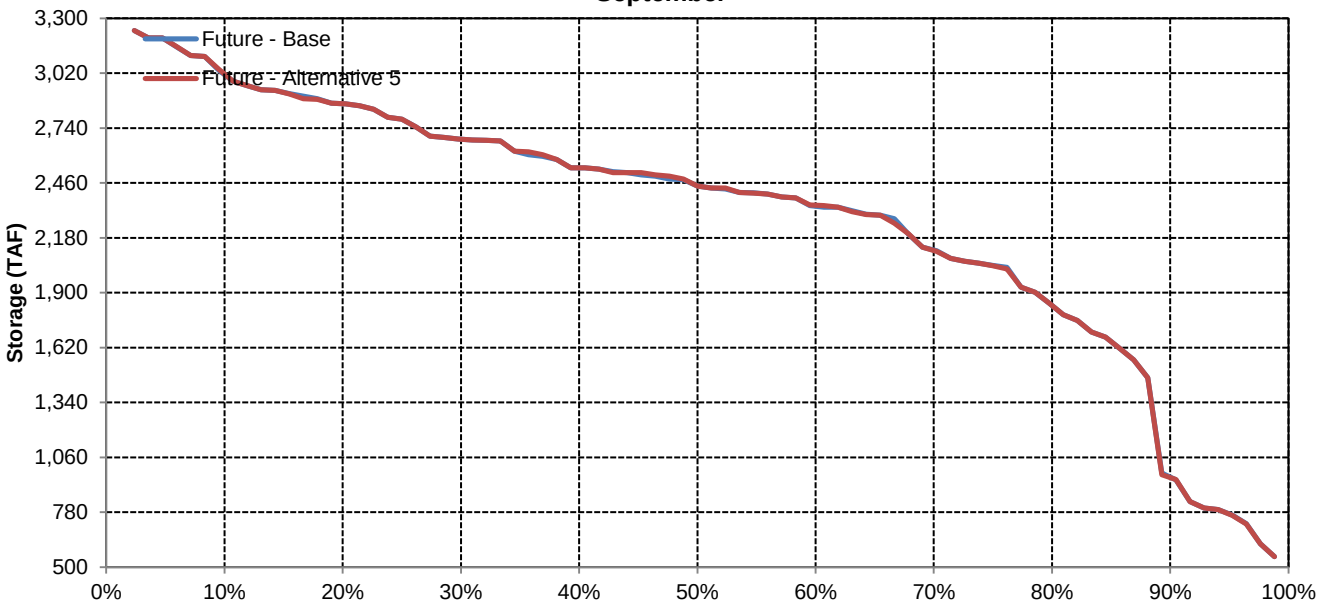


## Shasta Reservoir Storage

### August




### September



**Long-Term and Water Year-Type Average of Oroville Reservoir Under Future - Base and Future - Alternative 5**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 1,244 | 1,285 | 1,585 | 1,975 | 2,295 | 2,515 | 2,665 | 2,627 | 2,322 | 1,842 | 1,548 | 1,355 |
| Future - Alternative 5 | 1,245 | 1,286 | 1,586 | 1,977 | 2,296 | 2,516 | 2,666 | 2,628 | 2,323 | 1,844 | 1,549 | 1,356 |
| Difference | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 1,339 | 1,496 | 2,168 | 2,719 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,389 | 2,023 | 1,633 |
| Future - Alternative 5 | 1,342 | 1,498 | 2,170 | 2,720 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,390 | 2,026 | 1,636 |
| Difference | 3 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 1,447 | 1,447 | 1,640 | 2,269 | 2,768 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,539 |
| Future - Alternative 5 | 1,443 | 1,443 | 1,642 | 2,274 | 2,769 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,540 |
| Difference | -4 | -4 | 2 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 1,249 | 1,221 | 1,348 | 1,711 | 2,121 | 2,564 | 2,712 | 2,662 | 2,276 | 1,745 | 1,468 | 1,397 |
| Future - Alternative 5 | 1,251 | 1,221 | 1,348 | 1,712 | 2,123 | 2,565 | 2,713 | 2,667 | 2,280 | 1,749 | 1,465 | 1,394 |
| Difference | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 5 | 4 | 5 | -2 | -3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 1,100 | 1,111 | 1,253 | 1,469 | 1,902 | 2,247 | 2,284 | 2,176 | 1,845 | 1,457 | 1,207 | 1,161 |
| Future - Alternative 5 | 1,101 | 1,113 | 1,253 | 1,472 | 1,905 | 2,249 | 2,287 | 2,178 | 1,845 | 1,458 | 1,207 | 1,162 |
| Difference | 1 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 1,087 | 1,038 | 1,079 | 1,222 | 1,410 | 1,580 | 1,555 | 1,479 | 1,306 | 1,102 | 916 | 863 |
| Future - Alternative 5 | 1,086 | 1,038 | 1,079 | 1,222 | 1,411 | 1,581 | 1,556 | 1,479 | 1,313 | 1,106 | 916 | 866 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 0 | 3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% |

**Oroville Reservoir**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,636 | 1,973 | 2,788 | 2,854 | 2,994 | 3,059 | 3,347 | 3,446 | 3,357 | 2,744 | 2,228 | 1,836 |
| 20% | 1,502 | 1,552 | 2,259 | 2,788 | 2,856 | 2,991 | 3,237 | 3,254 | 3,034 | 2,401 | 2,003 | 1,666 |
| 30% | 1,413 | 1,392 | 1,723 | 2,787 | 2,788 | 2,938 | 3,180 | 3,142 | 2,680 | 2,176 | 1,819 | 1,572 |
| 40% | 1,252 | 1,284 | 1,473 | 2,185 | 2,788 | 2,833 | 3,081 | 3,034 | 2,528 | 1,958 | 1,679 | 1,439 |
| 50% | 1,159 | 1,175 | 1,411 | 1,820 | 2,492 | 2,788 | 2,979 | 2,790 | 2,386 | 1,840 | 1,570 | 1,325 |
| 60% | 1,084 | 1,076 | 1,258 | 1,613 | 2,165 | 2,539 | 2,672 | 2,667 | 2,222 | 1,693 | 1,307 | 1,222 |
| 70% | 998 | 1,001 | 1,180 | 1,458 | 1,946 | 2,268 | 2,297 | 2,185 | 1,924 | 1,499 | 1,201 | 1,097 |
| 80% | 985 | 953 | 1,002 | 1,258 | 1,538 | 1,950 | 2,026 | 1,954 | 1,706 | 1,328 | 1,052 | 995 |
| 90% | 829 | 891 | 941 | 1,010 | 1,262 | 1,594 | 1,557 | 1,411 | 1,216 | 1,006 | 916 | 879 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,244 | 1,285 | 1,585 | 1,975 | 2,295 | 2,515 | 2,665 | 2,627 | 2,322 | 1,842 | 1,548 | 1,355 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,339 | 1,496 | 2,168 | 2,719 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,389 | 2,023 | 1,633 |
| Above Normal | 1,447 | 1,447 | 1,640 | 2,269 | 2,768 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,539 |
| Below Normal | 1,249 | 1,221 | 1,348 | 1,711 | 2,121 | 2,564 | 2,712 | 2,662 | 2,276 | 1,745 | 1,468 | 1,397 |
| Dry | 1,100 | 1,111 | 1,253 | 1,469 | 1,902 | 2,247 | 2,284 | 2,176 | 1,845 | 1,457 | 1,207 | 1,161 |
| Critical | 1,087 | 1,038 | 1,079 | 1,222 | 1,410 | 1,580 | 1,555 | 1,479 | 1,306 | 1,102 | 916 | 863 |

**Future - Alternative 5**

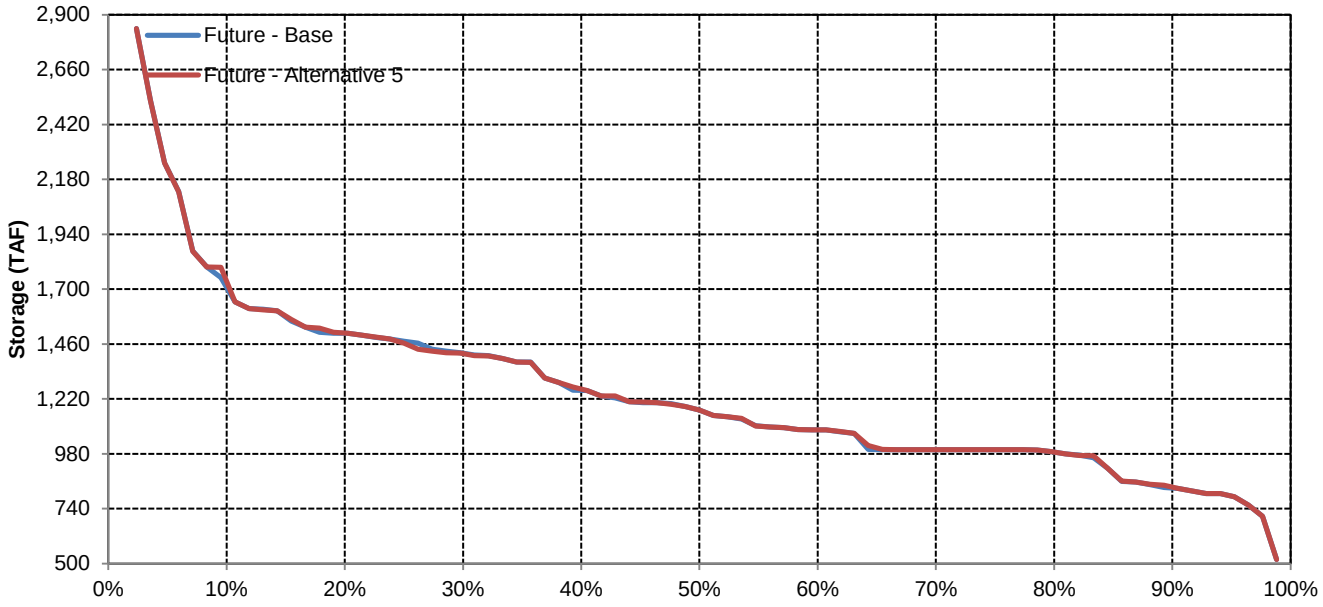
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,636 | 1,973 | 2,788 | 2,854 | 2,994 | 3,059 | 3,347 | 3,446 | 3,357 | 2,762 | 2,228 | 1,835 |
| 20% | 1,502 | 1,542 | 2,266 | 2,788 | 2,856 | 2,991 | 3,237 | 3,254 | 3,034 | 2,401 | 2,003 | 1,666 |
| 30% | 1,410 | 1,391 | 1,700 | 2,787 | 2,788 | 2,938 | 3,180 | 3,142 | 2,679 | 2,176 | 1,819 | 1,574 |
| 40% | 1,252 | 1,285 | 1,474 | 2,185 | 2,788 | 2,844 | 3,081 | 3,044 | 2,530 | 1,960 | 1,679 | 1,439 |
| 50% | 1,159 | 1,176 | 1,412 | 1,820 | 2,494 | 2,788 | 2,979 | 2,790 | 2,386 | 1,847 | 1,570 | 1,323 |
| 60% | 1,084 | 1,076 | 1,258 | 1,614 | 2,165 | 2,539 | 2,672 | 2,667 | 2,222 | 1,693 | 1,312 | 1,222 |
| 70% | 998 | 1,001 | 1,180 | 1,458 | 1,946 | 2,269 | 2,298 | 2,187 | 1,925 | 1,515 | 1,199 | 1,095 |
| 80% | 986 | 956 | 1,002 | 1,258 | 1,538 | 1,951 | 2,027 | 1,954 | 1,734 | 1,306 | 1,030 | 995 |
| 90% | 833 | 891 | 941 | 1,024 | 1,271 | 1,594 | 1,557 | 1,411 | 1,216 | 1,007 | 917 | 879 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,245 | 1,286 | 1,586 | 1,977 | 2,296 | 2,516 | 2,666 | 2,628 | 2,323 | 1,844 | 1,549 | 1,356 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,342 | 1,498 | 2,170 | 2,720 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,390 | 2,026 | 1,636 |
| Above Normal | 1,443 | 1,443 | 1,642 | 2,274 | 2,769 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,540 |
| Below Normal | 1,251 | 1,221 | 1,348 | 1,712 | 2,123 | 2,565 | 2,713 | 2,667 | 2,280 | 1,749 | 1,465 | 1,394 |
| Dry | 1,101 | 1,113 | 1,253 | 1,472 | 1,905 | 2,249 | 2,287 | 2,178 | 1,845 | 1,458 | 1,207 | 1,162 |
| Critical | 1,086 | 1,038 | 1,079 | 1,222 | 1,411 | 1,581 | 1,556 | 1,479 | 1,313 | 1,106 | 916 | 866 |

**Future - Alternative 5 Minus Future - Base**

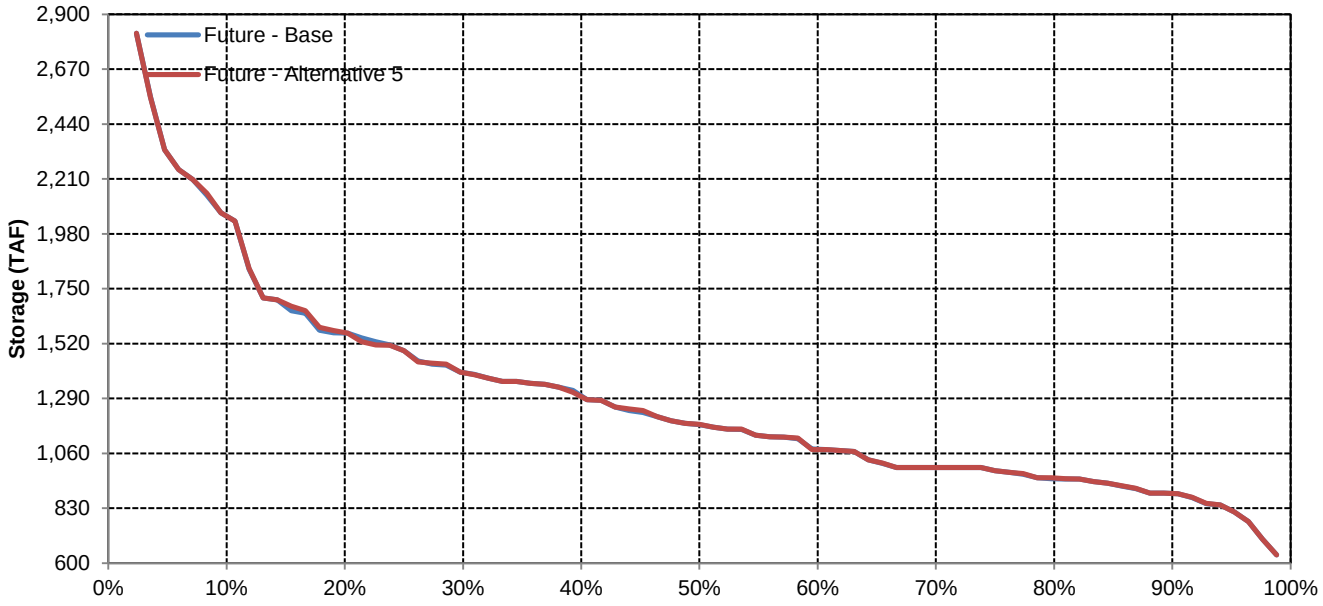
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | -1 |
| 20% | 0 | -10 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | -3 | -2 | -23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 2 |
| 40% | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 10 | 3 | 2 | 0 | 0 |
| 50% | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | -1 |
| 60% | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 70% | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 15 | -2 | -2 |
| 80% | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 28 | -22 | -22 | 0 |
| 90% | 3 | 0 | 0 | 14 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 3 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 |
| Above Normal | -4 | -4 | 2 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 5 | 4 | 5 | -2 | -3 |
| Dry | 1 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 0 | 1 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 0 | 3 |

## Oroville Reservoir

### October

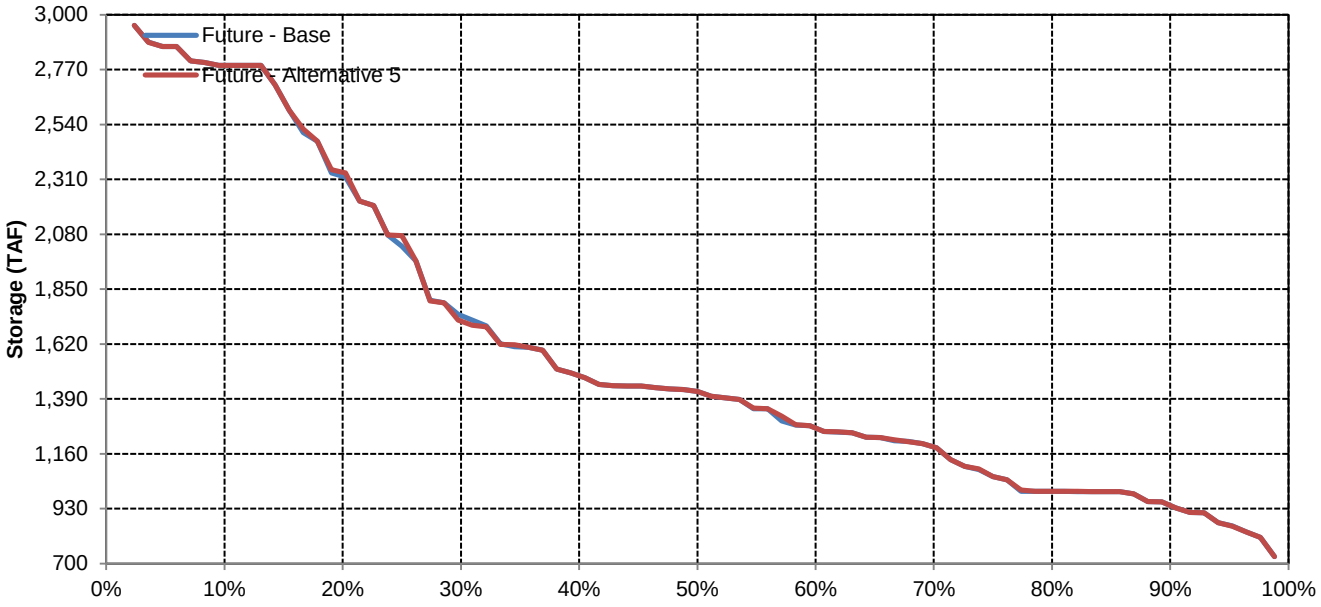



### November

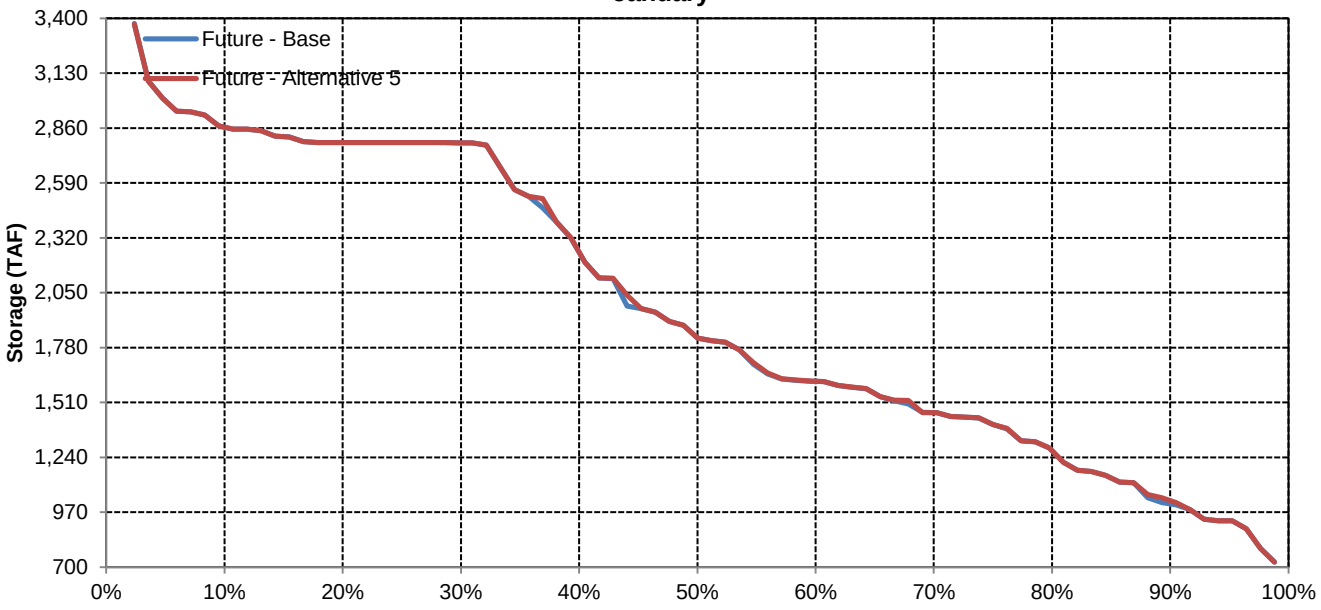


## Oroville Reservoir

### December

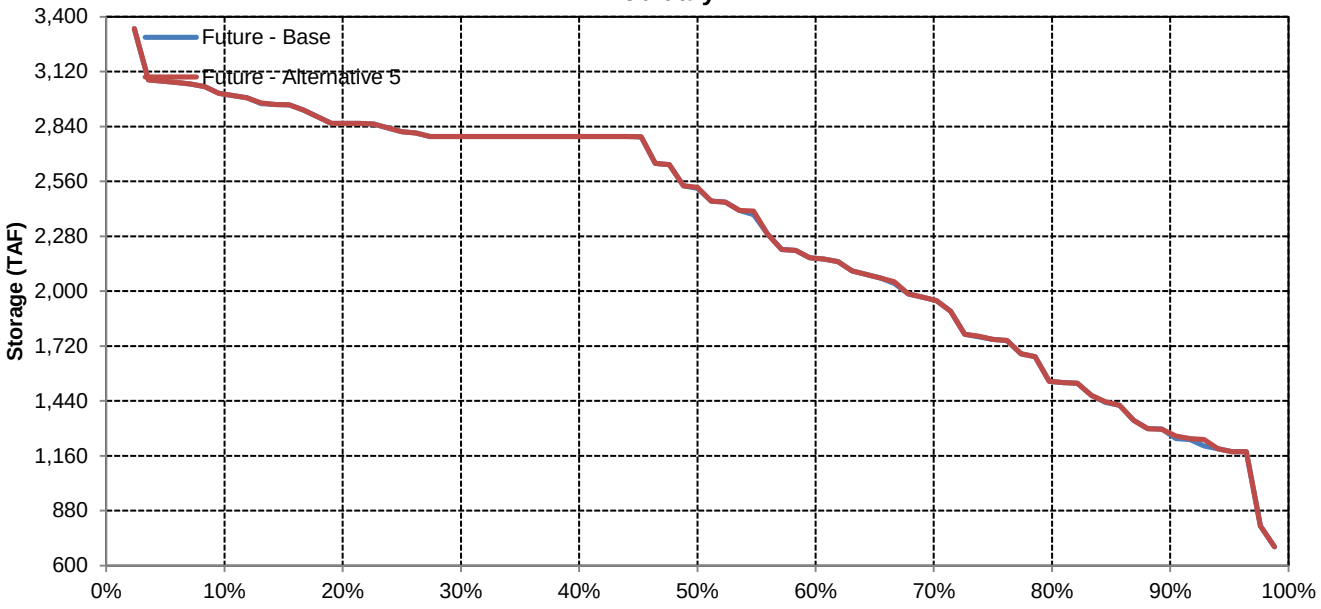



### January

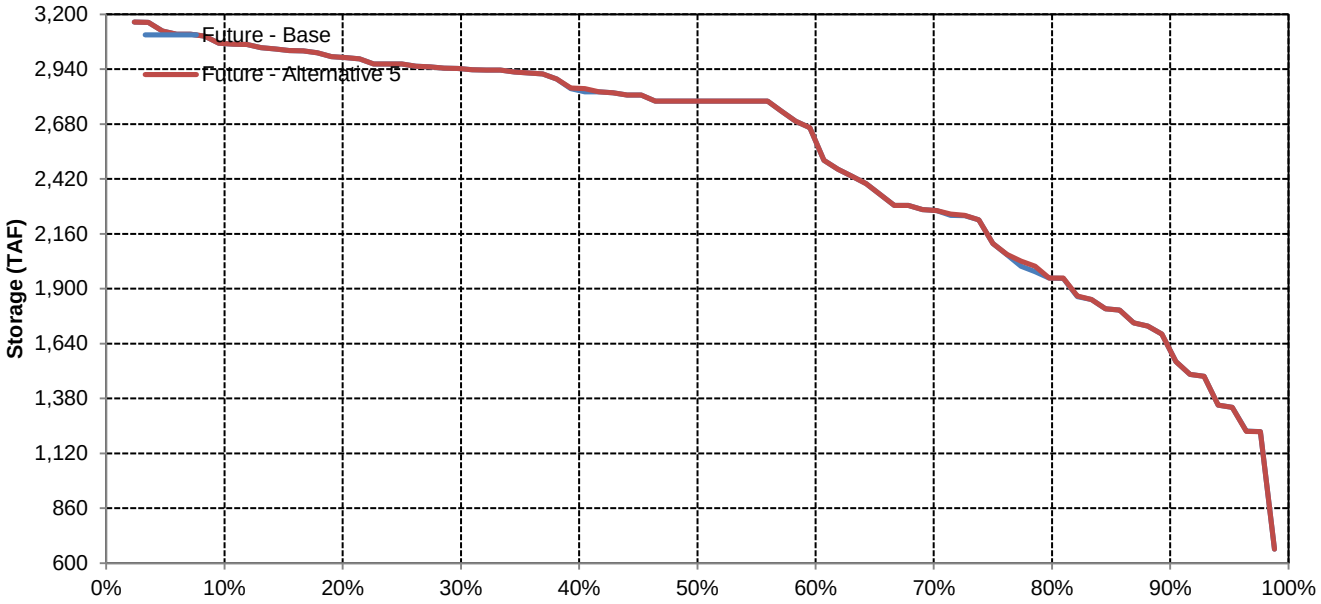


## Oroville Reservoir

### February

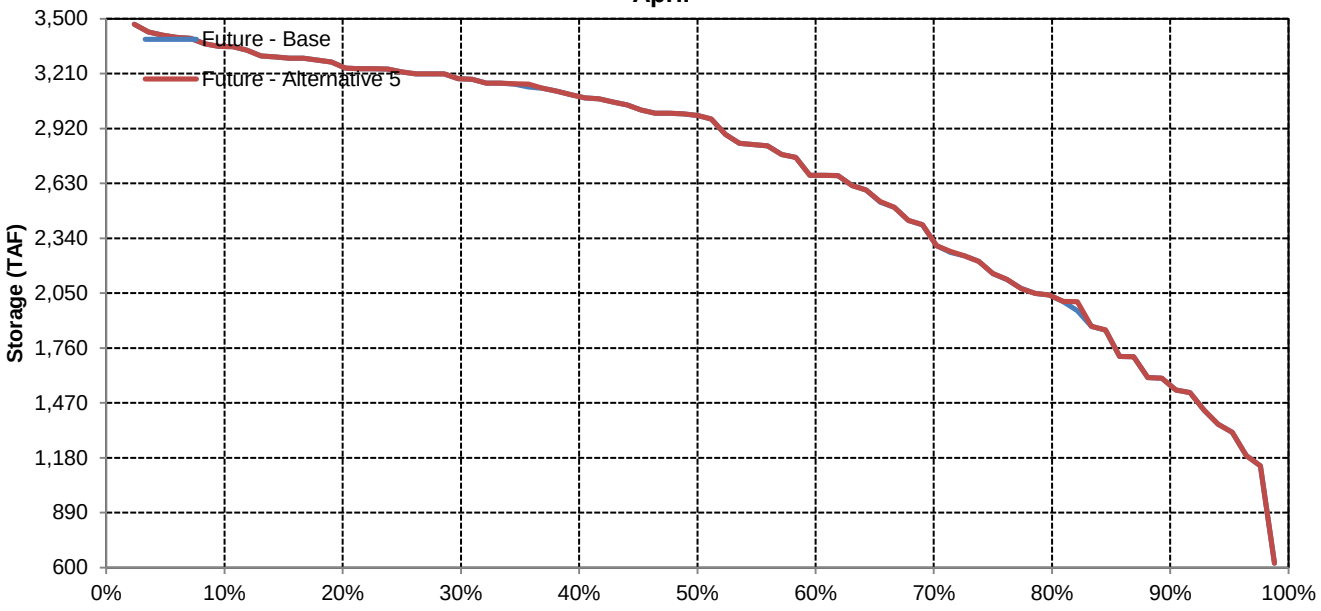



### March

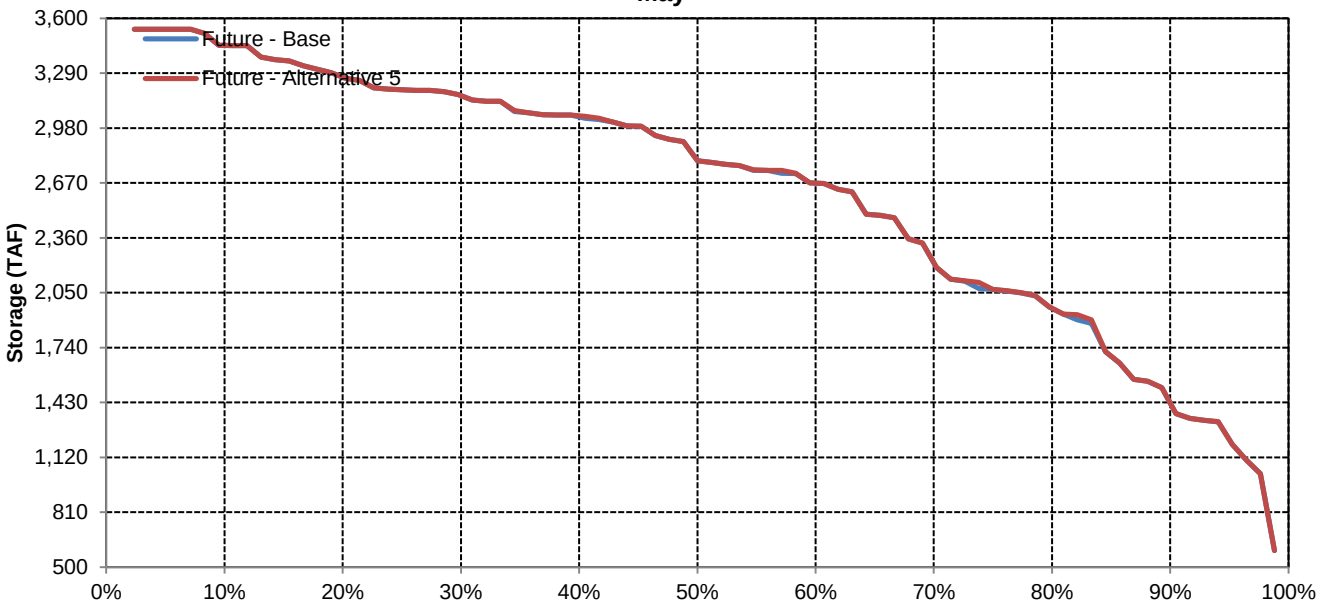


## Oroville Reservoir

### April

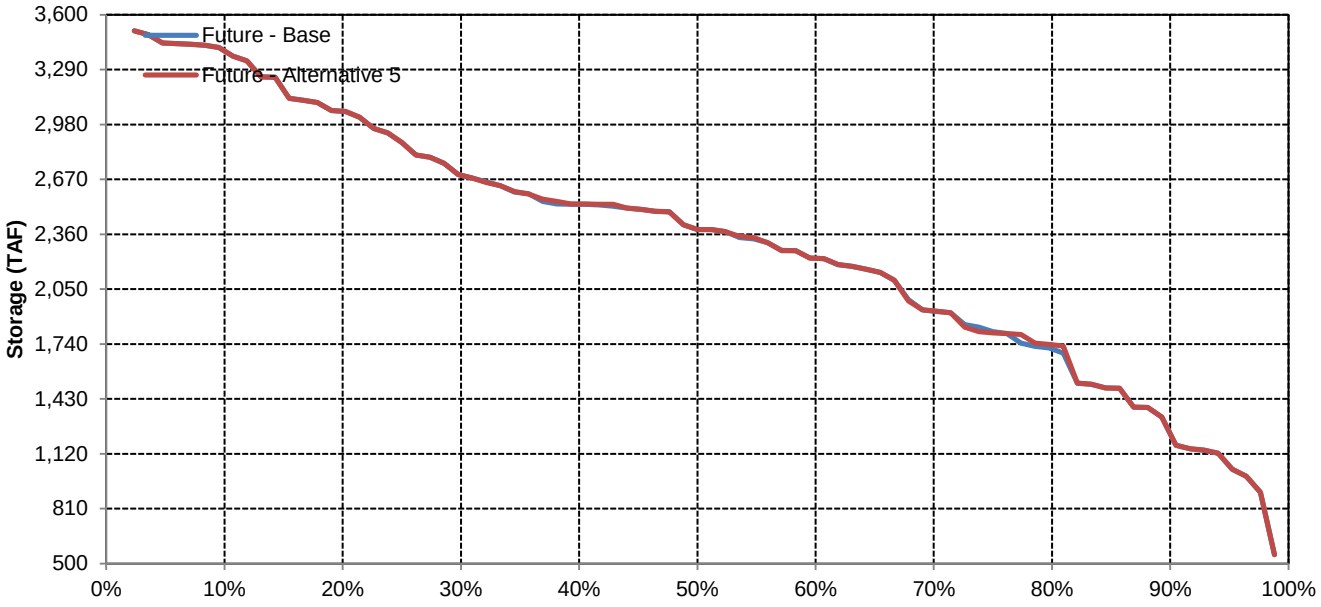



### May

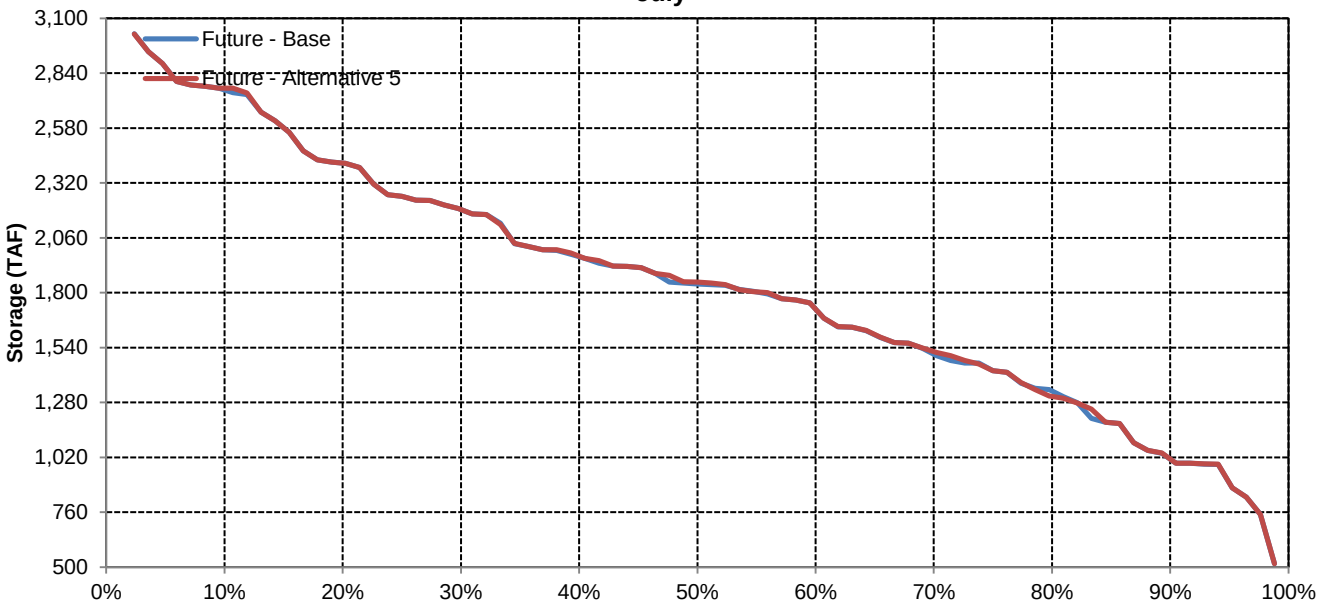


## Oroville Reservoir

### June

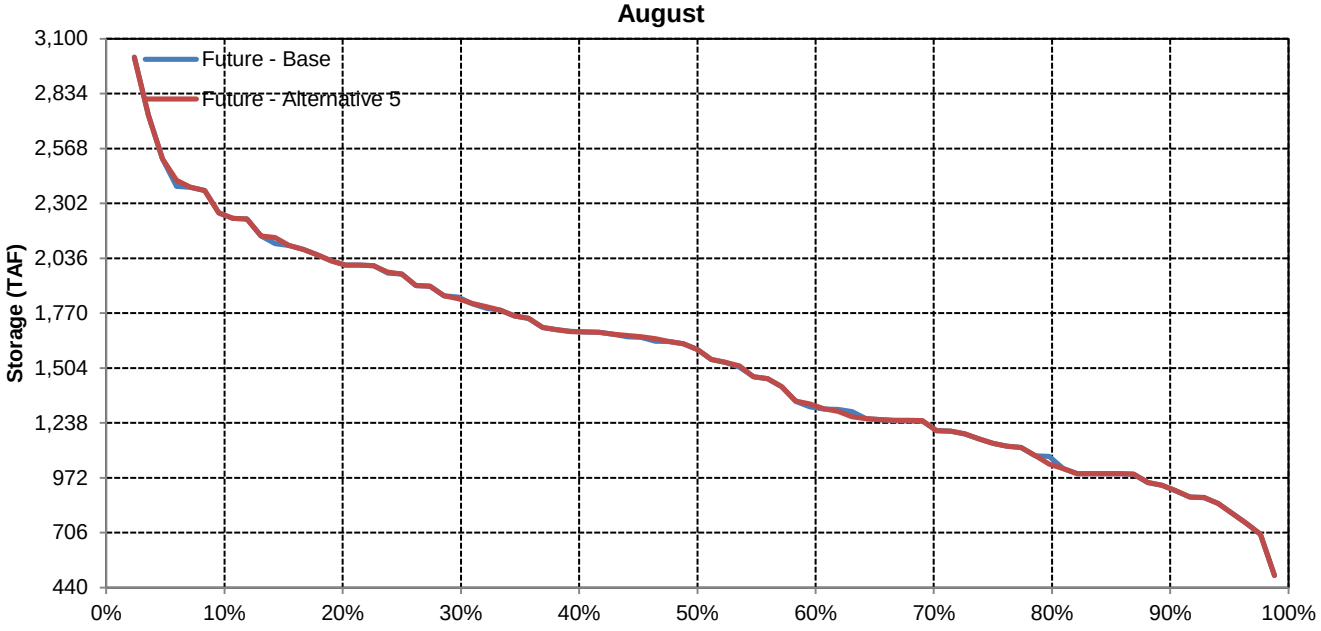



### July

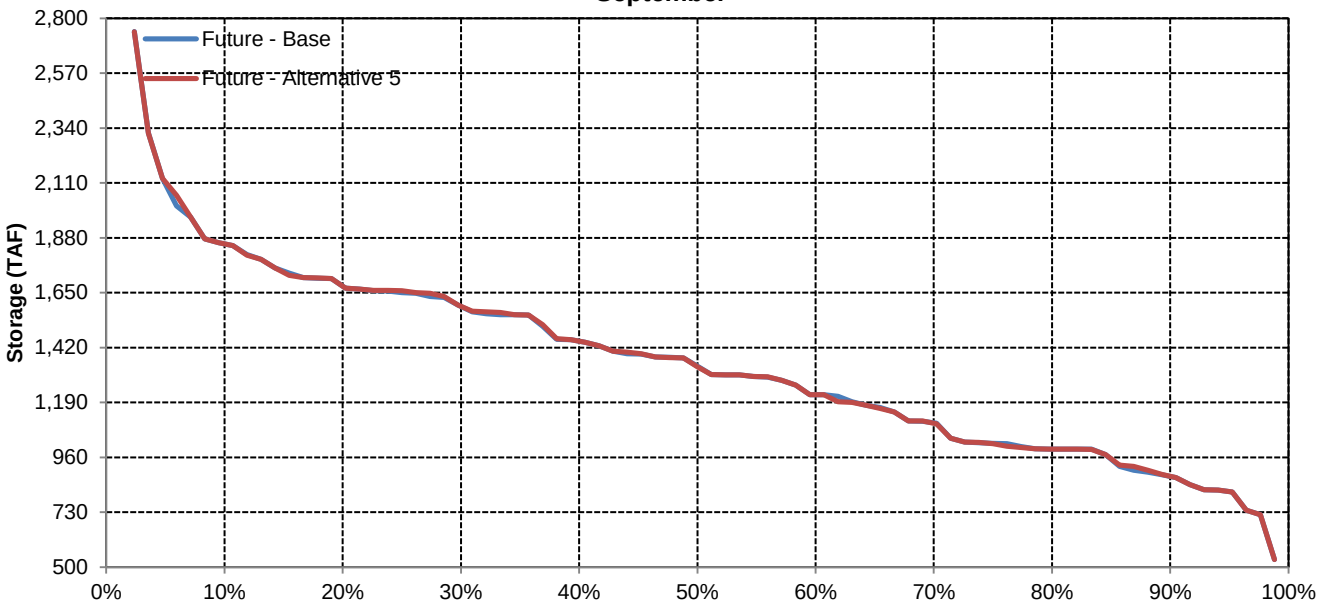


## Oroville Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Folsom Reservoir Under Future - Base and Future - Alternative 5**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 460 | 427 | 390 |
| Future - Alternative 5 | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 461 | 427 | 391 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 547 | 509 | 430 |
| Future - Alternative 5 | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 546 | 508 | 430 |
| Difference | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 363 | 358 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Future - Alternative 5 | 362 | 357 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Difference | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 375 | 361 | 399 | 471 | 508 | 624 | 727 | 714 | 609 | 493 | 465 | 455 |
| Future - Alternative 5 | 375 | 362 | 400 | 471 | 508 | 624 | 727 | 714 | 610 | 495 | 467 | 457 |
| Difference | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 336 | 332 | 372 | 411 | 477 | 592 | 646 | 596 | 489 | 395 | 356 | 357 |
| Future - Alternative 5 | 336 | 333 | 373 | 412 | 477 | 592 | 646 | 596 | 491 | 396 | 358 | 359 |
| Difference | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 321 | 298 | 288 | 306 | 341 | 440 | 436 | 418 | 360 | 317 | 287 | 256 |
| Future - Alternative 5 | 321 | 297 | 288 | 306 | 341 | 439 | 436 | 418 | 360 | 317 | 286 | 255 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Future - Base**

| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 487 | 501 | 567 | 567 | 567 | 662 | 792 | 939 | 828 | 636 | 580 | 540 |
| 20% | 445 | 437 | 566 | 567 | 567 | 656 | 792 | 820 | 729 | 587 | 548 | 504 |
| 30% | 395 | 394 | 498 | 564 | 563 | 652 | 792 | 763 | 694 | 549 | 519 | 455 |
| 40% | 365 | 365 | 432 | 556 | 557 | 645 | 791 | 745 | 621 | 495 | 483 | 417 |
| 50% | 349 | 342 | 392 | 507 | 549 | 629 | 766 | 706 | 592 | 443 | 413 | 396 |
| 60% | 321 | 327 | 352 | 454 | 495 | 616 | 701 | 656 | 538 | 418 | 388 | 360 |
| 70% | 304 | 311 | 319 | 372 | 443 | 590 | 635 | 600 | 500 | 383 | 356 | 333 |
| 80% | 269 | 272 | 302 | 305 | 386 | 565 | 554 | 498 | 404 | 332 | 305 | 295 |
| 90% | 223 | 217 | 252 | 260 | 302 | 426 | 437 | 426 | 355 | 311 | 276 | 231 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 460 | 427 | 390 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 547 | 509 | 430 |
| Above Normal | 363 | 358 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Below Normal | 375 | 361 | 399 | 471 | 508 | 624 | 727 | 714 | 609 | 493 | 465 | 455 |
| Dry | 336 | 332 | 372 | 411 | 477 | 592 | 646 | 596 | 489 | 395 | 356 | 357 |
| Critical | 321 | 298 | 288 | 306 | 341 | 440 | 436 | 418 | 360 | 317 | 287 | 256 |

**Future - Alternative 5**

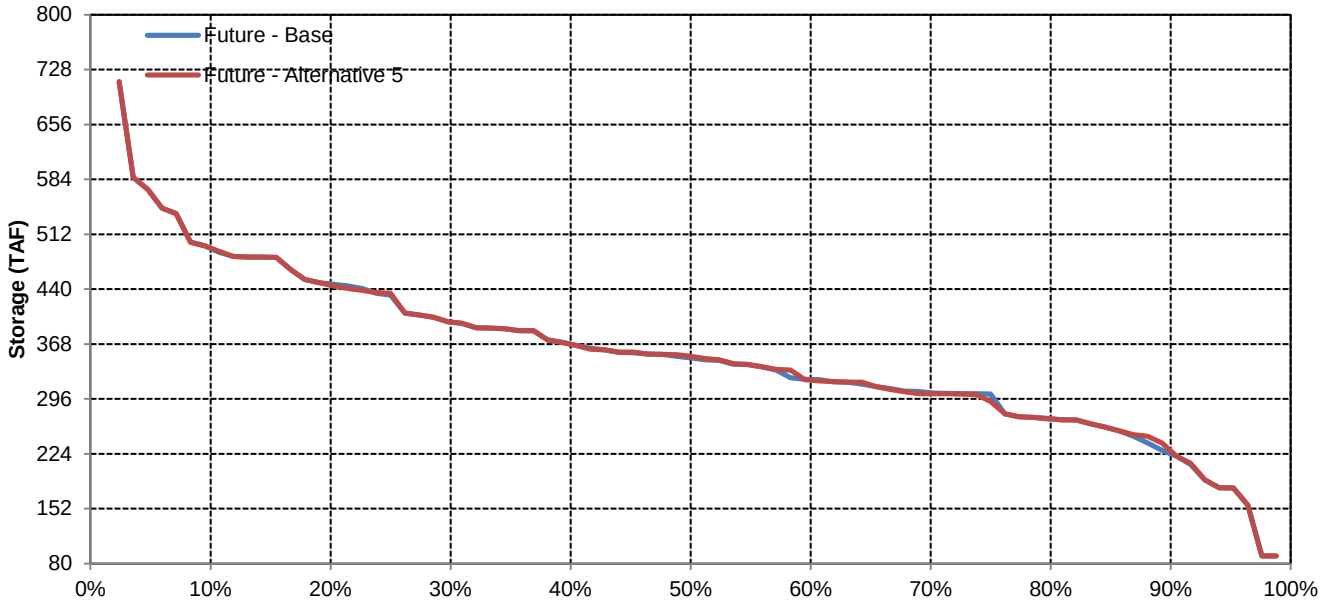
| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 488 | 502 | 567 | 567 | 567 | 662 | 792 | 939 | 829 | 636 | 581 | 541 |
| 20% | 442 | 437 | 564 | 567 | 567 | 656 | 792 | 820 | 729 | 587 | 548 | 503 |
| 30% | 395 | 394 | 498 | 564 | 563 | 652 | 792 | 763 | 694 | 549 | 519 | 457 |
| 40% | 365 | 365 | 432 | 556 | 557 | 645 | 791 | 745 | 621 | 495 | 483 | 417 |
| 50% | 351 | 342 | 391 | 507 | 549 | 629 | 766 | 706 | 592 | 448 | 413 | 396 |
| 60% | 320 | 327 | 352 | 454 | 495 | 616 | 701 | 656 | 541 | 419 | 389 | 360 |
| 70% | 303 | 309 | 318 | 372 | 443 | 590 | 635 | 600 | 500 | 379 | 350 | 334 |
| 80% | 270 | 272 | 303 | 305 | 386 | 565 | 554 | 498 | 404 | 331 | 305 | 295 |
| 90% | 226 | 218 | 252 | 262 | 301 | 426 | 439 | 426 | 360 | 311 | 276 | 232 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 461 | 427 | 391 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 546 | 508 | 430 |
| Above Normal | 362 | 357 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Below Normal | 375 | 362 | 400 | 471 | 508 | 624 | 727 | 714 | 610 | 495 | 467 | 457 |
| Dry | 336 | 333 | 373 | 412 | 477 | 592 | 646 | 596 | 491 | 396 | 358 | 359 |
| Critical | 321 | 297 | 288 | 306 | 341 | 439 | 436 | 418 | 360 | 317 | 286 | 255 |

**Future - Alternative 5 Minus Future - Base**

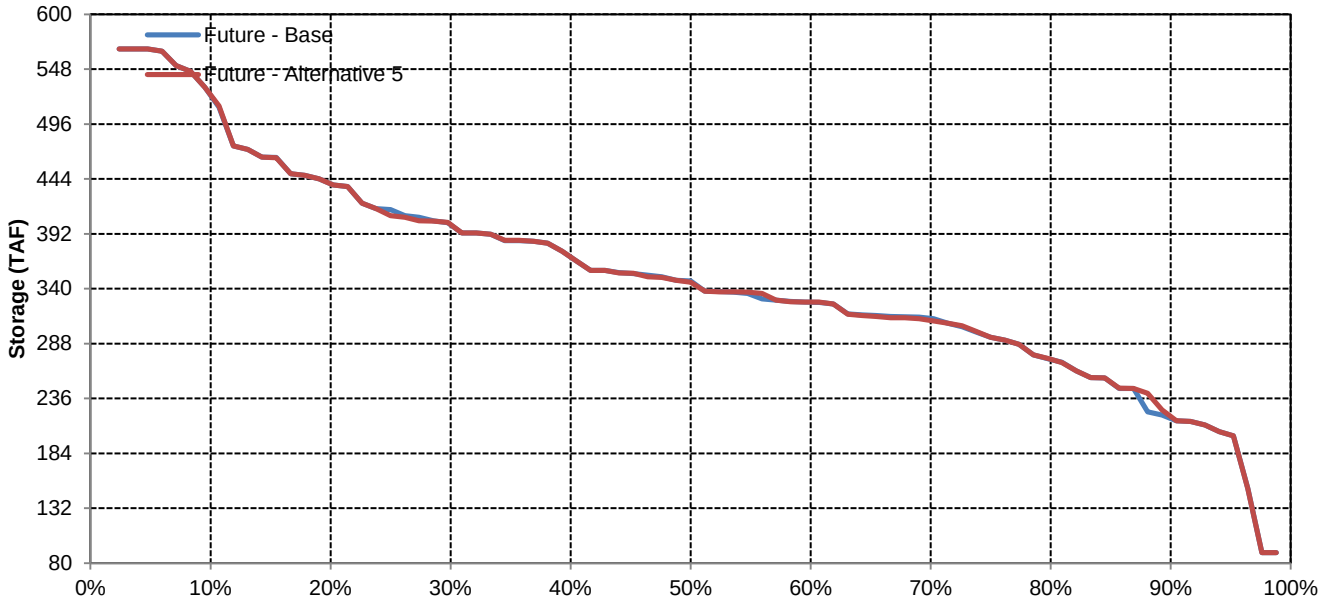
| Statistic | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 20% | -3 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 40% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| 60% | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 1 |
| 70% | -1 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -5 | -6 | 0 |
| 80% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 |
| 90% | 3 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 |
| Above Normal | -1 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |
| Dry | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 1 |
| Critical | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Folsom Reservoir

### October

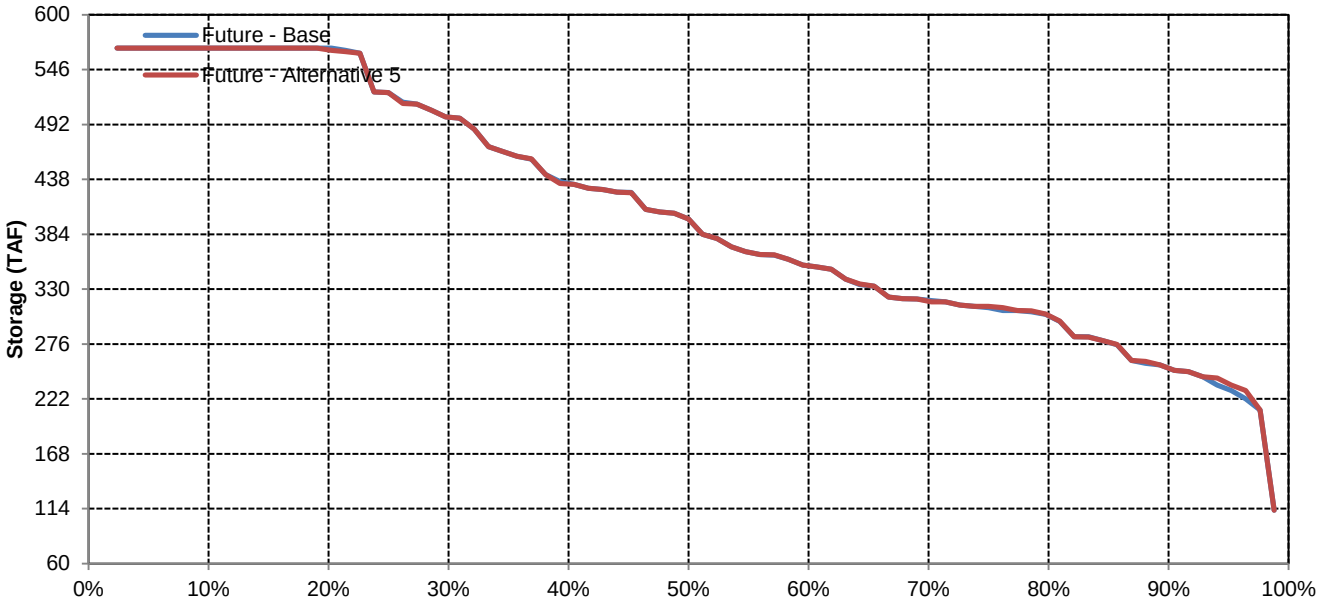



### November

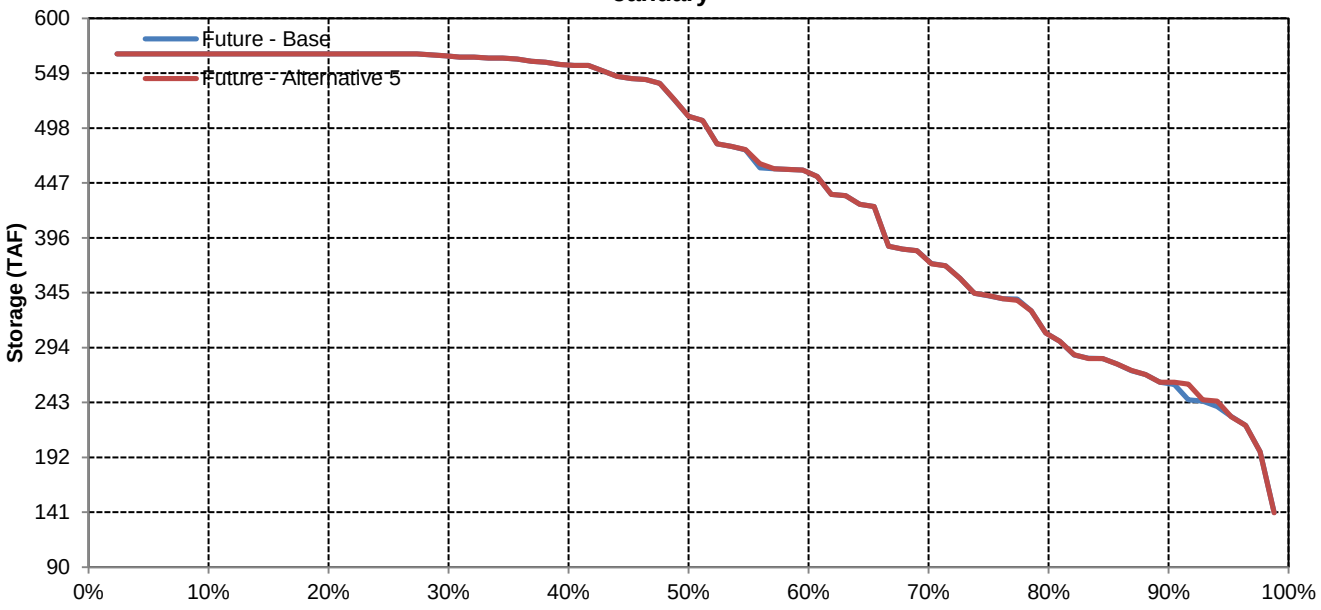


## Folsom Reservoir

### December

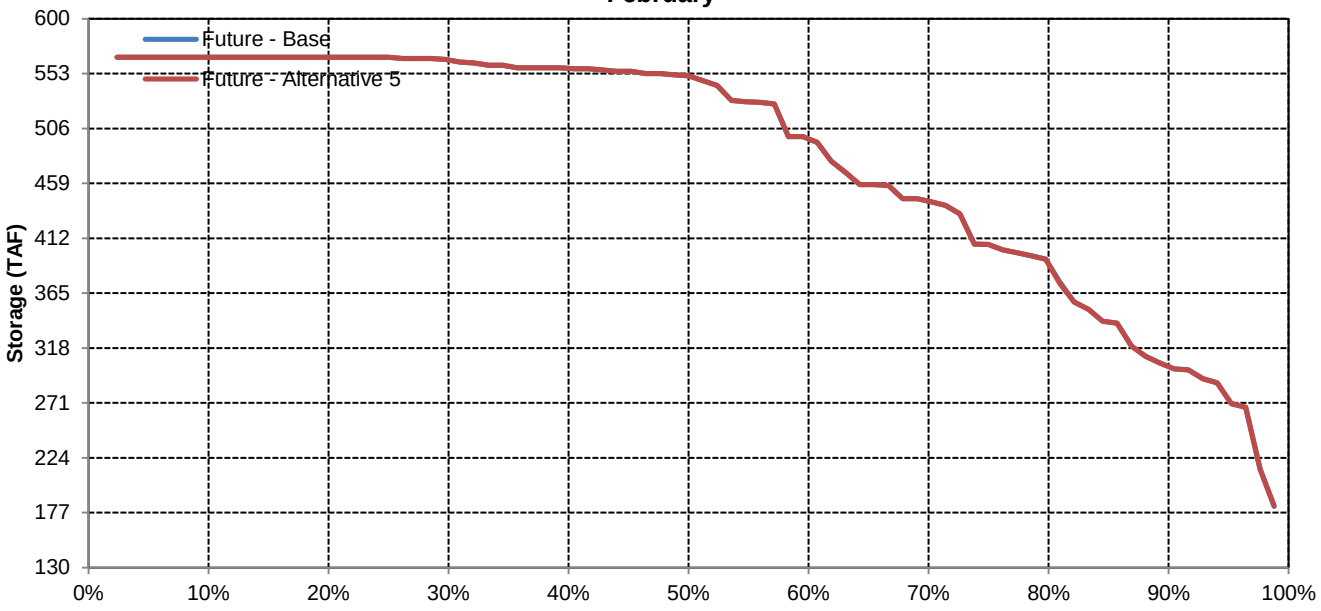



### January

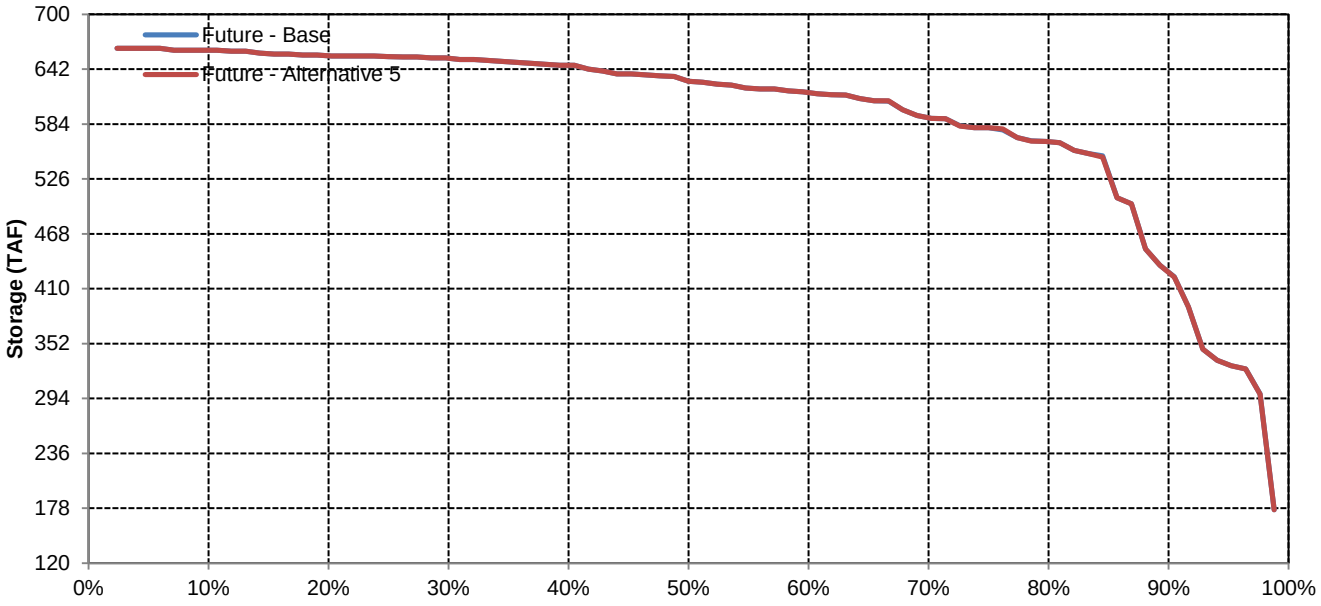


## Folsom Reservoir

### February

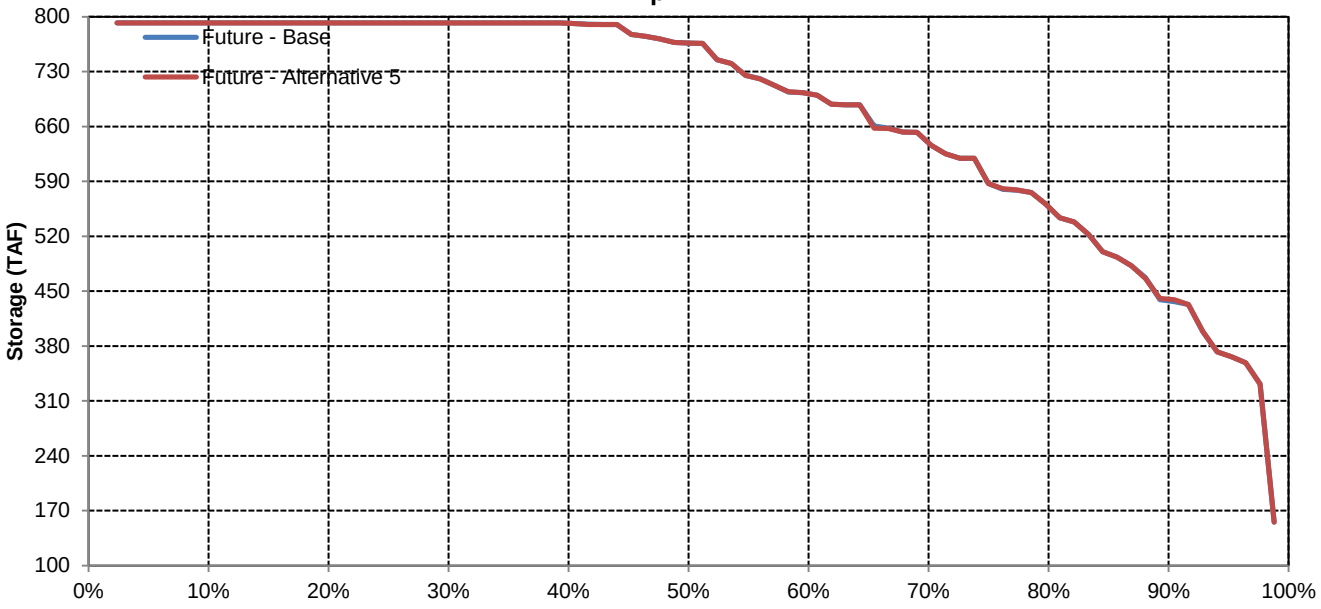



### March

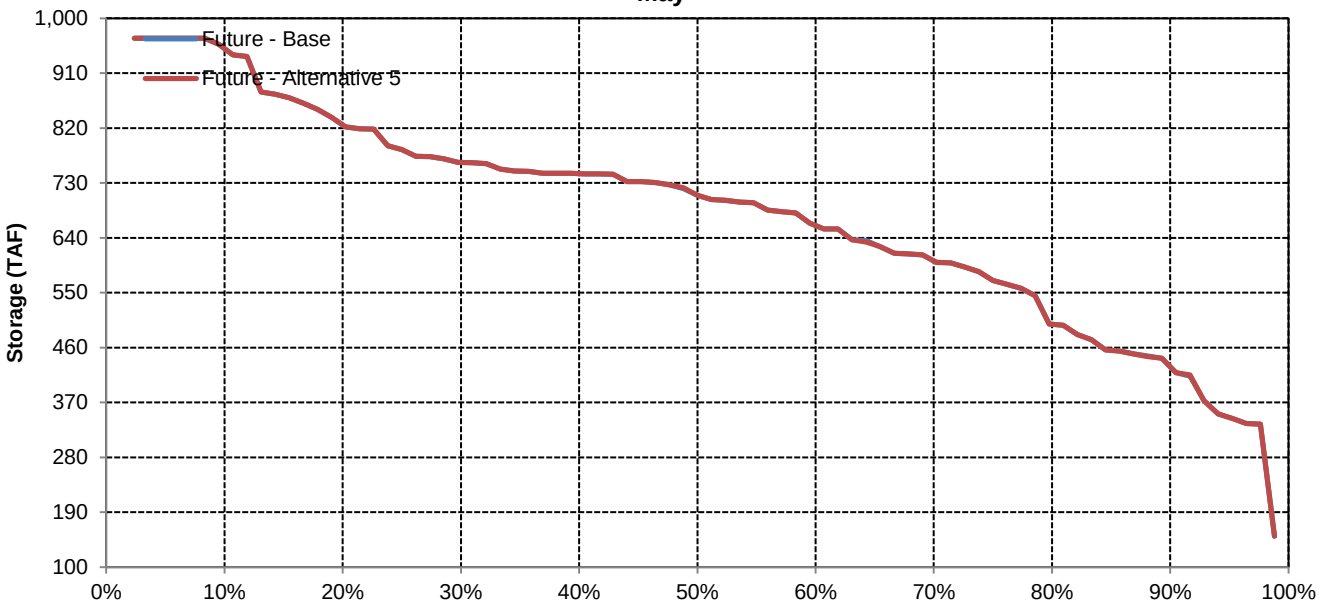


## Folsom Reservoir

### April

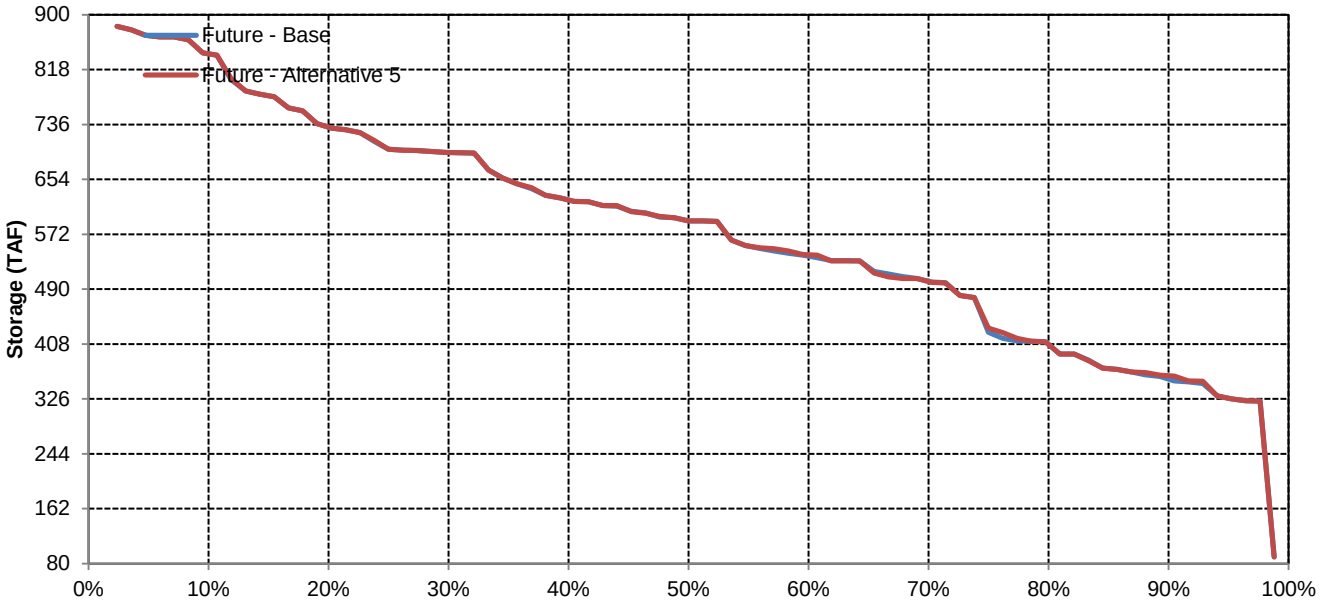



### May

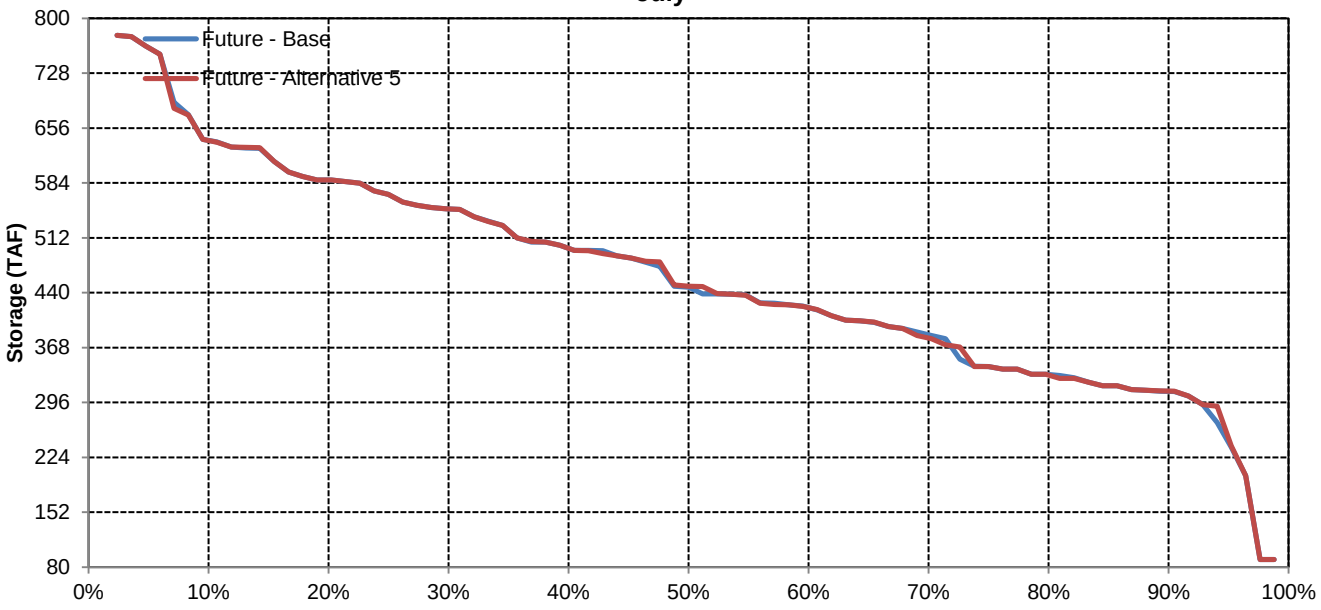


## Folsom Reservoir

### June

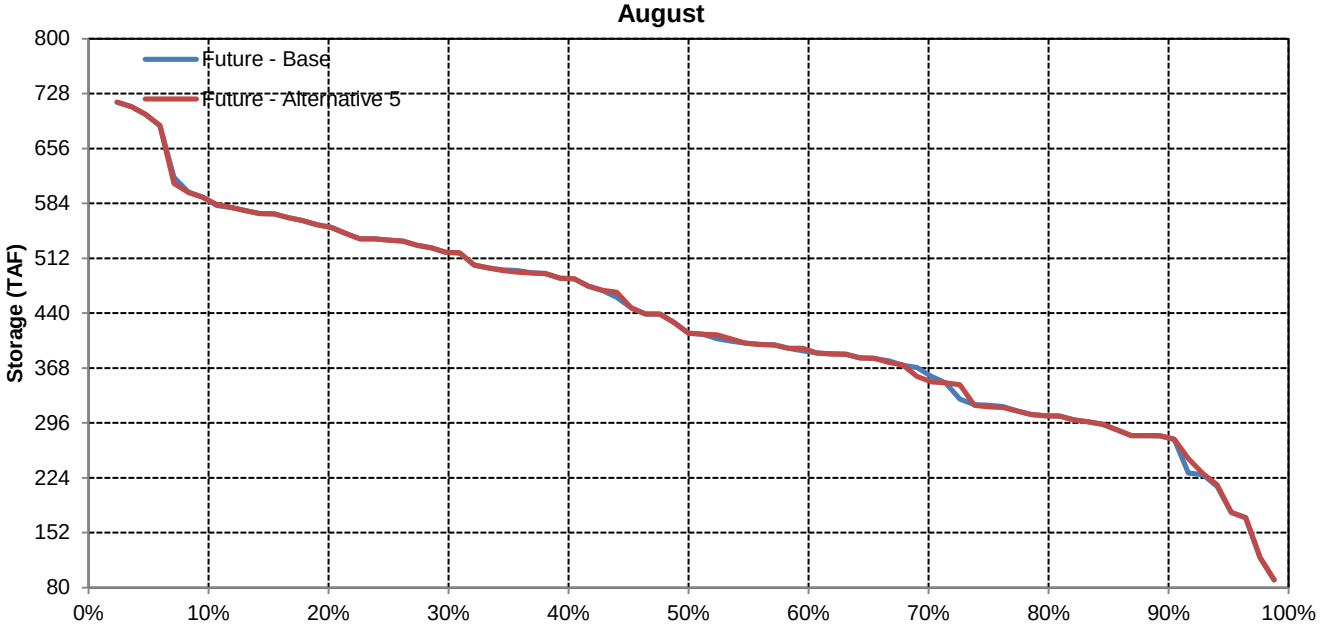



### July

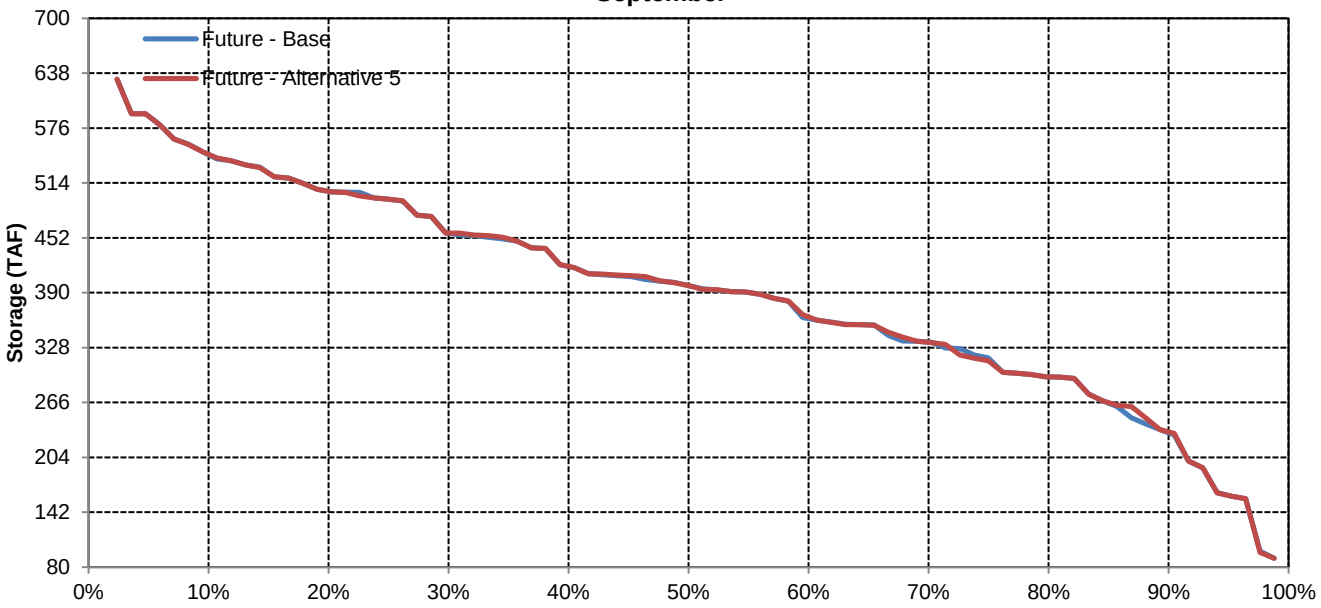


## Folsom Reservoir

### August




### September



**Long-Term and Water Year-Type Average of CVP San Luis Reservoir Under Future - Base and Future - Alternative 5**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 218 | 294 | 461 | 615 | 743 | 823 | 788 | 682 | 578 | 413 | 314 | 270 |
| Future - Alternative 5 | 218 | 295 | 460 | 615 | 743 | 823 | 788 | 683 | 579 | 414 | 314 | 269 |
| Difference | 1 | 1 | -1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 203 | 294 | 487 | 682 | 836 | 918 | 880 | 792 | 678 | 499 | 390 | 304 |
| Future - Alternative 5 | 199 | 290 | 482 | 679 | 832 | 918 | 879 | 790 | 674 | 497 | 388 | 301 |
| Difference | -4 | -5 | -5 | -3 | -3 | 0 | -2 | -1 | -4 | -2 | -2 | -3 |
| Percent Difference | -2% | -2% | -1% | 0% | 0% | 0% | 0% | 0% | -1% | 0% | -1% | -1% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 215 | 289 | 456 | 607 | 754 | 844 | 802 | 668 | 594 | 409 | 303 | 202 |
| Future - Alternative 5 | 225 | 298 | 459 | 610 | 754 | 844 | 801 | 667 | 594 | 409 | 303 | 202 |
| Difference | 10 | 9 | 3 | 3 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 4% | 3% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 237 | 280 | 459 | 588 | 713 | 836 | 815 | 706 | 632 | 430 | 313 | 312 |
| Future - Alternative 5 | 234 | 276 | 455 | 582 | 710 | 833 | 813 | 704 | 638 | 436 | 318 | 316 |
| Difference | -3 | -4 | -4 | -6 | -3 | -2 | -2 | -2 | 6 | 7 | 4 | 4 |
| Percent Difference | -1% | -1% | -1% | -1% | 0% | 0% | 0% | 0% | 1% | 2% | 1% | 1% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 211 | 284 | 442 | 576 | 689 | 772 | 742 | 621 | 516 | 359 | 253 | 240 |
| Future - Alternative 5 | 216 | 290 | 446 | 580 | 695 | 776 | 747 | 625 | 518 | 361 | 254 | 240 |
| Difference | 5 | 6 | 5 | 4 | 5 | 5 | 5 | 5 | 2 | 2 | 1 | 0 |
| Percent Difference | 2% | 2% | 1% | 1% | 1% | 1% | 1% | 1% | 0% | 1% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 242 | 329 | 444 | 571 | 654 | 666 | 621 | 536 | 395 | 302 | 263 | 262 |
| Future - Alternative 5 | 243 | 330 | 445 | 573 | 655 | 666 | 622 | 537 | 395 | 303 | 263 | 263 |
| Difference | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 442 | 574 | 764 | 972 | 972 | 972 | 972 | 909 | 861 | 675 | 596 | 517 |
| 20% | 367 | 426 | 607 | 826 | 972 | 972 | 958 | 858 | 767 | 563 | 489 | 434 |
| 30% | 272 | 373 | 528 | 720 | 942 | 972 | 913 | 806 | 702 | 492 | 413 | 347 |
| 40% | 209 | 298 | 476 | 659 | 826 | 967 | 889 | 768 | 647 | 455 | 316 | 289 |
| 50% | 160 | 269 | 425 | 581 | 736 | 883 | 869 | 715 | 609 | 394 | 256 | 223 |
| 60% | 118 | 232 | 369 | 521 | 682 | 833 | 793 | 636 | 539 | 340 | 226 | 161 |
| 70% | 90 | 173 | 327 | 477 | 630 | 718 | 665 | 571 | 458 | 287 | 190 | 132 |
| 80% | 90 | 122 | 284 | 432 | 554 | 658 | 611 | 480 | 404 | 238 | 140 | 91 |
| 90% | 90 | 90 | 246 | 370 | 439 | 573 | 531 | 393 | 274 | 197 | 110 | 90 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 218 | 294 | 461 | 615 | 743 | 823 | 788 | 682 | 578 | 413 | 314 | 270 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 203 | 294 | 487 | 682 | 836 | 918 | 880 | 792 | 678 | 499 | 390 | 304 |
| Above Normal | 215 | 289 | 456 | 607 | 754 | 844 | 802 | 668 | 594 | 409 | 303 | 202 |
| Below Normal | 237 | 280 | 459 | 588 | 713 | 836 | 815 | 706 | 632 | 430 | 313 | 312 |
| Dry | 211 | 284 | 442 | 576 | 689 | 772 | 742 | 621 | 516 | 359 | 253 | 240 |
| Critical | 242 | 329 | 444 | 571 | 654 | 666 | 621 | 536 | 395 | 302 | 263 | 262 |

**Future - Alternative 5**

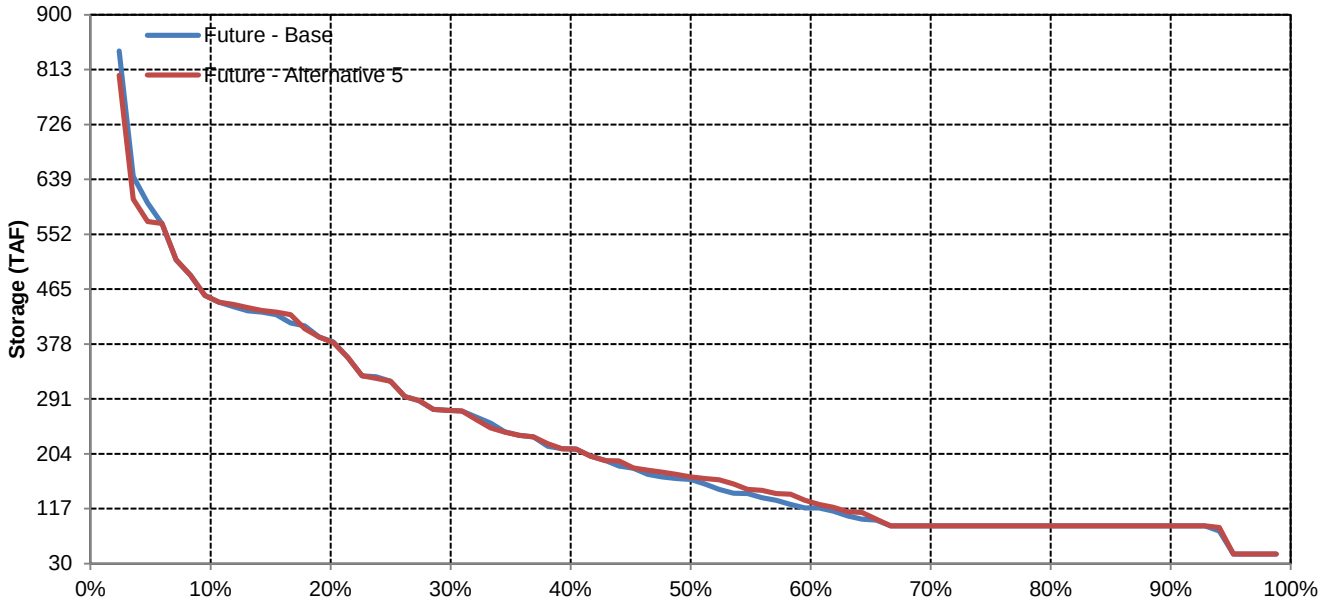
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 443 | 575 | 759 | 972 | 972 | 972 | 972 | 909 | 860 | 675 | 596 | 516 |
| 20% | 366 | 425 | 588 | 827 | 972 | 972 | 958 | 858 | 767 | 563 | 490 | 433 |
| 30% | 272 | 372 | 533 | 720 | 923 | 972 | 913 | 806 | 701 | 492 | 410 | 346 |
| 40% | 209 | 311 | 478 | 657 | 825 | 969 | 887 | 767 | 644 | 454 | 310 | 289 |
| 50% | 166 | 273 | 432 | 581 | 724 | 881 | 866 | 713 | 610 | 394 | 256 | 227 |
| 60% | 125 | 235 | 373 | 520 | 682 | 833 | 797 | 642 | 537 | 340 | 226 | 167 |
| 70% | 90 | 173 | 327 | 477 | 633 | 722 | 678 | 570 | 468 | 288 | 193 | 132 |
| 80% | 90 | 122 | 275 | 436 | 560 | 658 | 609 | 494 | 402 | 250 | 148 | 92 |
| 90% | 90 | 90 | 249 | 370 | 439 | 575 | 526 | 391 | 282 | 197 | 109 | 90 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 218 | 295 | 460 | 615 | 743 | 823 | 788 | 683 | 579 | 414 | 314 | 269 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 199 | 290 | 482 | 679 | 832 | 918 | 879 | 790 | 674 | 497 | 388 | 301 |
| Above Normal | 225 | 298 | 459 | 610 | 754 | 844 | 801 | 667 | 594 | 409 | 303 | 202 |
| Below Normal | 234 | 276 | 455 | 582 | 710 | 833 | 813 | 704 | 638 | 436 | 318 | 316 |
| Dry | 216 | 290 | 446 | 580 | 695 | 776 | 747 | 625 | 518 | 361 | 254 | 240 |
| Critical | 243 | 330 | 445 | 573 | 655 | 666 | 622 | 537 | 395 | 303 | 263 | 263 |

**Future - Alternative 5 Minus Future - Base**

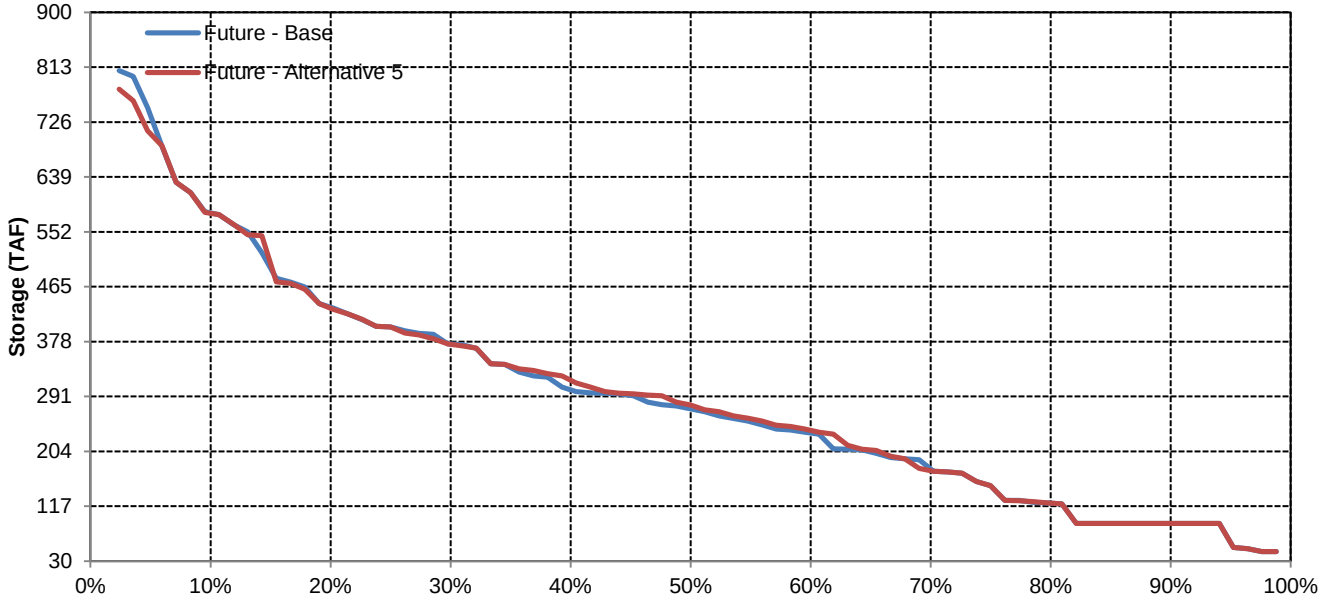
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | 0 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | -1 | -19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 |
| 30% | 0 | -2 | 4 | 0 | -18 | 0 | 0 | 0 | 0 | 0 | -3 | -2 |
| 40% | 0 | 13 | 1 | -2 | 0 | 1 | -2 | 0 | -3 | -1 | -6 | 0 |
| 50% | 6 | 5 | 7 | 0 | -12 | -2 | -3 | -2 | 2 | 0 | 0 | 4 |
| 60% | 7 | 3 | 5 | -1 | -1 | 0 | 4 | 6 | -2 | 1 | 0 | 5 |
| 70% | 0 | 0 | 0 | 0 | 4 | 5 | 13 | 0 | 10 | 1 | 4 | 0 |
| 80% | 0 | 0 | -9 | 3 | 6 | 0 | -2 | 14 | -1 | 13 | 8 | 1 |
| 90% | 0 | 0 | 3 | 0 | 0 | 3 | -5 | -3 | 8 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1 | 1 | -1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | -4 | -5 | -5 | -3 | -3 | 0 | -2 | -1 | -4 | -2 | -2 | -3 |
| Above Normal | 10 | 9 | 3 | 3 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | -3 | -4 | -4 | -6 | -3 | -2 | -2 | -2 | 6 | 7 | 4 | 4 |
| Dry | 5 | 6 | 5 | 4 | 5 | 5 | 5 | 5 | 2 | 2 | 1 | 0 |
| Critical | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |

## CVP San Luis Reservoir

### October

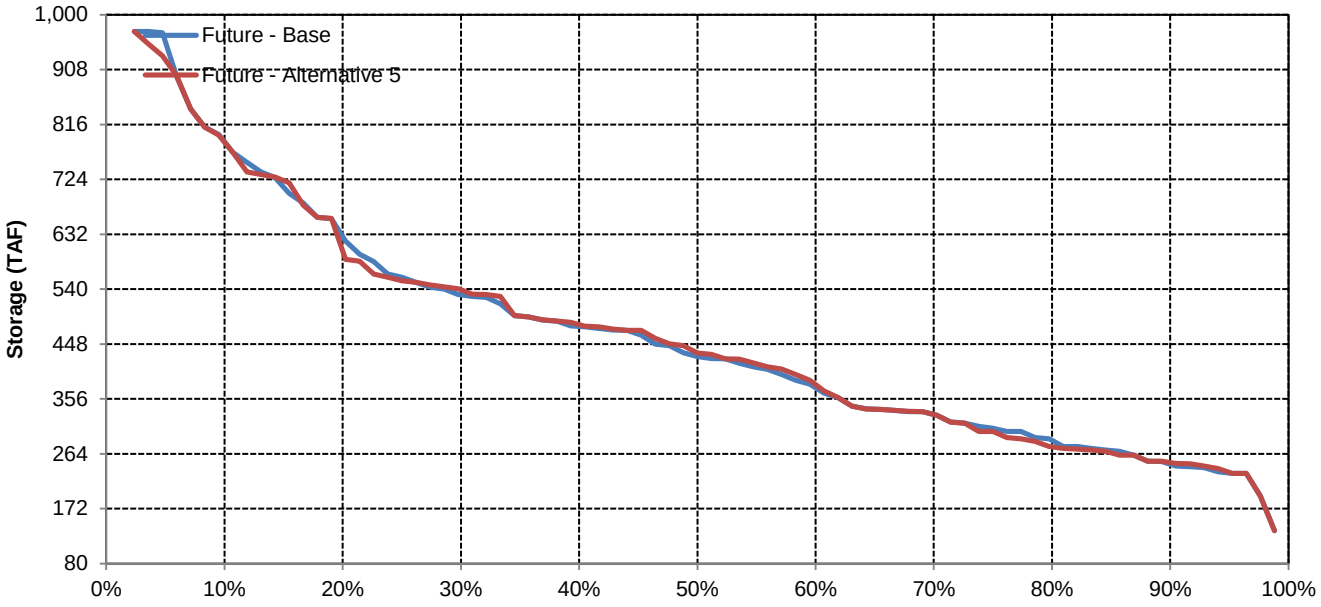



### November

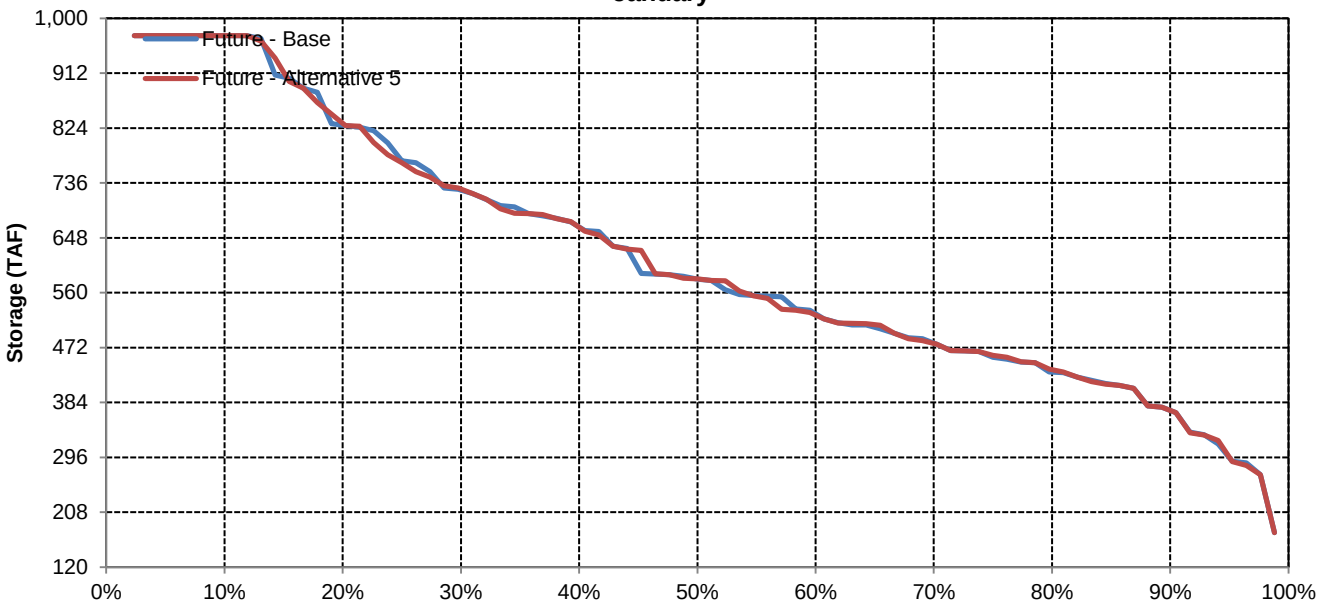


## CVP San Luis Reservoir

### December

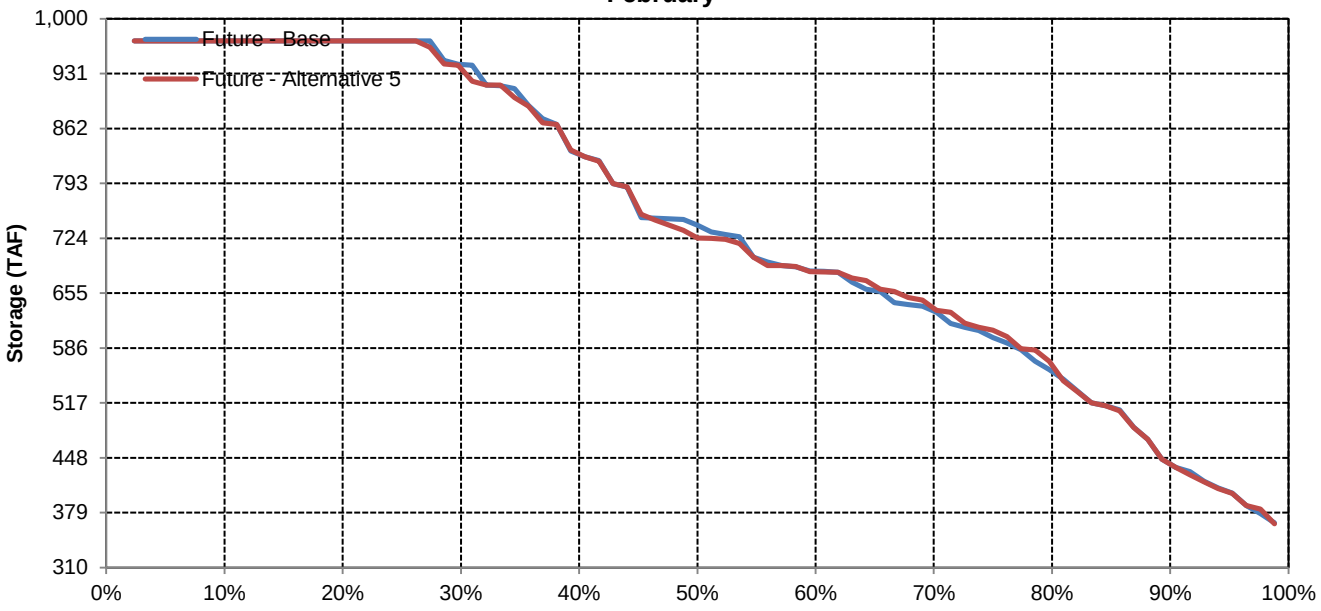



### January

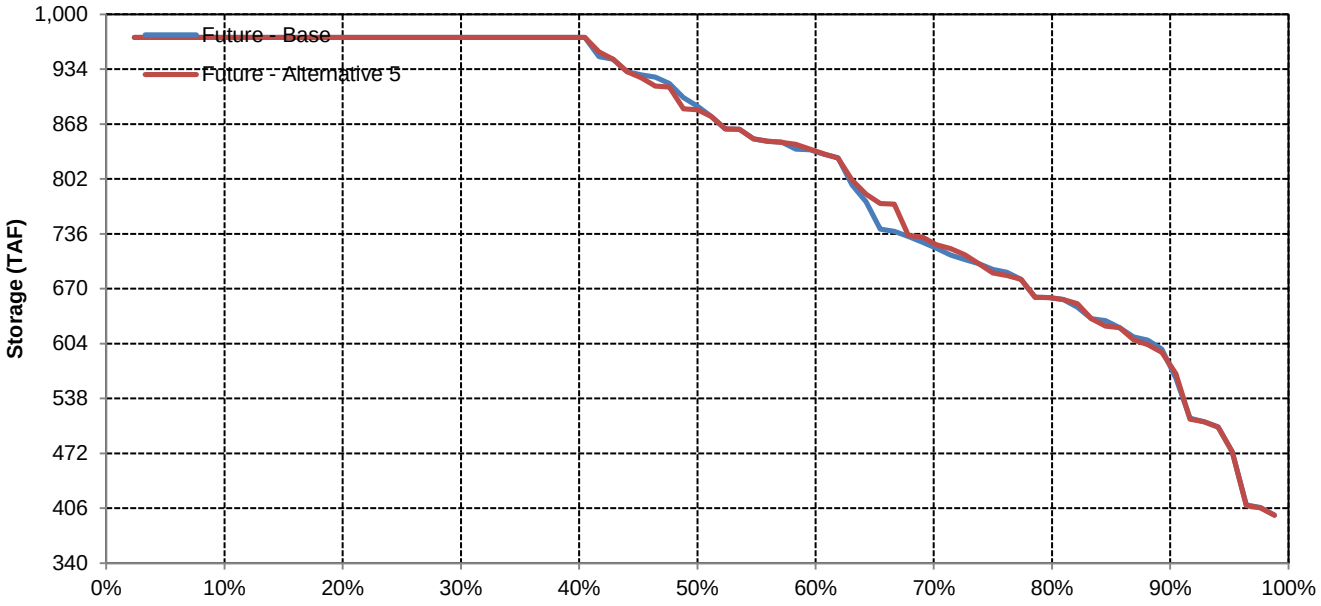


## CVP San Luis Reservoir

### February

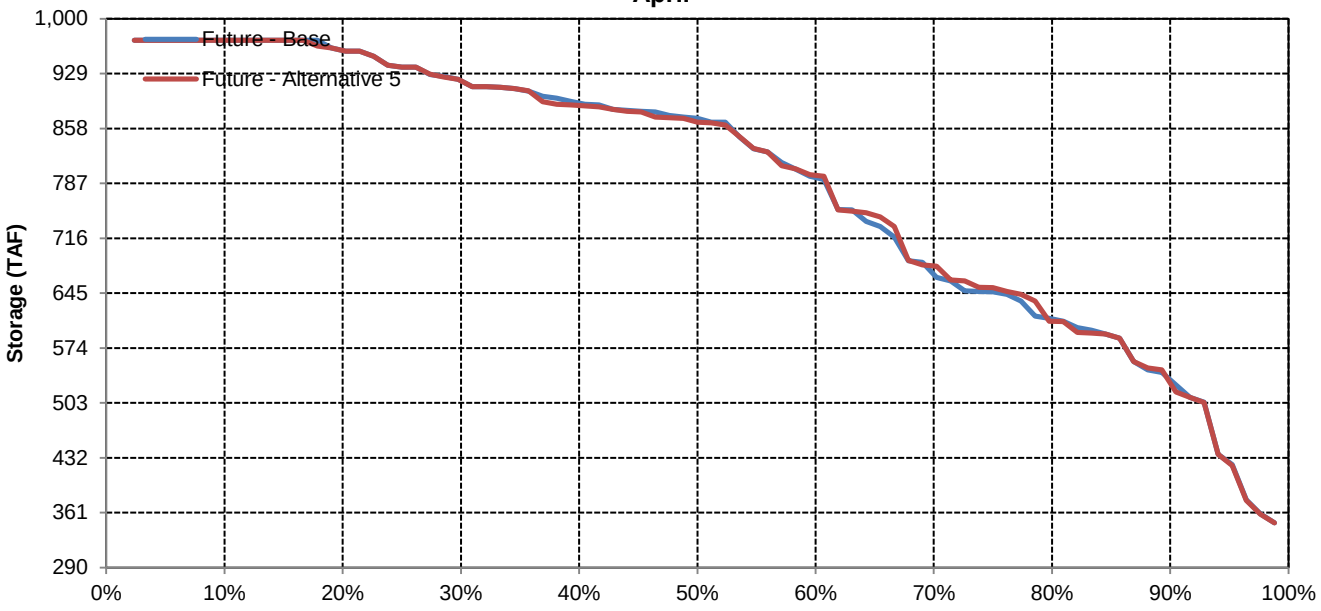



### March

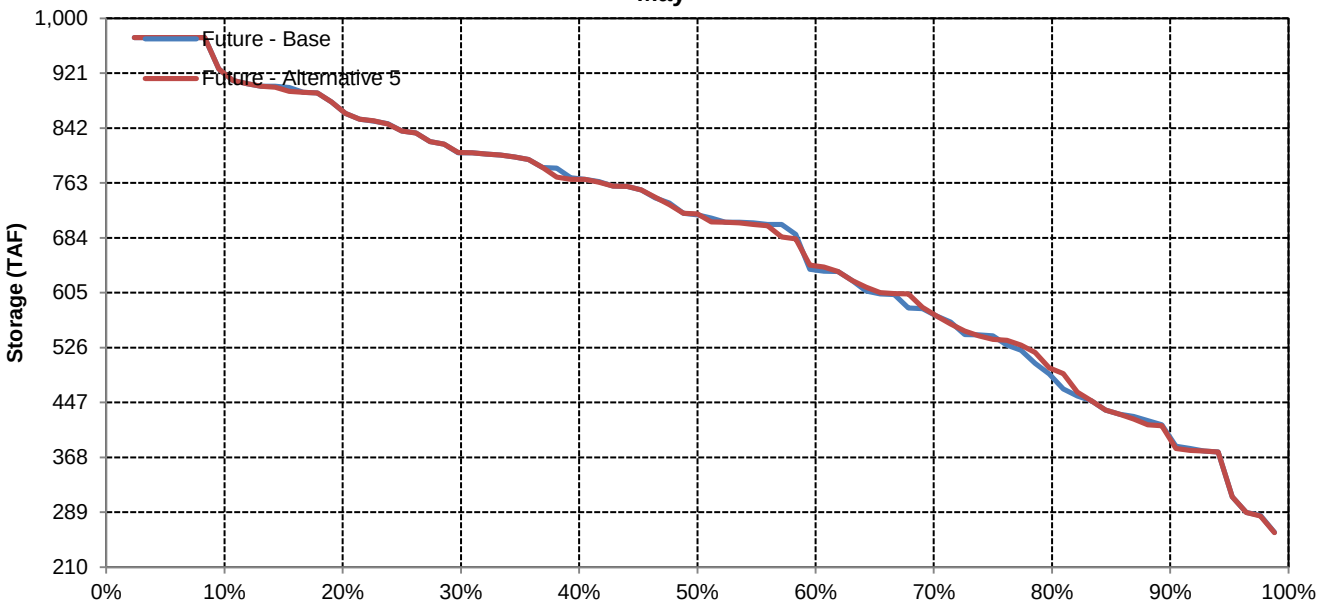


## CVP San Luis Reservoir

### April

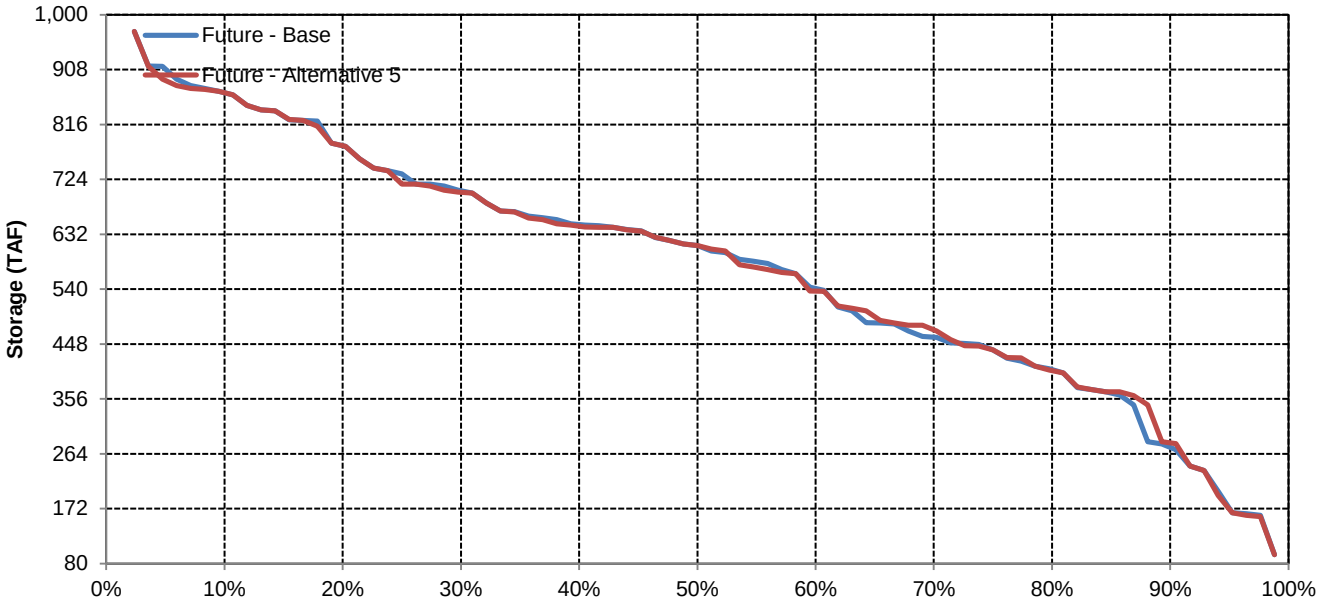



### May

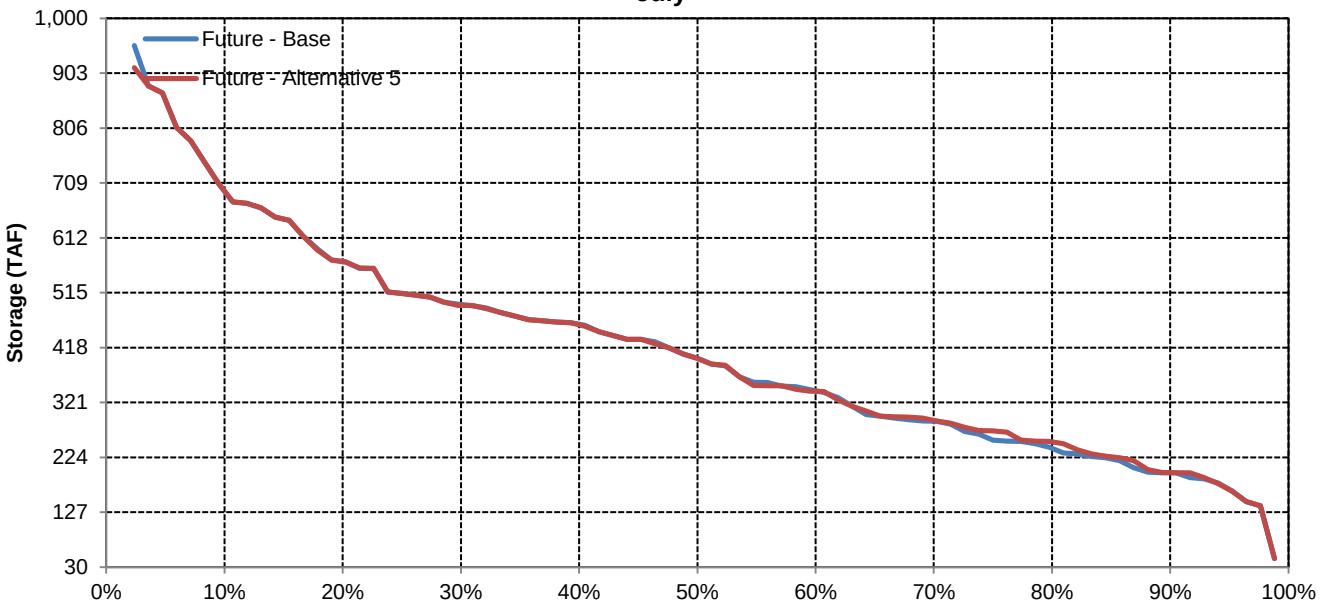


## CVP San Luis Reservoir

### June

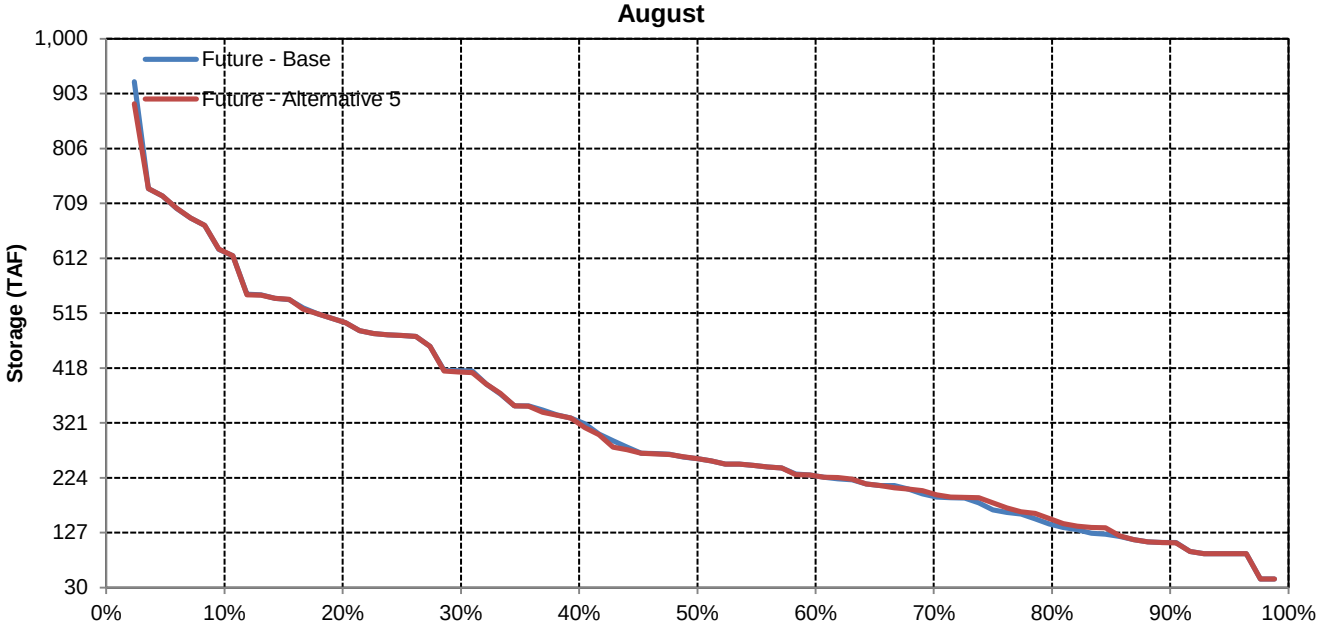



### July

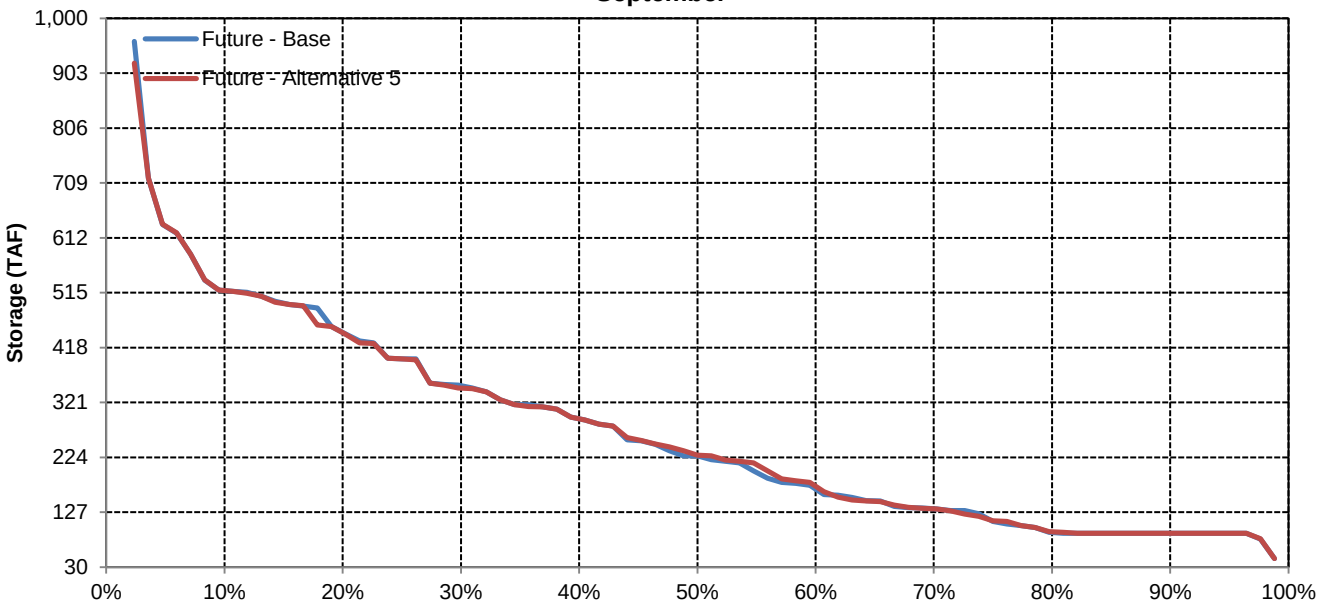


## CVP San Luis Reservoir

### August




### September



**Long-Term and Water Year-Type Average of SWP San Luis Reservoir Under Future - Base and Future - Alternative 5**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 181 | 218 | 351 | 573 | 767 | 885 | 811 | 640 | 506 | 467 | 355 | 257 |
| Future - Alternative 5 | 180 | 217 | 348 | 569 | 762 | 881 | 808 | 637 | 504 | 465 | 354 | 256 |
| Difference | -1 | -1 | -3 | -4 | -5 | -4 | -3 | -3 | -2 | -2 | -1 | -1 |
| Percent Difference | -1% | -1% | -1% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 203 | 282 | 505 | 823 | 1,011 | 1,058 | 951 | 746 | 542 | 550 | 458 | 320 |
| Future - Alternative 5 | 202 | 282 | 503 | 819 | 1,009 | 1,058 | 950 | 746 | 545 | 551 | 458 | 319 |
| Difference | 0 | 0 | -1 | -4 | -2 | 0 | -1 | -1 | 2 | 1 | 0 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 154 | 177 | 288 | 602 | 890 | 1,035 | 904 | 639 | 536 | 533 | 415 | 285 |
| Future - Alternative 5 | 151 | 174 | 278 | 593 | 886 | 1,032 | 902 | 637 | 534 | 532 | 413 | 284 |
| Difference | -3 | -3 | -11 | -9 | -4 | -2 | -2 | -2 | -2 | -2 | -2 | -1 |
| Percent Difference | -2% | -2% | -4% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 158 | 169 | 276 | 398 | 650 | 887 | 815 | 629 | 522 | 492 | 321 | 226 |
| Future - Alternative 5 | 157 | 167 | 272 | 392 | 642 | 883 | 811 | 622 | 512 | 482 | 319 | 225 |
| Difference | -1 | -2 | -4 | -6 | -8 | -4 | -4 | -7 | -10 | -10 | -2 | -1 |
| Percent Difference | -1% | -1% | -1% | -1% | -1% | 0% | -1% | -1% | -2% | -2% | -1% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 169 | 206 | 304 | 453 | 620 | 767 | 724 | 597 | 504 | 425 | 286 | 210 |
| Future - Alternative 5 | 167 | 204 | 302 | 448 | 613 | 759 | 717 | 593 | 504 | 423 | 285 | 208 |
| Difference | -2 | -2 | -2 | -4 | -7 | -8 | -6 | -5 | -1 | -2 | -1 | -1 |
| Percent Difference | -1% | -1% | -1% | -1% | -1% | -1% | -1% | -1% | 0% | 0% | 0% | -1% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 203 | 190 | 237 | 399 | 497 | 565 | 563 | 496 | 384 | 272 | 225 | 207 |
| Future - Alternative 5 | 204 | 190 | 238 | 399 | 494 | 561 | 559 | 493 | 377 | 270 | 225 | 208 |
| Difference | 0 | 1 | 1 | 0 | -3 | -4 | -4 | -3 | -6 | -2 | 0 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | -1% | -1% | -1% | -1% | -2% | -1% | 0% | 0% |

**Future - Base**

| End-of-Month Storage (TAF) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 315 | 489 | 775 | 1,067 | 1,067 | 1,067 | 1,021 | 828 | 699 | 642 | 503 | 311 |
| 20% | 247 | 327 | 590 | 954 | 1,067 | 1,067 | 959 | 755 | 649 | 601 | 410 | 291 |
| 30% | 211 | 266 | 394 | 761 | 1,067 | 1,067 | 945 | 701 | 621 | 551 | 383 | 268 |
| 40% | 165 | 235 | 339 | 664 | 984 | 1,067 | 921 | 680 | 601 | 539 | 371 | 243 |
| 50% | 145 | 178 | 282 | 538 | 818 | 1,067 | 897 | 643 | 567 | 505 | 355 | 237 |
| 60% | 128 | 94 | 223 | 455 | 664 | 944 | 869 | 621 | 492 | 462 | 333 | 225 |
| 70% | 114 | 55 | 183 | 369 | 597 | 745 | 733 | 586 | 381 | 341 | 315 | 210 |
| 80% | 90 | 55 | 116 | 243 | 482 | 636 | 621 | 505 | 332 | 279 | 229 | 196 |
| 90% | 55 | 55 | 59 | 155 | 322 | 485 | 503 | 404 | 248 | 235 | 165 | 156 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 181 | 218 | 351 | 573 | 767 | 885 | 811 | 640 | 506 | 467 | 355 | 257 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 203 | 282 | 505 | 823 | 1,011 | 1,058 | 951 | 746 | 542 | 550 | 458 | 320 |
| Above Normal | 154 | 177 | 288 | 602 | 890 | 1,035 | 904 | 639 | 536 | 533 | 415 | 285 |
| Below Normal | 158 | 169 | 276 | 398 | 650 | 887 | 815 | 629 | 522 | 492 | 321 | 226 |
| Dry | 169 | 206 | 304 | 453 | 620 | 767 | 724 | 597 | 504 | 425 | 286 | 210 |
| Critical | 203 | 190 | 237 | 399 | 497 | 565 | 563 | 496 | 384 | 272 | 225 | 207 |

**Future - Alternative 5**

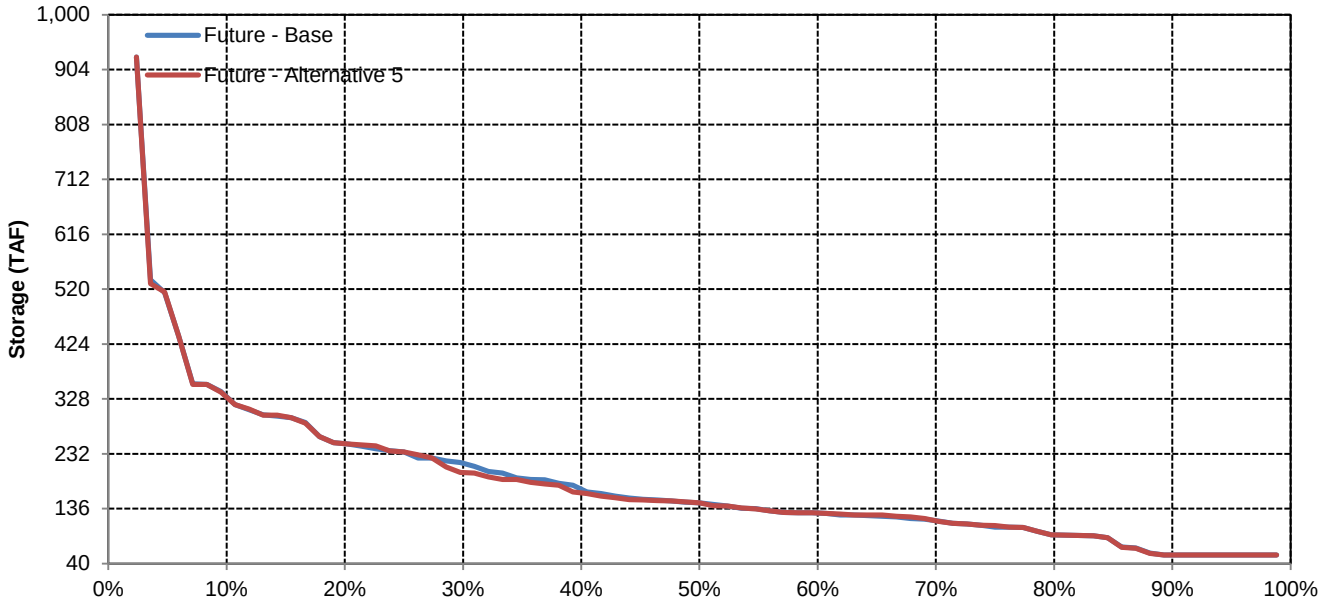
| End-of-Month Storage (TAF) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 316 | 485 | 780 | 1,067 | 1,067 | 1,067 | 1,019 | 829 | 699 | 638 | 505 | 311 |
| 20% | 248 | 328 | 587 | 956 | 1,067 | 1,067 | 957 | 740 | 647 | 601 | 411 | 291 |
| 30% | 198 | 266 | 388 | 743 | 1,067 | 1,067 | 943 | 700 | 621 | 567 | 383 | 269 |
| 40% | 161 | 236 | 317 | 641 | 985 | 1,067 | 914 | 679 | 598 | 539 | 371 | 243 |
| 50% | 144 | 171 | 284 | 523 | 792 | 1,067 | 895 | 642 | 547 | 501 | 356 | 236 |
| 60% | 128 | 80 | 212 | 428 | 664 | 946 | 864 | 621 | 485 | 462 | 335 | 225 |
| 70% | 114 | 55 | 170 | 356 | 586 | 742 | 732 | 586 | 381 | 325 | 310 | 207 |
| 80% | 90 | 55 | 117 | 240 | 472 | 625 | 611 | 488 | 324 | 271 | 223 | 188 |
| 90% | 55 | 55 | 59 | 154 | 315 | 486 | 503 | 407 | 248 | 235 | 167 | 153 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 180 | 217 | 348 | 569 | 762 | 881 | 808 | 637 | 504 | 465 | 354 | 256 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 202 | 282 | 503 | 819 | 1,009 | 1,058 | 950 | 746 | 545 | 551 | 458 | 319 |
| Above Normal | 151 | 174 | 278 | 593 | 886 | 1,032 | 902 | 637 | 534 | 532 | 413 | 284 |
| Below Normal | 157 | 167 | 272 | 392 | 642 | 883 | 811 | 622 | 512 | 482 | 319 | 225 |
| Dry | 167 | 204 | 302 | 448 | 613 | 759 | 717 | 593 | 504 | 423 | 285 | 208 |
| Critical | 204 | 190 | 238 | 399 | 494 | 561 | 559 | 493 | 377 | 270 | 225 | 208 |

**Future - Alternative 5 Minus Future - Base**

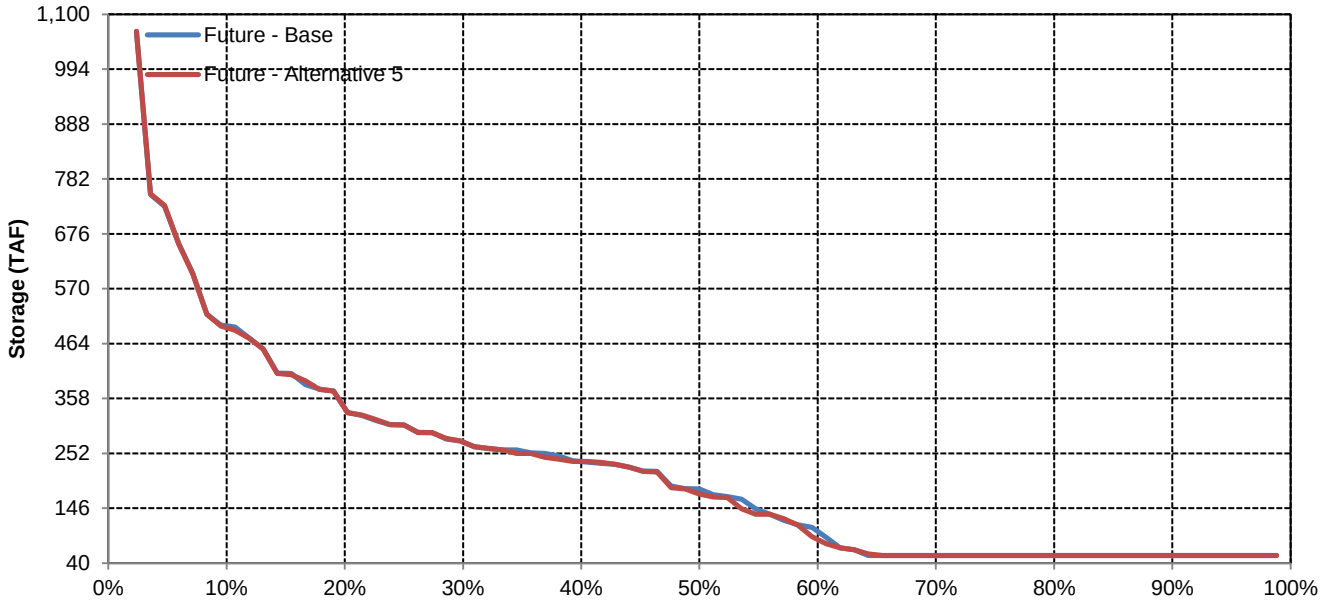
| End-of-Month Storage (TAF) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | -4 | 6 | 0 | 0 | 0 | -2 | 0 | 0 | -4 | 3 | 0 |
| 20% | 1 | 0 | -3 | 2 | 0 | 0 | -2 | -15 | -1 | -1 | 1 | 0 |
| 30% | -13 | 0 | -7 | -18 | 0 | 0 | -2 | -1 | 0 | 16 | 0 | 0 |
| 40% | -3 | 1 | -22 | -23 | 1 | 0 | -7 | -1 | -3 | 0 | 0 | 0 |
| 50% | -1 | -7 | 2 | -14 | -26 | 0 | -2 | -1 | -20 | -4 | 1 | -1 |
| 60% | 0 | -14 | -11 | -27 | 0 | 2 | -5 | 0 | -7 | 0 | 2 | 0 |
| 70% | 0 | 0 | -13 | -13 | -12 | -3 | -2 | -1 | 0 | -16 | -5 | -3 |
| 80% | 0 | 0 | 2 | -3 | -10 | -11 | -10 | -17 | -7 | -8 | -7 | -8 |
| 90% | 0 | 0 | 0 | 0 | -6 | 0 | 0 | 3 | 0 | 0 | 2 | -4 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -1 | -3 | -4 | -5 | -4 | -3 | -3 | -2 | -2 | -1 | -1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | -1 | -4 | -2 | 0 | -1 | -1 | 2 | 1 | 0 | -1 |
| Above Normal | -3 | -3 | -11 | -9 | -4 | -2 | -2 | -2 | -2 | -2 | -2 | -1 |
| Below Normal | -1 | -2 | -4 | -6 | -8 | -4 | -4 | -7 | -10 | -10 | -2 | -1 |
| Dry | -2 | -2 | -2 | -4 | -7 | -8 | -6 | -5 | -1 | -2 | -1 | -1 |
| Critical | 0 | 1 | 1 | 0 | -3 | -4 | -4 | -3 | -6 | -2 | 0 | 1 |

## SWP San Luis Reservoir

### October

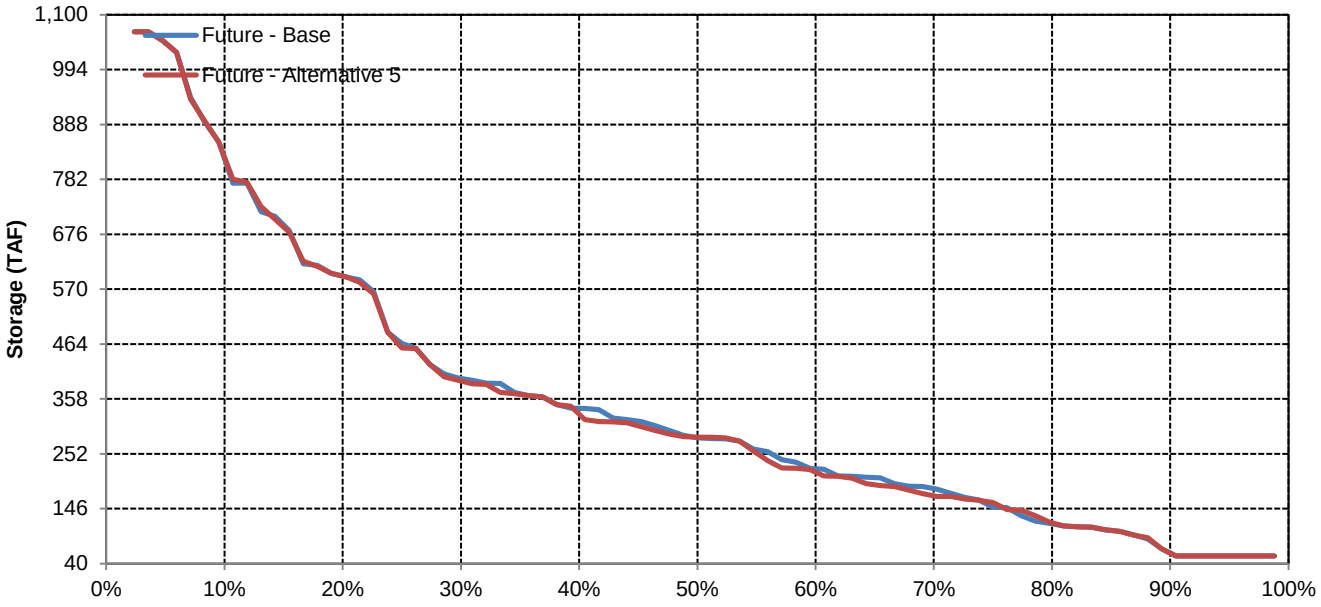



### November

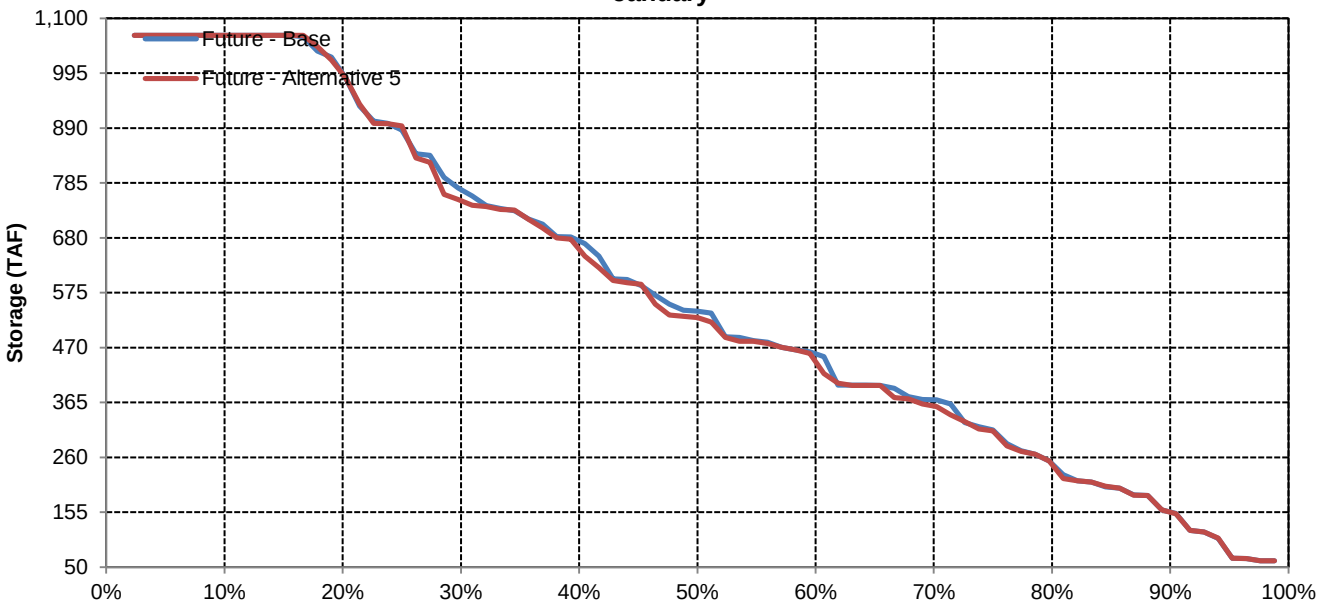


## SWP San Luis Reservoir

### December

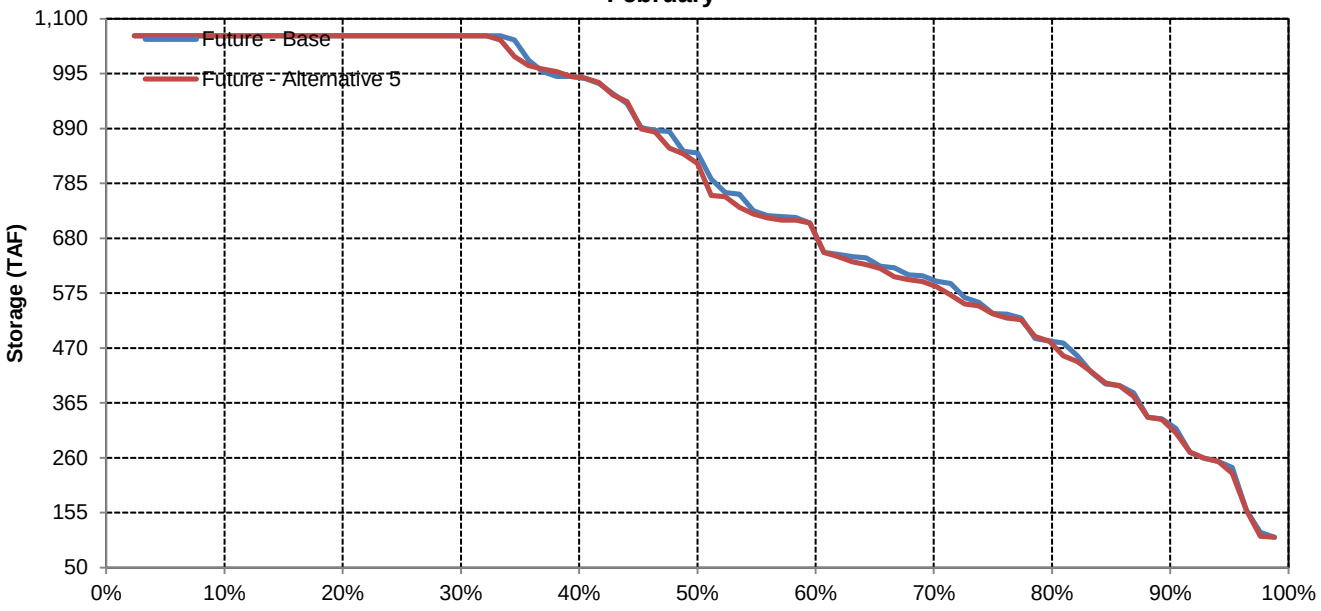



### January

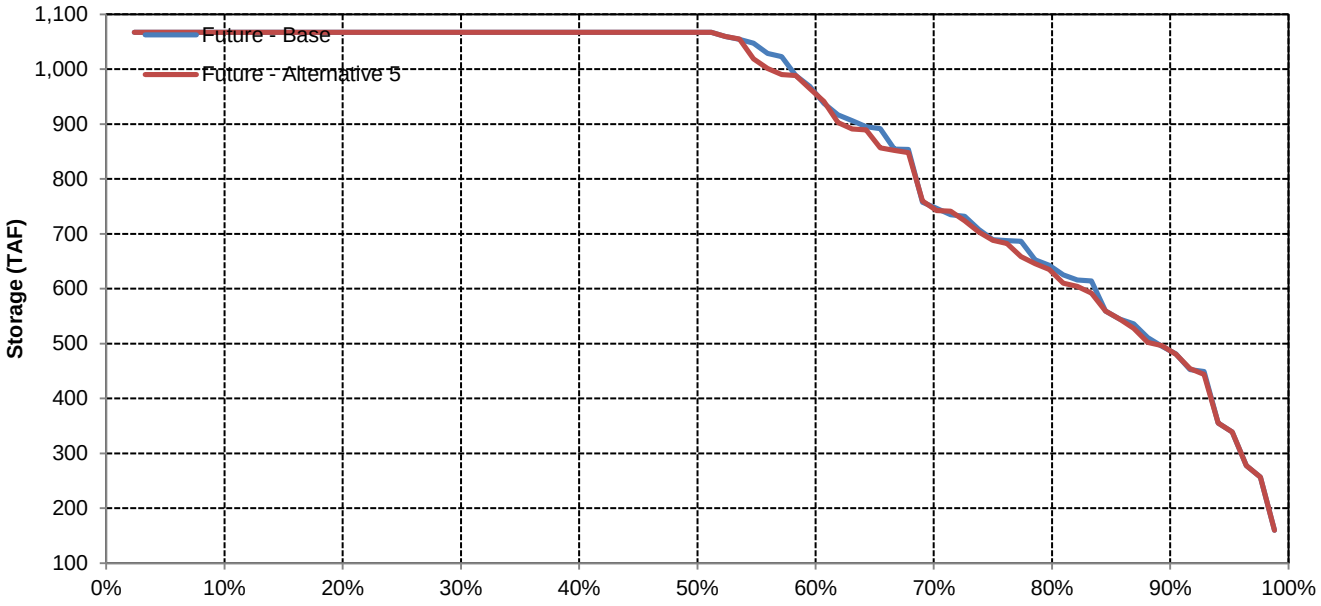


## SWP San Luis Reservoir

### February

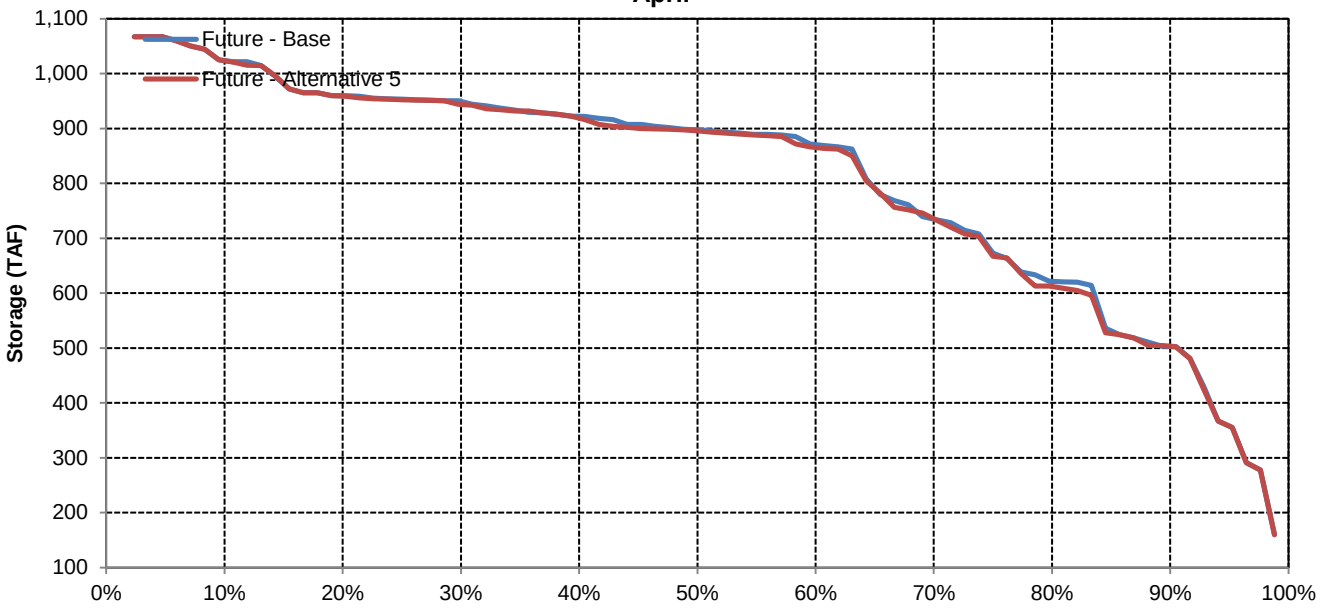



### March

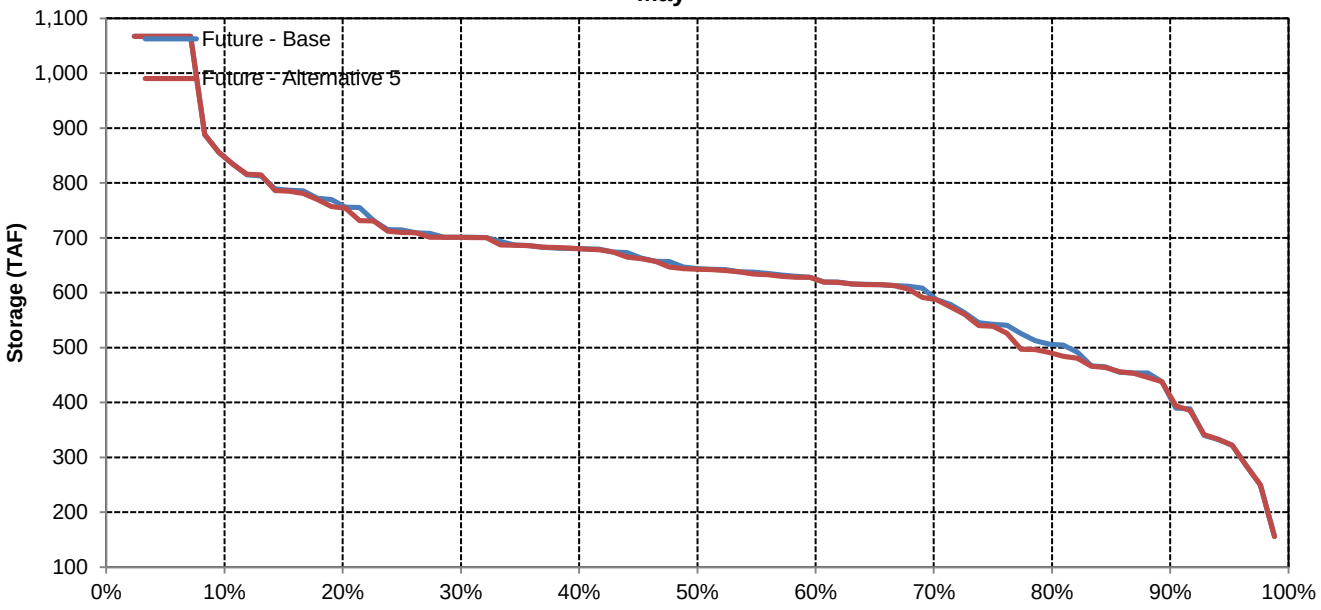


## SWP San Luis Reservoir

### April

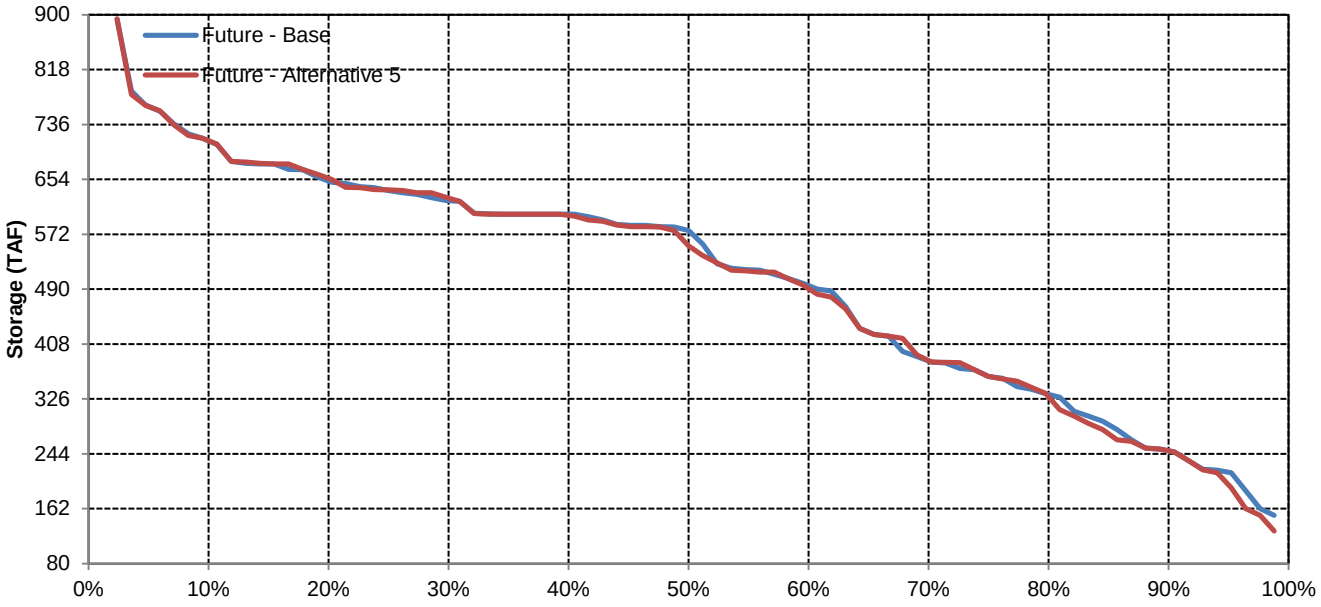



### May

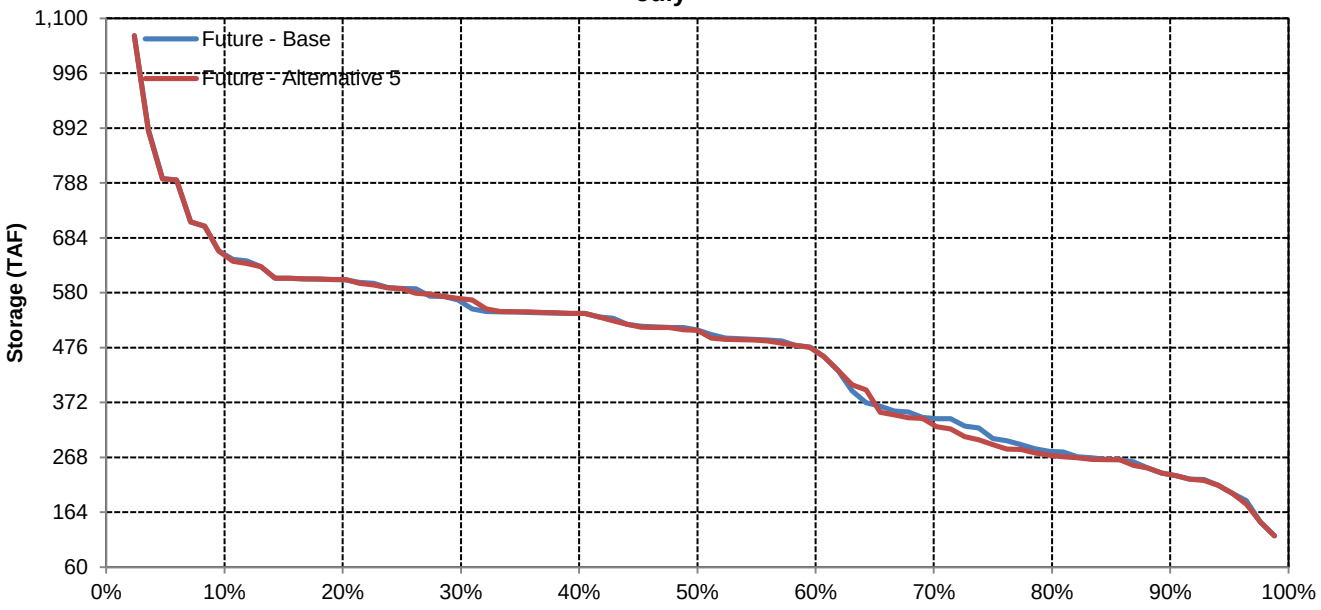


## SWP San Luis Reservoir

### June

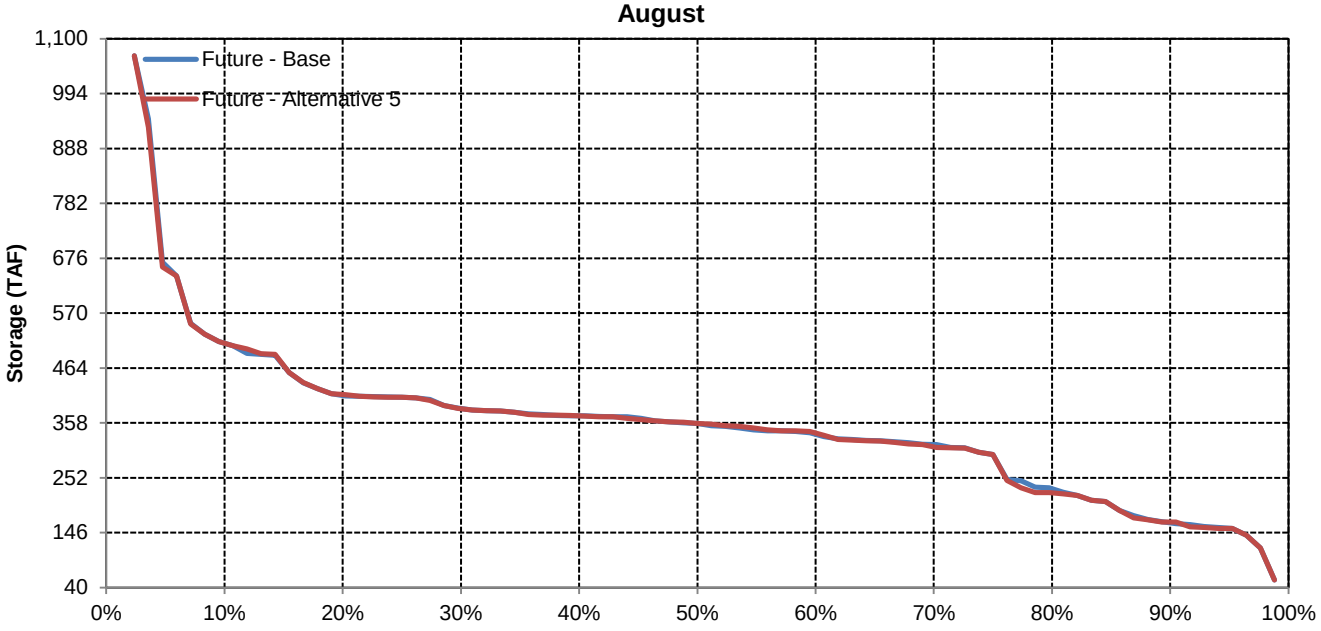



### July

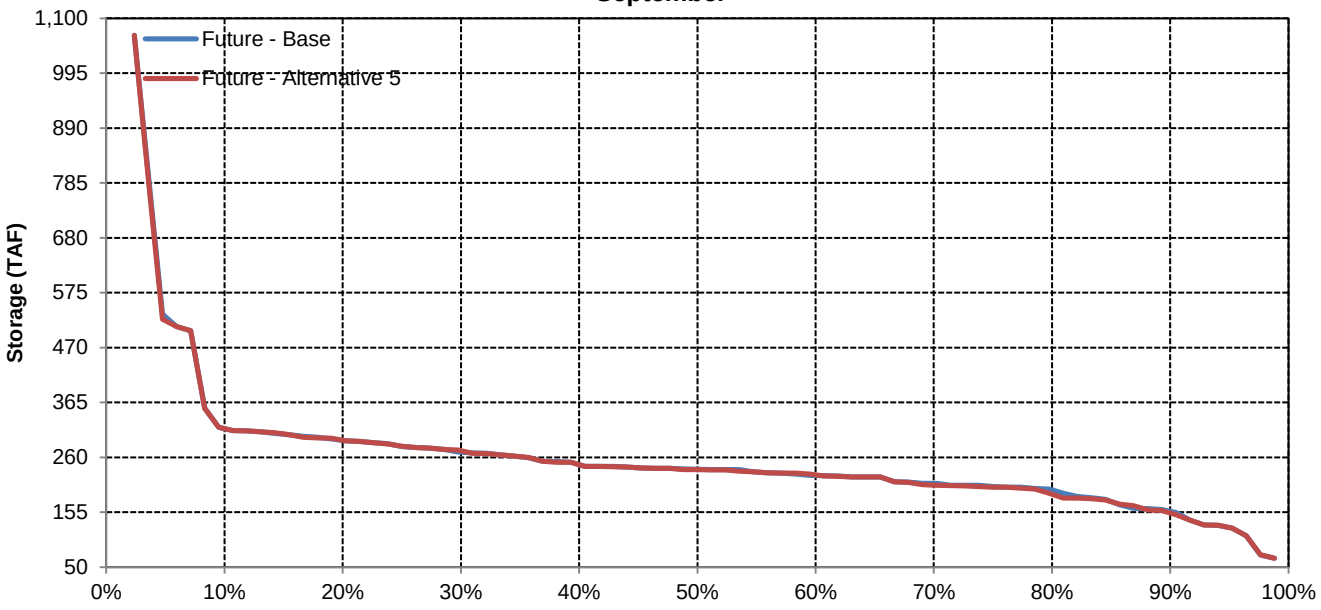


## SWP San Luis Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Delta Outflow Under Future - Base and Future - Alternative 5**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 8,408 | 10,099 | 24,888 | 54,896 | 70,049 | 52,500 | 29,061 | 14,179 | 8,605 | 7,157 | 4,274 | 10,294 | 17,604 |
| Future - Alternative 5 | 8,436 | 10,107 | 24,924 | 54,919 | 70,109 | 52,489 | 29,067 | 14,175 | 8,600 | 7,156 | 4,276 | 10,293 | 17,613 |
| Difference | 27 | 8 | 36 | 23 | 60 | -11 | 6 | -3 | -6 | -1 | 2 | 0 | 8 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 9,541 | 15,088 | 53,646 | 115,984 | 131,904 | 102,001 | 53,280 | 21,075 | 11,285 | 9,709 | 4,000 | 21,635 | 32,826 |
| Future - Alternative 5 | 9,561 | 15,102 | 53,703 | 116,005 | 131,955 | 101,948 | 53,310 | 21,071 | 11,286 | 9,708 | 4,000 | 21,635 | 32,834 |
| Difference | 21 | 14 | 57 | 22 | 51 | -53 | 29 | -4 | 1 | 0 | 0 | 0 | 8 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 9,036 | 8,854 | 16,293 | 59,685 | 102,404 | 57,212 | 27,004 | 15,829 | 8,580 | 8,899 | 4,000 | 13,224 | 19,718 |
| Future - Alternative 5 | 9,149 | 8,853 | 16,315 | 59,665 | 102,565 | 57,191 | 27,006 | 15,829 | 8,579 | 8,900 | 4,000 | 13,224 | 19,733 |
| Difference | 114 | 0 | 22 | -20 | 161 | -20 | 2 | 0 | -1 | 1 | 0 | 0 | 15 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 8,461 | 9,070 | 13,804 | 28,415 | 31,537 | 29,246 | 21,994 | 12,973 | 7,605 | 6,655 | 4,139 | 3,000 | 10,623 |
| Future - Alternative 5 | 8,523 | 9,100 | 13,850 | 28,466 | 31,524 | 29,267 | 21,994 | 12,959 | 7,614 | 6,646 | 4,141 | 3,000 | 10,634 |
| Difference | 62 | 30 | 46 | 52 | -14 | 22 | 0 | -14 | 9 | -9 | 2 | 0 | 11 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 7,611 | 7,891 | 10,135 | 15,901 | 29,451 | 24,322 | 15,139 | 9,861 | 7,158 | 5,000 | 4,785 | 3,000 | 8,395 |
| Future - Alternative 5 | 7,580 | 7,887 | 10,166 | 15,938 | 29,516 | 24,347 | 15,132 | 9,860 | 7,160 | 5,000 | 4,783 | 3,000 | 8,402 |
| Difference | -30 | -4 | 31 | 37 | 65 | 25 | -7 | 0 | 2 | 0 | -2 | 0 | 7 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 6,653 | 5,227 | 7,054 | 11,831 | 15,756 | 13,084 | 9,330 | 6,228 | 6,318 | 4,170 | 4,415 | 3,092 | 5,600 |
| Future - Alternative 5 | 6,674 | 5,227 | 7,055 | 11,843 | 15,816 | 13,079 | 9,319 | 6,228 | 6,265 | 4,170 | 4,427 | 3,091 | 5,602 |
| Difference | 21 | 0 | 1 | 12 | 59 | -5 | -11 | 0 | -53 | 0 | 12 | -1 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% |

**Delta Outflow**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 10,938 | 15,863 | 79,058 | 151,208 | 180,010 | 107,880 | 70,644 | 27,159 | 11,545 | 10,516 | 4,885 | 21,875 |
| 20% | 10,625 | 14,764 | 33,428 | 92,252 | 125,923 | 89,027 | 38,581 | 18,353 | 10,462 | 9,612 | 4,709 | 21,563 |
| 30% | 10,313 | 11,693 | 17,489 | 56,706 | 77,981 | 62,254 | 28,814 | 14,204 | 8,749 | 9,048 | 4,349 | 20,938 |
| 40% | 7,625 | 11,004 | 14,366 | 33,893 | 58,622 | 40,886 | 20,594 | 12,808 | 8,409 | 8,000 | 4,217 | 13,062 |
| 50% | 7,160 | 8,104 | 11,802 | 26,142 | 43,165 | 27,471 | 17,579 | 11,253 | 7,899 | 6,666 | 4,000 | 3,000 |
| 60% | 6,994 | 4,500 | 8,257 | 19,228 | 24,986 | 20,728 | 15,558 | 10,174 | 7,418 | 6,500 | 4,000 | 3,000 |
| 70% | 6,613 | 4,500 | 5,323 | 14,908 | 20,687 | 17,661 | 13,640 | 9,584 | 7,100 | 5,000 | 4,000 | 3,000 |
| 80% | 6,259 | 4,500 | 4,500 | 13,125 | 16,723 | 14,481 | 11,153 | 8,460 | 7,100 | 5,000 | 4,000 | 3,000 |
| 90% | 5,678 | 3,500 | 4,500 | 8,401 | 12,239 | 11,400 | 10,016 | 7,100 | 6,799 | 4,065 | 4,000 | 3,000 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,408 | 10,099 | 24,888 | 54,896 | 70,049 | 52,500 | 29,061 | 14,179 | 8,605 | 7,157 | 4,274 | 10,294 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 9,541 | 15,088 | 53,646 | 115,984 | 131,904 | 102,001 | 53,280 | 21,075 | 11,285 | 9,709 | 4,000 | 21,635 |
| Above Normal | 9,036 | 8,854 | 16,293 | 59,685 | 102,404 | 57,212 | 27,004 | 15,829 | 8,580 | 8,899 | 4,000 | 13,224 |
| Below Normal | 8,461 | 9,070 | 13,804 | 28,415 | 31,537 | 29,246 | 21,994 | 12,973 | 7,605 | 6,655 | 4,139 | 3,000 |
| Dry | 7,611 | 7,891 | 10,135 | 15,901 | 29,451 | 24,322 | 15,139 | 9,861 | 7,158 | 5,000 | 4,785 | 3,000 |
| Critical | 6,653 | 5,227 | 7,054 | 11,831 | 15,756 | 13,084 | 9,330 | 6,228 | 6,318 | 4,170 | 4,415 | 3,092 |

**Future - Alternative 5**

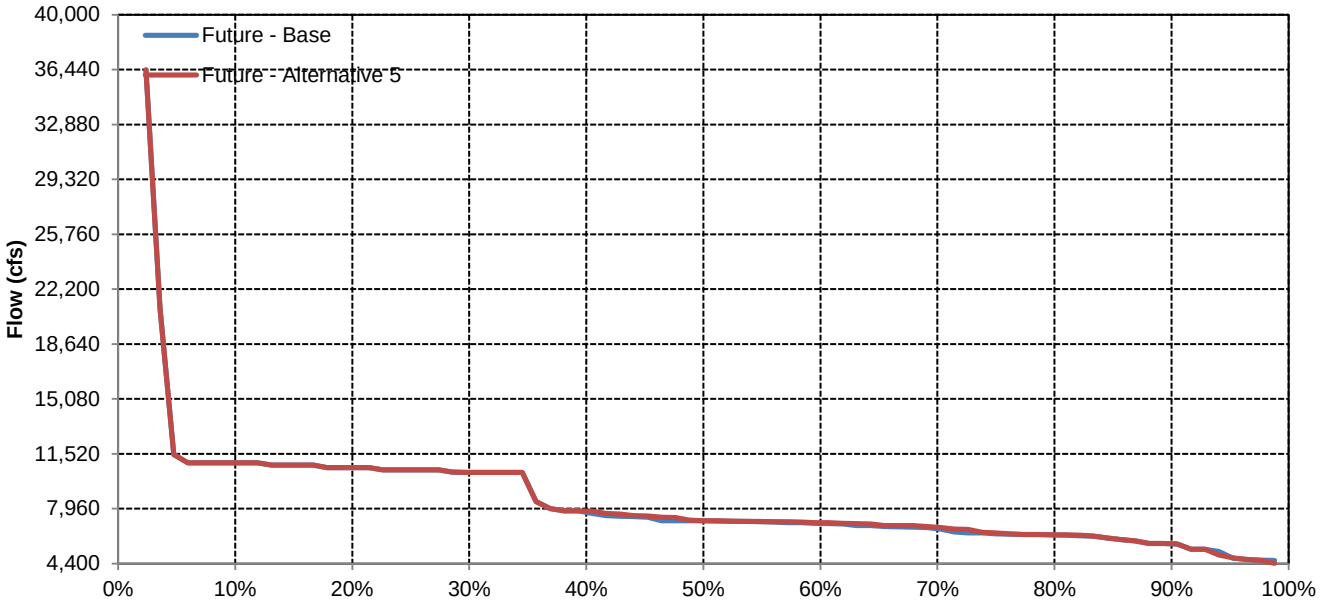
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 10,938 | 15,801 | 79,102 | 151,358 | 179,864 | 107,356 | 70,645 | 27,158 | 11,545 | 10,516 | 4,885 | 21,875 |
| 20% | 10,625 | 14,764 | 33,620 | 91,692 | 126,733 | 88,797 | 38,581 | 18,353 | 10,469 | 9,613 | 4,709 | 21,563 |
| 30% | 10,313 | 11,693 | 17,496 | 57,132 | 77,979 | 62,315 | 28,814 | 14,204 | 8,749 | 9,047 | 4,356 | 20,938 |
| 40% | 7,772 | 11,004 | 14,392 | 33,909 | 58,628 | 40,820 | 20,594 | 12,808 | 8,409 | 8,000 | 4,220 | 13,062 |
| 50% | 7,180 | 8,100 | 11,813 | 26,166 | 43,232 | 27,471 | 17,697 | 11,253 | 7,970 | 6,647 | 4,005 | 3,000 |
| 60% | 7,056 | 4,500 | 8,409 | 19,272 | 25,107 | 20,737 | 15,558 | 10,169 | 7,276 | 6,500 | 4,000 | 3,000 |
| 70% | 6,738 | 4,500 | 5,725 | 14,951 | 20,739 | 17,661 | 13,640 | 9,571 | 7,100 | 5,000 | 4,000 | 3,000 |
| 80% | 6,266 | 4,500 | 4,500 | 13,126 | 16,777 | 14,508 | 11,114 | 8,468 | 7,100 | 5,000 | 4,000 | 3,000 |
| 90% | 5,692 | 3,500 | 4,500 | 8,402 | 12,283 | 11,400 | 10,026 | 7,100 | 6,799 | 4,065 | 4,000 | 3,000 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,436 | 10,107 | 24,924 | 54,919 | 70,109 | 52,489 | 29,067 | 14,175 | 8,600 | 7,156 | 4,276 | 10,293 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 9,561 | 15,102 | 53,703 | 116,005 | 131,955 | 101,948 | 53,310 | 21,071 | 11,286 | 9,708 | 4,000 | 21,635 |
| Above Normal | 9,149 | 8,853 | 16,315 | 59,665 | 102,565 | 57,191 | 27,006 | 15,829 | 8,579 | 8,900 | 4,000 | 13,224 |
| Below Normal | 8,523 | 9,100 | 13,850 | 28,466 | 31,524 | 29,267 | 21,994 | 12,959 | 7,614 | 6,646 | 4,141 | 3,000 |
| Dry | 7,580 | 7,887 | 10,166 | 15,938 | 29,516 | 24,347 | 15,132 | 9,860 | 7,160 | 5,000 | 4,783 | 3,000 |
| Critical | 6,674 | 5,227 | 7,055 | 11,843 | 15,816 | 13,079 | 9,319 | 6,228 | 6,265 | 4,170 | 4,427 | 3,091 |

**Future - Alternative 5 Minus Future - Base**

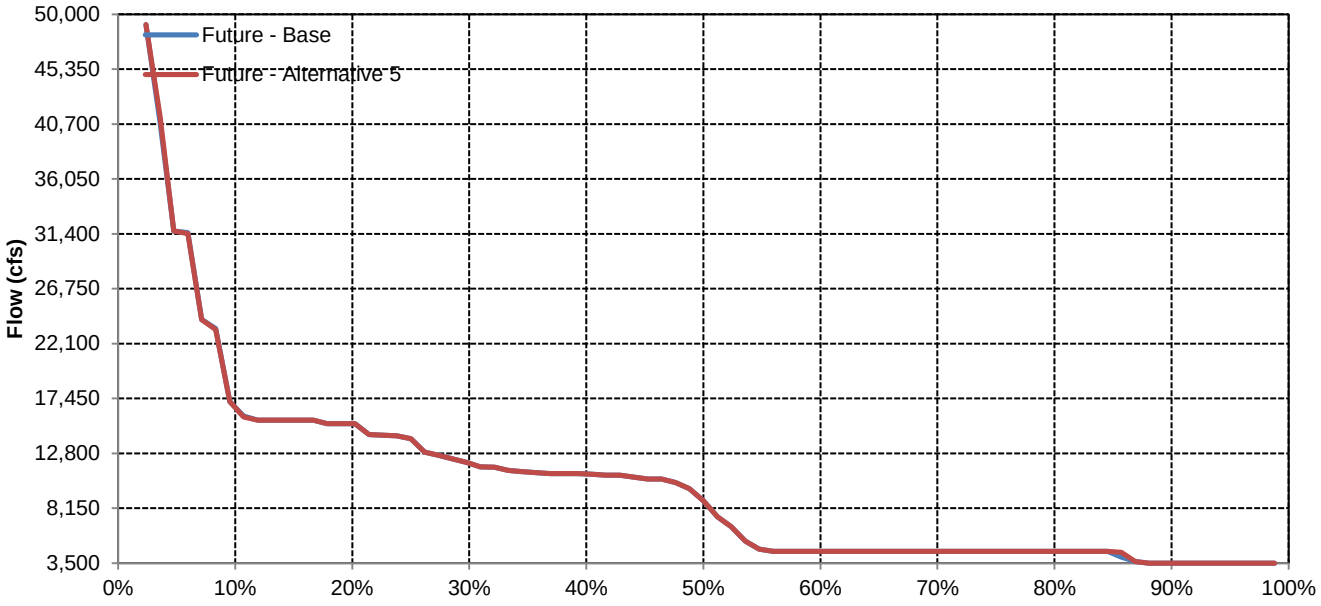
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | -61 | 44 | 151 | -147 | -524 | 1 | -1 | 0 | 0 | 0 | 0 |
| 20% | 0 | 0 | 192 | -561 | 810 | -230 | 0 | 0 | 7 | 0 | 0 | 0 |
| 30% | 0 | 0 | 8 | 426 | -1 | 61 | 0 | 0 | 0 | 0 | 8 | 0 |
| 40% | 147 | 0 | 27 | 15 | 6 | -66 | 0 | 0 | 0 | 0 | 3 | 0 |
| 50% | 19 | -4 | 10 | 25 | 68 | 0 | 118 | 0 | 71 | -19 | 5 | 0 |
| 60% | 61 | 0 | 152 | 44 | 120 | 8 | 0 | -6 | -142 | 0 | 0 | 0 |
| 70% | 125 | 0 | 402 | 43 | 53 | 0 | 0 | -13 | 0 | 0 | 0 | 0 |
| 80% | 7 | 0 | 0 | 0 | 54 | 27 | -39 | 9 | 0 | 0 | 0 | 0 |
| 90% | 13 | 0 | 0 | 1 | 44 | 0 | 9 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 27 | 8 | 36 | 23 | 60 | -11 | 6 | -3 | -6 | -1 | 2 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 21 | 14 | 57 | 22 | 51 | -53 | 29 | -4 | 1 | 0 | 0 | 0 |
| Above Normal | 114 | 0 | 22 | -20 | 161 | -20 | 2 | 0 | -1 | 1 | 0 | 0 |
| Below Normal | 62 | 30 | 46 | 52 | -14 | 22 | 0 | -14 | 9 | -9 | 2 | 0 |
| Dry | -30 | -4 | 31 | 37 | 65 | 25 | -7 | 0 | 2 | 0 | -2 | 0 |
| Critical | 21 | 0 | 1 | 12 | 59 | -5 | -11 | 0 | -53 | 0 | 12 | -1 |

## Delta Outflow

### October

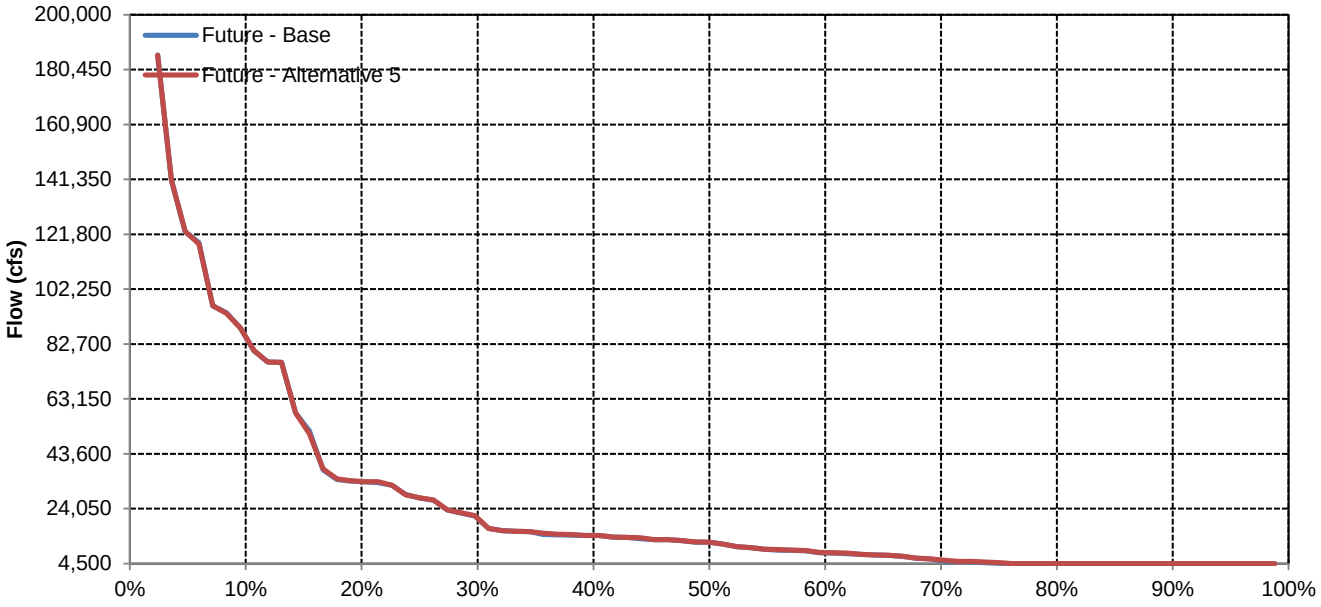



### November

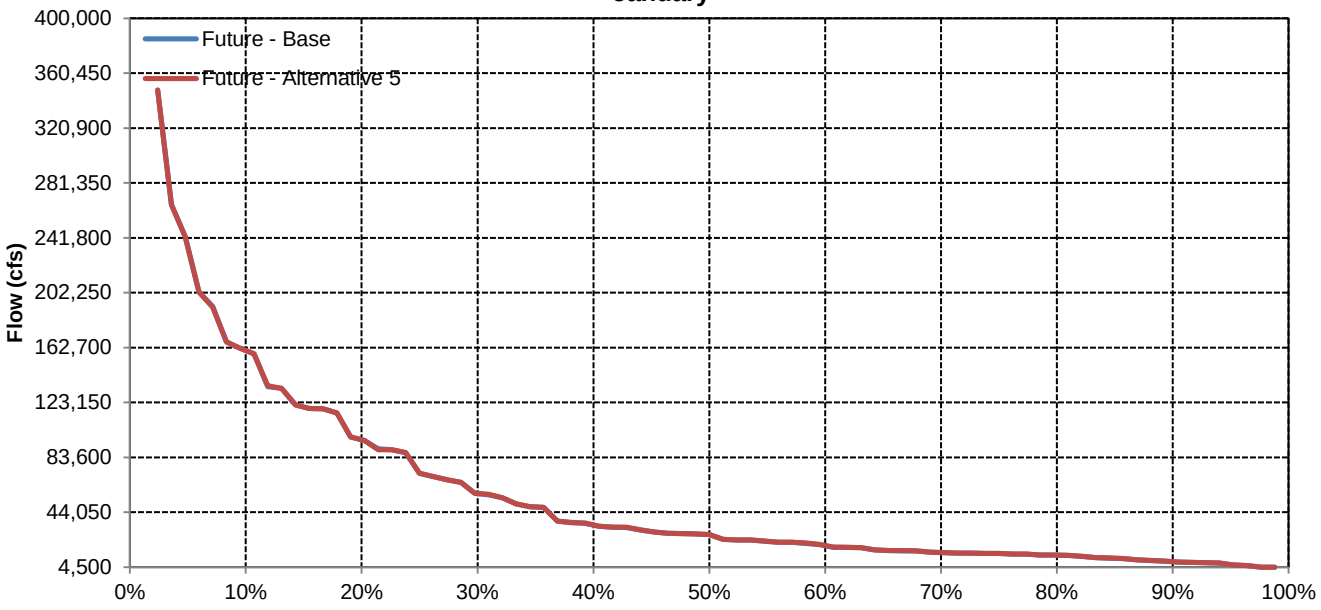


## Delta Outflow

### December

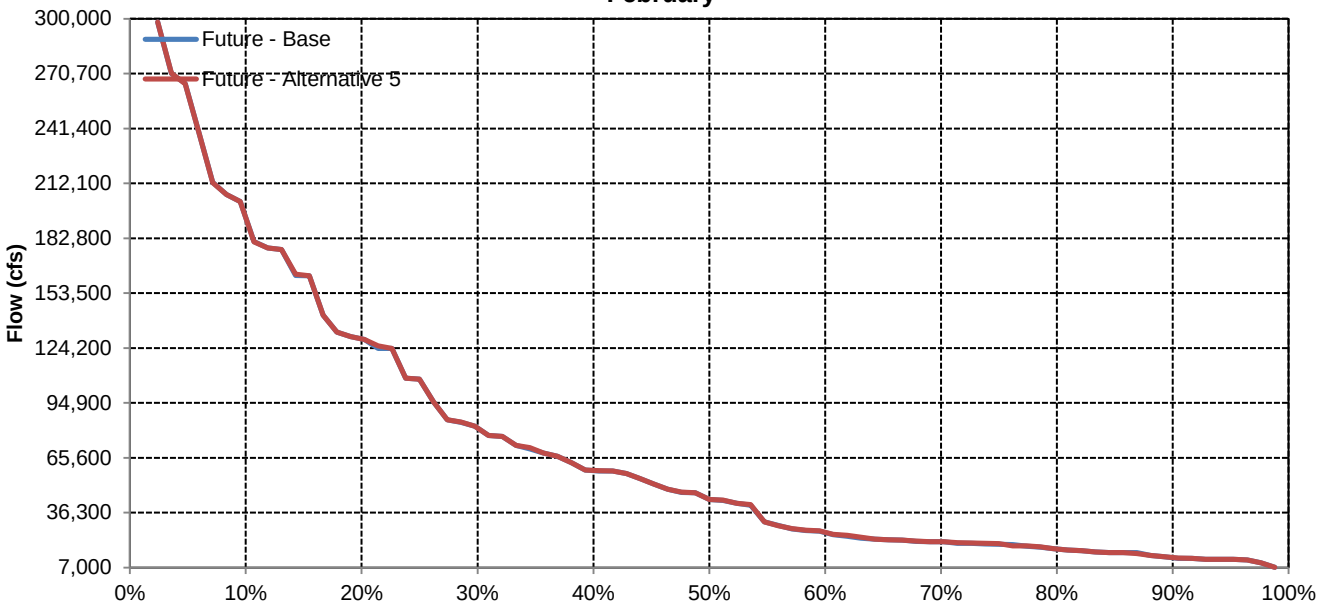



### January

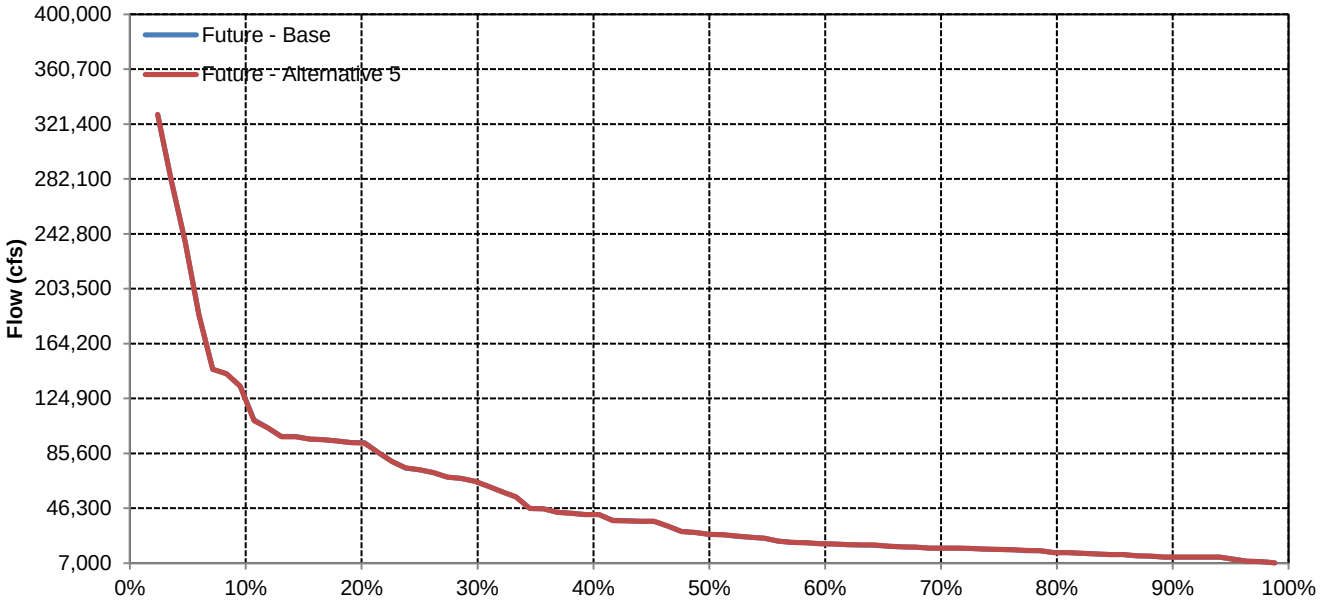


## Delta Outflow

### February

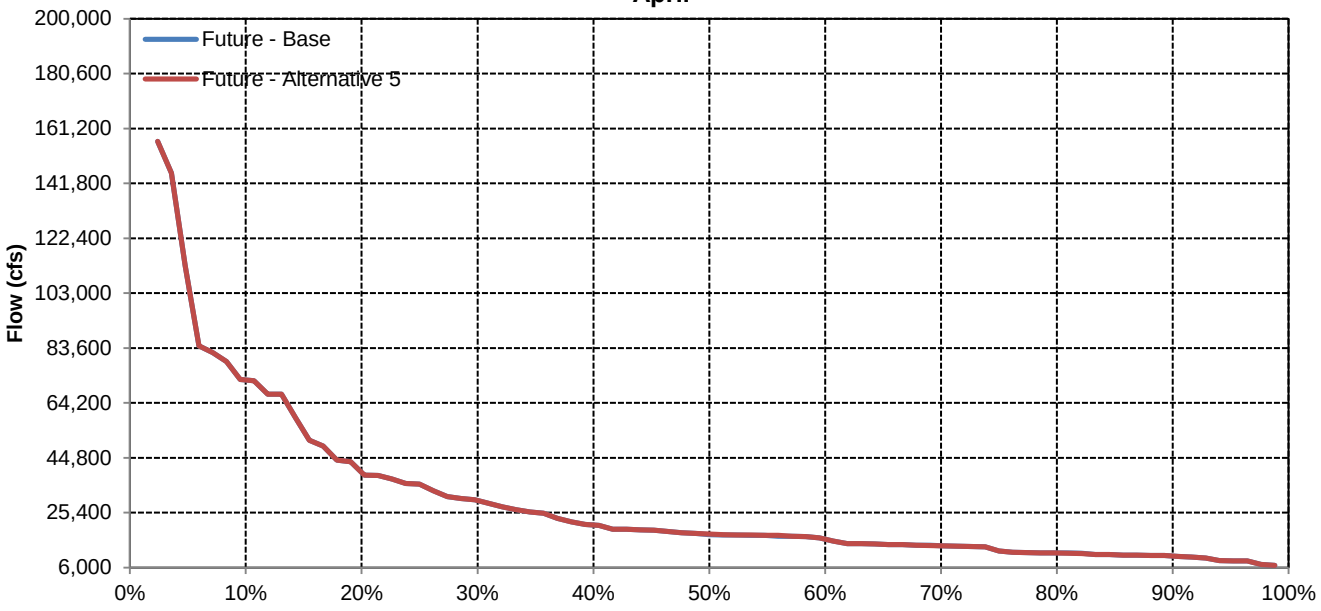



### March

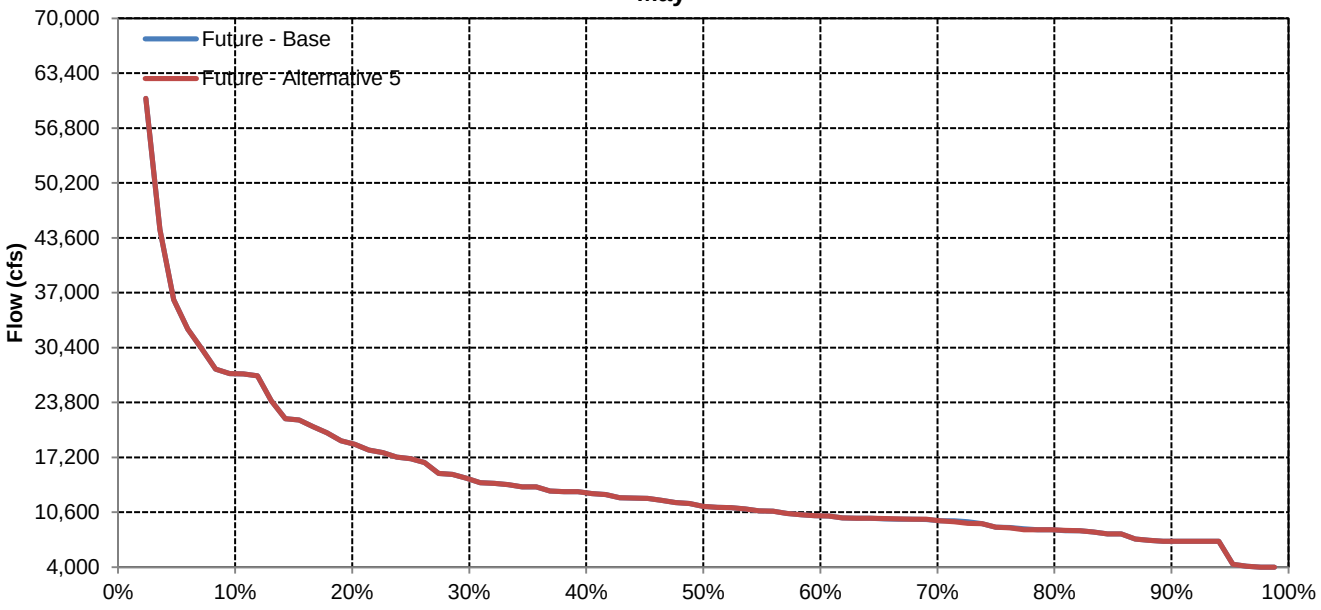


## Delta Outflow

### April

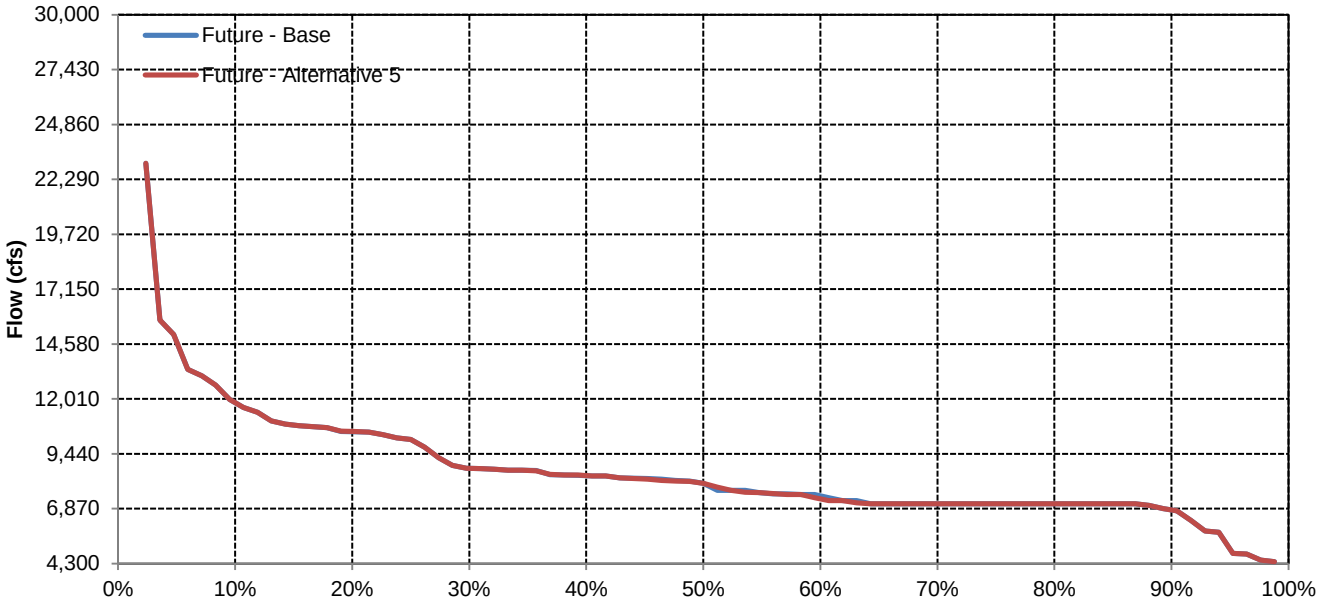



### May

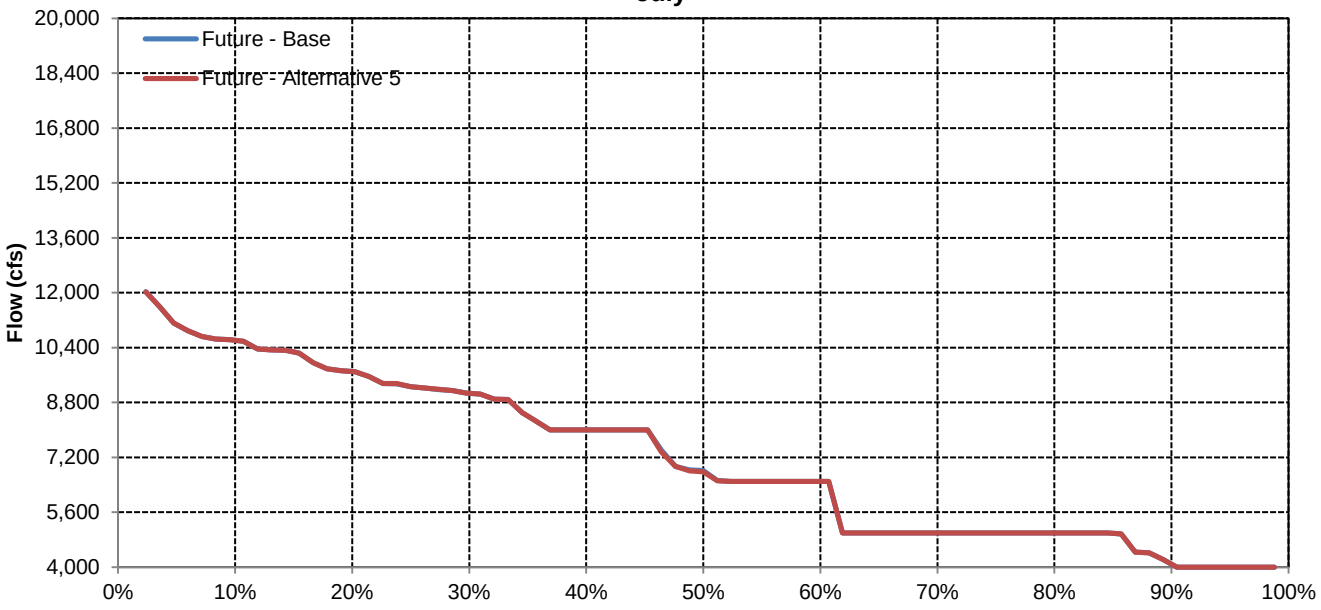


## Delta Outflow

### June

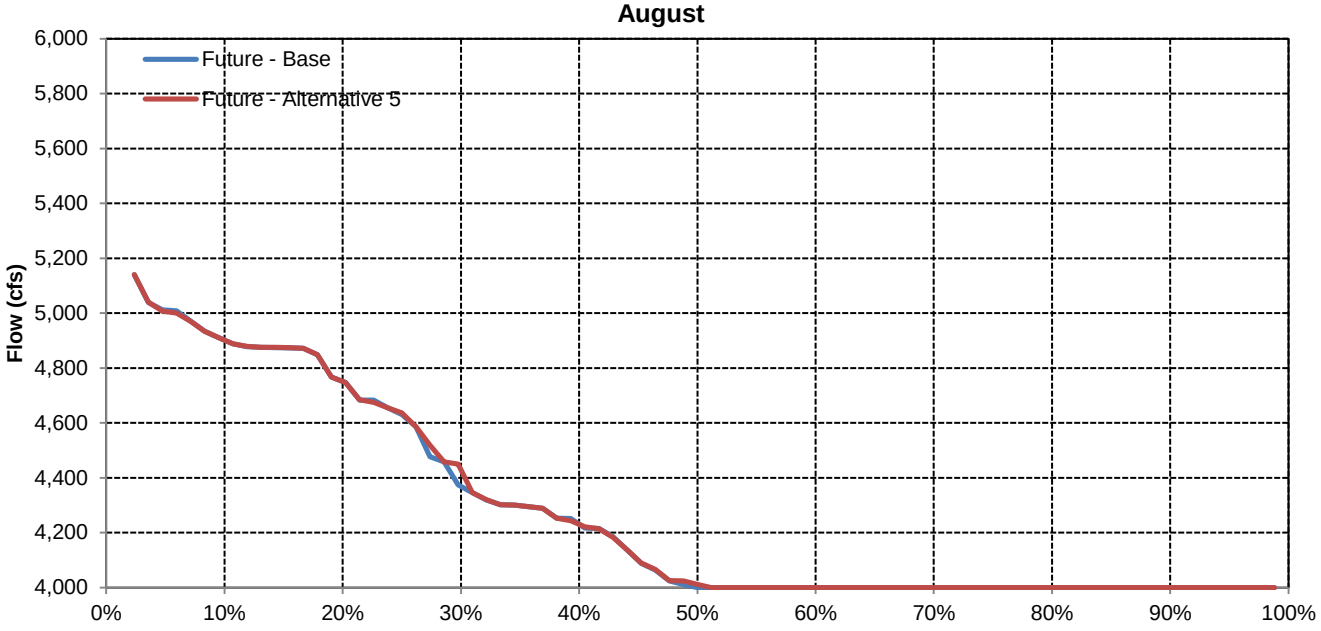



### July

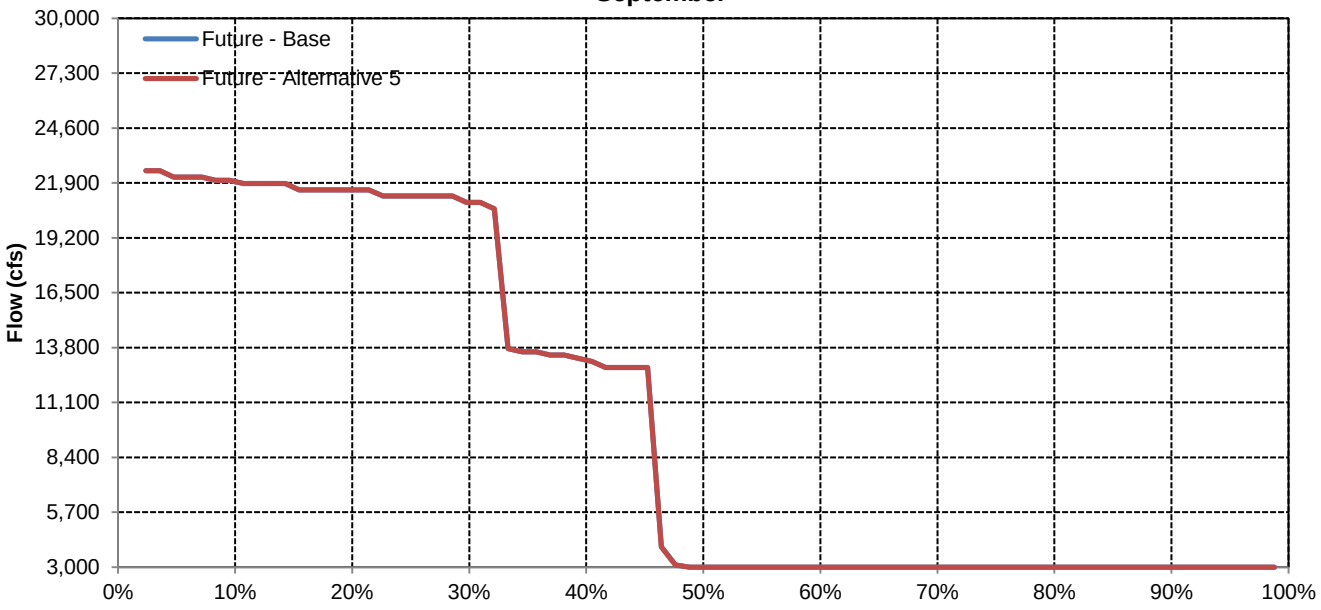


## Delta Outflow

### August




### September



## Table 185 No Action Alternative-Alternative 5 (Future)

### Winter-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | November through July | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 68 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | 64 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 68 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Juvenile Rearing and Downstream Movement* | July through March | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |

## Table 186 No Action Alternative-Alternative 5 (Future)

### Spring-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | March through September | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing (and Downstream Movement) | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Smolt Emigration | October through May | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 63 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | Freeport | 63 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

## Table 187 No Action Alternative-Alternative 5 (Future)

### Fall-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Staging | July through December | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | December through July | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | | 10 | Lower 40% | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 65 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 188 No Action Alternative-Alternative 5 (Future)

### Late Fall-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Staging | October through April | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| Juvenile Rearing and Downstream Movement | April through December | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 189 No Action Alternative-Alternative 5 (Future)

### Steelhead in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | August through March | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | Year-Round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Smolt Emigration | January through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 52 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | | 55 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | 52 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | | 55 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

**Table 190 No Action Alternative-Alternative 5 (Future)**

**Green Sturgeon in the Sacramento River**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Holding | February through July | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Adult Post-Spawning Holding and Emigration | July through November | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | | | | | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | 0.0 | 0.0 | | | | | | | | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Table 191 No Action Alternative-Alternative 5 (Future)**

**White Sturgeon in the Sacramento River**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Holding | November through May | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 77 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| Spawning and Egg Incubation | February through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Table 192 No Action Alternative-Alternative 5 (Future)**

**River Lamprey in the Sacramento River**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | September through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 42-60 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Ammocoete Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 72 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

**Pacific Lamprey in the Sacramento River**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | January through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 42-60 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Ammocoete Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 72 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 194 No Action Alternative-Alternative 5 (Future)

### Hardhead in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adults and Other Lifestages | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 |
| | | | Freeport | 61-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| Adult Spawning | April through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 59-64 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 195 No Action Alternative-Alternative 5 (Future)

### American Shad in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Spawning | April through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 60-70 | | All Years | | | | | | | 0.1 | 0.0 | 0.0 | | | |
| | | | Freeport | 60-70 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-Round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 63-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 |
| | | | Freeport | 63-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 196 No Action Alternative-Alternative 5 (Future)

### Striped Bass in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Spawning | April through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 59-68 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61-71 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

# Table 201 No Action Alternative-Alternative 5 (Future)

## Alternative 5 (Future) vs No Action Alternative
## Sacramento River at Verona, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 81.7 | 84.1 | 47.6 | 48.8 | 37.8 | 57.3 | 98.8 | 93.9 | 87.8 | 93.9 | 95.1 | 97.6 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 14.6 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 2.4 | 2.4 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 1.2 | 12.2 | 47.6 | 50.0 | 59.8 | 40.2 | 1.2 | 4.9 | 3.7 | 3.7 | 2.4 | 1.2 |
| Net Change in % Exceedance: | 13.4 | -12.2 | -46.3 | -50.0 | -59.8 | -40.2 | -1.2 | -4.9 | 2.4 | -1.2 | 0.0 | -1.2 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| Low Flows (Upper 40% of Distribution) | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 81.8 | 97.0 | 84.8 | 81.8 | 42.4 | 72.7 | 100.0 | 100.0 | 97.0 | 90.9 | 100.0 | 93.9 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 15.2 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 0.0 | 12.1 | 15.2 | 54.5 | 24.2 | 0.0 | 0.0 | 3.0 | 6.1 | 0.0 | 3.0 |
| Net Change in % Exceedance: | 15.2 | 0.0 | -9.1 | -15.2 | -54.5 | -24.2 | 0.0 | 0.0 | -3.0 | -3.0 | 0.0 | -3.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 202 No Action Alternative-Alternative 5 (Future)

**Alternative 5 (Future) vs No Action Alternative**
**Sacramento River at Freeport, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 85.4 | 89.0 | 57.3 | 50.0 | 40.2 | 61.0 | 100.0 | 96.3 | 89.0 | 96.3 | 95.1 | 93.9 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 2.4 | 2.4 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 8.5 | 42.7 | 50.0 | 54.9 | 36.6 | 0.0 | 3.7 | 4.9 | 1.2 | 1.2 | 3.7 |
| Net Change in % Exceedance: | 12.2 | -8.5 | -42.7 | -50.0 | -54.9 | -36.6 | 0.0 | -3.7 | -1.2 | 1.2 | 1.2 | -3.7 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 84.8 | 100.0 | 97.0 | 84.8 | 45.5 | 75.8 | 100.0 | 97.0 | 90.9 | 97.0 | 100.0 | 90.9 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 15.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 0.0 | 3.0 | 15.2 | 45.5 | 18.2 | 0.0 | 3.0 | 9.1 | 3.0 | 0.0 | 6.1 |
| Net Change in % Exceedance: | 15.2 | 0.0 | -3.0 | -15.2 | -45.5 | -18.2 | 0.0 | -3.0 | -9.1 | -3.0 | 0.0 | -6.1 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Alternative 5 (Future) vs No Action Alternative

## Sacramento River at Feather River, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.2 | 96.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 91.9 | 87.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 40.2 | 23.2 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 22.0 | 5.5 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 8.5 | 1.2 | 73.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 95.1 | 1.7 | 1.2 | 30.1 | 97.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 87.8 | 1.2 | 1.2 | 12.0 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 67.1 | 1.2 | 1.2 | 6.1 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 42.7 | 1.2 | 1.2 | 3.1 | 61.0 | 98.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 26.8 | 1.2 | 1.2 | 1.2 | 39.0 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 14.0 | 1.2 | 1.2 | 1.2 | 23.2 | 96.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 5.5 | 1.2 | 1.2 | 1.2 | 12.8 | 91.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 7.3 | 85.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 2.7 | 81.1 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 92.1 | 1.2 | 1.2 | 1.2 | 1.2 | 2.0 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 74.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | 61.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 52.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 50.0 | 98.6 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 41.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 34.5 | 98.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 23.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 23.2 | 96.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 15.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 90.7 | 98.8 | 98.8 | 98.8 | 97.4 |
| 68 | 4.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 65.2 | 96.5 | 98.8 | 98.8 | 89.6 |
| 69 | 2.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 45.1 | 95.3 | 98.8 | 98.8 | 78.9 |
| 70 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 28.7 | 86.6 | 98.8 | 98.8 | 70.7 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 15.9 | 72.0 | 98.8 | 98.8 | 57.7 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 57.3 | 97.6 | 95.9 | 46.3 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.3 | 23.2 | 74.4 | 84.1 | 18.3 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.6 | 11.0 | 54.9 | 69.5 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 18.3 | 30.5 | 3.0 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 90.7 | 86.6 | 97.6 | 97.6 | 97.6 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 50-64 | 57.3 | 97.6 | 7.3 | 0.0 | 72.0 | 97.6 | 64.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 15.9 | 0.0 | 0.0 | 1.9 | 22.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 57.3 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 51.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 33.6 | 2.3 | 0.0 | 0.0 | 9.2 |
| 59-75 | 97.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 60-70 | 97.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 79.9 | 70.1 | 12.2 | 0.0 | 0.0 | 28.1 |
| 61-71 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 82.9 | 26.8 | 0.0 | 0.0 | 41.1 |
| 63-69 | 50.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 53.5 | 3.5 | 0.0 | 0.0 | 19.9 |
| 63-77 | 51.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 97.4 | 97.6 | 80.5 | 68.3 | 95.8 |
| 65-82 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 95.1 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.5 | 85.4 | 97.6 | 97.6 | 69.5 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 96.1 | 17.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 97.6 | 97.6 | 80.5 | 68.3 | 95.8 |

### Alternative 5 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.2 | 96.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 91.9 | 87.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 40.2 | 23.2 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 20.7 | 5.5 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 8.5 | 1.2 | 73.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 95.1 | 1.7 | 1.2 | 30.1 | 97.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 87.8 | 1.2 | 1.2 | 12.0 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 67.1 | 1.2 | 1.2 | 6.1 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 42.7 | 1.2 | 1.2 | 3.1 | 61.0 | 98.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 26.8 | 1.2 | 1.2 | 1.2 | 39.0 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 14.0 | 1.2 | 1.2 | 1.2 | 23.2 | 96.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 5.5 | 1.2 | 1.2 | 1.2 | 12.8 | 91.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 7.3 | 85.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 2.7 | 81.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 92.1 | 1.2 | 1.2 | 1.2 | 1.2 | 2.0 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 74.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | 61.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 52.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 50.0 | 98.6 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 41.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 34.5 | 98.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 23.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 23.2 | 96.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 15.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 90.7 | 98.8 | 98.8 | 98.8 | 97.4 |
| 68 | 4.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 65.2 | 96.5 | 98.8 | 98.8 | 89.6 |
| 69 | 2.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 45.1 | 95.3 | 98.8 | 98.8 | 78.9 |
| 70 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 28.7 | 86.6 | 98.8 | 98.8 | 70.7 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 15.9 | 70.7 | 98.8 | 98.8 | 57.7 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 56.1 | 97.6 | 95.7 | 46.3 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.3 | 23.2 | 74.4 | 84.1 | 18.3 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.6 | 11.0 | 54.9 | 69.5 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 19.5 | 30.5 | 3.0 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 90.7 | 86.6 | 97.6 | 97.6 | 97.6 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 50-64 | 57.3 | 97.6 | 7.3 | 0.0 | 72.0 | 97.6 | 64.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 15.9 | 0.0 | 0.0 | 1.9 | 22.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 57.3 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 51.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 33.6 | 2.3 | 0.0 | 0.0 | 9.2 |
| 59-75 | 97.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 60-70 | 97.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 80.0 | 70.1 | 12.2 | 0.0 | 0.0 | 28.1 |
| 61-71 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 82.9 | 28.1 | 0.0 | 0.0 | 41.1 |
| 63-69 | 50.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 53.5 | 3.5 | 0.0 | 0.0 | 19.9 |
| 63-77 | 51.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 97.4 | 97.6 | 79.3 | 68.3 | 95.8 |
| 65-82 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 95.1 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.5 | 85.4 | 97.6 | 97.6 | 69.5 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 96.1 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 97.6 | 97.6 | 79.3 | 68.3 | 95.8 |

### Alternative 5 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.3 | 0.0 | 0.0 | 0.0 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | -0.2 | 0.0 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 |

## Alternative 5 (Future) vs No Action Alternative

## Sacramento River at Freeport, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.2 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 26.2 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.2 | 1.2 | 1.2 | 15.6 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 7.0 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.4 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 88.7 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 81.7 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 39.0 | 43.9 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |

### Alternative 5 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.4 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 25.6 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.7 | 1.2 | 1.2 | 15.9 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 6.8 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.3 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 89.6 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.3 | 78.7 | 82.3 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 | 39.0 | 42.7 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.5 | 20.1 | 16.5 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.5 | 20.1 | 16.5 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |

### Alternative 5 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.5 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.6 | 0.0 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | -1.2 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | -0.6 | 0.0 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | -0.6 | 0.0 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

## Table 227 No Action Alternative -Alternative 5 (Future)

**Delta Smelt in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult | December through May | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | | | | |
| | September through November | Mean Monthly $X_2$ (RKm) | $X_2$ between 74 km and 81 km | 74-81 | | Wet and Above Normal Water Years | 0.0 | 0.0 | | | | | | | | | | 0.0 |
| | December through February | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | -1.2 | 0.0 | 0.0 | | | | | | | |
| Egg and Embryo | February through May | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| Larval | March through June | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-1500 cfs | | Dry and Critical Water Years | | | | | | 0.0 | -3.3 | -3.3 | 0.0 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Juvenile | May through July | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | | | | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ between RKm 65 and 80 | 0.5 RKm | | All Years | | | | | | | | 0.0 | 0.0 | 0.0 | | |

## Table 228 No Action Alternative -Alternative 5 (Future)

**Longfin Smelt in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult | December through March | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | -1.2 | 0.0 | 0.0 | 0.0 | | | | | | |
| Larvae and Juvenile | April and May | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-1500 cfs | | Dry and Critical Water Years | | | | | | | -3.3 | -3.3 | | | | |
| | | | | < 0 cfs | | Dry and Critical Water Years | | | | | | | 0.0 | 0.0 | | | | |
| | January through June | Mean Monthly $X_2$ (RKm) | $X_2$ | < 75 RKm | | All Years | | | | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | | | |
| | | | | < 75 RKm | | Dry and Critical Water Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

## Table 229 No Action Alternative -Alternative 5 (Future)

**Winter-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through May | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 | 0.0 | | | | |

## Table 230 No Action Alternative -Alternative 5 (Future)

**Spring-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through June | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

## Table 231 No Action Alternative -Alternative 5 (Future)

**Fall- and Late Fall-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through June | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Adult (San Joaquin River) | December through February | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | 0.0 | 0.0 | -1.2 | | | | | | | |

## Table 232 No Action Alternative -Alternative 5 (Future)

**Steelhead in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | October through July | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | 0.0 | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 233 No Action Alternative -Alternative 5 (Future)

**Green Sturgeon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | Year-round | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | 0.0 | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 234 No Action Alternative -Alternative 5 (Future)

**White Sturgeon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | April through June | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Table 235 No Action Alternative -Alternative 5 (Future)

**Splittail in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Spawning and Embryo Incubation | February through May | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | 54.9 | 67.1 | 0.0 | 0.0 | | | | |
| Juvenile Rearing and Emigration | April through July | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 236 No Action Alternative -Alternative 5 (Future)

**American Shad in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Egg and Larvae | April through June | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ | 1 RKm | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Table 237 No Action Alternative -Alternative 5 (Future)

**Striped Bass in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 5 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Egg and Larvae | April through June | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ | 1 RKm | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Alternative 5 (Future) vs No Action Alternative

## Sacramento River at Freeport, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.2 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 26.2 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.2 | 1.2 | 1.2 | 15.6 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 7.0 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.4 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 88.7 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 81.7 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 39.0 | 43.9 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |

### Alternative 5 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.4 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 25.6 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.7 | 1.2 | 1.2 | 15.9 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 6.8 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.3 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 89.6 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.3 | 78.7 | 82.3 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 | 39.0 | 42.7 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.5 | 20.1 | 16.5 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.5 | 20.1 | 16.5 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |

### Alternative 5 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.5 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.6 | 0.0 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | -1.2 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | -0.6 | 0.0 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | -0.6 | 0.0 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

# Table 239 No Action Alternative -Alternative 5 (Future)

**Alternative 5 (Future) vs No Action Alternative**
**Sacramento River at Rio Vista, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 76.8 | 97.6 | 89.0 | 85.4 | 80.5 | 91.5 | 90.2 | 90.2 | 93.9 | 93.9 | 97.6 | 98.8 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 22.0 | 1.2 | 4.9 | 12.2 | 14.6 | 6.1 | 4.9 | 3.7 | 1.2 | 3.7 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 1.2 | 2.4 | 0.0 | 1.2 | 1.2 | 4.9 | 6.1 | 3.7 | 2.4 | 1.2 | 1.2 |
| Net Change in % Exceedance: | 22.0 | 0.0 | 2.4 | 12.2 | 13.4 | 4.9 | 0.0 | -2.4 | -2.4 | 1.2 | -1.2 | -1.2 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 93.9 | 97.0 | 90.9 | 100.0 | 72.7 | 90.9 | 87.9 | 97.0 | 100.0 | 84.8 | 97.0 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 6.1 | 0.0 | 6.1 | 0.0 | 15.2 | 9.1 | 12.1 | 0.0 | 0.0 | 9.1 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 0.0 | 3.0 | 3.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.0 | 0.0 | 6.1 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 6.1 | -3.0 | 3.0 | 0.0 | 12.1 | 9.1 | 12.1 | -3.0 | 0.0 | 3.0 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 240 No Action Alternative -Alternative 5 (Future)

**Alternative 5 (Future) vs No Action Alternative**
**Yolo Bypass, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **-1.0 < X < 1.0** | 100.0 | 30.5 | 31.7 | 31.7 | 29.3 | 22.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1.0 (Total %)** | 0.0 | 69.5 | 67.1 | 67.1 | 69.5 | 78.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1.0 (Total %)** | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 69.5 | 65.9 | 67.1 | 69.5 | 78.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 67.1 | 61.0 | 54.9 | 54.9 | 67.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| **-1.0 < X < 1.0** | 100.0 | 75.8 | 69.7 | 48.5 | 30.3 | 12.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1 (Total %)** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1 (Total %)** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 241 No Action Alternative -Alternative 5 (Future)

## Alternative 5 (Future) vs No Action Alternative
## Delta Outflow, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 79.3 | 97.6 | 82.9 | 97.6 | 89.0 | 96.3 | 97.6 | 96.3 | 93.9 | 100.0 | 98.8 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 14.6 | 2.4 | 14.6 | 2.4 | 8.5 | 1.2 | 2.4 | 0.0 | 1.2 | 0.0 | 1.2 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 2.4 | 0.0 | 1.2 | 0.0 | 2.4 | 1.2 | 0.0 | 3.7 | 4.9 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 12.2 | 2.4 | 13.4 | 2.4 | 6.1 | 0.0 | 2.4 | -3.7 | -3.7 | 0.0 | 1.2 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| Low Flows (Upper 40% of Distribution) | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 66.7 | 97.0 | 81.8 | 100.0 | 75.8 | 90.9 | 100.0 | 90.9 | 93.9 | 100.0 | 100.0 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 18.2 | 3.0 | 18.2 | 0.0 | 18.2 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 6.1 | 0.0 | 0.0 | 0.0 | 6.1 | 3.0 | 0.0 | 9.1 | 6.1 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 12.1 | 3.0 | 18.2 | 0.0 | 12.1 | 0.0 | 0.0 | -9.1 | -6.1 | 0.0 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Long-Term and Water Year-Type Average of Sacramento River Delta Inflow Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 8,350 | 10,798 | 22,082 | 31,475 | 37,498 | 30,725 | 19,501 | 11,009 | 11,566 | 13,675 | 9,771 | 13,116 | 13,187 |
| Future - Alternative 6 | 8,373 | 10,551 | 21,201 | 30,061 | 35,904 | 29,942 | 19,489 | 10,992 | 11,570 | 13,699 | 9,766 | 13,111 | 12,895 |
| Difference | 23 | -247 | -880 | -1,414 | -1,594 | -783 | -11 | -18 | 4 | 25 | -5 | -5 | -292 |
| Percent Difference | 0% | -2% | -4% | -4% | -4% | -3% | 0% | 0% | 0% | 0% | 0% | 0% | -2% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 8,996 | 14,634 | 37,088 | 51,035 | 56,945 | 47,194 | 30,753 | 12,279 | 11,846 | 17,045 | 8,777 | 23,150 | 19,185 |
| Future - Alternative 6 | 8,997 | 14,003 | 35,134 | 48,869 | 54,849 | 46,323 | 30,763 | 12,263 | 11,855 | 17,107 | 8,757 | 23,135 | 18,725 |
| Difference | 2 | -631 | -1,954 | -2,165 | -2,096 | -871 | 10 | -16 | 9 | 63 | -20 | -15 | -460 |
| Percent Difference | 0% | -4% | -5% | -4% | -4% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | -2% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 9,290 | 10,029 | 19,595 | 40,534 | 52,912 | 37,168 | 18,221 | 12,048 | 12,038 | 14,830 | 9,005 | 15,709 | 15,067 |
| Future - Alternative 6 | 9,462 | 9,911 | 18,743 | 38,420 | 50,902 | 35,734 | 18,223 | 12,047 | 12,040 | 14,830 | 9,004 | 15,709 | 14,687 |
| Difference | 172 | -118 | -853 | -2,114 | -2,010 | -1,434 | 3 | -1 | 2 | 0 | -1 | 0 | -379 |
| Percent Difference | 2% | -1% | -4% | -5% | -4% | -4% | 0% | 0% | 0% | 0% | 0% | 0% | -3% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 8,183 | 9,236 | 16,398 | 24,715 | 25,957 | 23,572 | 16,492 | 11,386 | 12,357 | 12,801 | 10,142 | 6,570 | 10,705 |
| Future - Alternative 6 | 8,179 | 9,193 | 16,030 | 23,129 | 24,289 | 22,660 | 16,438 | 11,345 | 12,285 | 12,788 | 10,154 | 6,570 | 10,422 |
| Difference | -4 | -43 | -368 | -1,586 | -1,668 | -912 | -55 | -41 | -72 | -12 | 12 | 0 | -283 |
| Percent Difference | 0% | 0% | -2% | -6% | -6% | -4% | 0% | 0% | -1% | 0% | 0% | 0% | -3% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 7,696 | 9,129 | 14,297 | 16,142 | 24,160 | 21,042 | 12,961 | 10,471 | 11,580 | 11,715 | 11,004 | 6,583 | 9,426 |
| Future - Alternative 6 | 7,694 | 9,060 | 14,122 | 15,568 | 22,854 | 20,399 | 12,938 | 10,446 | 11,662 | 11,708 | 11,005 | 6,583 | 9,265 |
| Difference | -2 | -69 | -175 | -574 | -1,306 | -643 | -23 | -24 | 82 | -6 | 1 | 0 | -161 |
| Percent Difference | 0% | -1% | -1% | -4% | -5% | -3% | 0% | 0% | 1% | 0% | 0% | 0% | -2% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 7,362 | 7,663 | 10,980 | 13,674 | 15,968 | 13,022 | 10,454 | 7,796 | 9,644 | 9,526 | 10,173 | 6,975 | 7,426 |
| Future - Alternative 6 | 7,362 | 7,613 | 10,670 | 13,316 | 15,445 | 12,935 | 10,449 | 7,796 | 9,592 | 9,584 | 10,166 | 6,975 | 7,347 |
| Difference | 0 | -51 | -310 | -358 | -523 | -87 | -5 | 0 | -53 | 57 | -7 | -1 | -80 |
| Percent Difference | 0% | -1% | -3% | -3% | -3% | -1% | 0% | 0% | -1% | 1% | 0% | 0% | -1% |

**Sacramento River Delta Inflow**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 9,235 | 17,027 | 51,654 | 65,553 | 69,785 | 60,402 | 45,827 | 14,062 | 14,775 | 19,566 | 11,080 | 23,931 |
| 20% | 8,769 | 12,121 | 31,691 | 57,934 | 63,984 | 51,170 | 26,603 | 12,353 | 13,371 | 17,266 | 10,982 | 23,302 |
| 30% | 8,164 | 10,380 | 21,194 | 41,318 | 55,940 | 41,821 | 18,011 | 11,604 | 12,742 | 14,296 | 10,796 | 21,171 |
| 40% | 7,981 | 9,237 | 17,702 | 28,066 | 43,996 | 30,782 | 15,285 | 11,092 | 11,853 | 13,342 | 10,577 | 15,579 |
| 50% | 7,891 | 8,609 | 16,336 | 22,928 | 32,847 | 22,574 | 13,363 | 10,364 | 11,233 | 12,636 | 10,333 | 6,896 |
| 60% | 7,870 | 7,940 | 13,685 | 19,586 | 22,299 | 17,435 | 12,171 | 9,646 | 10,701 | 12,343 | 9,683 | 6,650 |
| 70% | 7,816 | 7,863 | 12,583 | 14,988 | 18,509 | 15,725 | 11,343 | 9,037 | 10,289 | 11,773 | 8,734 | 6,595 |
| 80% | 7,655 | 7,666 | 9,913 | 12,874 | 16,673 | 13,489 | 10,154 | 8,418 | 9,791 | 11,041 | 8,421 | 6,535 |
| 90% | 6,420 | 6,929 | 9,262 | 10,998 | 14,384 | 11,578 | 8,911 | 7,956 | 8,712 | 9,884 | 7,899 | 6,418 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,350 | 10,798 | 22,082 | 31,475 | 37,498 | 30,725 | 19,501 | 11,009 | 11,566 | 13,675 | 9,771 | 13,116 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 8,996 | 14,634 | 37,088 | 51,035 | 56,945 | 47,194 | 30,753 | 12,279 | 11,846 | 17,045 | 8,777 | 23,150 |
| Above Normal | 9,290 | 10,029 | 19,595 | 40,534 | 52,912 | 37,168 | 18,221 | 12,048 | 12,038 | 14,830 | 9,005 | 15,709 |
| Below Normal | 8,183 | 9,236 | 16,398 | 24,715 | 25,957 | 23,572 | 16,492 | 11,386 | 12,357 | 12,801 | 10,142 | 6,570 |
| Dry | 7,696 | 9,129 | 14,297 | 16,142 | 24,160 | 21,042 | 12,961 | 10,471 | 11,580 | 11,715 | 11,004 | 6,583 |
| Critical | 7,362 | 7,663 | 10,980 | 13,674 | 15,968 | 13,022 | 10,454 | 7,796 | 9,644 | 9,526 | 10,173 | 6,975 |

**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 9,257 | 16,476 | 47,388 | 64,747 | 69,784 | 59,277 | 45,827 | 14,062 | 14,732 | 19,569 | 11,081 | 23,922 |
| 20% | 8,823 | 12,011 | 28,338 | 54,842 | 62,200 | 50,442 | 26,627 | 12,348 | 13,418 | 17,265 | 10,976 | 23,306 |
| 30% | 8,221 | 10,304 | 20,189 | 36,144 | 50,688 | 39,232 | 18,007 | 11,602 | 12,750 | 14,407 | 10,826 | 21,171 |
| 40% | 7,981 | 9,212 | 17,364 | 24,969 | 40,249 | 27,853 | 15,160 | 11,010 | 11,856 | 13,468 | 10,578 | 15,580 |
| 50% | 7,891 | 8,569 | 16,074 | 21,910 | 29,947 | 21,671 | 13,358 | 10,364 | 11,230 | 12,629 | 10,270 | 6,895 |
| 60% | 7,869 | 7,931 | 13,646 | 18,859 | 20,561 | 17,188 | 12,171 | 9,530 | 10,729 | 12,341 | 9,683 | 6,650 |
| 70% | 7,820 | 7,854 | 12,590 | 14,807 | 17,798 | 15,600 | 11,331 | 9,037 | 10,289 | 11,778 | 8,711 | 6,595 |
| 80% | 7,644 | 7,662 | 9,856 | 12,788 | 16,377 | 13,327 | 10,281 | 8,418 | 9,790 | 11,228 | 8,421 | 6,535 |
| 90% | 6,451 | 6,925 | 9,164 | 10,964 | 14,265 | 11,553 | 8,911 | 7,949 | 8,712 | 9,924 | 7,900 | 6,418 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,373 | 10,551 | 21,201 | 30,061 | 35,904 | 29,942 | 19,489 | 10,992 | 11,570 | 13,699 | 9,766 | 13,111 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 8,997 | 14,003 | 35,134 | 48,869 | 54,849 | 46,323 | 30,763 | 12,263 | 11,855 | 17,107 | 8,757 | 23,135 |
| Above Normal | 9,462 | 9,911 | 18,743 | 38,420 | 50,902 | 35,734 | 18,223 | 12,047 | 12,040 | 14,830 | 9,004 | 15,709 |
| Below Normal | 8,179 | 9,193 | 16,030 | 23,129 | 24,289 | 22,660 | 16,438 | 11,345 | 12,285 | 12,788 | 10,154 | 6,570 |
| Dry | 7,694 | 9,060 | 14,122 | 15,568 | 22,854 | 20,399 | 12,938 | 10,446 | 11,662 | 11,708 | 11,005 | 6,583 |
| Critical | 7,362 | 7,613 | 10,670 | 13,316 | 15,445 | 12,935 | 10,449 | 7,796 | 9,592 | 9,584 | 10,166 | 6,975 |

**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 23 | -551 | -4,266 | -805 | -1 | -1,125 | 0 | 0 | -43 | 3 | 1 | -9 |
| 20% | 54 | -110 | -3,354 | -3,093 | -1,785 | -728 | 24 | -4 | 47 | -1 | -6 | 5 |
| 30% | 58 | -77 | -1,005 | -5,174 | -5,252 | -2,589 | -4 | -2 | 8 | 111 | 30 | 0 |
| 40% | 0 | -25 | -338 | -3,097 | -3,747 | -2,929 | -125 | -82 | 3 | 127 | 0 | 1 |
| 50% | 0 | -40 | -262 | -1,018 | -2,899 | -902 | -5 | 0 | -4 | -7 | -63 | -2 |
| 60% | -1 | -9 | -39 | -726 | -1,738 | -246 | 0 | -116 | 27 | -1 | 0 | 0 |
| 70% | 5 | -10 | 6 | -182 | -711 | -125 | -12 | 0 | 0 | 5 | -24 | 0 |
| 80% | -12 | -4 | -57 | -87 | -296 | -161 | 127 | 0 | 0 | 187 | 0 | 0 |
| 90% | 31 | -4 | -98 | -34 | -119 | -25 | 0 | -7 | 0 | 40 | 1 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 23 | -247 | -880 | -1,414 | -1,594 | -783 | -11 | -18 | 4 | 25 | -5 | -5 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2 | -631 | -1,954 | -2,165 | -2,096 | -871 | 10 | -16 | 9 | 63 | -20 | -15 |
| Above Normal | 172 | -118 | -853 | -2,114 | -2,010 | -1,434 | 3 | -1 | 2 | 0 | -1 | 0 |
| Below Normal | -4 | -43 | -368 | -1,586 | -1,668 | -912 | -55 | -41 | -72 | -12 | 12 | 0 |
| Dry | -2 | -69 | -175 | -574 | -1,306 | -643 | -23 | -24 | 82 | -6 | 1 | 0 |
| Critical | 0 | -51 | -310 | -358 | -523 | -87 | -5 | 0 | -53 | 57 | -7 | -1 |

**Long-Term and Water Year-Type Average of Total CVP Deliveries North of the Delta Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 1,473 | 705 | 382 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 | 2,234 |
| Future - Alternative 6 | 1,473 | 705 | 383 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,753 | 1,944 | 2,234 |
| Difference | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 1,422 | 667 | 363 | 222 | 239 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,181 | 2,142 | 2,294 |
| Future - Alternative 6 | 1,423 | 667 | 363 | 223 | 240 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,180 | 2,142 | 2,294 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 1,457 | 694 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 | 2,288 |
| Future - Alternative 6 | 1,460 | 700 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 | 2,288 |
| Difference | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| Percent Difference | 0% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 1,574 | 746 | 411 | 234 | 233 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 | 2,280 |
| Future - Alternative 6 | 1,574 | 746 | 417 | 234 | 233 | 328 | 5,296 | 5,622 | 7,828 | 7,668 | 5,801 | 1,882 | 2,281 |
| Difference | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Percent Difference | 0% | 0% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 | 2,233 |
| Future - Alternative 6 | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,485 | 7,678 | 7,542 | 5,719 | 1,792 | 2,233 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 | 2,004 |
| Future - Alternative 6 | 1,430 | 744 | 395 | 208 | 229 | 492 | 5,501 | 4,807 | 6,779 | 6,234 | 4,653 | 1,614 | 2,004 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 1 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total CVP Deliveries North of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,805 | 942 | 487 | 299 | 267 | 609 | 6,547 | 6,089 | 8,526 | 8,483 | 6,489 | 2,345 |
| 20% | 1,755 | 883 | 457 | 252 | 247 | 417 | 5,972 | 5,927 | 8,171 | 8,021 | 6,143 | 2,197 |
| 30% | 1,658 | 800 | 416 | 226 | 238 | 324 | 5,606 | 5,855 | 8,035 | 7,830 | 5,984 | 2,126 |
| 40% | 1,589 | 744 | 392 | 214 | 238 | 246 | 5,384 | 5,734 | 7,885 | 7,765 | 5,908 | 2,076 |
| 50% | 1,479 | 674 | 372 | 213 | 238 | 223 | 5,166 | 5,604 | 7,789 | 7,720 | 5,830 | 1,992 |
| 60% | 1,378 | 629 | 349 | 213 | 232 | 214 | 4,809 | 5,360 | 7,687 | 7,626 | 5,729 | 1,927 |
| 70% | 1,309 | 601 | 337 | 211 | 230 | 212 | 4,680 | 5,116 | 7,576 | 7,431 | 5,626 | 1,790 |
| 80% | 1,217 | 552 | 310 | 198 | 212 | 212 | 4,277 | 4,968 | 7,405 | 7,212 | 5,449 | 1,713 |
| 90% | 1,119 | 511 | 297 | 183 | 206 | 199 | 3,070 | 4,539 | 7,117 | 7,088 | 5,246 | 1,500 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,473 | 705 | 382 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,752 | 1,944 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,422 | 667 | 363 | 222 | 239 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,181 | 2,142 |
| Above Normal | 1,457 | 694 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 |
| Below Normal | 1,574 | 746 | 411 | 234 | 233 | 328 | 5,295 | 5,621 | 7,827 | 7,667 | 5,800 | 1,881 |
| Dry | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,486 | 7,679 | 7,543 | 5,719 | 1,793 |
| Critical | 1,430 | 744 | 395 | 208 | 229 | 491 | 5,500 | 4,805 | 6,777 | 6,232 | 4,651 | 1,613 |

**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,805 | 942 | 487 | 299 | 267 | 608 | 6,547 | 6,089 | 8,527 | 8,483 | 6,488 | 2,347 |
| 20% | 1,755 | 883 | 457 | 252 | 247 | 416 | 5,972 | 5,927 | 8,170 | 8,020 | 6,145 | 2,197 |
| 30% | 1,657 | 800 | 423 | 226 | 238 | 324 | 5,606 | 5,857 | 8,036 | 7,830 | 5,984 | 2,126 |
| 40% | 1,591 | 744 | 394 | 214 | 238 | 246 | 5,382 | 5,734 | 7,885 | 7,764 | 5,907 | 2,076 |
| 50% | 1,479 | 674 | 376 | 213 | 238 | 223 | 5,167 | 5,602 | 7,789 | 7,720 | 5,831 | 1,993 |
| 60% | 1,378 | 629 | 350 | 213 | 232 | 214 | 4,809 | 5,360 | 7,685 | 7,627 | 5,736 | 1,926 |
| 70% | 1,309 | 606 | 337 | 211 | 230 | 212 | 4,680 | 5,116 | 7,576 | 7,428 | 5,626 | 1,791 |
| 80% | 1,217 | 552 | 310 | 198 | 212 | 212 | 4,277 | 4,968 | 7,400 | 7,223 | 5,449 | 1,716 |
| 90% | 1,119 | 511 | 297 | 183 | 206 | 199 | 3,070 | 4,541 | 7,116 | 7,088 | 5,246 | 1,499 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,473 | 705 | 383 | 224 | 236 | 323 | 5,015 | 5,427 | 7,762 | 7,605 | 5,753 | 1,944 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,423 | 667 | 363 | 223 | 240 | 272 | 4,539 | 5,521 | 8,164 | 8,101 | 6,180 | 2,142 |
| Above Normal | 1,460 | 700 | 376 | 226 | 237 | 239 | 4,896 | 5,545 | 7,962 | 7,972 | 5,945 | 2,186 |
| Below Normal | 1,574 | 746 | 417 | 234 | 233 | 328 | 5,296 | 5,622 | 7,828 | 7,668 | 5,801 | 1,882 |
| Dry | 1,508 | 709 | 382 | 229 | 237 | 331 | 5,227 | 5,485 | 7,678 | 7,542 | 5,719 | 1,792 |
| Critical | 1,430 | 744 | 395 | 208 | 229 | 492 | 5,501 | 4,807 | 6,779 | 6,234 | 4,653 | 1,614 |

**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | -1 | 3 |
| 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 2 | 0 |
| 30% | -1 | 0 | 8 | 0 | 0 | 0 | 0 | 2 | 0 | -1 | 0 | 0 |
| 40% | 2 | 0 | 2 | 0 | 0 | 0 | -1 | 0 | 0 | -1 | -2 | 0 |
| 50% | 0 | 0 | 4 | 0 | 0 | 0 | 1 | -1 | 0 | 0 | 1 | 1 |
| 60% | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | -2 | 1 | 7 | -1 |
| 70% | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 1 |
| 80% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -5 | 11 | 0 | 3 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Below Normal | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| Dry | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -1 | -1 | 0 |
| Critical | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 1 |

**Long-Term and Water Year-Type Average of Total CVP Deliveries South of the Delta Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 2,541 | 1,483 | 1,013 | 1,043 | 1,435 | 1,900 | 2,274 | 3,350 | 4,776 | 5,105 | 4,521 | 3,213 | 1,977 |
| Future - Alternative 6 | 2,541 | 1,483 | 1,014 | 1,044 | 1,435 | 1,900 | 2,274 | 3,351 | 4,777 | 5,106 | 4,522 | 3,214 | 1,977 |
| Difference | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,232 | 2,721 | 3,999 | 5,835 | 6,367 | 5,454 | 3,566 | 2,313 |
| Future - Alternative 6 | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,231 | 2,720 | 3,998 | 5,834 | 6,365 | 5,453 | 3,565 | 2,313 |
| Difference | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -1 | -1 | -1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 2,596 | 1,530 | 1,079 | 1,152 | 1,565 | 2,038 | 2,507 | 3,669 | 5,292 | 5,715 | 4,982 | 3,398 | 2,150 |
| Future - Alternative 6 | 2,598 | 1,532 | 1,082 | 1,156 | 1,571 | 2,038 | 2,508 | 3,672 | 5,296 | 5,720 | 4,986 | 3,400 | 2,153 |
| Difference | 3 | 2 | 3 | 4 | 5 | 0 | 1 | 3 | 5 | 6 | 4 | 1 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 2,569 | 1,496 | 1,013 | 1,030 | 1,414 | 1,790 | 2,113 | 3,233 | 4,568 | 4,845 | 4,352 | 3,183 | 1,913 |
| Future - Alternative 6 | 2,569 | 1,495 | 1,013 | 1,030 | 1,414 | 1,792 | 2,112 | 3,234 | 4,570 | 4,848 | 4,353 | 3,184 | 1,914 |
| Difference | 0 | 0 | 0 | 0 | -1 | 1 | -1 | 1 | 2 | 2 | 2 | 1 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 2,498 | 1,450 | 976 | 989 | 1,372 | 1,737 | 2,052 | 3,009 | 4,201 | 4,404 | 4,029 | 3,068 | 1,802 |
| Future - Alternative 6 | 2,497 | 1,449 | 976 | 988 | 1,370 | 1,737 | 2,051 | 3,007 | 4,198 | 4,400 | 4,027 | 3,067 | 1,801 |
| Difference | -1 | -1 | -1 | -1 | -1 | 0 | -1 | -2 | -3 | -4 | -3 | -1 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 2,345 | 1,334 | 839 | 773 | 1,100 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 | 1,447 |
| Future - Alternative 6 | 2,345 | 1,335 | 839 | 774 | 1,100 | 1,448 | 1,641 | 2,352 | 3,202 | 3,267 | 3,087 | 2,558 | 1,449 |
| Difference | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 4 | 6 | 7 | 5 | 2 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total CVP Deliveries South of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,941 | 1,798 | 1,415 | 1,688 | 2,240 | 2,237 | 2,991 | 4,427 | 6,543 | 7,218 | 6,075 | 3,780 |
| 20% | 2,680 | 1,582 | 1,131 | 1,233 | 1,686 | 2,097 | 2,545 | 3,727 | 5,389 | 5,832 | 5,065 | 3,423 |
| 30% | 2,638 | 1,550 | 1,086 | 1,155 | 1,563 | 2,032 | 2,485 | 3,587 | 5,156 | 5,552 | 4,863 | 3,357 |
| 40% | 2,592 | 1,514 | 1,037 | 1,069 | 1,461 | 1,991 | 2,369 | 3,431 | 4,896 | 5,239 | 4,638 | 3,283 |
| 50% | 2,558 | 1,488 | 1,001 | 1,006 | 1,392 | 1,953 | 2,330 | 3,318 | 4,708 | 5,013 | 4,475 | 3,229 |
| 60% | 2,543 | 1,477 | 986 | 979 | 1,342 | 1,867 | 2,220 | 3,270 | 4,627 | 4,915 | 4,405 | 3,206 |
| 70% | 2,503 | 1,445 | 943 | 909 | 1,280 | 1,698 | 2,023 | 3,147 | 4,424 | 4,671 | 4,227 | 3,144 |
| 80% | 2,317 | 1,285 | 758 | 649 | 946 | 1,506 | 1,789 | 2,595 | 3,551 | 3,699 | 3,435 | 2,852 |
| 90% | 2,252 | 1,229 | 666 | 483 | 770 | 1,506 | 1,565 | 2,402 | 3,208 | 3,212 | 3,156 | 2,749 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,541 | 1,483 | 1,013 | 1,043 | 1,435 | 1,900 | 2,274 | 3,350 | 4,776 | 5,105 | 4,521 | 3,213 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,232 | 2,721 | 3,999 | 5,835 | 6,367 | 5,454 | 3,566 |
| Above Normal | 2,596 | 1,530 | 1,079 | 1,152 | 1,565 | 2,038 | 2,507 | 3,669 | 5,292 | 5,715 | 4,982 | 3,398 |
| Below Normal | 2,569 | 1,496 | 1,013 | 1,030 | 1,414 | 1,790 | 2,113 | 3,233 | 4,568 | 4,845 | 4,352 | 3,183 |
| Dry | 2,498 | 1,450 | 976 | 989 | 1,372 | 1,737 | 2,052 | 3,009 | 4,201 | 4,404 | 4,029 | 3,068 |
| Critical | 2,345 | 1,334 | 839 | 773 | 1,100 | 1,443 | 1,639 | 2,349 | 3,196 | 3,259 | 3,082 | 2,556 |

**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,941 | 1,798 | 1,415 | 1,688 | 2,240 | 2,237 | 2,989 | 4,427 | 6,543 | 7,217 | 6,075 | 3,780 |
| 20% | 2,683 | 1,584 | 1,134 | 1,239 | 1,693 | 2,097 | 2,545 | 3,736 | 5,406 | 5,852 | 5,080 | 3,428 |
| 30% | 2,638 | 1,550 | 1,086 | 1,155 | 1,563 | 2,032 | 2,486 | 3,587 | 5,156 | 5,552 | 4,863 | 3,357 |
| 40% | 2,592 | 1,514 | 1,037 | 1,069 | 1,461 | 1,990 | 2,368 | 3,431 | 4,896 | 5,239 | 4,638 | 3,283 |
| 50% | 2,557 | 1,488 | 1,001 | 1,005 | 1,392 | 1,951 | 2,328 | 3,316 | 4,704 | 5,008 | 4,472 | 3,228 |
| 60% | 2,543 | 1,477 | 986 | 979 | 1,340 | 1,867 | 2,219 | 3,270 | 4,626 | 4,915 | 4,404 | 3,206 |
| 70% | 2,503 | 1,445 | 943 | 909 | 1,280 | 1,698 | 2,023 | 3,147 | 4,424 | 4,671 | 4,227 | 3,144 |
| 80% | 2,315 | 1,283 | 757 | 657 | 952 | 1,506 | 1,789 | 2,590 | 3,542 | 3,689 | 3,427 | 2,849 |
| 90% | 2,252 | 1,229 | 666 | 483 | 770 | 1,506 | 1,563 | 2,402 | 3,208 | 3,212 | 3,156 | 2,749 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,541 | 1,483 | 1,014 | 1,044 | 1,435 | 1,900 | 2,274 | 3,351 | 4,777 | 5,106 | 4,522 | 3,214 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,628 | 1,550 | 1,095 | 1,170 | 1,593 | 2,231 | 2,720 | 3,998 | 5,834 | 6,365 | 5,453 | 3,565 |
| Above Normal | 2,598 | 1,532 | 1,082 | 1,156 | 1,571 | 2,038 | 2,508 | 3,672 | 5,296 | 5,720 | 4,986 | 3,400 |
| Below Normal | 2,569 | 1,495 | 1,013 | 1,030 | 1,414 | 1,792 | 2,112 | 3,234 | 4,570 | 4,848 | 4,353 | 3,184 |
| Dry | 2,497 | 1,449 | 976 | 988 | 1,370 | 1,737 | 2,051 | 3,007 | 4,198 | 4,400 | 4,027 | 3,067 |
| Critical | 2,345 | 1,335 | 839 | 774 | 1,100 | 1,448 | 1,641 | 2,352 | 3,202 | 3,267 | 3,087 | 2,558 |

**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 20% | 3 | 2 | 3 | 6 | 7 | 0 | 0 | 10 | 17 | 20 | 14 | 5 |
| 30% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 | 0 |
| 50% | -1 | 0 | -1 | -1 | 0 | -1 | -2 | -2 | -4 | -4 | -3 | -1 |
| 60% | 0 | 0 | 0 | 0 | -2 | 0 | -1 | 0 | -1 | -1 | -1 | 0 |
| 70% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | -2 | -2 | -2 | 8 | 6 | 0 | 0 | -5 | -9 | -10 | -8 | -3 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -1 | -1 | -1 | 0 |
| Above Normal | 3 | 2 | 3 | 4 | 5 | 0 | 1 | 3 | 5 | 6 | 4 | 1 |
| Below Normal | 0 | 0 | 0 | 0 | -1 | 1 | -1 | 1 | 2 | 2 | 2 | 1 |
| Dry | -1 | -1 | -1 | -1 | -1 | 0 | -1 | -2 | -3 | -4 | -3 | -1 |
| Critical | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 4 | 6 | 7 | 5 | 2 |

**Long-Term and Water Year-Type Average of Total SWP Deliveries North of the Delta Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 1,383 | 1,394 | 894 | 328 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 | 1,154 |
| Future - Alternative 6 | 1,383 | 1,396 | 894 | 327 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 | 1,154 |
| Difference | 0 | 3 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 1,303 | 1,401 | 853 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 | 1,213 |
| Future - Alternative 6 | 1,291 | 1,389 | 842 | 239 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 | 1,210 |
| Difference | -12 | -12 | -11 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 |
| Percent Difference | -1% | -1% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 | 1,275 |
| Future - Alternative 6 | 1,595 | 1,669 | 1,080 | 409 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 | 1,281 |
| Difference | 30 | 46 | 25 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Percent Difference | 2% | 3% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 1,651 | 1,640 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 | 1,216 |
| Future - Alternative 6 | 1,651 | 1,639 | 1,087 | 417 | 8 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 | 1,216 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,083 | 2,985 | 2,385 | 1,750 | 1,136 |
| Future - Alternative 6 | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,082 | 2,985 | 2,385 | 1,750 | 1,136 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 | 881 |
| Future - Alternative 6 | 1,172 | 1,146 | 734 | 313 | 9 | 183 | 2,068 | 1,833 | 2,185 | 2,240 | 1,680 | 967 | 881 |
| Difference | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total SWP Deliveries North of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,163 | 2,065 | 1,372 | 614 | 20 | 198 | 2,860 | 3,128 | 3,657 | 3,561 | 2,846 | 2,296 |
| 20% | 2,011 | 1,961 | 1,290 | 520 | 20 | 128 | 2,556 | 3,038 | 3,510 | 3,477 | 2,800 | 2,233 |
| 30% | 1,827 | 1,898 | 1,219 | 469 | 20 | 45 | 2,378 | 2,974 | 3,442 | 3,369 | 2,687 | 2,175 |
| 40% | 1,653 | 1,843 | 1,157 | 443 | 19 | 45 | 2,110 | 2,899 | 3,373 | 3,302 | 2,608 | 2,118 |
| 50% | 1,404 | 1,703 | 1,024 | 383 | 15 | 45 | 2,006 | 2,738 | 3,312 | 3,227 | 2,577 | 2,049 |
| 60% | 1,320 | 1,495 | 940 | 266 | 11 | 45 | 1,845 | 2,648 | 3,201 | 3,168 | 2,531 | 1,963 |
| 70% | 1,203 | 1,193 | 681 | 154 | 4 | 45 | 1,739 | 2,470 | 3,116 | 3,106 | 2,484 | 1,662 |
| 80% | 861 | 570 | 347 | 60 | 3 | 32 | 1,397 | 1,931 | 2,987 | 2,952 | 2,290 | 1,247 |
| 90% | 277 | 53 | 12 | 11 | 2 | 20 | 1,141 | 1,669 | 1,927 | 1,929 | 1,506 | 987 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,383 | 1,394 | 894 | 328 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,303 | 1,401 | 853 | 242 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 |
| Above Normal | 1,565 | 1,622 | 1,055 | 408 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 |
| Below Normal | 1,651 | 1,640 | 1,087 | 417 | 9 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 |
| Dry | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,083 | 2,985 | 2,385 | 1,750 |
| Critical | 1,172 | 1,146 | 734 | 313 | 9 | 182 | 2,067 | 1,833 | 2,185 | 2,240 | 1,680 | 967 |

**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 2,163 | 2,065 | 1,372 | 614 | 20 | 198 | 2,860 | 3,128 | 3,657 | 3,561 | 2,846 | 2,296 |
| 20% | 2,011 | 1,961 | 1,290 | 520 | 20 | 128 | 2,556 | 3,038 | 3,510 | 3,477 | 2,800 | 2,233 |
| 30% | 1,796 | 1,898 | 1,219 | 469 | 20 | 45 | 2,378 | 2,974 | 3,442 | 3,369 | 2,686 | 2,175 |
| 40% | 1,606 | 1,843 | 1,157 | 443 | 19 | 45 | 2,110 | 2,899 | 3,373 | 3,302 | 2,608 | 2,118 |
| 50% | 1,404 | 1,703 | 1,024 | 383 | 15 | 45 | 2,006 | 2,738 | 3,312 | 3,227 | 2,577 | 2,049 |
| 60% | 1,320 | 1,495 | 940 | 266 | 11 | 45 | 1,845 | 2,648 | 3,201 | 3,168 | 2,530 | 1,963 |
| 70% | 1,203 | 1,189 | 668 | 153 | 4 | 45 | 1,739 | 2,470 | 3,116 | 3,106 | 2,484 | 1,662 |
| 80% | 861 | 553 | 346 | 55 | 3 | 31 | 1,397 | 1,931 | 2,987 | 2,952 | 2,290 | 1,247 |
| 90% | 340 | 173 | 76 | 13 | 2 | 20 | 1,141 | 1,669 | 1,927 | 1,929 | 1,506 | 985 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,383 | 1,396 | 894 | 327 | 13 | 89 | 2,005 | 2,578 | 3,092 | 3,044 | 2,413 | 1,806 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,291 | 1,389 | 842 | 239 | 19 | 65 | 1,869 | 2,776 | 3,389 | 3,342 | 2,672 | 2,074 |
| Above Normal | 1,595 | 1,669 | 1,080 | 409 | 15 | 50 | 2,031 | 2,790 | 3,335 | 3,327 | 2,627 | 2,204 |
| Below Normal | 1,651 | 1,639 | 1,087 | 417 | 8 | 64 | 2,125 | 2,653 | 3,143 | 3,043 | 2,435 | 1,792 |
| Dry | 1,337 | 1,248 | 830 | 347 | 9 | 103 | 2,053 | 2,604 | 3,082 | 2,985 | 2,385 | 1,750 |
| Critical | 1,172 | 1,146 | 734 | 313 | 9 | 183 | 2,068 | 1,833 | 2,185 | 2,240 | 1,680 | 967 |

**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | -31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | -47 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 |
| 70% | 0 | -3 | -13 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | -17 | -1 | -5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 63 | 120 | 64 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -2 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 3 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | -12 | -12 | -11 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 30 | 46 | 25 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

**Long-Term and Water Year-Type Average of Total SWP Deliveries South of the Delta Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 4,043 | 2,984 | 3,596 | 472 | 840 | 1,531 | 2,542 | 3,813 | 5,165 | 5,535 | 5,706 | 4,829 | 2,489 |
| Future - Alternative 6 | 4,039 | 2,976 | 3,576 | 468 | 836 | 1,519 | 2,529 | 3,799 | 5,152 | 5,526 | 5,695 | 4,820 | 2,482 |
| Difference | -4 | -8 | -20 | -4 | -4 | -13 | -14 | -14 | -12 | -9 | -11 | -10 | -7 |
| Percent Difference | 0% | 0% | -1% | -1% | 0% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 4,344 | 2,993 | 4,138 | 1,107 | 1,816 | 2,666 | 3,835 | 5,364 | 6,773 | 6,814 | 7,151 | 6,006 | 3,210 |
| Future - Alternative 6 | 4,355 | 2,991 | 4,104 | 1,105 | 1,811 | 2,663 | 3,833 | 5,362 | 6,770 | 6,812 | 7,148 | 6,002 | 3,207 |
| Difference | 11 | -3 | -34 | -2 | -5 | -3 | -2 | -2 | -3 | -3 | -4 | -3 | -3 |
| Percent Difference | 0% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 4,230 | 3,445 | 3,981 | 275 | 949 | 2,295 | 3,530 | 4,967 | 6,244 | 6,377 | 6,711 | 5,656 | 2,949 |
| Future - Alternative 6 | 4,219 | 3,440 | 3,968 | 253 | 948 | 2,279 | 3,518 | 4,951 | 6,222 | 6,355 | 6,695 | 5,635 | 2,938 |
| Difference | -11 | -5 | -14 | -22 | -1 | -16 | -12 | -17 | -22 | -22 | -17 | -20 | -11 |
| Percent Difference | 0% | 0% | 0% | -8% | 0% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 4,466 | 3,200 | 3,761 | 277 | 460 | 940 | 2,653 | 3,955 | 5,476 | 6,029 | 6,261 | 5,329 | 2,596 |
| Future - Alternative 6 | 4,457 | 3,194 | 3,756 | 277 | 459 | 883 | 2,630 | 3,945 | 5,462 | 6,013 | 6,238 | 5,310 | 2,585 |
| Difference | -8 | -5 | -5 | 0 | -1 | -57 | -23 | -9 | -14 | -16 | -23 | -19 | -11 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | -6% | -1% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 3,825 | 2,760 | 3,103 | 122 | 199 | 821 | 1,523 | 2,587 | 4,084 | 4,826 | 4,854 | 4,140 | 1,994 |
| Future - Alternative 6 | 3,810 | 2,742 | 3,087 | 122 | 191 | 818 | 1,495 | 2,547 | 4,058 | 4,819 | 4,843 | 4,131 | 1,983 |
| Difference | -14 | -18 | -17 | 0 | -8 | -3 | -29 | -39 | -26 | -7 | -11 | -9 | -11 |
| Percent Difference | 0% | -1% | -1% | 0% | -4% | 0% | -2% | -2% | -1% | 0% | 0% | 0% | -1% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 3,125 | 2,678 | 2,710 | 71 | 105 | 198 | 415 | 1,284 | 2,155 | 2,635 | 2,470 | 2,132 | 1,213 |
| Future - Alternative 6 | 3,119 | 2,671 | 2,690 | 71 | 106 | 199 | 410 | 1,285 | 2,155 | 2,633 | 2,462 | 2,125 | 1,210 |
| Difference | -6 | -8 | -20 | 0 | 0 | 1 | -6 | 2 | 0 | -3 | -7 | -7 | -3 |
| Percent Difference | 0% | 0% | -1% | 0% | 0% | 1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% |

**Total SWP Deliveries South of the Delta**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 6,024 | 4,586 | 5,669 | 1,962 | 2,014 | 2,905 | 4,303 | 5,987 | 7,491 | 7,386 | 7,710 | 6,606 |
| 20% | 5,428 | 4,361 | 5,320 | 595 | 1,939 | 2,706 | 3,782 | 5,413 | 6,881 | 7,045 | 7,177 | 6,208 |
| 30% | 5,007 | 4,042 | 4,484 | 231 | 1,754 | 2,547 | 3,546 | 4,855 | 6,162 | 6,469 | 6,763 | 5,710 |
| 40% | 4,894 | 3,793 | 4,121 | 172 | 634 | 2,500 | 3,396 | 4,756 | 6,020 | 6,231 | 6,634 | 5,517 |
| 50% | 4,695 | 3,368 | 3,879 | 145 | 305 | 1,970 | 3,227 | 4,579 | 5,814 | 6,154 | 6,532 | 5,440 |
| 60% | 4,383 | 2,362 | 3,600 | 104 | 193 | 456 | 2,566 | 3,547 | 5,530 | 5,944 | 6,369 | 5,228 |
| 70% | 2,920 | 2,054 | 2,708 | 91 | 137 | 337 | 1,514 | 2,544 | 4,505 | 5,640 | 5,920 | 4,934 |
| 80% | 2,451 | 1,296 | 1,887 | 72 | 112 | 220 | 520 | 2,078 | 3,482 | 4,247 | 3,946 | 3,332 |
| 90% | 1,299 | 897 | 964 | 56 | 55 | 146 | 301 | 1,184 | 1,956 | 2,357 | 2,163 | 1,854 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 4,043 | 2,984 | 3,596 | 472 | 840 | 1,531 | 2,542 | 3,813 | 5,165 | 5,535 | 5,706 | 4,829 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4,344 | 2,993 | 4,138 | 1,107 | 1,816 | 2,666 | 3,835 | 5,364 | 6,773 | 6,814 | 7,151 | 6,006 |
| Above Normal | 4,230 | 3,445 | 3,981 | 275 | 949 | 2,295 | 3,530 | 4,967 | 6,244 | 6,377 | 6,711 | 5,656 |
| Below Normal | 4,466 | 3,200 | 3,761 | 277 | 460 | 940 | 2,653 | 3,955 | 5,476 | 6,029 | 6,261 | 5,329 |
| Dry | 3,825 | 2,760 | 3,103 | 122 | 199 | 821 | 1,523 | 2,587 | 4,084 | 4,826 | 4,854 | 4,140 |
| Critical | 3,125 | 2,678 | 2,710 | 71 | 105 | 198 | 415 | 1,284 | 2,155 | 2,635 | 2,470 | 2,132 |

**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 6,029 | 4,578 | 5,671 | 1,967 | 2,014 | 2,904 | 4,309 | 5,990 | 7,494 | 7,396 | 7,706 | 6,606 |
| 20% | 5,431 | 4,362 | 5,319 | 595 | 1,939 | 2,681 | 3,783 | 5,413 | 6,877 | 7,024 | 7,151 | 6,211 |
| 30% | 4,994 | 4,042 | 4,484 | 233 | 1,741 | 2,580 | 3,551 | 4,866 | 6,137 | 6,496 | 6,772 | 5,705 |
| 40% | 4,894 | 3,772 | 4,093 | 171 | 587 | 2,485 | 3,347 | 4,756 | 6,020 | 6,234 | 6,626 | 5,518 |
| 50% | 4,683 | 3,346 | 3,868 | 144 | 308 | 1,834 | 3,227 | 4,569 | 5,782 | 6,149 | 6,532 | 5,428 |
| 60% | 4,389 | 2,381 | 3,527 | 108 | 192 | 456 | 2,457 | 3,369 | 5,484 | 5,937 | 6,332 | 5,225 |
| 70% | 2,948 | 2,068 | 2,501 | 91 | 137 | 337 | 1,407 | 2,523 | 4,467 | 5,644 | 5,880 | 4,938 |
| 80% | 2,458 | 1,330 | 1,898 | 73 | 112 | 231 | 521 | 2,079 | 3,485 | 4,255 | 3,956 | 3,342 |
| 90% | 1,301 | 885 | 948 | 56 | 56 | 144 | 295 | 1,159 | 1,912 | 2,298 | 2,112 | 1,843 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 4,039 | 2,976 | 3,576 | 468 | 836 | 1,519 | 2,529 | 3,799 | 5,152 | 5,526 | 5,695 | 4,820 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4,355 | 2,991 | 4,104 | 1,105 | 1,811 | 2,663 | 3,833 | 5,362 | 6,770 | 6,812 | 7,148 | 6,002 |
| Above Normal | 4,219 | 3,440 | 3,968 | 253 | 948 | 2,279 | 3,518 | 4,951 | 6,222 | 6,355 | 6,695 | 5,635 |
| Below Normal | 4,457 | 3,194 | 3,756 | 277 | 459 | 883 | 2,630 | 3,945 | 5,462 | 6,013 | 6,238 | 5,310 |
| Dry | 3,810 | 2,742 | 3,087 | 122 | 191 | 818 | 1,495 | 2,547 | 4,058 | 4,819 | 4,843 | 4,131 |
| Critical | 3,119 | 2,671 | 2,690 | 71 | 106 | 199 | 410 | 1,285 | 2,155 | 2,633 | 2,462 | 2,125 |

**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 5 | -8 | 1 | 5 | 0 | -1 | 6 | 3 | 3 | 9 | -4 | 0 |
| 20% | 3 | 0 | -1 | -1 | 0 | -25 | 1 | 0 | -4 | -21 | -26 | 3 |
| 30% | -13 | 0 | 0 | 2 | -13 | 33 | 5 | 11 | -25 | 27 | 9 | -5 |
| 40% | 0 | -22 | -28 | 0 | -47 | -15 | -49 | 0 | 0 | 2 | -8 | 1 |
| 50% | -12 | -22 | -11 | 0 | 4 | -137 | 0 | -10 | -32 | -5 | 0 | -12 |
| 60% | 6 | 19 | -73 | 3 | -1 | 0 | -109 | -178 | -46 | -6 | -36 | -4 |
| 70% | 28 | 14 | -207 | 0 | 0 | 1 | -107 | -21 | -38 | 5 | -40 | 4 |
| 80% | 7 | 34 | 11 | 0 | 0 | 10 | 0 | 0 | 4 | 7 | 10 | 10 |
| 90% | 2 | -12 | -16 | 0 | 1 | -3 | -6 | -25 | -44 | -59 | -51 | -11 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -4 | -8 | -20 | -4 | -4 | -13 | -14 | -14 | -12 | -9 | -11 | -10 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 11 | -3 | -34 | -2 | -5 | -3 | -2 | -2 | -3 | -3 | -4 | -3 |
| Above Normal | -11 | -5 | -14 | -22 | -1 | -16 | -12 | -17 | -22 | -22 | -17 | -20 |
| Below Normal | -8 | -5 | -5 | 0 | -1 | -57 | -23 | -9 | -14 | -16 | -23 | -19 |
| Dry | -14 | -18 | -17 | 0 | -8 | -3 | -29 | -39 | -26 | -7 | -11 | -9 |
| Critical | -6 | -8 | -20 | 0 | 0 | 1 | -6 | 2 | 0 | -3 | -7 | -7 |

**Long-Term and Water Year-Type Average of Fremont Weir Spill to Yolo Bypass Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 43 | 57 | 2,754 | 12,157 | 16,930 | 8,465 | 1,050 | 3 | 0 | 0 | 0 | 0 | 2,453 |
| Future - Alternative 6 | 43 | 302 | 3,668 | 13,715 | 18,661 | 9,289 | 1,050 | 3 | 0 | 0 | 0 | 0 | 2,767 |
| Difference | 0 | 245 | 913 | 1,558 | 1,731 | 824 | 0 | 0 | 0 | 0 | 0 | 0 | 314 |
| Percent Difference | 0% | 429% | 33% | 13% | 10% | 10% | 0% | 0% | 0% | 0% | 0% | 0% | 13% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 135 | 180 | 7,592 | 34,147 | 41,220 | 23,151 | 3,236 | 10 | 0 | 0 | 0 | 0 | 6,503 |
| Future - Alternative 6 | 135 | 822 | 9,748 | 36,526 | 43,390 | 24,040 | 3,235 | 10 | 0 | 0 | 0 | 0 | 6,996 |
| Difference | 0 | 642 | 2,156 | 2,379 | 2,170 | 889 | 0 | 0 | 0 | 0 | 0 | 0 | 493 |
| Percent Difference | 0% | 357% | 28% | 7% | 5% | 4% | 0% | 0% | 0% | 0% | 0% | 0% | 8% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 946 | 9,205 | 25,241 | 6,208 | 14 | 0 | 0 | 0 | 0 | 0 | 2,432 |
| Future - Alternative 6 | 0 | 133 | 1,688 | 11,510 | 27,453 | 7,582 | 14 | 0 | 0 | 0 | 0 | 0 | 2,836 |
| Difference | 0 | 133 | 742 | 2,305 | 2,211 | 1,374 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Percent Difference | 0% | 0% | 79% | 25% | 9% | 22% | 0% | 0% | 0% | 0% | 0% | 0% | 17% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 1,390 | 583 | 1,456 | 737 | 137 | 0 | 0 | 0 | 0 | 0 | 257 |
| Future - Alternative 6 | 0 | 44 | 1,781 | 2,321 | 3,261 | 1,771 | 137 | 0 | 0 | 0 | 0 | 0 | 555 |
| Difference | 0 | 44 | 391 | 1,738 | 1,805 | 1,034 | 0 | 0 | 0 | 0 | 0 | 0 | 298 |
| Percent Difference | 0% | 0% | 28% | 298% | 124% | 140% | 0% | 0% | 0% | 0% | 0% | 0% | 116% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 0 | 11 | 981 | 717 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| Future - Alternative 6 | 0 | 65 | 232 | 650 | 2,499 | 1,441 | 0 | 0 | 0 | 0 | 0 | 0 | 286 |
| Difference | 0 | 65 | 232 | 640 | 1,518 | 724 | 0 | 0 | 0 | 0 | 0 | 0 | 187 |
| Percent Difference | 0% | 0% | 0% | 5915% | 155% | 101% | 0% | 0% | 0% | 0% | 0% | 0% | 188% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Future - Alternative 6 | 0 | 6 | 79 | 429 | 641 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| Difference | 0 | 6 | 79 | 429 | 615 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| Percent Difference | 0% | 0% | 0% | 0% | 2360% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 4939% |

**Fremont Weir Spill to Yolo Bypass**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 9,636 | 45,653 | 68,479 | 26,076 | 480 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 0 | 417 | 14,794 | 32,134 | 7,332 | 2 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 0 | 0 | 2,685 | 10,131 | 3,487 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 0 | 0 | 83 | 4,103 | 180 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 0 | 0 | 0 | 501 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 43 | 57 | 2,754 | 12,157 | 16,930 | 8,465 | 1,050 | 3 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 135 | 180 | 7,592 | 34,147 | 41,220 | 23,151 | 3,236 | 10 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 0 | 946 | 9,205 | 25,241 | 6,208 | 14 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 0 | 1,390 | 583 | 1,456 | 737 | 137 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 0 | 0 | 11 | 981 | 717 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

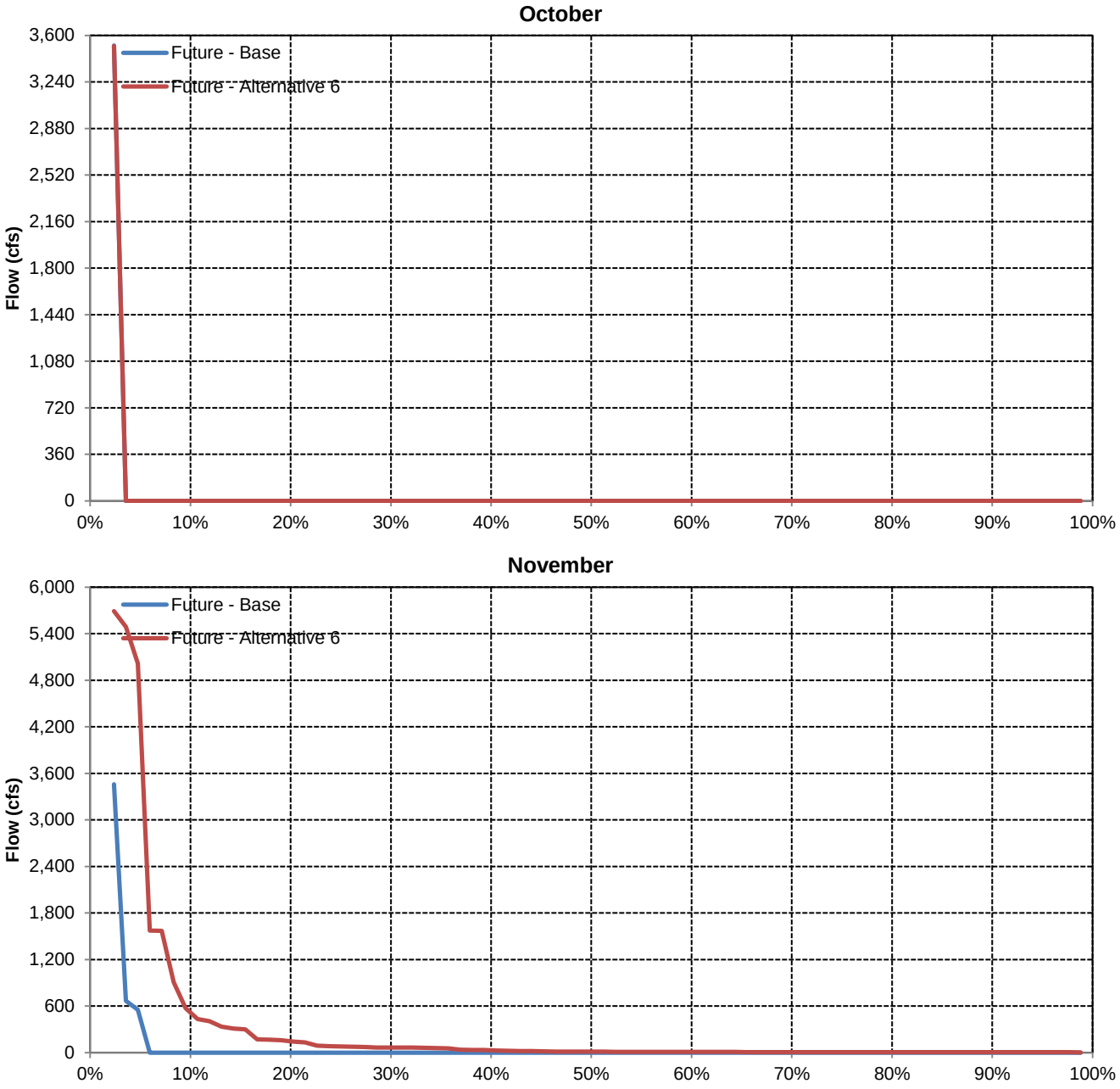
**Future - Alternative 6**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 426 | 12,932 | 46,062 | 69,134 | 26,707 | 480 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 136 | 3,584 | 17,773 | 32,822 | 9,089 | 2 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 66 | 835 | 8,408 | 14,332 | 5,678 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 26 | 512 | 3,702 | 8,256 | 2,633 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 12 | 310 | 1,654 | 4,696 | 800 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 9 | 93 | 798 | 1,895 | 401 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 7 | 26 | 238 | 767 | 268 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 6 | 11 | 66 | 358 | 84 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 5 | 7 | 27 | 98 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 43 | 302 | 3,668 | 13,715 | 18,661 | 9,289 | 1,050 | 3 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 135 | 822 | 9,748 | 36,526 | 43,390 | 24,040 | 3,235 | 10 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 133 | 1,688 | 11,510 | 27,453 | 7,582 | 14 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 44 | 1,781 | 2,321 | 3,261 | 1,771 | 137 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 65 | 232 | 650 | 2,499 | 1,441 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 6 | 79 | 429 | 641 | 120 | 0 | 0 | 0 | 0 | 0 | 0 |

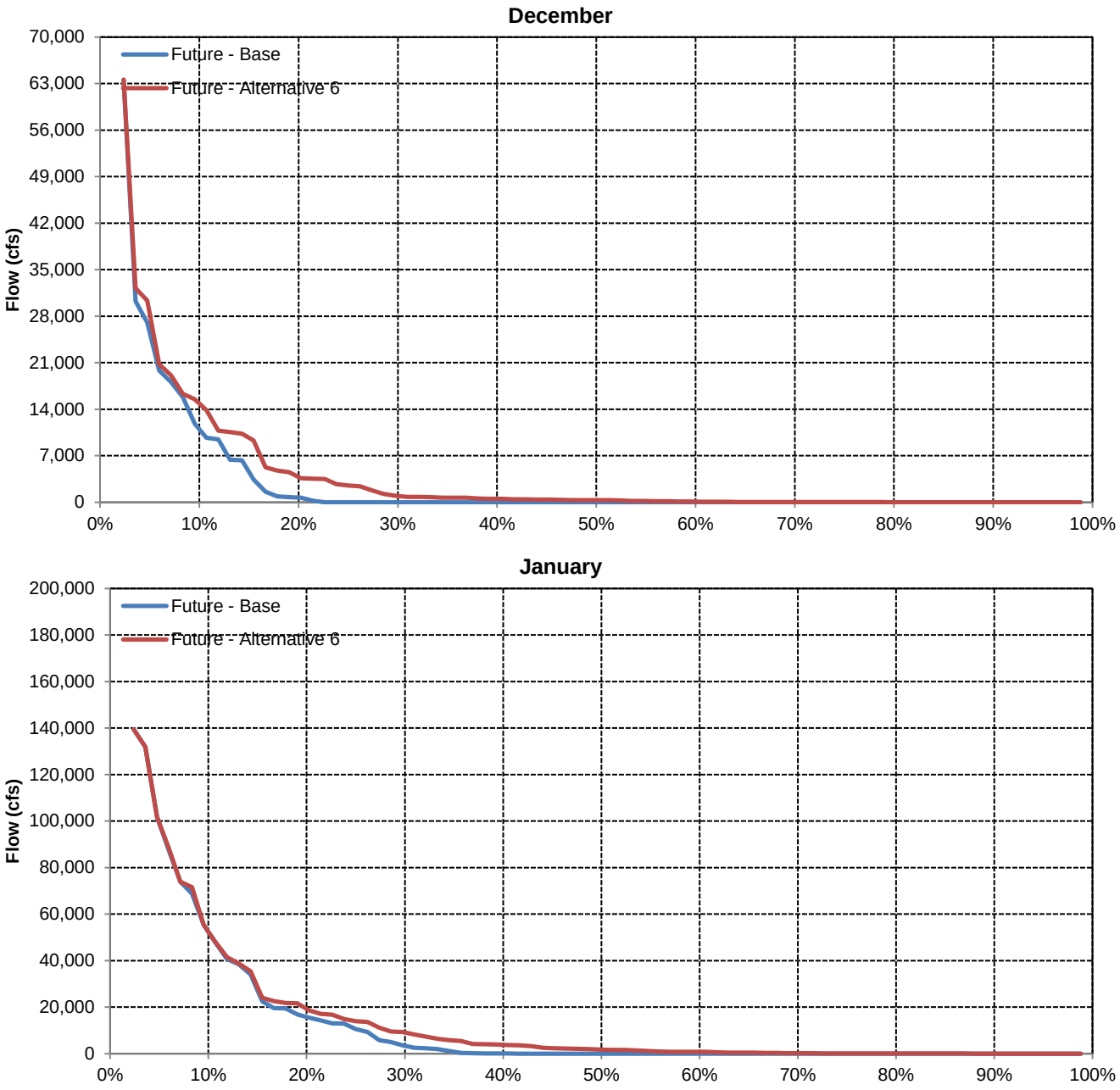
**Future - Alternative 6 Minus Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 426 | 3,297 | 409 | 655 | 631 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 0 | 136 | 3,167 | 2,979 | 688 | 1,758 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30% | 0 | 66 | 835 | 5,722 | 4,201 | 2,191 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 26 | 512 | 3,618 | 4,152 | 2,453 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50% | 0 | 12 | 310 | 1,654 | 4,195 | 800 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60% | 0 | 9 | 93 | 798 | 1,892 | 401 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70% | 0 | 7 | 26 | 238 | 767 | 268 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80% | 0 | 6 | 11 | 66 | 358 | 84 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90% | 0 | 5 | 7 | 27 | 98 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 0 | 245 | 913 | 1,558 | 1,731 | 824 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 642 | 2,156 | 2,379 | 2,170 | 889 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 0 | 133 | 742 | 2,305 | 2,211 | 1,374 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 0 | 44 | 391 | 1,738 | 1,805 | 1,034 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry | 0 | 65 | 232 | 640 | 1,518 | 724 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical | 0 | 6 | 79 | 429 | 615 | 120 | 0 | 0 | 0 | 0 | 0 | 0 |

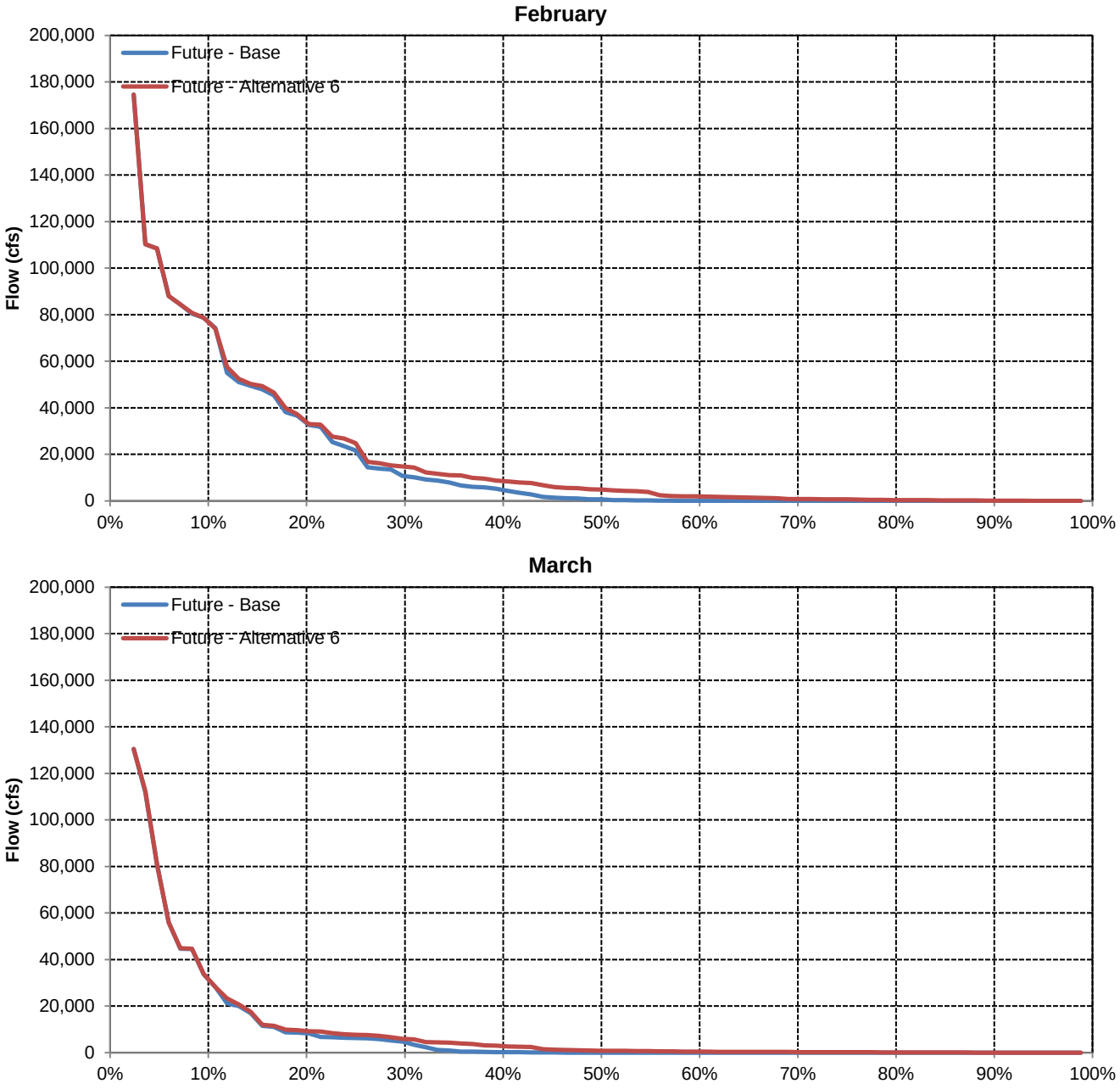
## Fremont Weir Spill to Yolo Bypass



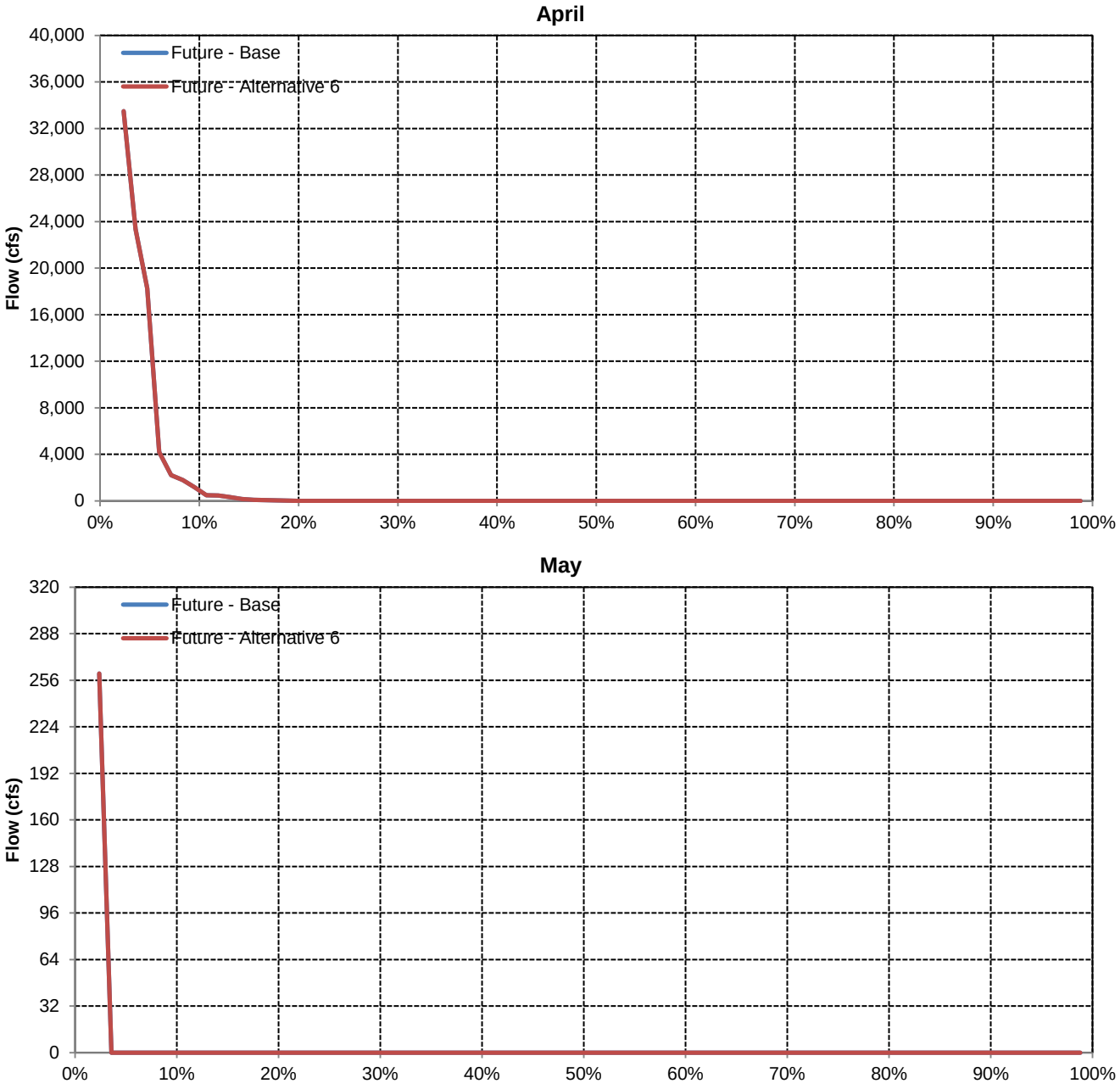
## Fremont Weir Spill to Yolo Bypass



## Fremont Weir Spill to Yolo Bypass

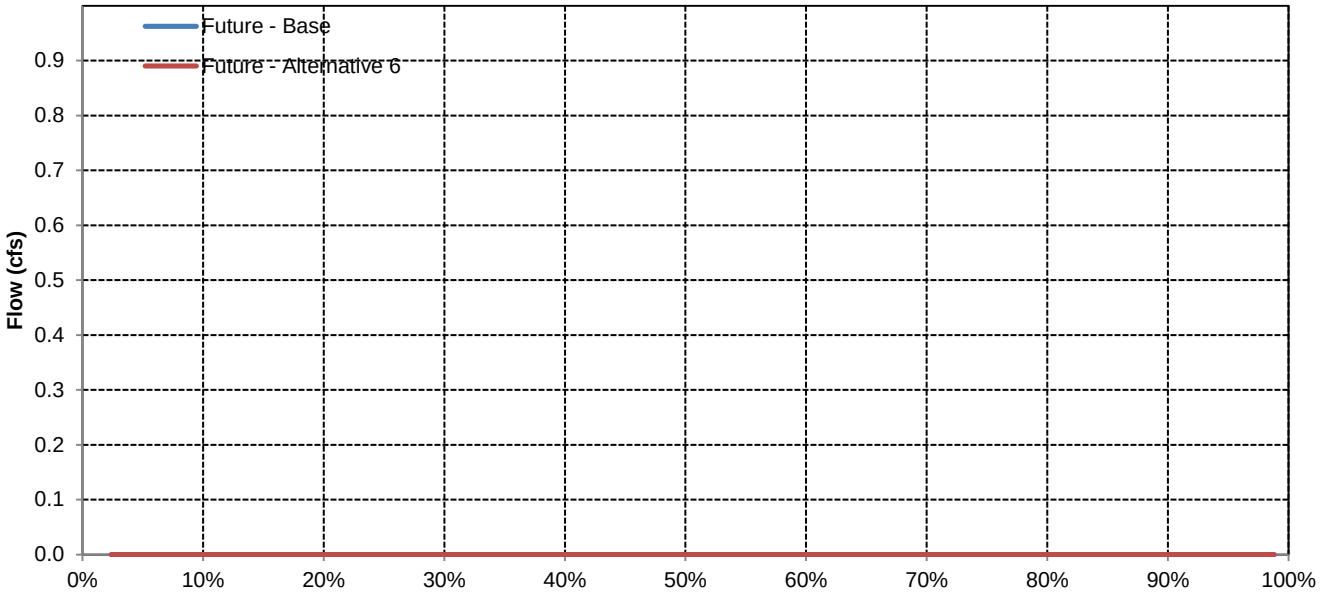


## Fremont Weir Spill to Yolo Bypass

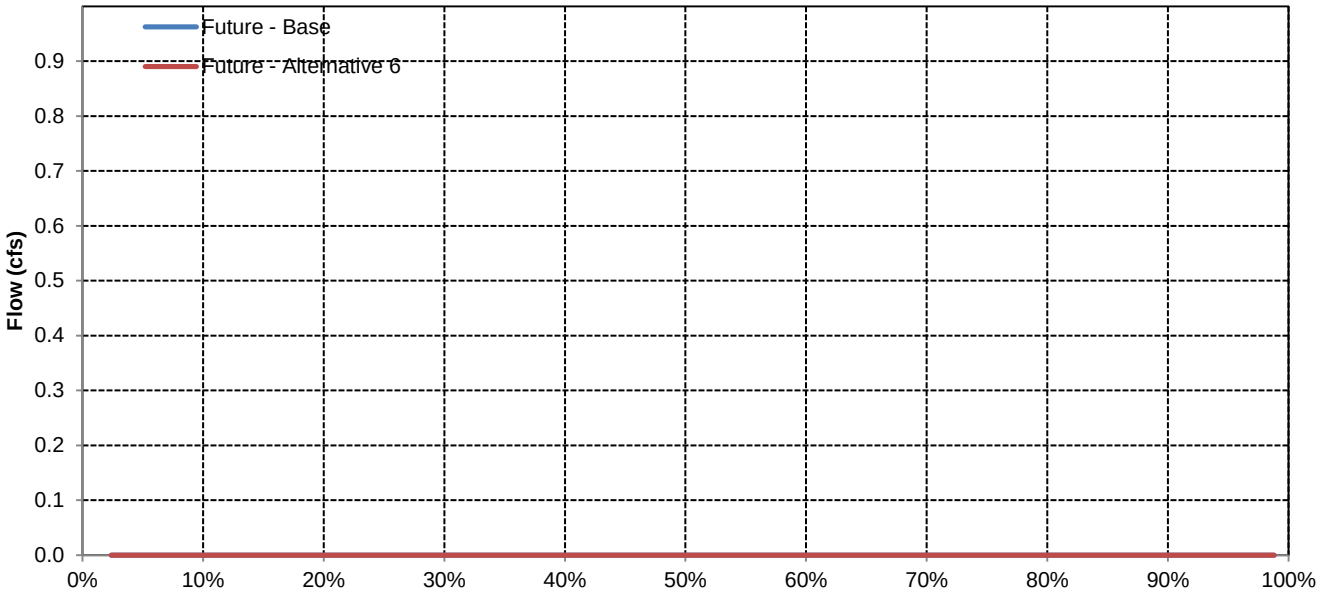


## Fremont Weir Spill to Yolo Bypass

### June

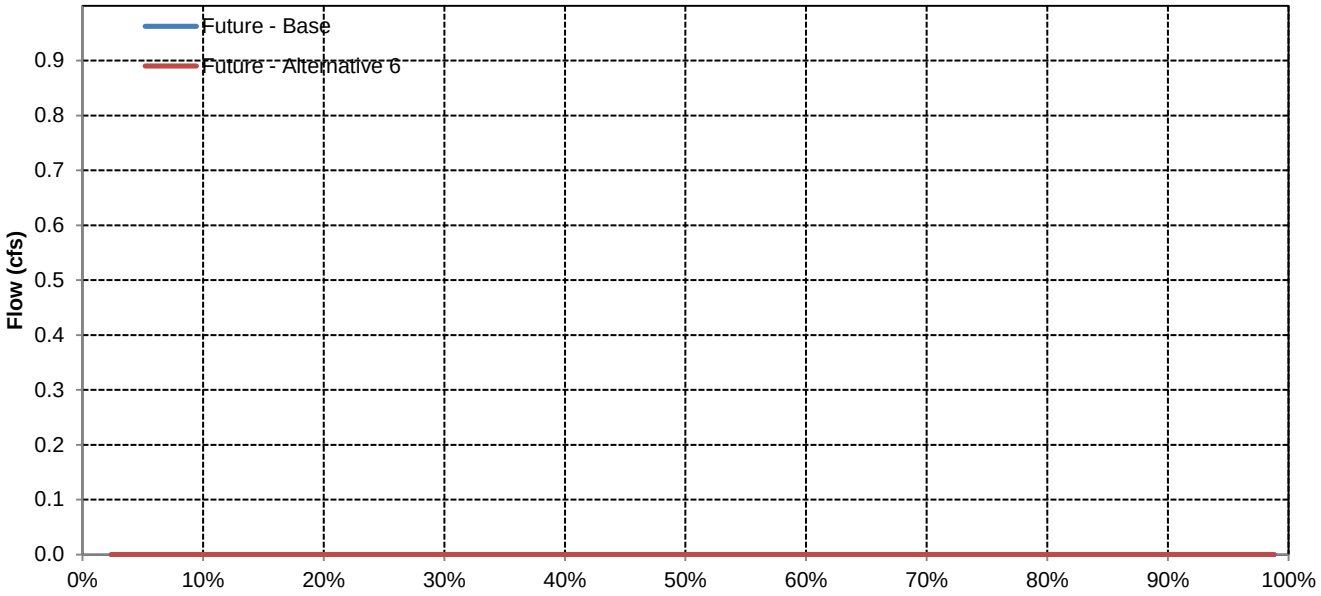



### July

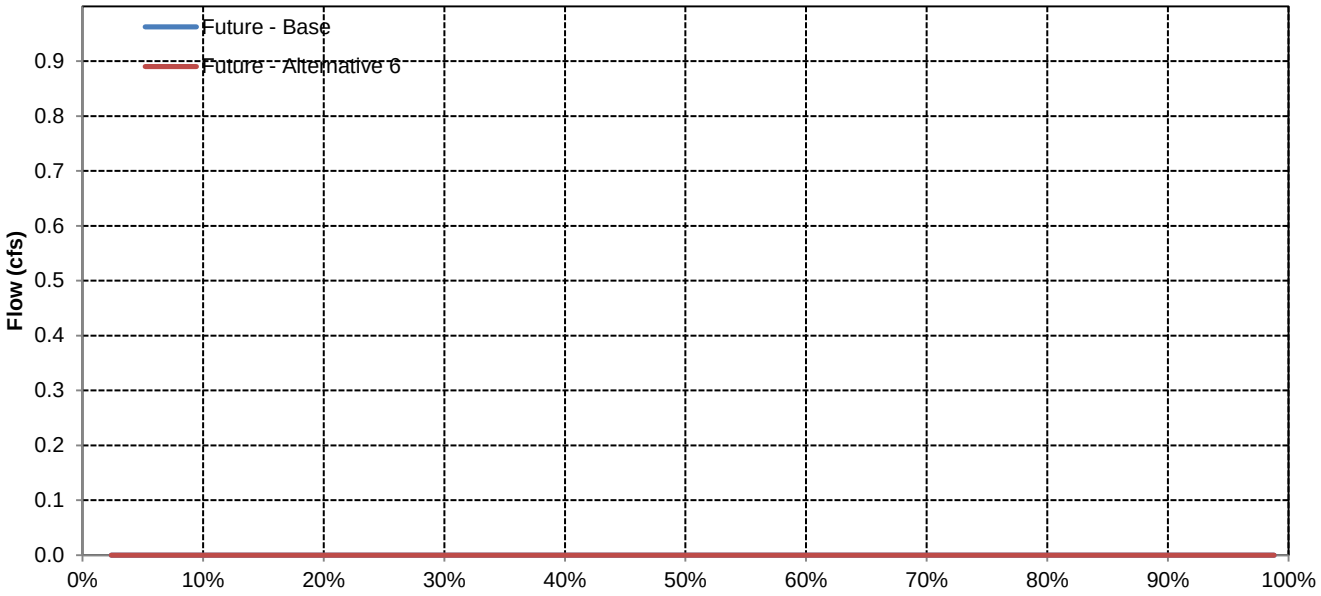


## Fremont Weir Spill to Yolo Bypass

### August




### September



**Long-Term and Water Year-Type Average of Sacramento River below Fremont Weir Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 9,206 | 10,728 | 19,728 | 30,030 | 35,978 | 31,028 | 17,571 | 10,459 | 13,675 | 15,358 | 11,273 | 13,824 | 13,150 |
| Future - Alternative 6 | 9,233 | 10,470 | 18,786 | 28,495 | 34,259 | 30,211 | 17,563 | 10,438 | 13,643 | 15,362 | 11,282 | 13,839 | 12,835 |
| Difference | 27 | -258 | -942 | -1,535 | -1,720 | -817 | -8 | -21 | -32 | 4 | 9 | 15 | -314 |
| Percent Difference | 0% | -2% | -5% | -5% | -5% | -3% | 0% | 0% | 0% | 0% | 0% | 0% | -2% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 10,316 | 14,168 | 33,582 | 49,490 | 54,700 | 46,345 | 27,848 | 12,029 | 14,178 | 18,965 | 12,787 | 23,425 | 19,081 |
| Future - Alternative 6 | 10,340 | 13,511 | 31,458 | 47,160 | 52,525 | 45,478 | 27,829 | 12,006 | 14,181 | 18,962 | 12,731 | 23,441 | 18,589 |
| Difference | 24 | -657 | -2,124 | -2,331 | -2,175 | -867 | -19 | -23 | 3 | -3 | -56 | 15 | -492 |
| Percent Difference | 0% | -5% | -6% | -5% | -4% | -2% | 0% | 0% | 0% | 0% | 0% | 0% | -3% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 10,180 | 10,600 | 18,133 | 38,066 | 50,270 | 39,380 | 16,639 | 11,646 | 16,362 | 17,891 | 12,383 | 16,466 | 15,480 |
| Future - Alternative 6 | 10,257 | 10,413 | 17,191 | 35,811 | 48,166 | 38,022 | 16,643 | 11,646 | 16,370 | 17,870 | 12,390 | 16,466 | 15,075 |
| Difference | 76 | -187 | -942 | -2,255 | -2,104 | -1,358 | 3 | 0 | 8 | -21 | 7 | 0 | -404 |
| Percent Difference | 1% | -2% | -5% | -6% | -4% | -3% | 0% | 0% | 0% | 0% | 0% | 0% | -3% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 9,254 | 9,797 | 13,924 | 23,209 | 25,545 | 24,426 | 14,615 | 10,760 | 14,962 | 15,443 | 10,464 | 8,153 | 10,869 |
| Future - Alternative 6 | 9,274 | 9,752 | 13,534 | 21,475 | 23,740 | 23,392 | 14,615 | 10,697 | 14,814 | 15,448 | 10,596 | 8,173 | 10,570 |
| Difference | 20 | -45 | -390 | -1,734 | -1,805 | -1,034 | 0 | -63 | -148 | 5 | 132 | 20 | -300 |
| Percent Difference | 0% | 0% | -3% | -7% | -7% | -4% | 0% | -1% | -1% | 0% | 1% | 0% | -3% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 8,186 | 9,309 | 12,579 | 14,935 | 22,880 | 21,608 | 11,530 | 9,425 | 13,173 | 12,523 | 10,169 | 7,654 | 9,257 |
| Future - Alternative 6 | 8,218 | 9,243 | 12,369 | 14,295 | 21,359 | 20,888 | 11,522 | 9,421 | 13,217 | 12,537 | 10,176 | 7,640 | 9,076 |
| Difference | 31 | -66 | -210 | -639 | -1,522 | -720 | -8 | -4 | 44 | 15 | 7 | -14 | -181 |
| Percent Difference | 0% | -1% | -2% | -4% | -7% | -3% | 0% | 0% | 0% | 0% | 0% | 0% | -2% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 7,552 | 6,764 | 9,375 | 13,050 | 15,447 | 13,038 | 9,429 | 7,372 | 9,565 | 9,855 | 9,692 | 7,025 | 7,121 |
| Future - Alternative 6 | 7,545 | 6,757 | 9,177 | 12,623 | 14,829 | 12,900 | 9,427 | 7,350 | 9,421 | 9,877 | 9,712 | 7,097 | 7,035 |
| Difference | -7 | -8 | -198 | -427 | -617 | -138 | -1 | -22 | -144 | 22 | 20 | 72 | -86 |
| Percent Difference | 0% | 0% | -2% | -3% | -4% | -1% | 0% | 0% | -2% | 0% | 0% | 1% | -1% |

**Sacramento River below Fremont Weir**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 11,897 | 16,169 | 45,741 | 61,582 | 63,120 | 58,501 | 40,381 | 14,264 | 19,317 | 20,306 | 15,937 | 23,746 |
| 20% | 10,789 | 13,042 | 30,986 | 52,000 | 59,936 | 50,976 | 24,134 | 12,203 | 18,036 | 19,458 | 13,060 | 23,231 |
| 30% | 9,787 | 11,409 | 19,616 | 42,207 | 50,229 | 42,750 | 16,494 | 11,100 | 17,030 | 17,789 | 11,135 | 21,443 |
| 40% | 9,396 | 10,373 | 16,258 | 31,518 | 42,508 | 33,844 | 14,502 | 10,319 | 14,771 | 17,206 | 10,721 | 14,835 |
| 50% | 9,004 | 9,580 | 14,683 | 22,826 | 32,845 | 25,125 | 12,720 | 9,227 | 12,760 | 16,197 | 10,366 | 9,351 |
| 60% | 8,421 | 8,564 | 12,034 | 17,536 | 23,964 | 20,148 | 10,605 | 8,847 | 11,697 | 14,641 | 10,117 | 8,213 |
| 70% | 7,953 | 7,746 | 10,580 | 14,086 | 19,326 | 17,034 | 9,863 | 8,329 | 10,907 | 12,994 | 9,872 | 7,627 |
| 80% | 6,644 | 6,697 | 8,469 | 11,527 | 15,457 | 13,796 | 9,349 | 7,855 | 9,488 | 11,435 | 9,571 | 7,237 |
| 90% | 6,027 | 5,916 | 7,135 | 10,183 | 12,838 | 10,799 | 8,626 | 7,207 | 8,168 | 9,224 | 9,229 | 6,510 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 9,206 | 10,728 | 19,728 | 30,030 | 35,978 | 31,028 | 17,571 | 10,459 | 13,675 | 15,358 | 11,273 | 13,824 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 10,316 | 14,168 | 33,582 | 49,490 | 54,700 | 46,345 | 27,848 | 12,029 | 14,178 | 18,965 | 12,787 | 23,425 |
| Above Normal | 10,180 | 10,600 | 18,133 | 38,066 | 50,270 | 39,380 | 16,639 | 11,646 | 16,362 | 17,891 | 12,383 | 16,466 |
| Below Normal | 9,254 | 9,797 | 13,924 | 23,209 | 25,545 | 24,426 | 14,615 | 10,760 | 14,962 | 15,443 | 10,464 | 8,153 |
| Dry | 8,186 | 9,309 | 12,579 | 14,935 | 22,880 | 21,608 | 11,530 | 9,425 | 13,173 | 12,523 | 10,169 | 7,654 |
| Critical | 7,552 | 6,764 | 9,375 | 13,050 | 15,447 | 13,038 | 9,429 | 7,372 | 9,565 | 9,855 | 9,692 | 7,025 |

**Future - Alternative 6**

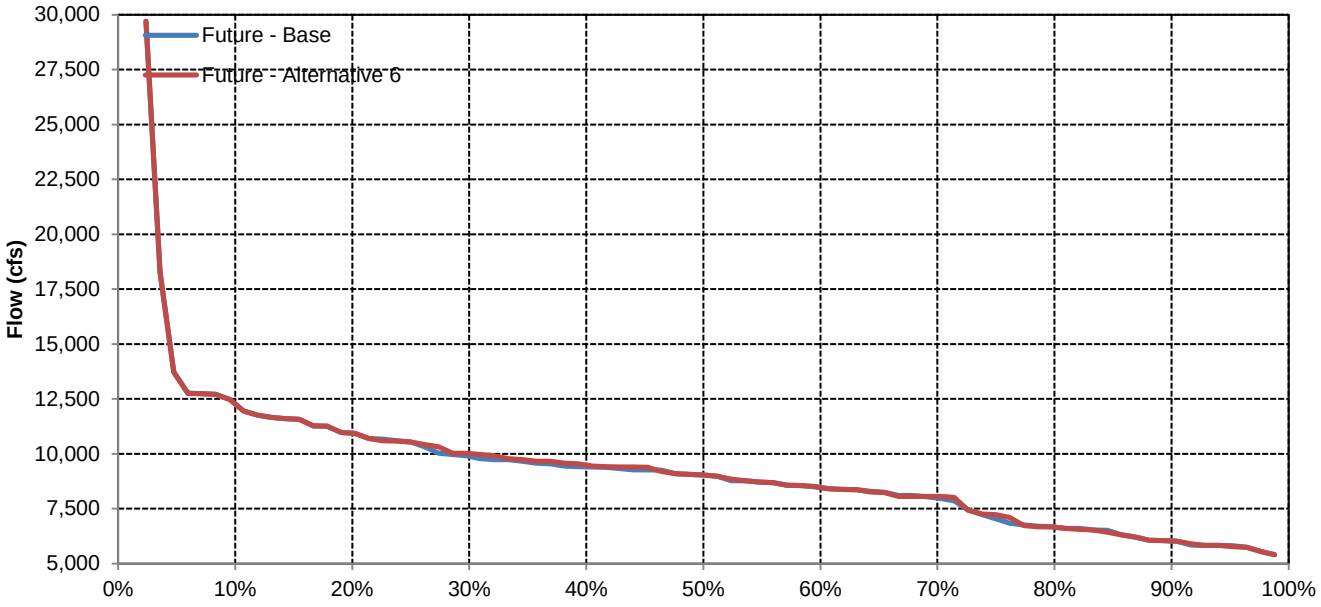
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 11,897 | 15,734 | 42,127 | 60,967 | 63,130 | 58,156 | 40,381 | 14,264 | 19,320 | 20,306 | 16,331 | 24,040 |
| 20% | 10,793 | 12,916 | 27,821 | 48,721 | 58,348 | 49,949 | 24,157 | 12,202 | 18,228 | 19,460 | 13,064 | 23,240 |
| 30% | 9,969 | 11,363 | 18,799 | 37,127 | 45,363 | 40,334 | 16,491 | 10,975 | 17,026 | 17,792 | 11,211 | 21,444 |
| 40% | 9,437 | 10,363 | 15,849 | 27,947 | 39,921 | 30,675 | 14,501 | 10,320 | 14,955 | 17,269 | 10,713 | 14,835 |
| 50% | 9,004 | 9,571 | 14,300 | 20,990 | 28,782 | 24,590 | 12,720 | 9,101 | 12,754 | 16,194 | 10,324 | 9,345 |
| 60% | 8,421 | 8,556 | 11,891 | 16,730 | 22,085 | 19,734 | 10,605 | 8,843 | 11,547 | 14,786 | 10,115 | 8,291 |
| 70% | 8,050 | 7,737 | 10,688 | 13,939 | 18,575 | 16,656 | 9,863 | 8,329 | 10,709 | 12,999 | 9,868 | 7,629 |
| 80% | 6,640 | 6,617 | 8,359 | 11,498 | 15,160 | 13,658 | 9,354 | 7,777 | 9,412 | 11,434 | 9,571 | 7,234 |
| 90% | 6,029 | 5,911 | 7,017 | 10,145 | 12,771 | 10,773 | 8,626 | 7,207 | 8,170 | 9,225 | 9,230 | 6,508 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 9,233 | 10,470 | 18,786 | 28,495 | 34,259 | 30,211 | 17,563 | 10,438 | 13,643 | 15,362 | 11,282 | 13,839 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 10,340 | 13,511 | 31,458 | 47,160 | 52,525 | 45,478 | 27,829 | 12,006 | 14,181 | 18,962 | 12,731 | 23,441 |
| Above Normal | 10,257 | 10,413 | 17,191 | 35,811 | 48,166 | 38,022 | 16,643 | 11,646 | 16,370 | 17,870 | 12,390 | 16,466 |
| Below Normal | 9,274 | 9,752 | 13,534 | 21,475 | 23,740 | 23,392 | 14,615 | 10,697 | 14,814 | 15,448 | 10,596 | 8,173 |
| Dry | 8,218 | 9,243 | 12,369 | 14,295 | 21,359 | 20,888 | 11,522 | 9,421 | 13,217 | 12,537 | 10,176 | 7,640 |
| Critical | 7,545 | 6,757 | 9,177 | 12,623 | 14,829 | 12,900 | 9,427 | 7,350 | 9,421 | 9,877 | 9,712 | 7,097 |

**Future - Alternative 6 Minus Future - Base**

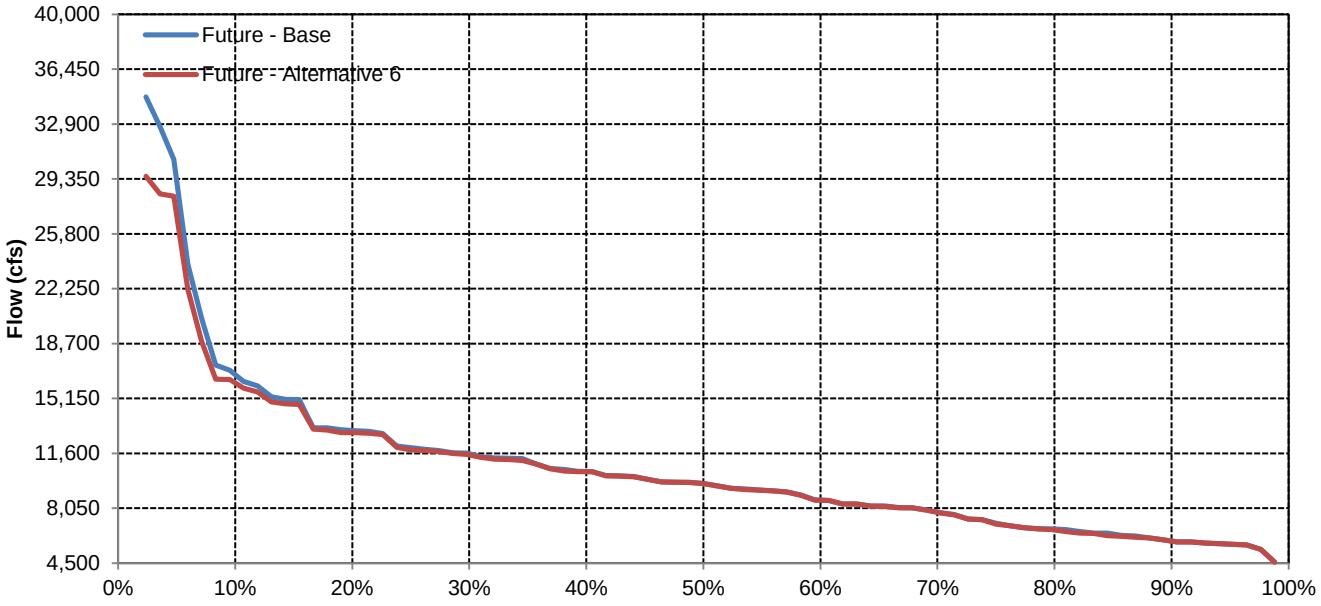
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | -435 | -3,614 | -615 | 10 | -345 | 1 | 0 | 3 | -1 | 394 | 294 |
| 20% | 4 | -126 | -3,165 | -3,278 | -1,588 | -1,027 | 23 | 0 | 192 | 2 | 4 | 9 |
| 30% | 182 | -46 | -817 | -5,079 | -4,866 | -2,416 | -4 | -125 | -3 | 3 | 76 | 1 |
| 40% | 41 | -10 | -409 | -3,571 | -2,587 | -3,169 | -1 | 1 | 184 | 63 | -8 | 1 |
| 50% | 0 | -9 | -384 | -1,836 | -4,063 | -535 | 0 | -126 | -6 | -3 | -42 | -6 |
| 60% | 0 | -8 | -143 | -806 | -1,879 | -414 | 0 | -4 | -150 | 145 | -3 | 79 |
| 70% | 98 | -9 | 108 | -147 | -751 | -378 | 0 | 0 | -198 | 5 | -4 | 1 |
| 80% | -4 | -80 | -111 | -29 | -297 | -138 | 5 | -78 | -76 | -1 | 0 | -3 |
| 90% | 2 | -5 | -118 | -38 | -67 | -27 | 0 | 0 | 3 | 1 | 1 | -1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 27 | -258 | -942 | -1,535 | -1,720 | -817 | -8 | -21 | -32 | 4 | 9 | 15 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 24 | -657 | -2,124 | -2,331 | -2,175 | -867 | -19 | -23 | 3 | -3 | -56 | 15 |
| Above Normal | 76 | -187 | -942 | -2,255 | -2,104 | -1,358 | 3 | 0 | 8 | -21 | 7 | 0 |
| Below Normal | 20 | -45 | -390 | -1,734 | -1,805 | -1,034 | 0 | -63 | -148 | 5 | 132 | 20 |
| Dry | 31 | -66 | -210 | -639 | -1,522 | -720 | -8 | -4 | 44 | 15 | 7 | -14 |
| Critical | -7 | -8 | -198 | -427 | -617 | -138 | -1 | -22 | -144 | 22 | 20 | 72 |

## Sacramento River below Fremont Weir

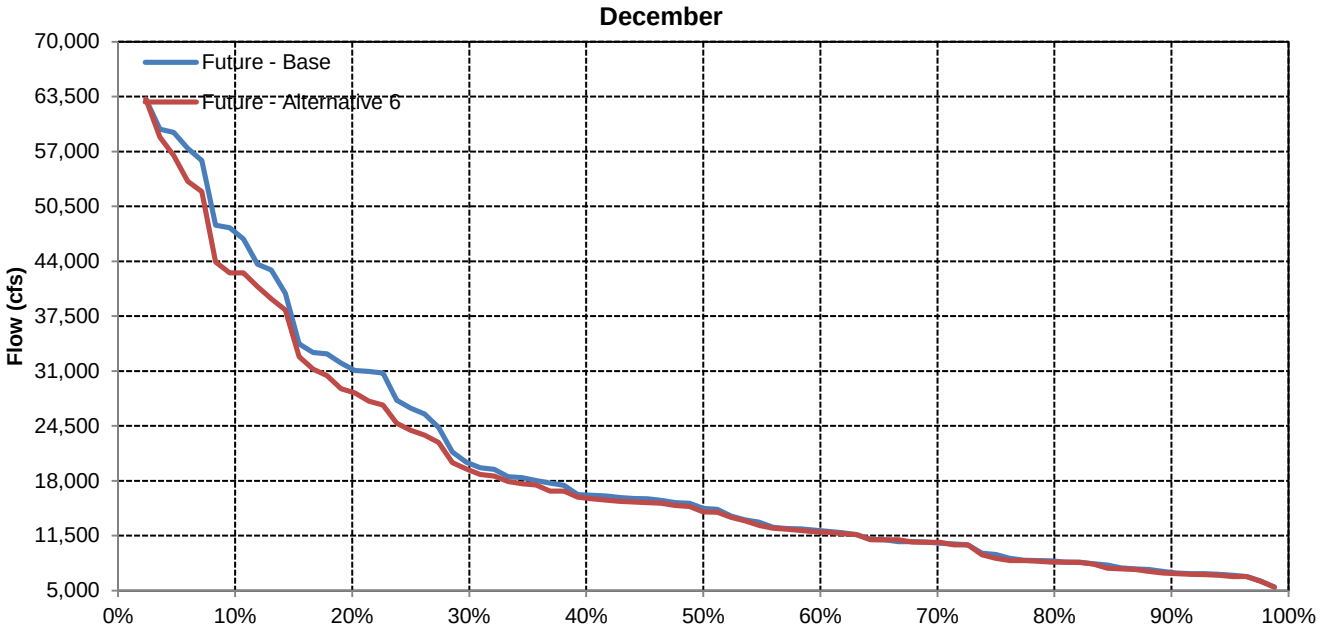
### October

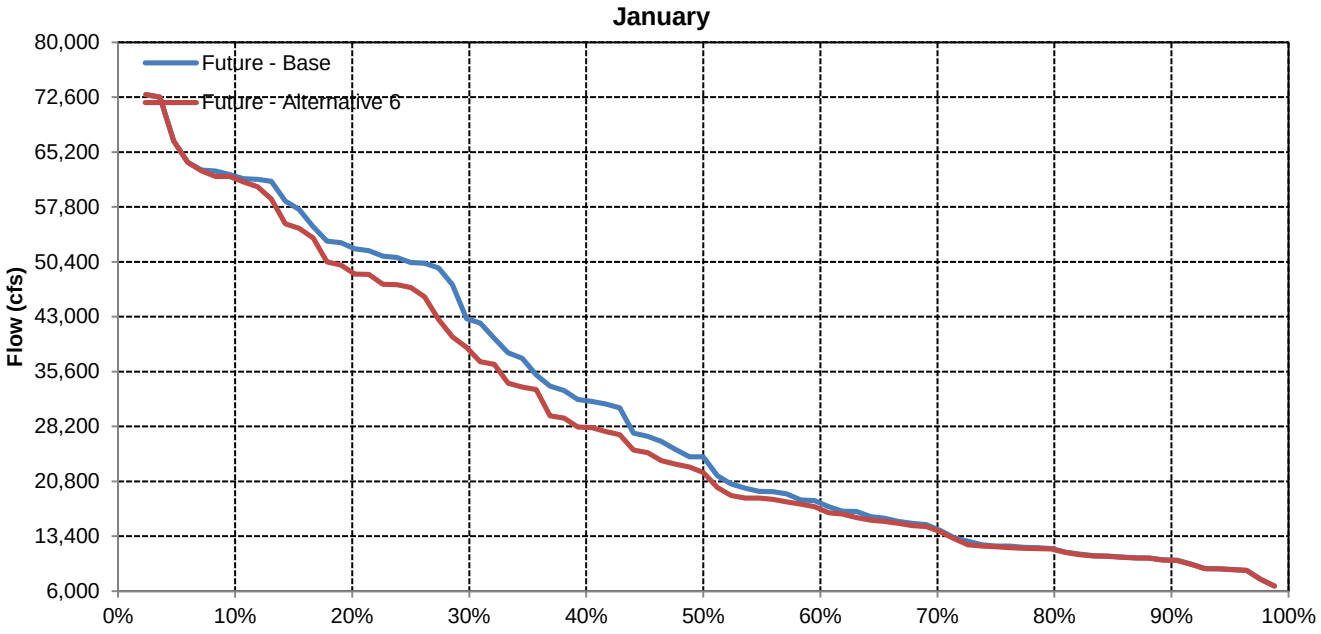



### November

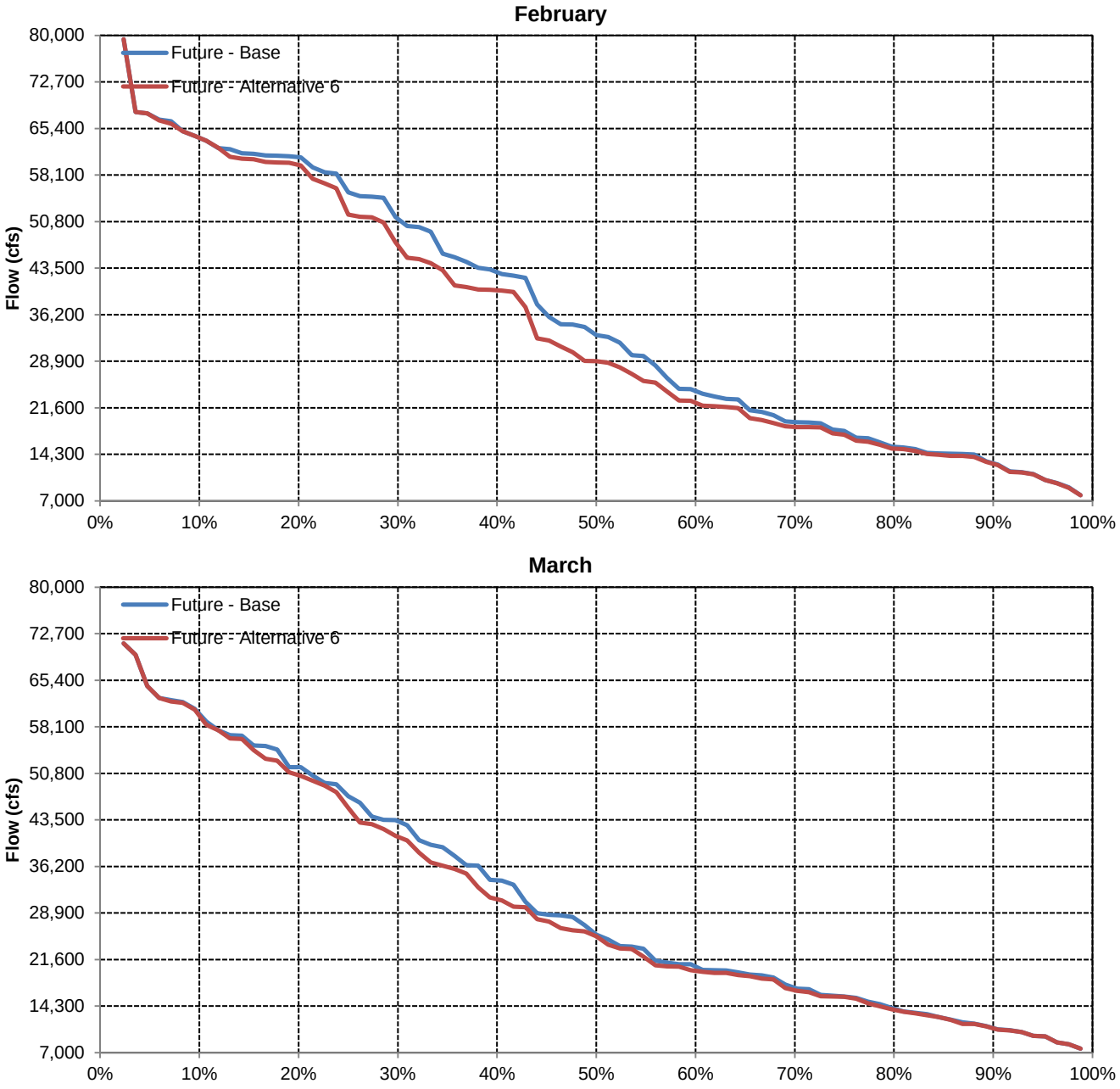


## Sacramento River below Fremont Weir

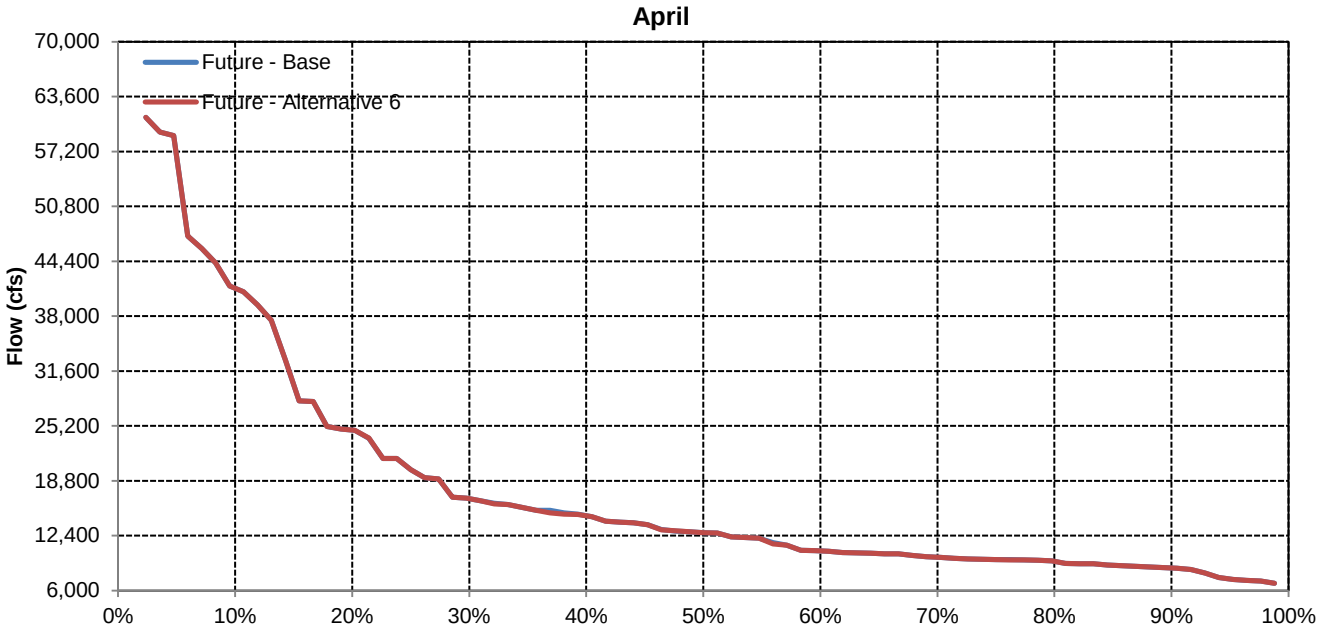


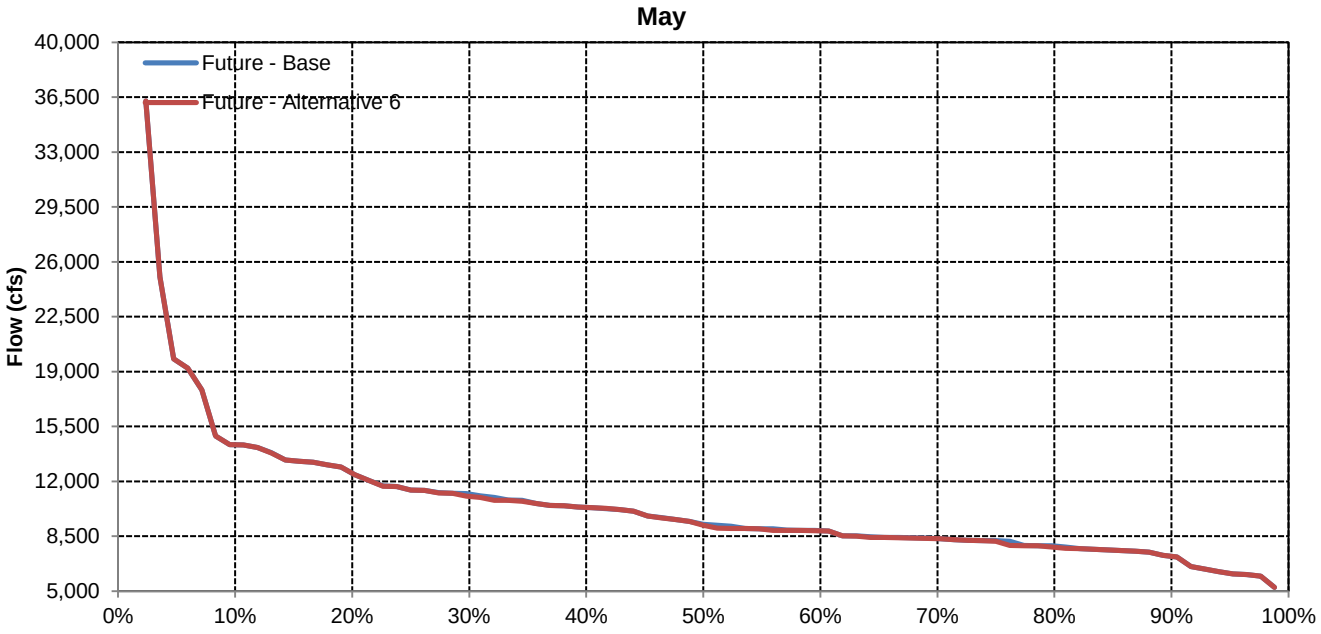



## Sacramento River below Fremont Weir

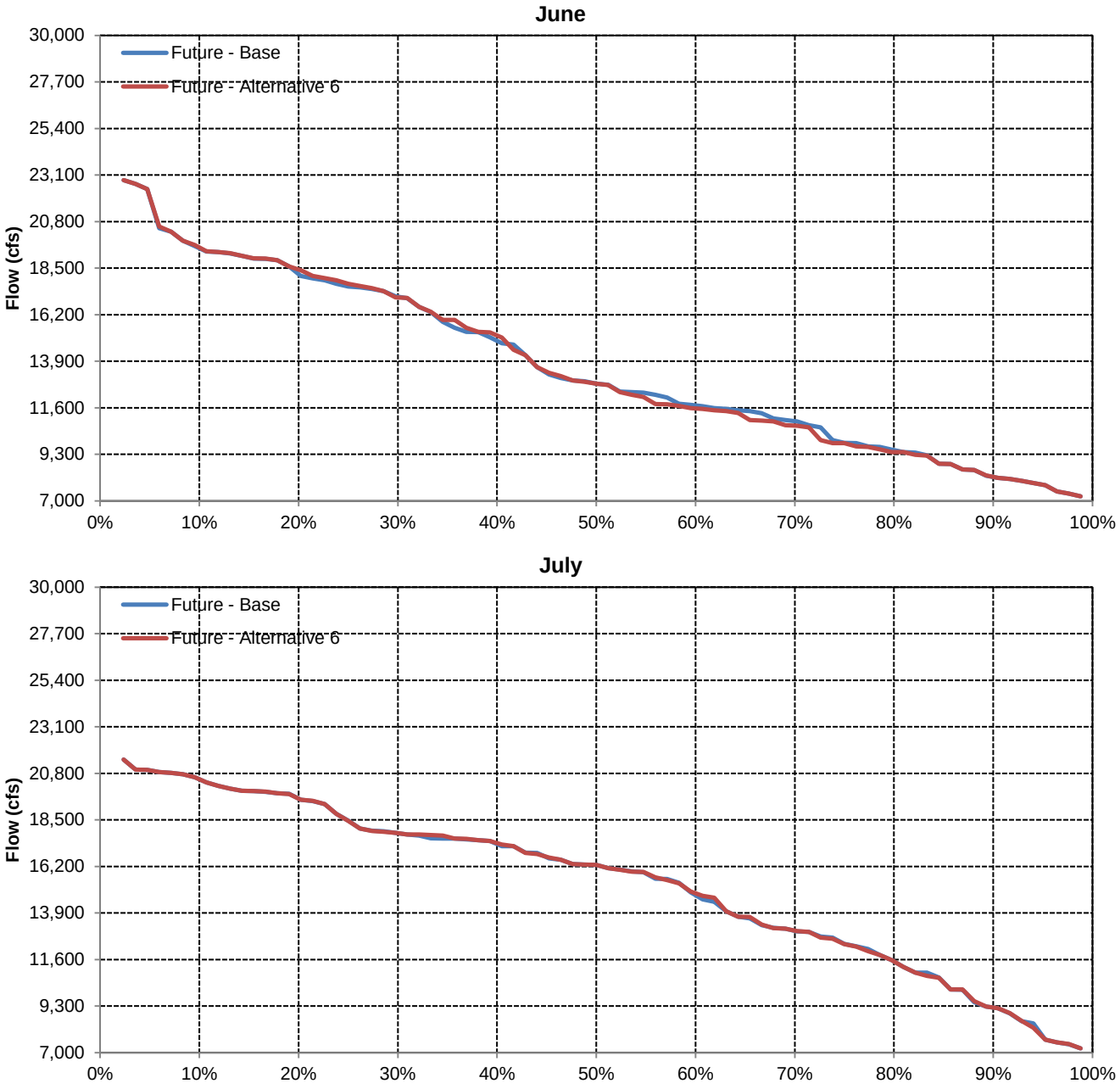


## Sacramento River below Fremont Weir



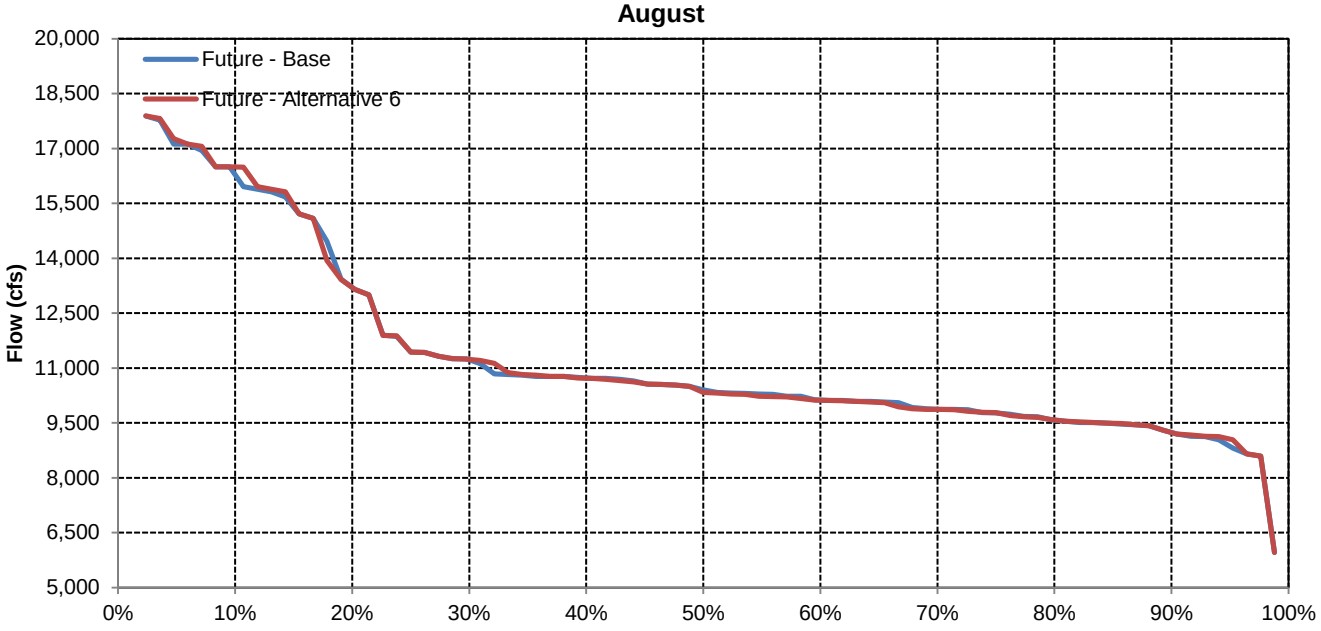



## Sacramento River below Fremont Weir

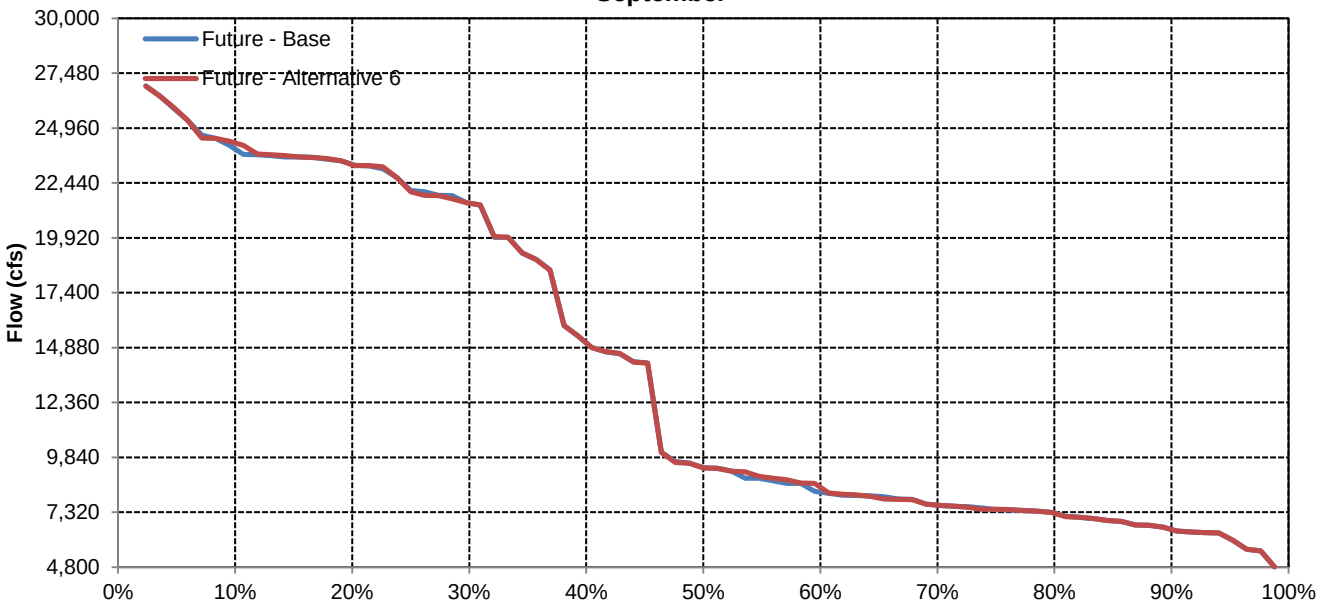


## Sacramento River below Fremont Weir

### August




### September



**Long-Term and Water Year-Type Average of Trinity Reservoir Under Future - Base and Future - Alternative 6**

| Analysis Period | October | November | December | January | February | March | April | May | June | July | August | September |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Average Storage (TAF) | | | | | | |
| | | | | | | Long-Term | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 1,111 | 1,121 | 1,232 | 1,403 | 1,575 | 1,712 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| Future - Alternative 6 | 1,112 | 1,123 | 1,234 | 1,405 | 1,577 | 1,713 | 1,828 | 1,703 | 1,583 | 1,422 | 1,273 | 1,161 |
| Difference | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | Water Year-Types | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 1,184 | 1,226 | 1,437 | 1,697 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Future - Alternative 6 | 1,186 | 1,227 | 1,438 | 1,697 | 1,907 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Difference | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,142 | 1,982 | 1,871 | 1,704 | 1,558 | 1,426 |
| Future - Alternative 6 | 1,185 | 1,170 | 1,282 | 1,568 | 1,820 | 1,995 | 2,148 | 1,988 | 1,877 | 1,711 | 1,564 | 1,433 |
| Difference | 2 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Percent Difference | 0% | 1% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 1,148 | 1,147 | 1,220 | 1,391 | 1,539 | 1,694 | 1,829 | 1,709 | 1,610 | 1,441 | 1,284 | 1,186 |
| Future - Alternative 6 | 1,147 | 1,148 | 1,221 | 1,392 | 1,539 | 1,695 | 1,830 | 1,710 | 1,611 | 1,442 | 1,285 | 1,189 |
| Difference | -1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 1,094 | 1,097 | 1,151 | 1,222 | 1,376 | 1,529 | 1,615 | 1,477 | 1,361 | 1,178 | 1,006 | 915 |
| Future - Alternative 6 | 1,094 | 1,097 | 1,151 | 1,221 | 1,375 | 1,528 | 1,614 | 1,476 | 1,360 | 1,176 | 1,004 | 914 |
| Difference | 0 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -2 | -2 | -2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 875 | 866 | 898 | 942 | 1,012 | 1,077 | 1,102 | 1,022 | 960 | 834 | 714 | 656 |
| Future - Alternative 6 | 880 | 870 | 901 | 945 | 1,015 | 1,081 | 1,106 | 1,027 | 963 | 837 | 720 | 659 |
| Difference | 5 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 7 | 3 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 0% |

**Trinity Reservoir**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,479 | 1,484 | 1,672 | 1,900 | 2,000 | 2,100 | 2,298 | 2,170 | 1,995 | 1,863 | 1,717 | 1,564 |
| 20% | 1,385 | 1,408 | 1,506 | 1,818 | 2,000 | 2,100 | 2,233 | 2,088 | 1,943 | 1,791 | 1,642 | 1,492 |
| 30% | 1,303 | 1,305 | 1,445 | 1,638 | 1,926 | 2,068 | 2,167 | 2,006 | 1,865 | 1,697 | 1,520 | 1,382 |
| 40% | 1,248 | 1,223 | 1,368 | 1,593 | 1,752 | 1,981 | 2,113 | 1,903 | 1,752 | 1,562 | 1,407 | 1,270 |
| 50% | 1,152 | 1,181 | 1,273 | 1,421 | 1,599 | 1,771 | 1,933 | 1,771 | 1,616 | 1,443 | 1,289 | 1,178 |
| 60% | 1,079 | 1,102 | 1,198 | 1,304 | 1,496 | 1,662 | 1,745 | 1,636 | 1,564 | 1,378 | 1,236 | 1,106 |
| 70% | 968 | 957 | 1,102 | 1,205 | 1,371 | 1,486 | 1,591 | 1,531 | 1,412 | 1,229 | 1,083 | 1,000 |
| 80% | 775 | 791 | 913 | 1,023 | 1,256 | 1,390 | 1,496 | 1,376 | 1,279 | 1,090 | 931 | 846 |
| 90% | 627 | 632 | 678 | 825 | 933 | 1,013 | 1,056 | 1,036 | 957 | 837 | 680 | 625 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,111 | 1,121 | 1,232 | 1,403 | 1,575 | 1,712 | 1,826 | 1,701 | 1,582 | 1,421 | 1,271 | 1,160 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,184 | 1,226 | 1,437 | 1,697 | 1,906 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Above Normal | 1,184 | 1,161 | 1,273 | 1,559 | 1,813 | 1,988 | 2,142 | 1,982 | 1,871 | 1,704 | 1,558 | 1,426 |
| Below Normal | 1,148 | 1,147 | 1,220 | 1,391 | 1,539 | 1,694 | 1,829 | 1,709 | 1,610 | 1,441 | 1,284 | 1,186 |
| Dry | 1,094 | 1,097 | 1,151 | 1,222 | 1,376 | 1,529 | 1,615 | 1,477 | 1,361 | 1,178 | 1,006 | 915 |
| Critical | 875 | 866 | 898 | 942 | 1,012 | 1,077 | 1,102 | 1,022 | 960 | 834 | 714 | 656 |

**Future - Alternative 6**

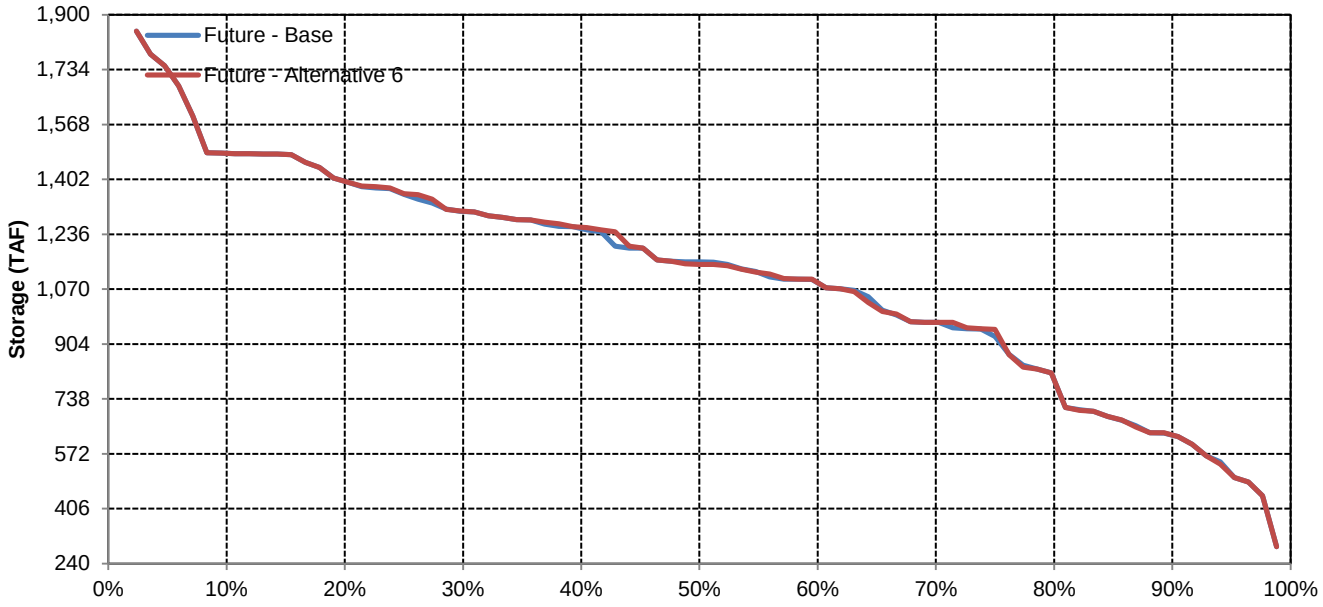
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,479 | 1,484 | 1,672 | 1,900 | 2,000 | 2,100 | 2,298 | 2,170 | 1,995 | 1,863 | 1,717 | 1,564 |
| 20% | 1,386 | 1,408 | 1,506 | 1,817 | 2,000 | 2,100 | 2,233 | 2,088 | 1,941 | 1,791 | 1,642 | 1,492 |
| 30% | 1,303 | 1,305 | 1,440 | 1,637 | 1,926 | 2,068 | 2,167 | 2,006 | 1,865 | 1,697 | 1,520 | 1,382 |
| 40% | 1,255 | 1,233 | 1,370 | 1,593 | 1,752 | 1,980 | 2,113 | 1,903 | 1,757 | 1,562 | 1,416 | 1,299 |
| 50% | 1,145 | 1,180 | 1,275 | 1,424 | 1,597 | 1,781 | 1,944 | 1,771 | 1,615 | 1,443 | 1,284 | 1,173 |
| 60% | 1,079 | 1,101 | 1,197 | 1,310 | 1,510 | 1,670 | 1,748 | 1,638 | 1,550 | 1,384 | 1,242 | 1,105 |
| 70% | 970 | 969 | 1,100 | 1,203 | 1,372 | 1,539 | 1,590 | 1,531 | 1,412 | 1,231 | 1,084 | 1,000 |
| 80% | 775 | 791 | 910 | 1,021 | 1,250 | 1,393 | 1,527 | 1,390 | 1,279 | 1,090 | 929 | 847 |
| 90% | 627 | 632 | 679 | 847 | 934 | 1,013 | 1,057 | 1,037 | 957 | 837 | 677 | 625 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,112 | 1,123 | 1,234 | 1,405 | 1,577 | 1,713 | 1,828 | 1,703 | 1,583 | 1,422 | 1,273 | 1,161 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,186 | 1,227 | 1,438 | 1,697 | 1,907 | 2,037 | 2,189 | 2,064 | 1,903 | 1,750 | 1,604 | 1,455 |
| Above Normal | 1,185 | 1,170 | 1,282 | 1,568 | 1,820 | 1,995 | 2,148 | 1,988 | 1,877 | 1,711 | 1,564 | 1,433 |
| Below Normal | 1,147 | 1,148 | 1,221 | 1,392 | 1,539 | 1,695 | 1,830 | 1,710 | 1,611 | 1,442 | 1,285 | 1,189 |
| Dry | 1,094 | 1,097 | 1,151 | 1,221 | 1,375 | 1,528 | 1,614 | 1,476 | 1,360 | 1,176 | 1,004 | 914 |
| Critical | 880 | 870 | 901 | 945 | 1,015 | 1,081 | 1,106 | 1,027 | 963 | 837 | 720 | 659 |

**Future - Alternative 6 Minus Future - Base**

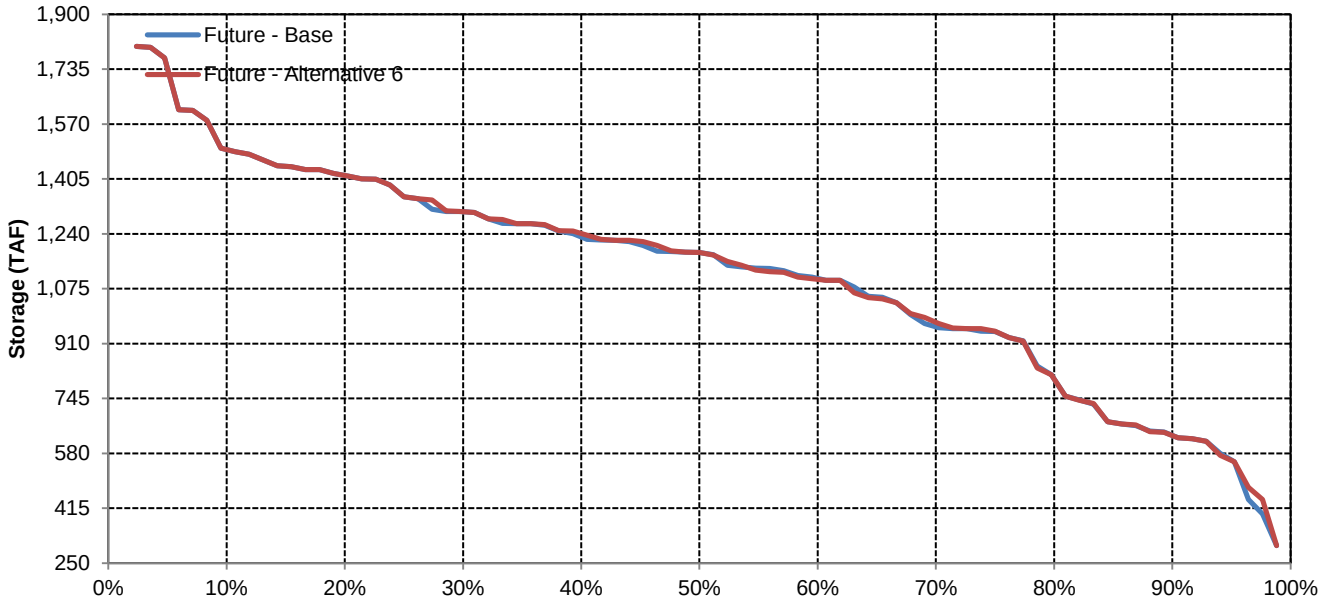
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20% | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | 0 |
| 30% | 0 | 0 | -5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 40% | 6 | 10 | 2 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 9 | 28 |
| 50% | -7 | -1 | 2 | 3 | -2 | 11 | 11 | 0 | -1 | 0 | -5 | -6 |
| 60% | 0 | -1 | -1 | 5 | 14 | 8 | 3 | 1 | -14 | 6 | 6 | -1 |
| 70% | 2 | 12 | -2 | -1 | 1 | 53 | 0 | 0 | 0 | 2 | 2 | 0 |
| 80% | 0 | 0 | -2 | -2 | -6 | 3 | 31 | 14 | 0 | 0 | -2 | 1 |
| 90% | 0 | 0 | 1 | 23 | 0 | 0 | 1 | 1 | 0 | 0 | -3 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal | 2 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Below Normal | -1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 |
| Dry | 0 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -2 | -2 | -2 |
| Critical | 5 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 7 | 3 |

## Trinity Reservoir

### October

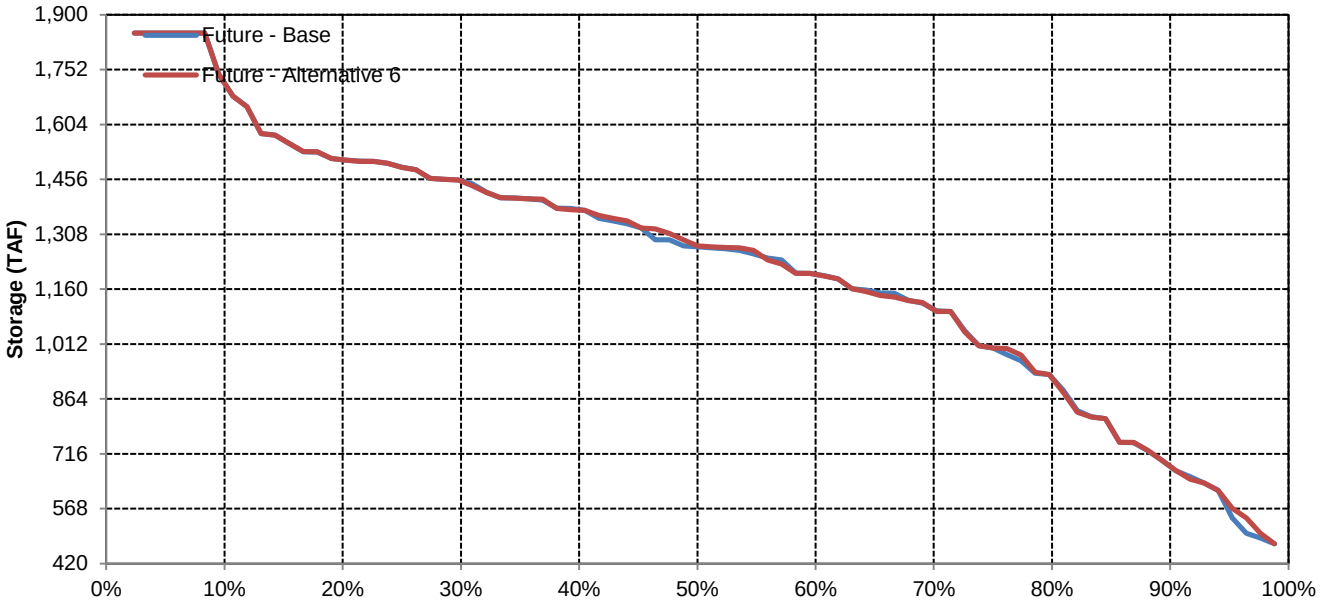



### November

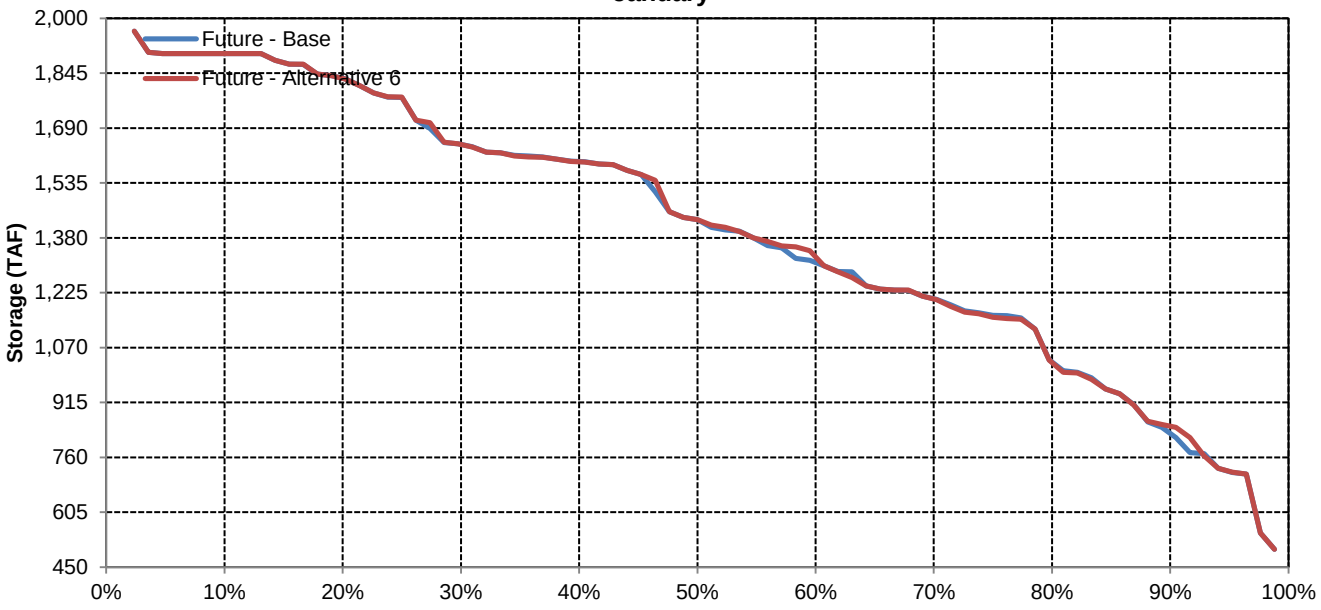


## Trinity Reservoir

### December

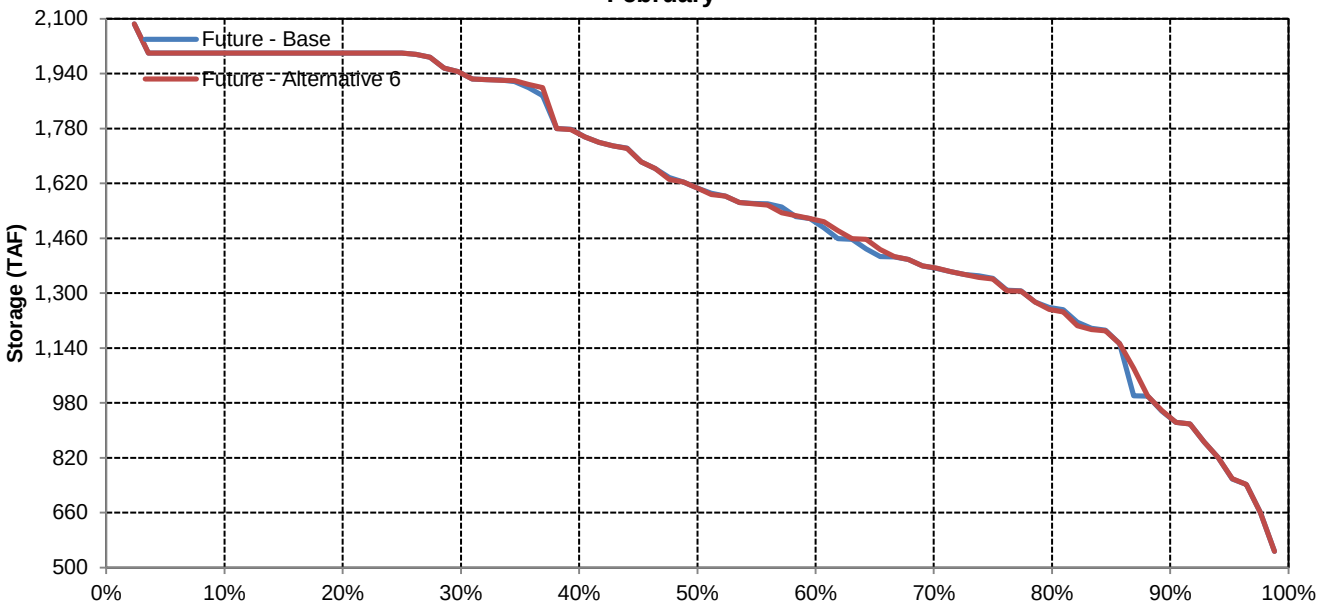



### January

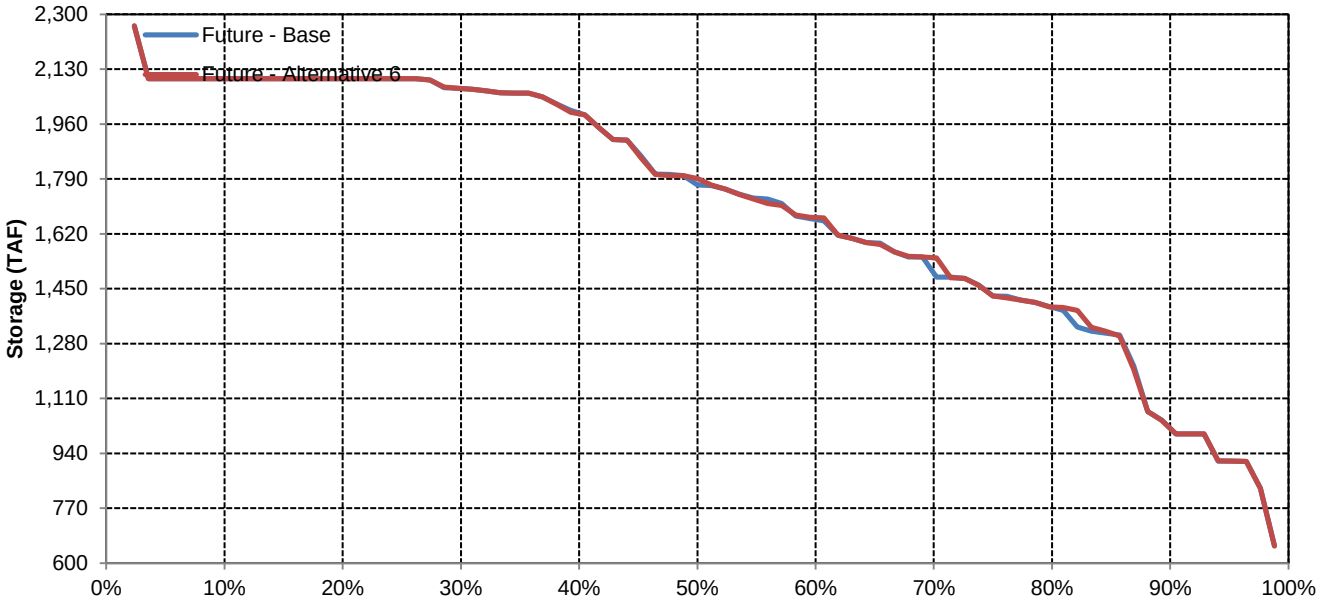


## Trinity Reservoir

### February

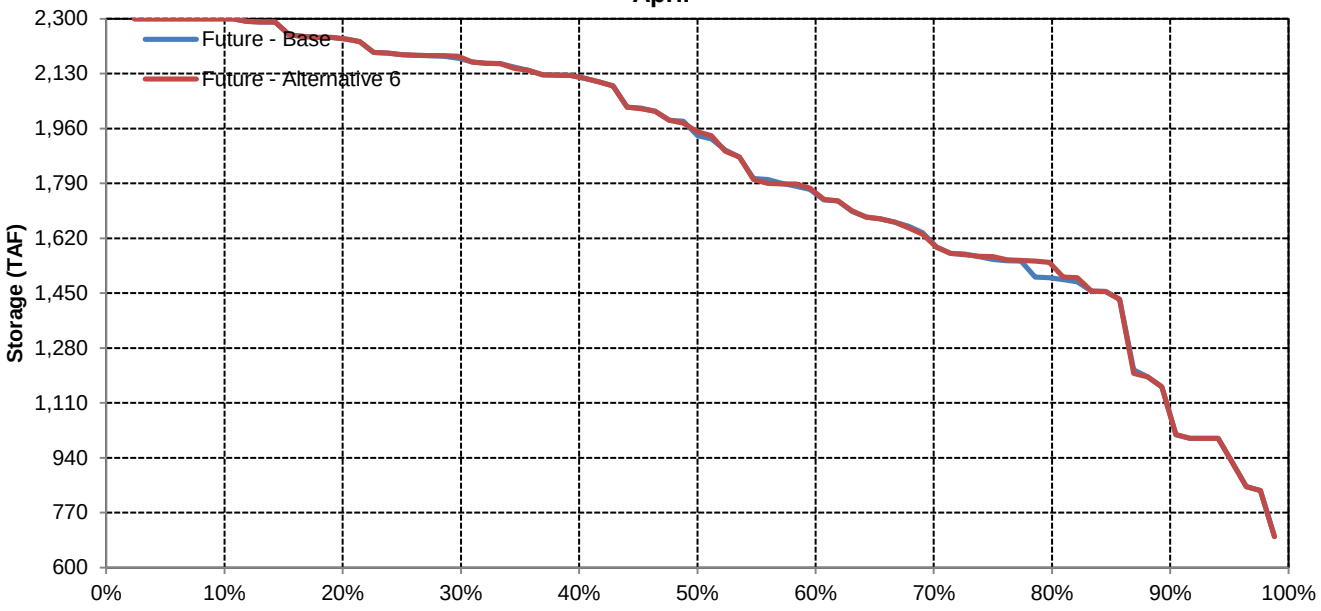



### March

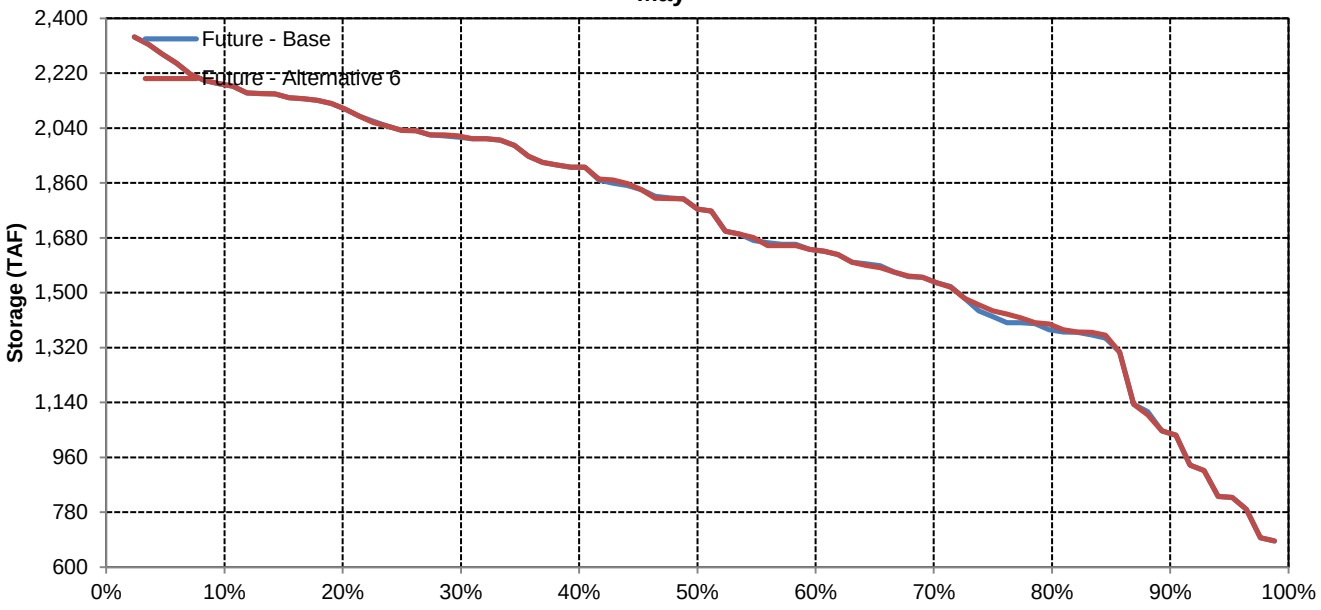


## Trinity Reservoir

### April

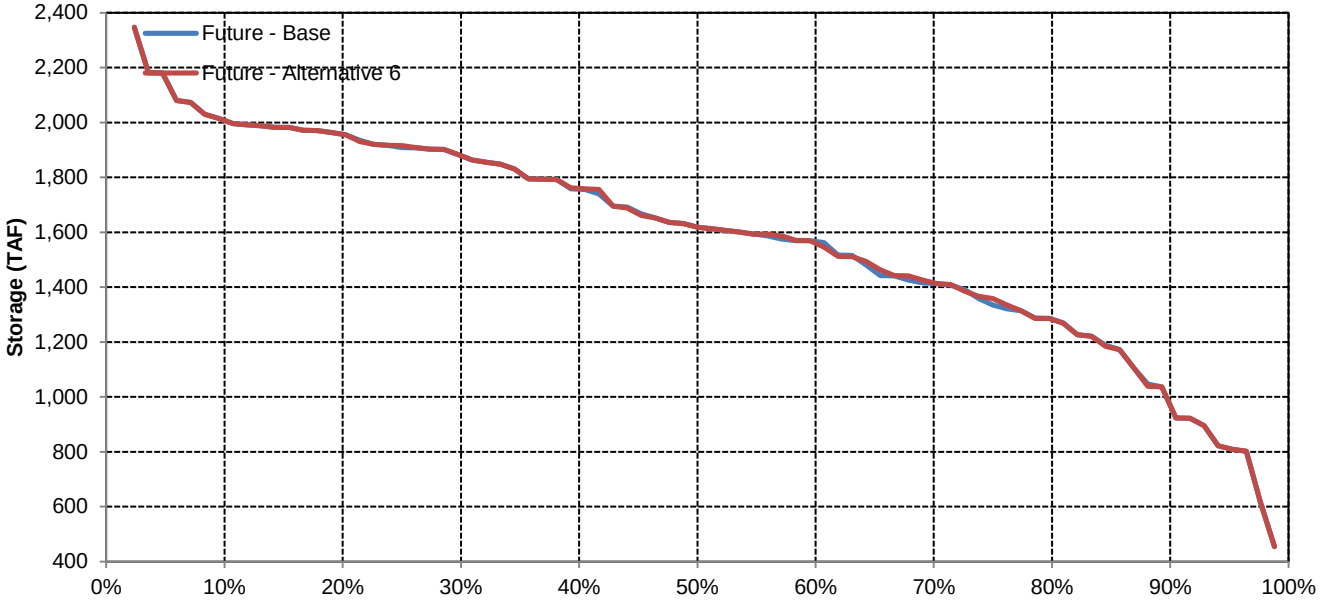



### May

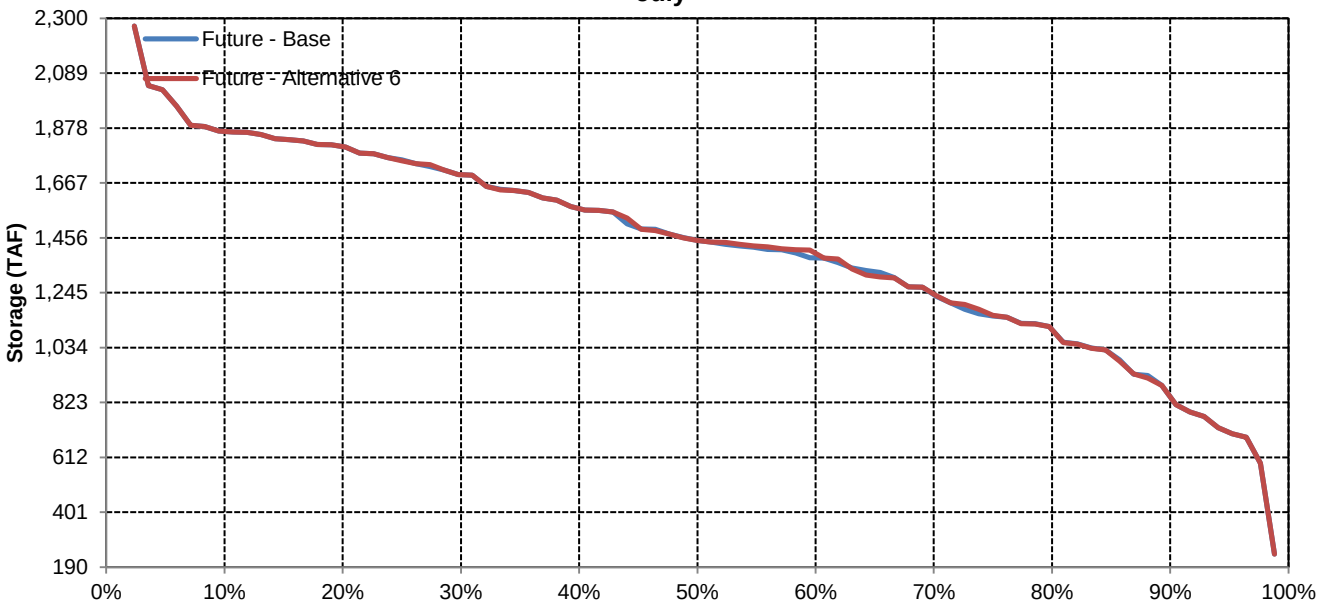


## Trinity Reservoir

### June

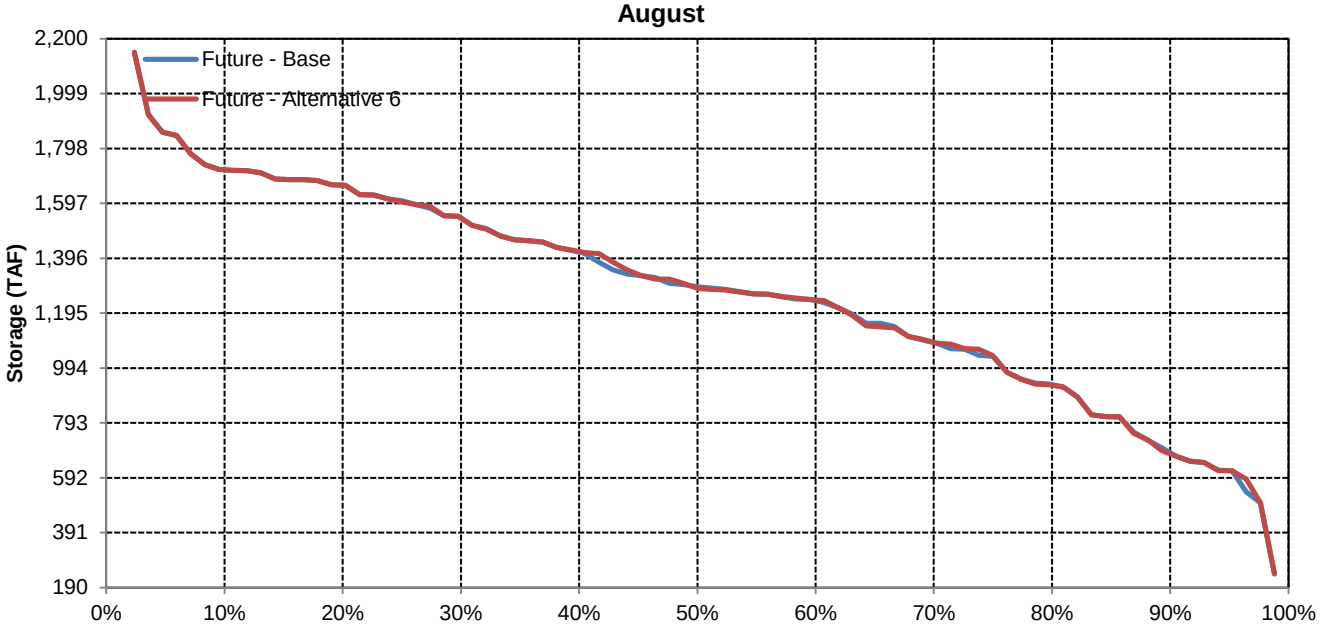



### July

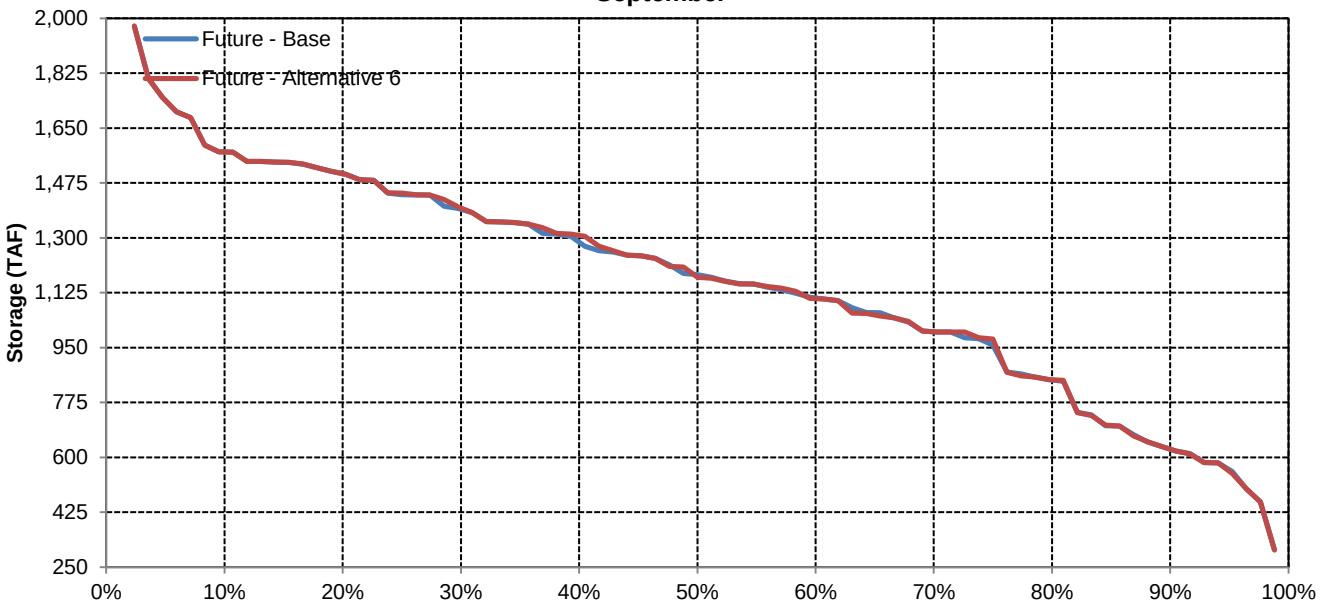


## Trinity Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Shasta Reservoir Storage Under Future - Base and Future - Alternative 6**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 2,225 | 2,278 | 2,586 | 2,961 | 3,277 | 3,633 | 3,825 | 3,712 | 3,230 | 2,717 | 2,459 | 2,291 |
| Future - Alternative 6 | 2,224 | 2,277 | 2,587 | 2,960 | 3,277 | 3,633 | 3,825 | 3,713 | 3,231 | 2,718 | 2,461 | 2,291 |
| Difference | -1 | -1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 2 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 2,396 | 2,480 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,242 | 2,994 | 2,526 |
| Future - Alternative 6 | 2,395 | 2,480 | 2,990 | 3,394 | 3,578 | 3,842 | 4,229 | 4,237 | 3,805 | 3,243 | 2,996 | 2,527 |
| Difference | -1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 2,332 | 2,398 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,287 | 3,779 | 3,188 | 2,931 | 2,693 |
| Future - Alternative 6 | 2,327 | 2,392 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,288 | 3,780 | 3,188 | 2,932 | 2,693 |
| Difference | -4 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 2,275 | 2,333 | 2,490 | 3,019 | 3,412 | 3,836 | 4,073 | 3,949 | 3,396 | 2,900 | 2,674 | 2,743 |
| Future - Alternative 6 | 2,278 | 2,336 | 2,492 | 3,020 | 3,414 | 3,838 | 4,074 | 3,950 | 3,397 | 2,900 | 2,677 | 2,742 |
| Difference | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | -1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 2,104 | 2,169 | 2,417 | 2,659 | 3,189 | 3,593 | 3,618 | 3,403 | 2,899 | 2,449 | 2,182 | 2,205 |
| Future - Alternative 6 | 2,100 | 2,166 | 2,414 | 2,656 | 3,186 | 3,590 | 3,616 | 3,402 | 2,899 | 2,447 | 2,181 | 2,203 |
| Difference | -4 | -3 | -3 | -3 | -3 | -2 | -2 | -2 | -1 | -2 | -2 | -2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 1,906 | 1,851 | 1,965 | 2,171 | 2,385 | 2,631 | 2,519 | 2,310 | 1,855 | 1,394 | 1,094 | 1,067 |
| Future - Alternative 6 | 1,905 | 1,852 | 1,968 | 2,175 | 2,389 | 2,635 | 2,523 | 2,315 | 1,862 | 1,403 | 1,101 | 1,074 |
| Difference | 0 | 1 | 3 | 3 | 3 | 4 | 4 | 5 | 7 | 9 | 7 | 7 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 1% | 1% |

**Shasta Reservoir Storage**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 3,037 | 3,187 | 3,321 | 3,635 | 3,916 | 4,241 | 4,482 | 4,552 | 4,171 | 3,512 | 3,194 | 2,972 |
| 20% | 2,810 | 2,927 | 3,266 | 3,539 | 3,777 | 4,102 | 4,372 | 4,324 | 3,882 | 3,302 | 3,029 | 2,858 |
| 30% | 2,671 | 2,735 | 3,191 | 3,403 | 3,662 | 4,022 | 4,251 | 4,224 | 3,719 | 3,170 | 2,942 | 2,679 |
| 40% | 2,416 | 2,533 | 2,985 | 3,335 | 3,537 | 3,963 | 4,176 | 4,142 | 3,568 | 3,039 | 2,823 | 2,536 |
| 50% | 2,317 | 2,324 | 2,754 | 3,252 | 3,445 | 3,839 | 4,109 | 3,953 | 3,350 | 2,880 | 2,669 | 2,439 |
| 60% | 2,245 | 2,200 | 2,545 | 2,973 | 3,289 | 3,597 | 4,009 | 3,839 | 3,203 | 2,755 | 2,499 | 2,338 |
| 70% | 2,020 | 2,057 | 2,269 | 2,767 | 3,252 | 3,417 | 3,756 | 3,608 | 3,154 | 2,594 | 2,360 | 2,110 |
| 80% | 1,757 | 1,817 | 2,045 | 2,429 | 2,913 | 3,266 | 3,216 | 2,997 | 2,618 | 2,141 | 1,806 | 1,824 |
| 90% | 884 | 1,011 | 1,336 | 1,917 | 2,378 | 2,633 | 2,534 | 2,407 | 1,951 | 1,420 | 978 | 956 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,225 | 2,278 | 2,586 | 2,961 | 3,277 | 3,633 | 3,825 | 3,712 | 3,230 | 2,717 | 2,459 | 2,291 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,396 | 2,480 | 2,989 | 3,394 | 3,578 | 3,842 | 4,228 | 4,235 | 3,803 | 3,242 | 2,994 | 2,526 |
| Above Normal | 2,332 | 2,398 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,287 | 3,779 | 3,188 | 2,931 | 2,693 |
| Below Normal | 2,275 | 2,333 | 2,490 | 3,019 | 3,412 | 3,836 | 4,073 | 3,949 | 3,396 | 2,900 | 2,674 | 2,743 |
| Dry | 2,104 | 2,169 | 2,417 | 2,659 | 3,189 | 3,593 | 3,618 | 3,403 | 2,899 | 2,449 | 2,182 | 2,205 |
| Critical | 1,906 | 1,851 | 1,965 | 2,171 | 2,385 | 2,631 | 2,519 | 2,310 | 1,855 | 1,394 | 1,094 | 1,067 |

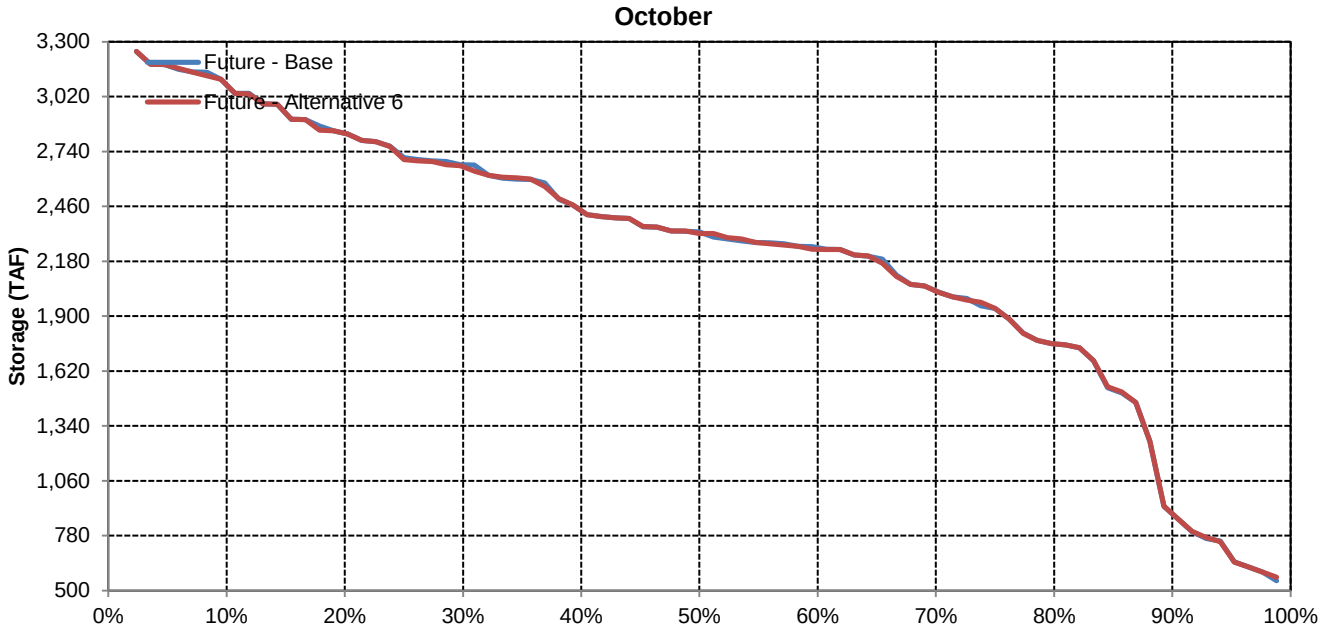
**Future - Alternative 6**

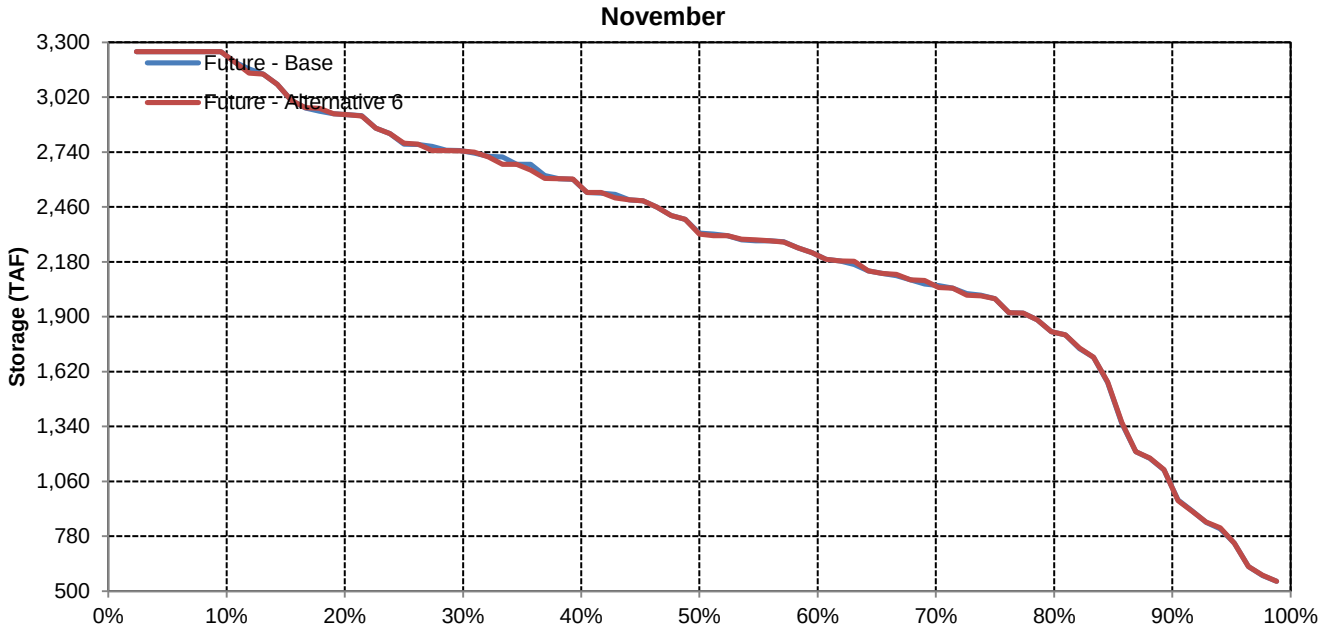
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 3,036 | 3,181 | 3,321 | 3,634 | 3,916 | 4,241 | 4,487 | 4,552 | 4,171 | 3,509 | 3,224 | 2,973 |
| 20% | 2,810 | 2,927 | 3,266 | 3,539 | 3,777 | 4,102 | 4,370 | 4,320 | 3,882 | 3,303 | 3,036 | 2,858 |
| 30% | 2,642 | 2,740 | 3,204 | 3,403 | 3,662 | 4,012 | 4,251 | 4,224 | 3,720 | 3,171 | 2,942 | 2,679 |
| 40% | 2,416 | 2,534 | 2,981 | 3,335 | 3,529 | 3,965 | 4,176 | 4,143 | 3,568 | 3,021 | 2,820 | 2,544 |
| 50% | 2,321 | 2,317 | 2,754 | 3,252 | 3,445 | 3,839 | 4,110 | 3,953 | 3,352 | 2,881 | 2,669 | 2,439 |
| 60% | 2,240 | 2,200 | 2,546 | 2,973 | 3,283 | 3,601 | 4,009 | 3,836 | 3,203 | 2,755 | 2,502 | 2,338 |
| 70% | 2,019 | 2,049 | 2,270 | 2,764 | 3,252 | 3,417 | 3,771 | 3,614 | 3,158 | 2,596 | 2,356 | 2,126 |
| 80% | 1,757 | 1,817 | 2,037 | 2,429 | 2,913 | 3,258 | 3,216 | 2,992 | 2,613 | 2,141 | 1,806 | 1,823 |
| 90% | 885 | 1,009 | 1,338 | 1,921 | 2,378 | 2,627 | 2,530 | 2,410 | 1,953 | 1,423 | 979 | 957 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 2,224 | 2,277 | 2,587 | 2,960 | 3,277 | 3,633 | 3,825 | 3,713 | 3,231 | 2,718 | 2,461 | 2,291 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 2,395 | 2,480 | 2,990 | 3,394 | 3,578 | 3,842 | 4,229 | 4,237 | 3,805 | 3,243 | 2,996 | 2,527 |
| Above Normal | 2,327 | 2,392 | 2,734 | 3,276 | 3,538 | 4,067 | 4,380 | 4,288 | 3,780 | 3,188 | 2,932 | 2,693 |
| Below Normal | 2,278 | 2,336 | 2,492 | 3,020 | 3,414 | 3,838 | 4,074 | 3,950 | 3,397 | 2,900 | 2,677 | 2,742 |
| Dry | 2,100 | 2,166 | 2,414 | 2,656 | 3,186 | 3,590 | 3,616 | 3,402 | 2,899 | 2,447 | 2,181 | 2,203 |
| Critical | 1,905 | 1,852 | 1,968 | 2,175 | 2,389 | 2,635 | 2,523 | 2,315 | 1,862 | 1,403 | 1,101 | 1,074 |

**Future - Alternative 6 Minus Future - Base**

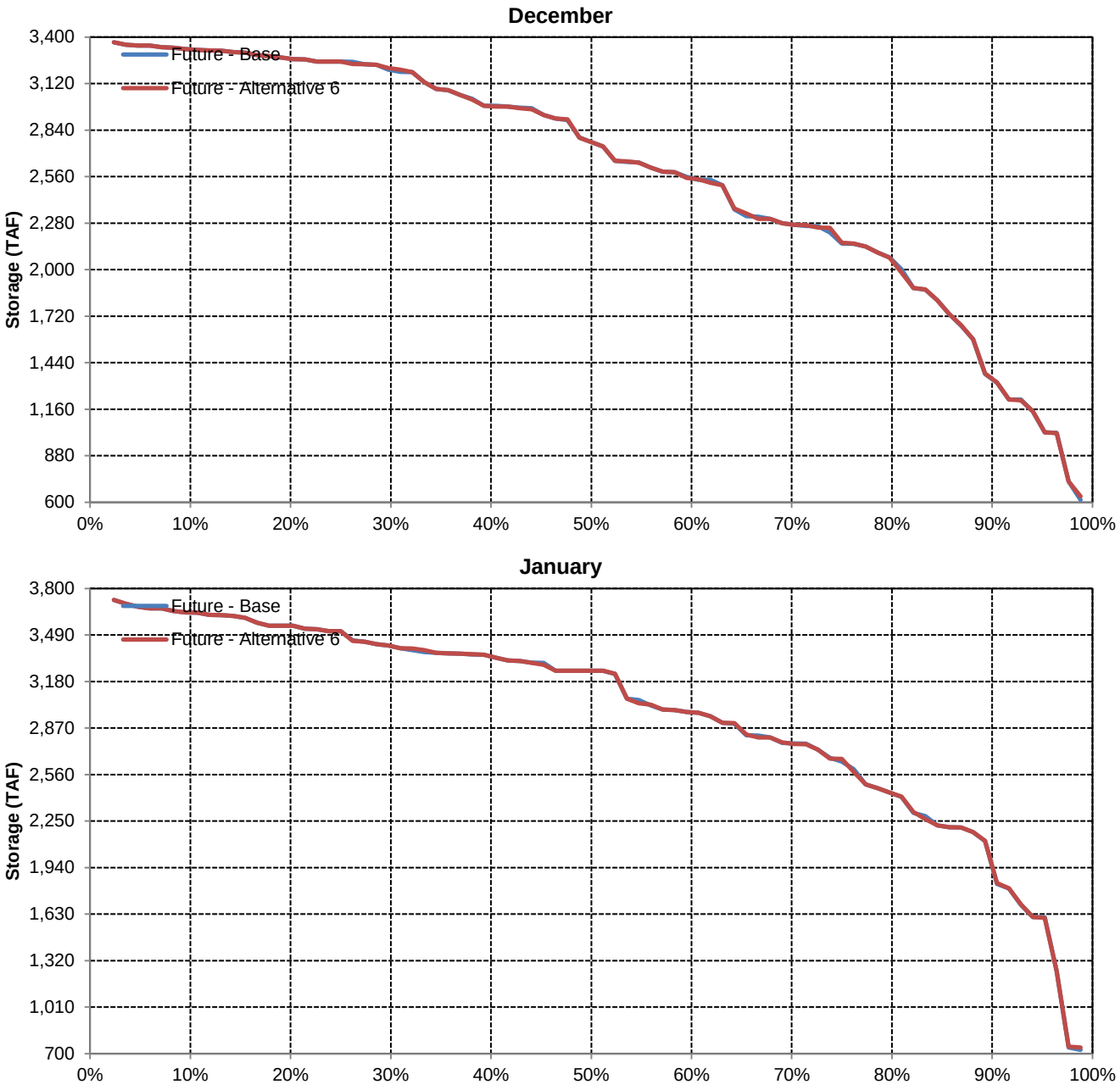
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | -1 | -6 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | -3 | 30 | 1 |
| 20% | 0 | -1 | 0 | 0 | 0 | 0 | -3 | -4 | 0 | 0 | 7 | 0 |
| 30% | -29 | 4 | 13 | 0 | 0 | -11 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40% | 0 | 1 | -4 | 0 | -8 | 2 | 0 | 0 | 0 | -18 | -2 | 9 |
| 50% | 4 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 60% | -4 | 0 | 2 | 0 | -6 | 4 | 0 | -2 | 0 | 0 | 3 | 0 |
| 70% | -2 | -8 | 1 | -3 | 0 | 0 | 14 | 6 | 4 | 1 | -3 | 17 |
| 80% | 0 | 0 | -8 | 0 | -1 | -8 | -1 | -5 | -5 | -1 | 0 | -1 |
| 90% | 0 | -2 | 3 | 4 | -1 | -5 | -4 | 2 | 2 | 3 | 1 | 1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 2 | 1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | -1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 2 | 1 |
| Above Normal | -4 | -6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | -1 |
| Dry | -4 | -3 | -3 | -3 | -3 | -2 | -2 | -2 | -1 | -2 | -2 | -2 |
| Critical | 0 | 1 | 3 | 3 | 3 | 4 | 4 | 5 | 7 | 9 | 7 | 7 |

## Shasta Reservoir Storage

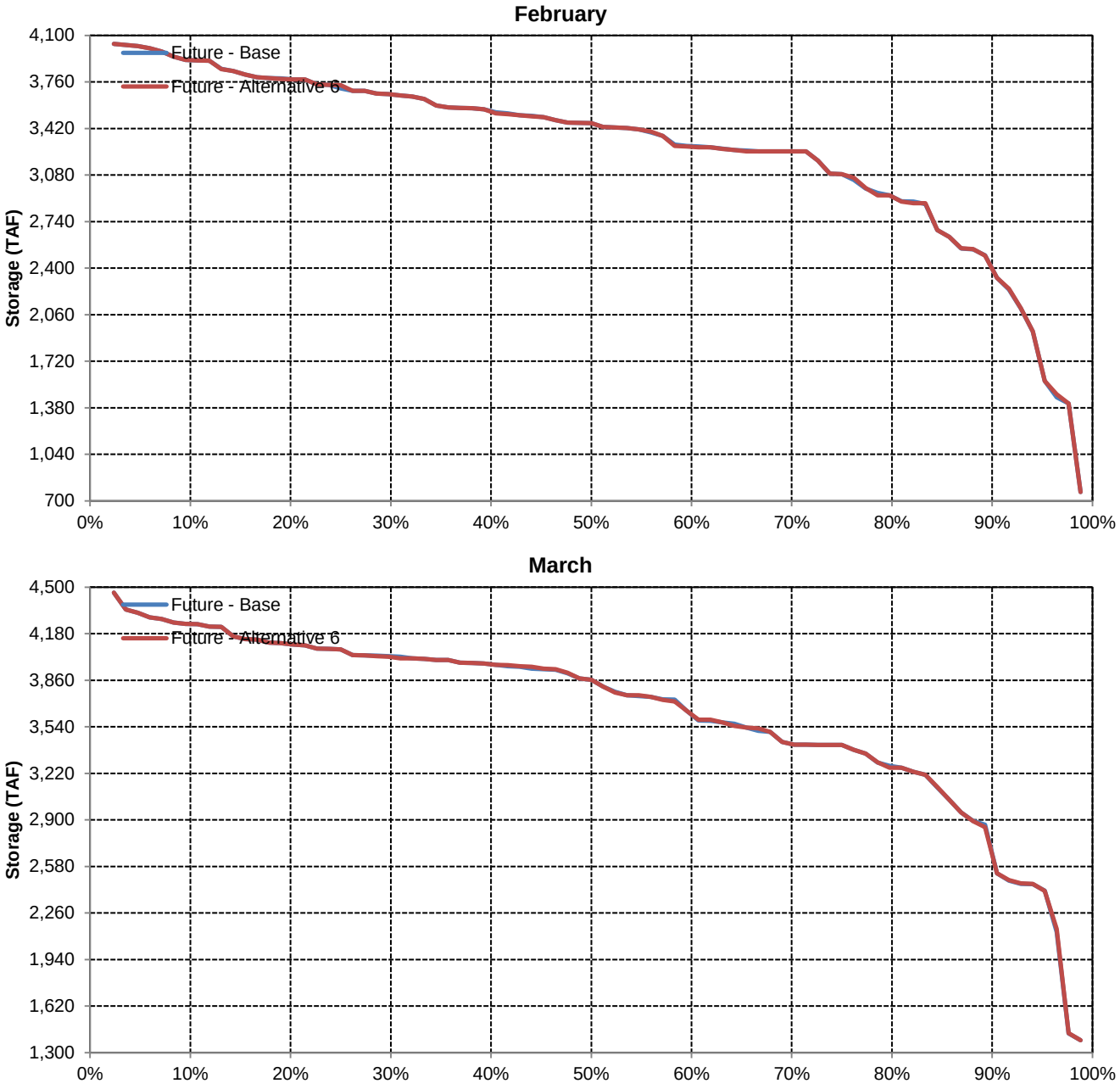


## Shasta Reservoir Storage

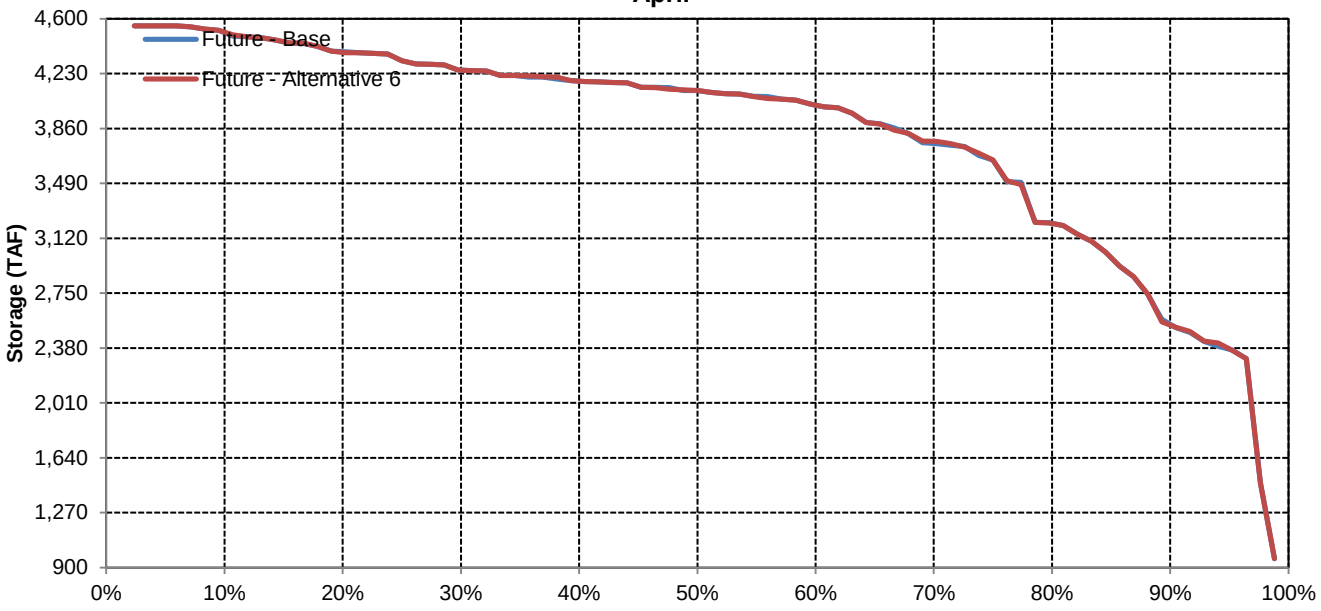


## Shasta Reservoir Storage

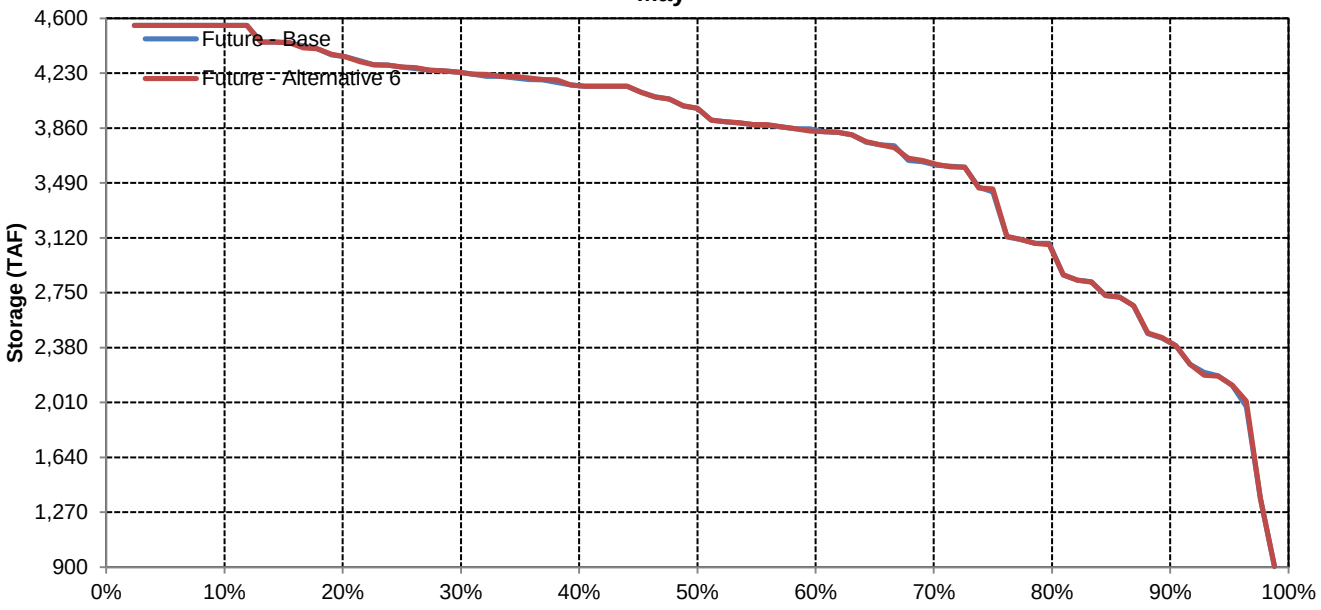


## Shasta Reservoir Storage

### April

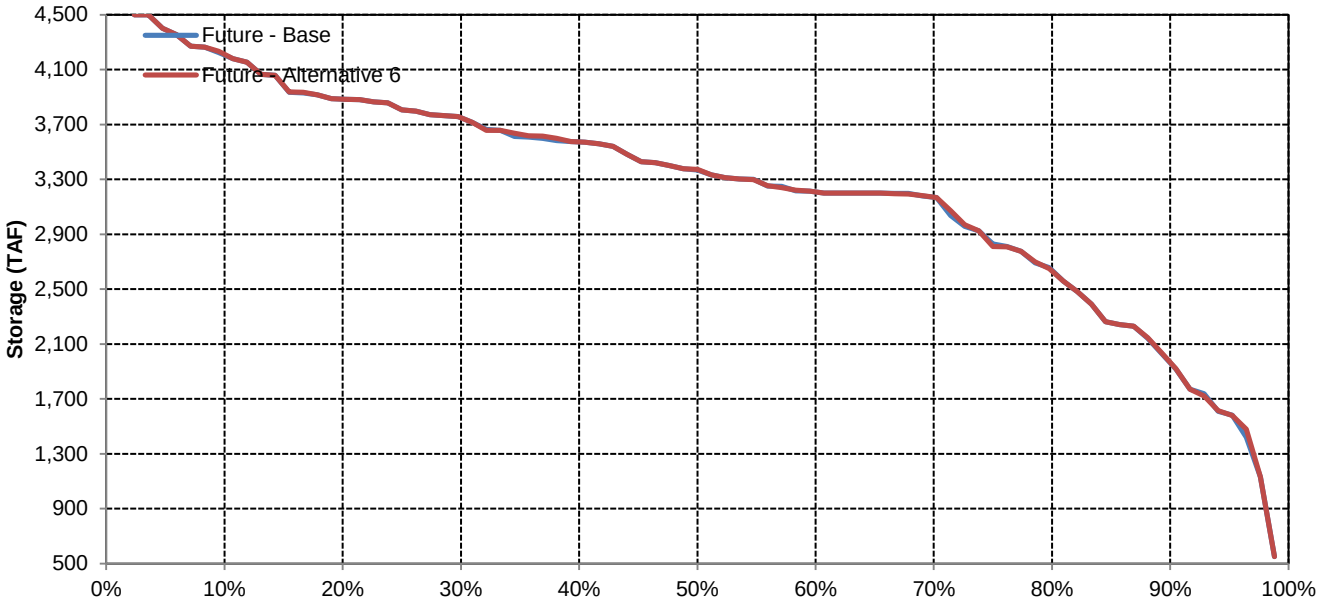



### May

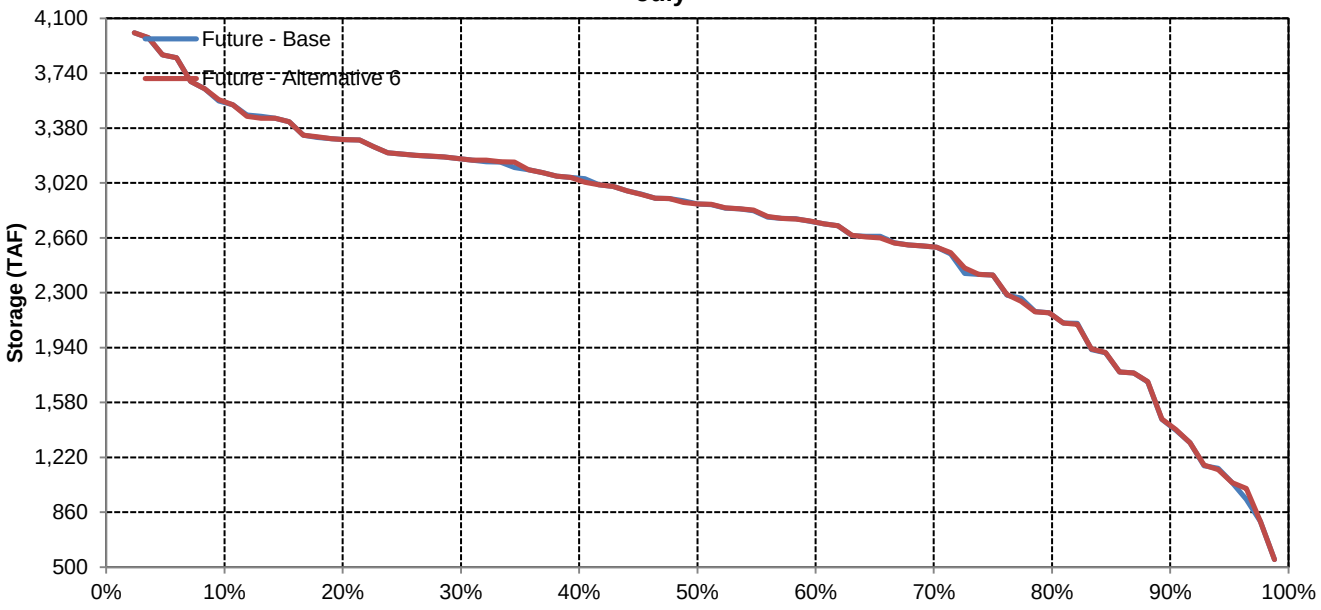


## Shasta Reservoir Storage

### June

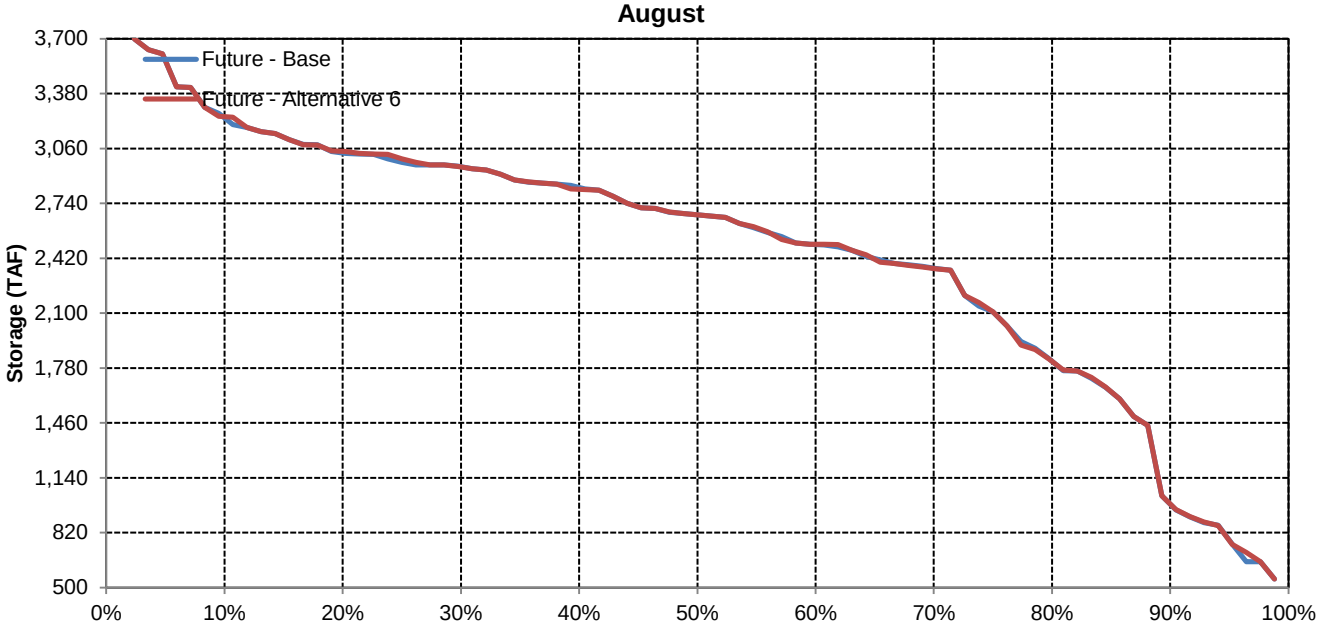



### July

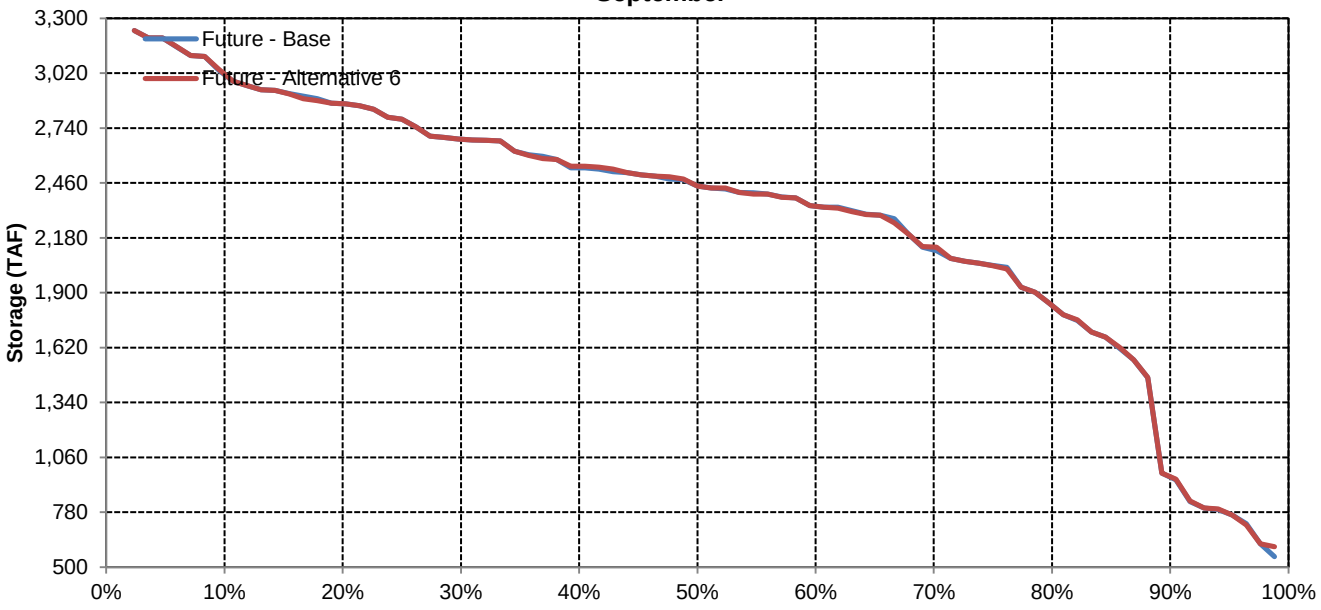


## Shasta Reservoir Storage

### August




### September



**Long-Term and Water Year-Type Average of Oroville Reservoir Under Future - Base and Future - Alternative 6**

| Analysis Period | October | November | December | January | February | March | April | May | June | July | August | September |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Average Storage (TAF) | | | | | | |
| | | | | | | Long-Term | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 1,244 | 1,285 | 1,585 | 1,975 | 2,295 | 2,515 | 2,665 | 2,627 | 2,322 | 1,842 | 1,548 | 1,355 |
| Future - Alternative 6 | 1,247 | 1,288 | 1,587 | 1,978 | 2,297 | 2,517 | 2,667 | 2,629 | 2,326 | 1,846 | 1,550 | 1,358 |
| Difference | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 2 | 3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | Water Year-Types | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 1,339 | 1,496 | 2,168 | 2,719 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,389 | 2,023 | 1,633 |
| Future - Alternative 6 | 1,342 | 1,501 | 2,171 | 2,720 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,390 | 2,026 | 1,636 |
| Difference | 4 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 1,447 | 1,447 | 1,640 | 2,269 | 2,768 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,539 |
| Future - Alternative 6 | 1,452 | 1,449 | 1,647 | 2,273 | 2,769 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,540 |
| Difference | 5 | 2 | 7 | 4 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 1,249 | 1,221 | 1,348 | 1,711 | 2,121 | 2,564 | 2,712 | 2,662 | 2,276 | 1,745 | 1,468 | 1,397 |
| Future - Alternative 6 | 1,252 | 1,222 | 1,349 | 1,713 | 2,124 | 2,566 | 2,714 | 2,668 | 2,292 | 1,761 | 1,473 | 1,402 |
| Difference | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 6 | 16 | 16 | 6 | 5 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 1% | 0% | 0% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 1,100 | 1,111 | 1,253 | 1,469 | 1,902 | 2,247 | 2,284 | 2,176 | 1,845 | 1,457 | 1,207 | 1,161 |
| Future - Alternative 6 | 1,102 | 1,114 | 1,253 | 1,472 | 1,905 | 2,248 | 2,286 | 2,177 | 1,844 | 1,456 | 1,206 | 1,162 |
| Difference | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | -1 | -1 | -1 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 1,087 | 1,038 | 1,079 | 1,222 | 1,410 | 1,580 | 1,555 | 1,479 | 1,306 | 1,102 | 916 | 863 |
| Future - Alternative 6 | 1,086 | 1,037 | 1,081 | 1,227 | 1,416 | 1,586 | 1,561 | 1,484 | 1,319 | 1,111 | 916 | 869 |
| Difference | 0 | 0 | 2 | 5 | 5 | 5 | 5 | 6 | 13 | 9 | 0 | 6 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 1% | 0% | 1% |

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,636 | 1,973 | 2,788 | 2,854 | 2,994 | 3,059 | 3,347 | 3,446 | 3,357 | 2,744 | 2,228 | 1,836 |
| 20% | 1,502 | 1,552 | 2,259 | 2,788 | 2,856 | 2,991 | 3,237 | 3,254 | 3,034 | 2,401 | 2,003 | 1,666 |
| 30% | 1,413 | 1,392 | 1,723 | 2,787 | 2,788 | 2,938 | 3,180 | 3,142 | 2,680 | 2,176 | 1,819 | 1,572 |
| 40% | 1,252 | 1,284 | 1,473 | 2,185 | 2,788 | 2,833 | 3,081 | 3,034 | 2,528 | 1,958 | 1,679 | 1,439 |
| 50% | 1,159 | 1,175 | 1,411 | 1,820 | 2,492 | 2,788 | 2,979 | 2,790 | 2,386 | 1,840 | 1,570 | 1,325 |
| 60% | 1,084 | 1,076 | 1,258 | 1,613 | 2,165 | 2,539 | 2,672 | 2,667 | 2,222 | 1,693 | 1,307 | 1,222 |
| 70% | 998 | 1,001 | 1,180 | 1,458 | 1,946 | 2,268 | 2,297 | 2,185 | 1,924 | 1,499 | 1,201 | 1,097 |
| 80% | 985 | 953 | 1,002 | 1,258 | 1,538 | 1,950 | 2,026 | 1,954 | 1,706 | 1,328 | 1,052 | 995 |
| 90% | 829 | 891 | 941 | 1,010 | 1,262 | 1,594 | 1,557 | 1,411 | 1,216 | 1,006 | 916 | 879 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,244 | 1,285 | 1,585 | 1,975 | 2,295 | 2,515 | 2,665 | 2,627 | 2,322 | 1,842 | 1,548 | 1,355 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,339 | 1,496 | 2,168 | 2,719 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,389 | 2,023 | 1,633 |
| Above Normal | 1,447 | 1,447 | 1,640 | 2,269 | 2,768 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,539 |
| Below Normal | 1,249 | 1,221 | 1,348 | 1,711 | 2,121 | 2,564 | 2,712 | 2,662 | 2,276 | 1,745 | 1,468 | 1,397 |
| Dry | 1,100 | 1,111 | 1,253 | 1,469 | 1,902 | 2,247 | 2,284 | 2,176 | 1,845 | 1,457 | 1,207 | 1,161 |
| Critical | 1,087 | 1,038 | 1,079 | 1,222 | 1,410 | 1,580 | 1,555 | 1,479 | 1,306 | 1,102 | 916 | 863 |

**Future - Alternative 6**

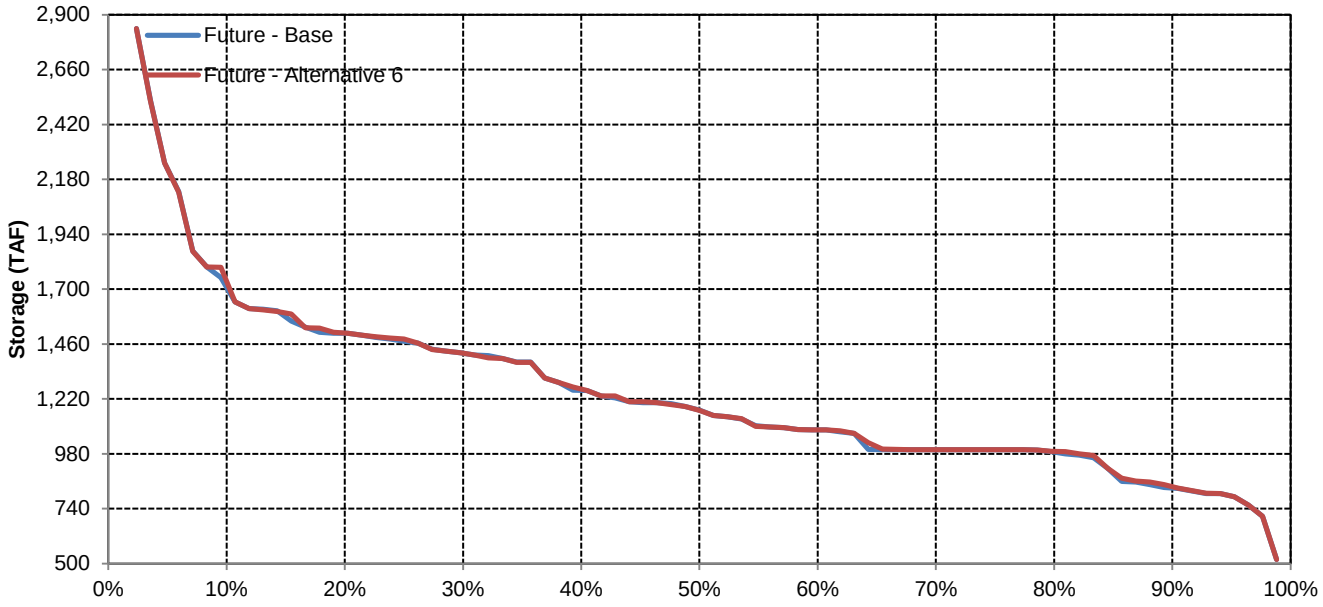
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1,636 | 1,973 | 2,788 | 2,854 | 2,994 | 3,059 | 3,347 | 3,446 | 3,357 | 2,762 | 2,227 | 1,834 |
| 20% | 1,502 | 1,568 | 2,266 | 2,788 | 2,856 | 2,991 | 3,237 | 3,254 | 3,034 | 2,401 | 2,004 | 1,667 |
| 30% | 1,413 | 1,384 | 1,758 | 2,787 | 2,788 | 2,938 | 3,180 | 3,142 | 2,688 | 2,176 | 1,819 | 1,593 |
| 40% | 1,252 | 1,285 | 1,474 | 2,185 | 2,788 | 2,844 | 3,081 | 3,049 | 2,530 | 1,985 | 1,679 | 1,439 |
| 50% | 1,159 | 1,185 | 1,412 | 1,819 | 2,496 | 2,788 | 2,979 | 2,790 | 2,386 | 1,845 | 1,570 | 1,322 |
| 60% | 1,084 | 1,075 | 1,258 | 1,614 | 2,165 | 2,539 | 2,672 | 2,667 | 2,222 | 1,693 | 1,341 | 1,228 |
| 70% | 998 | 1,001 | 1,181 | 1,458 | 1,946 | 2,269 | 2,297 | 2,185 | 1,927 | 1,503 | 1,199 | 1,093 |
| 80% | 990 | 956 | 1,003 | 1,259 | 1,577 | 1,947 | 2,024 | 1,950 | 1,727 | 1,320 | 1,025 | 996 |
| 90% | 834 | 891 | 941 | 1,025 | 1,262 | 1,594 | 1,557 | 1,412 | 1,217 | 1,007 | 917 | 885 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1,247 | 1,288 | 1,587 | 1,978 | 2,297 | 2,517 | 2,667 | 2,629 | 2,326 | 1,846 | 1,550 | 1,358 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 1,342 | 1,501 | 2,171 | 2,720 | 2,891 | 2,940 | 3,223 | 3,257 | 2,987 | 2,390 | 2,026 | 1,636 |
| Above Normal | 1,452 | 1,449 | 1,647 | 2,273 | 2,769 | 2,962 | 3,196 | 3,169 | 2,777 | 2,174 | 1,831 | 1,540 |
| Below Normal | 1,252 | 1,222 | 1,349 | 1,713 | 2,124 | 2,566 | 2,714 | 2,668 | 2,292 | 1,761 | 1,473 | 1,402 |
| Dry | 1,102 | 1,114 | 1,253 | 1,472 | 1,905 | 2,248 | 2,286 | 2,177 | 1,844 | 1,456 | 1,206 | 1,162 |
| Critical | 1,086 | 1,037 | 1,081 | 1,227 | 1,416 | 1,586 | 1,561 | 1,484 | 1,319 | 1,111 | 916 | 869 |

**Future - Alternative 6 Minus Future - Base**

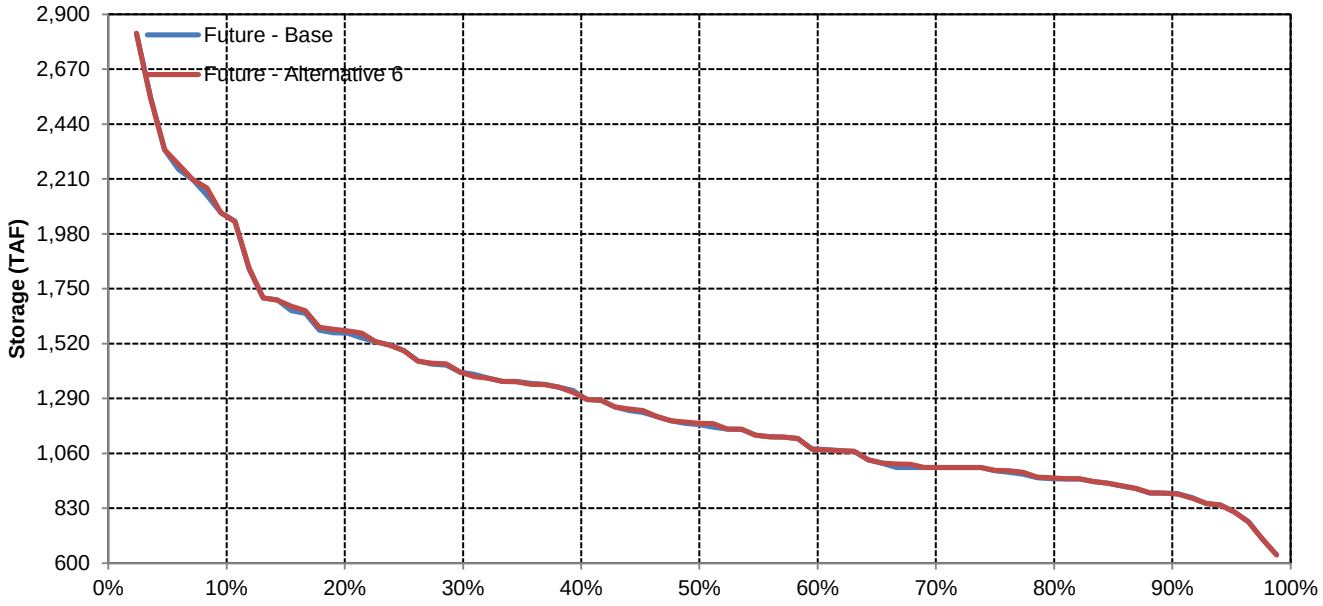
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | -1 | -2 |
| 20% | 0 | 16 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 30% | -1 | -9 | 35 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 20 |
| 40% | 0 | 1 | 0 | 0 | 0 | 11 | 0 | 15 | 3 | 27 | 0 | 0 |
| 50% | 0 | 10 | 1 | -1 | 4 | 0 | 0 | 0 | 0 | 5 | 0 | -2 |
| 60% | 0 | -1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 6 |
| 70% | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 4 | -2 | -4 |
| 80% | 5 | 3 | 1 | 0 | 39 | -3 | -2 | -3 | 21 | -8 | -27 | 1 |
| 90% | 5 | 0 | 0 | 15 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 3 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 2 | 3 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 4 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 |
| Above Normal | 5 | 2 | 7 | 4 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Below Normal | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 6 | 16 | 16 | 6 | 5 |
| Dry | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | -1 | -1 | -1 | 0 |
| Critical | 0 | 0 | 2 | 5 | 5 | 5 | 5 | 6 | 13 | 9 | 0 | 6 |

## Oroville Reservoir

### October

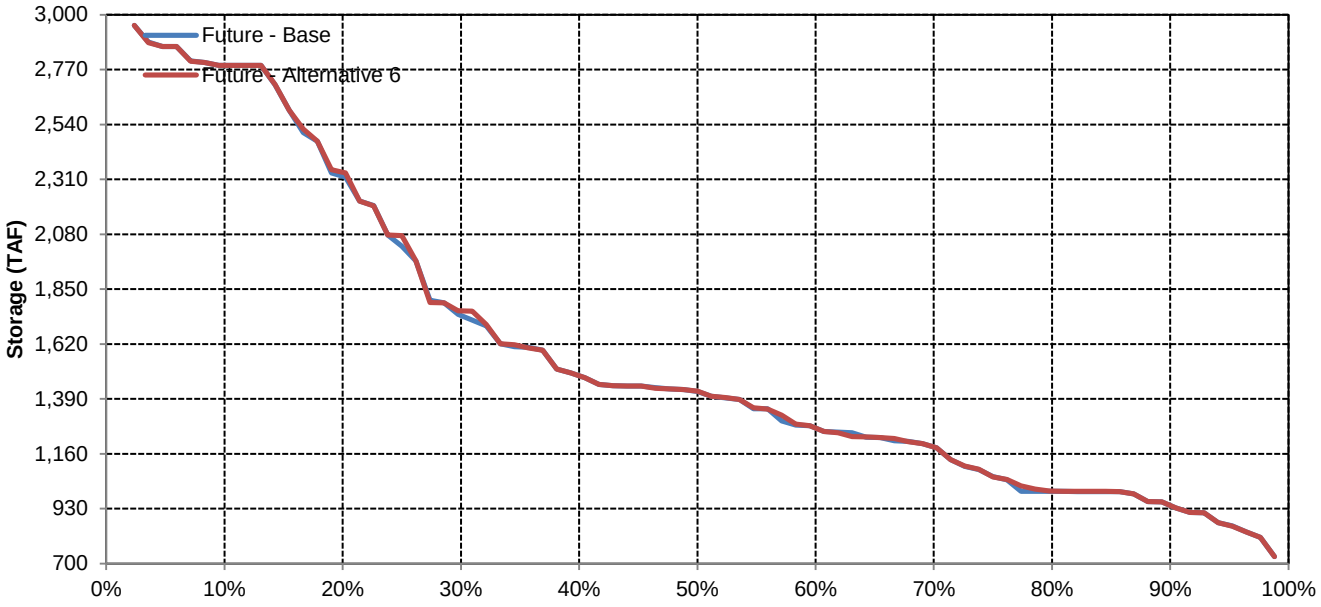



### November

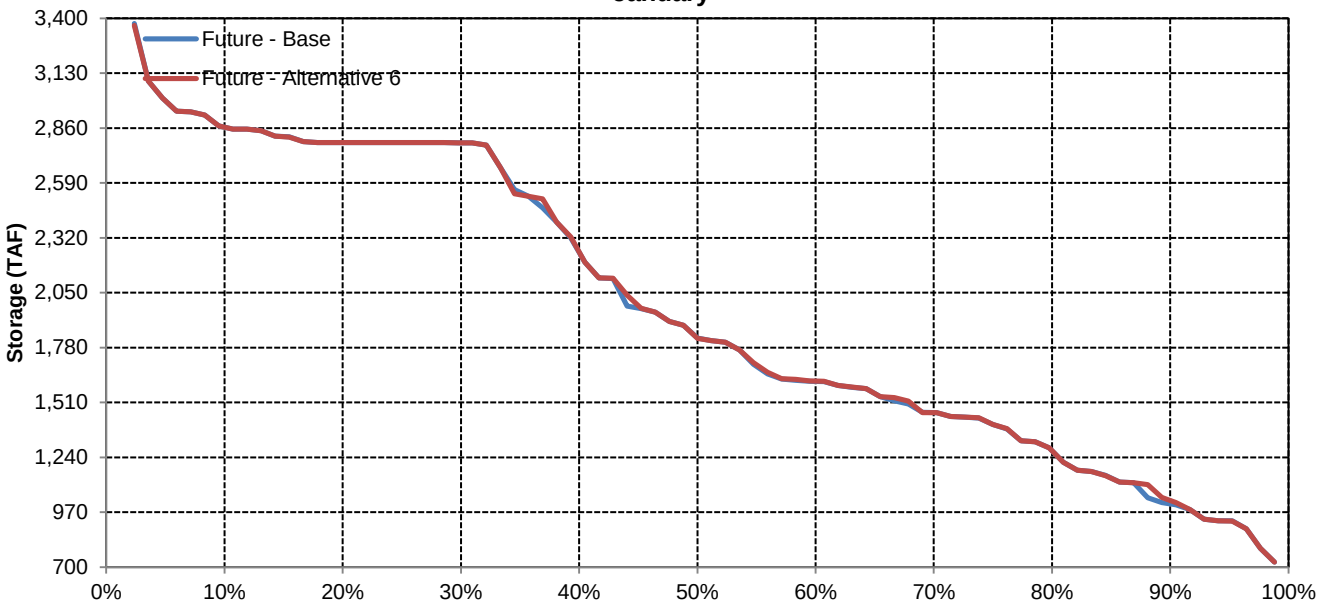


## Oroville Reservoir

### December

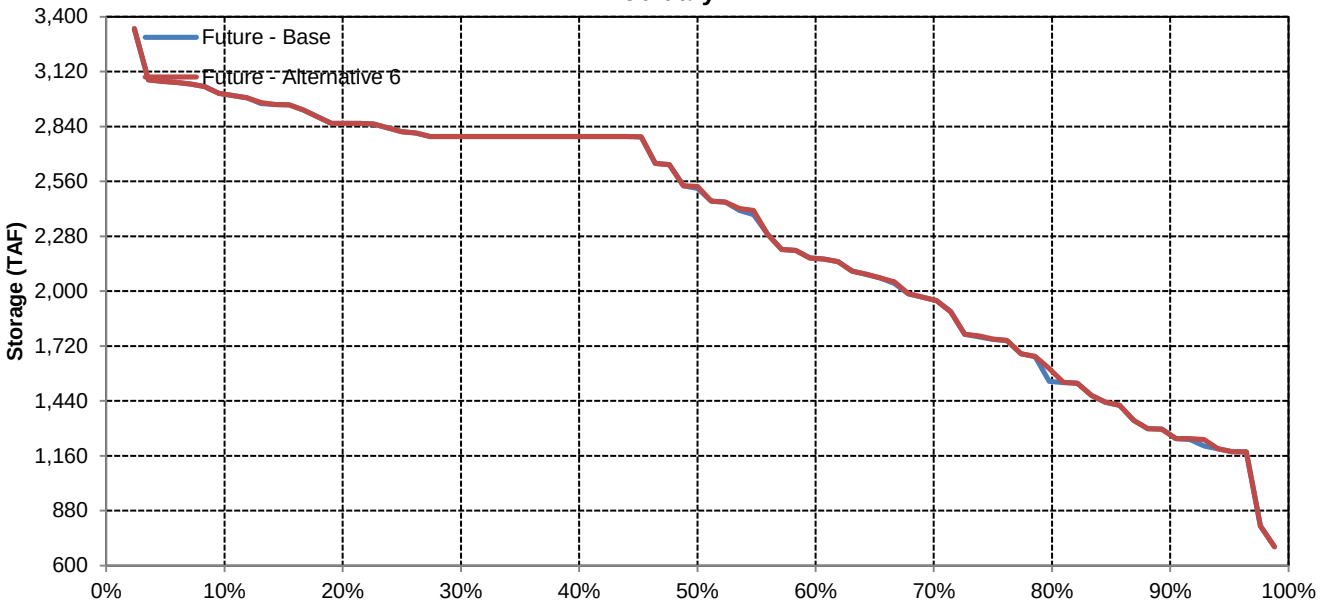



### January

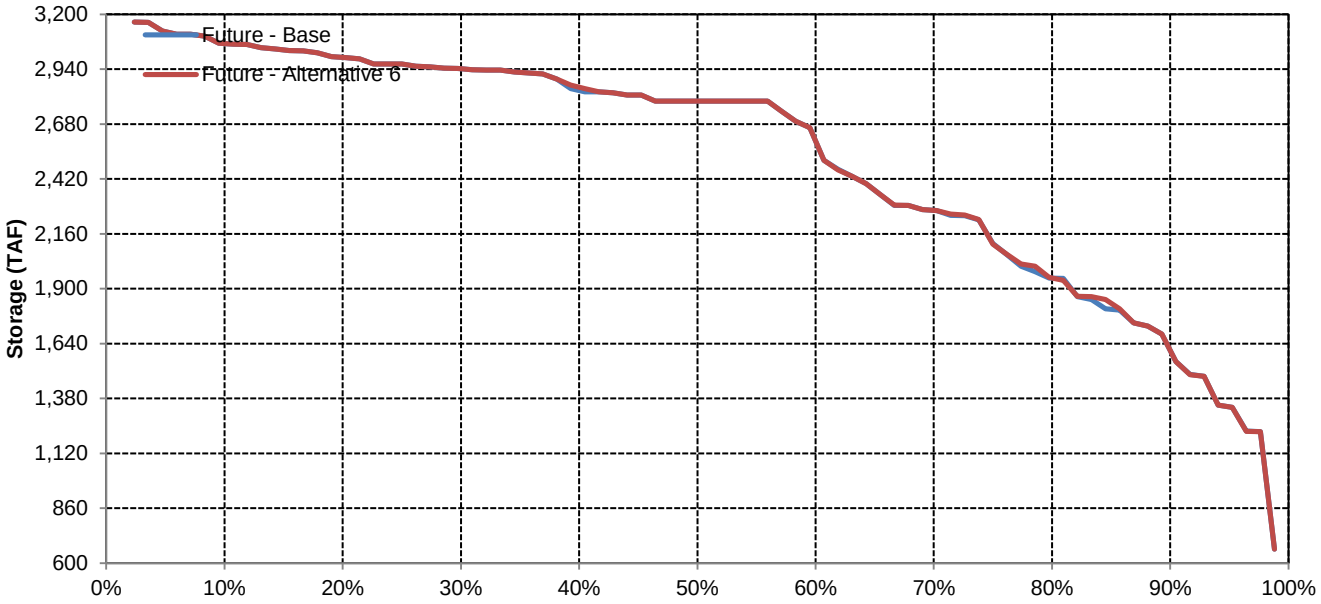


## Oroville Reservoir

### February

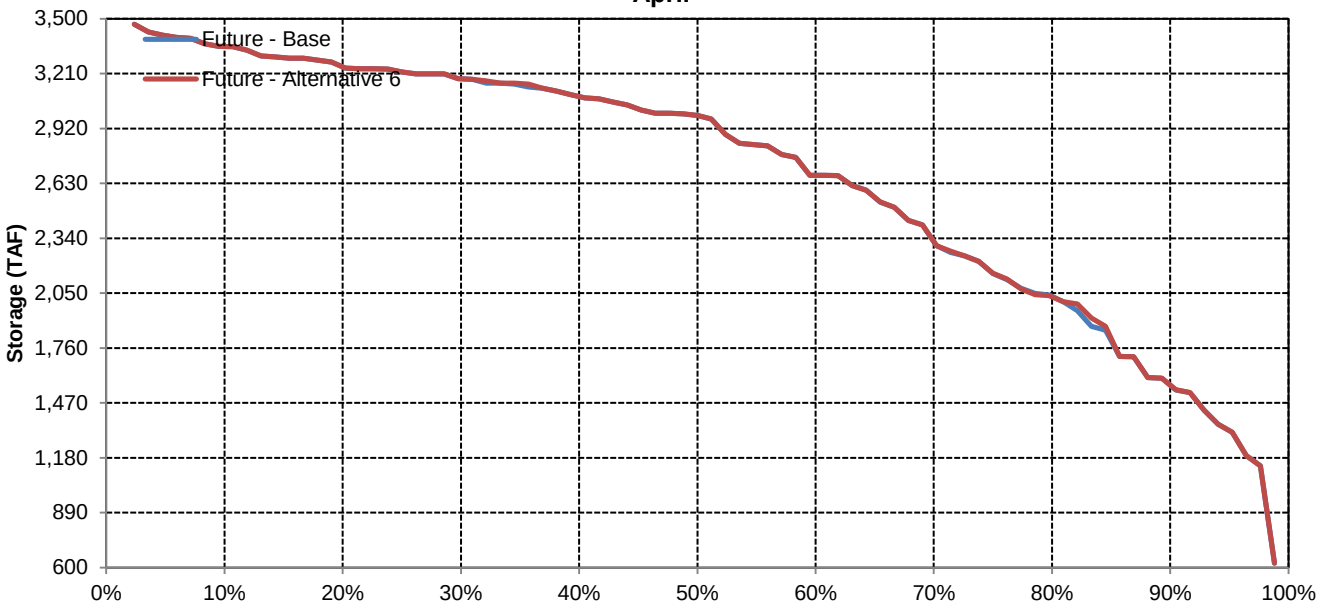



### March

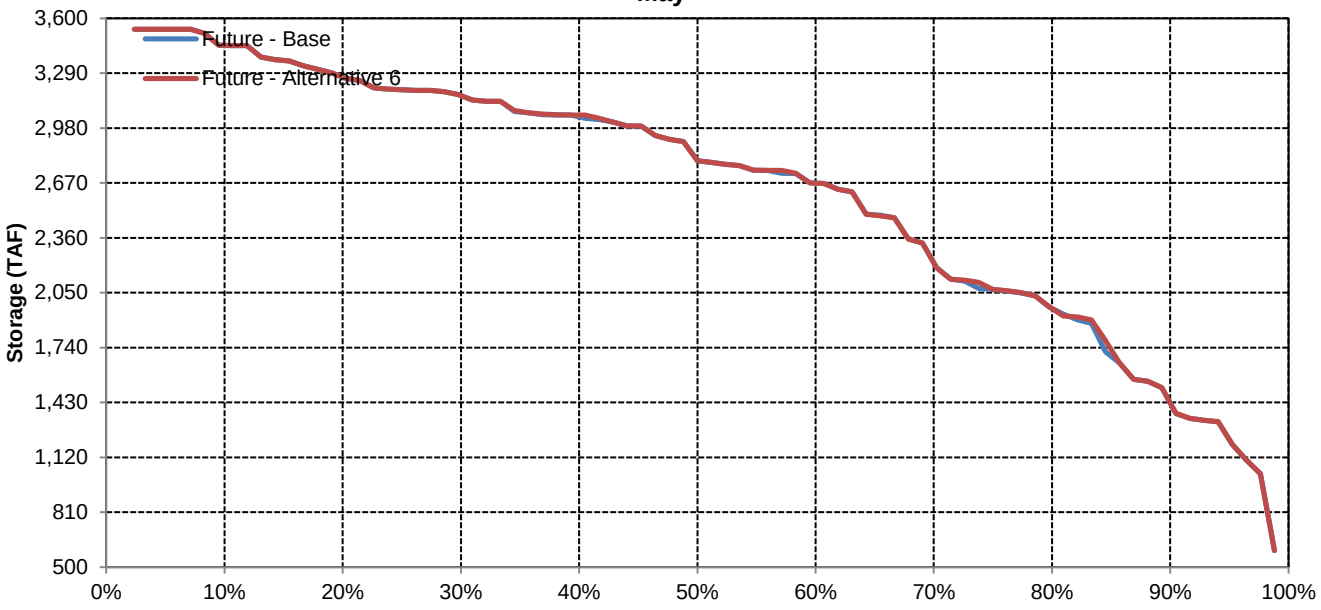


## Oroville Reservoir

### April

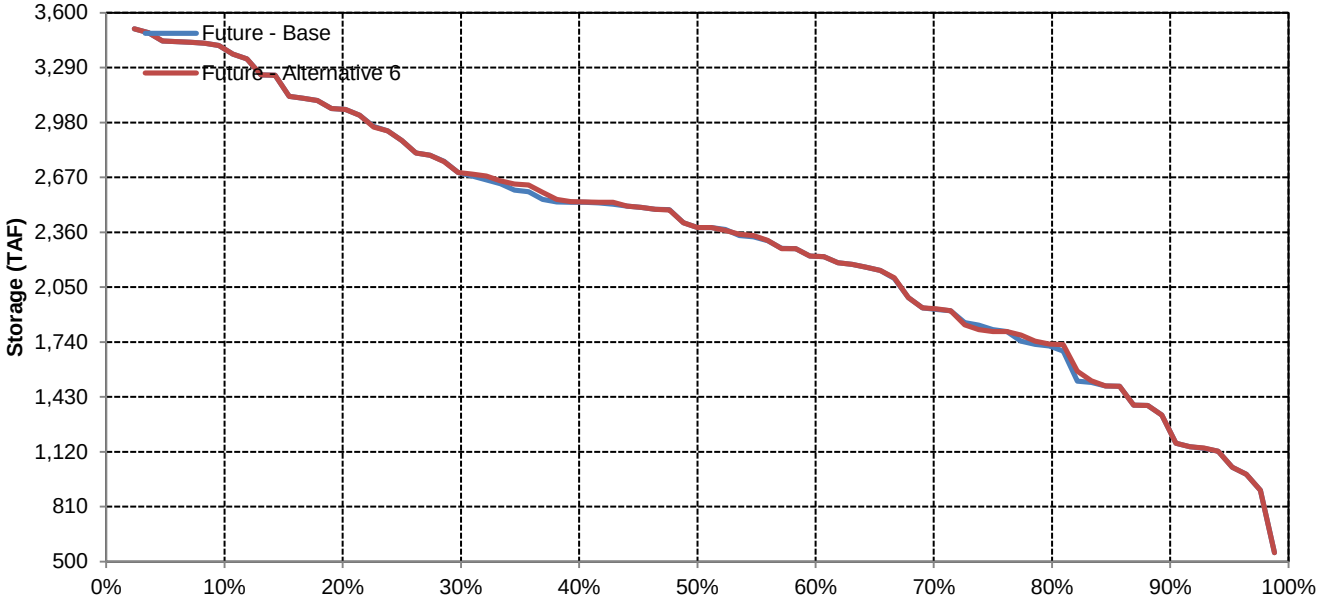



### May

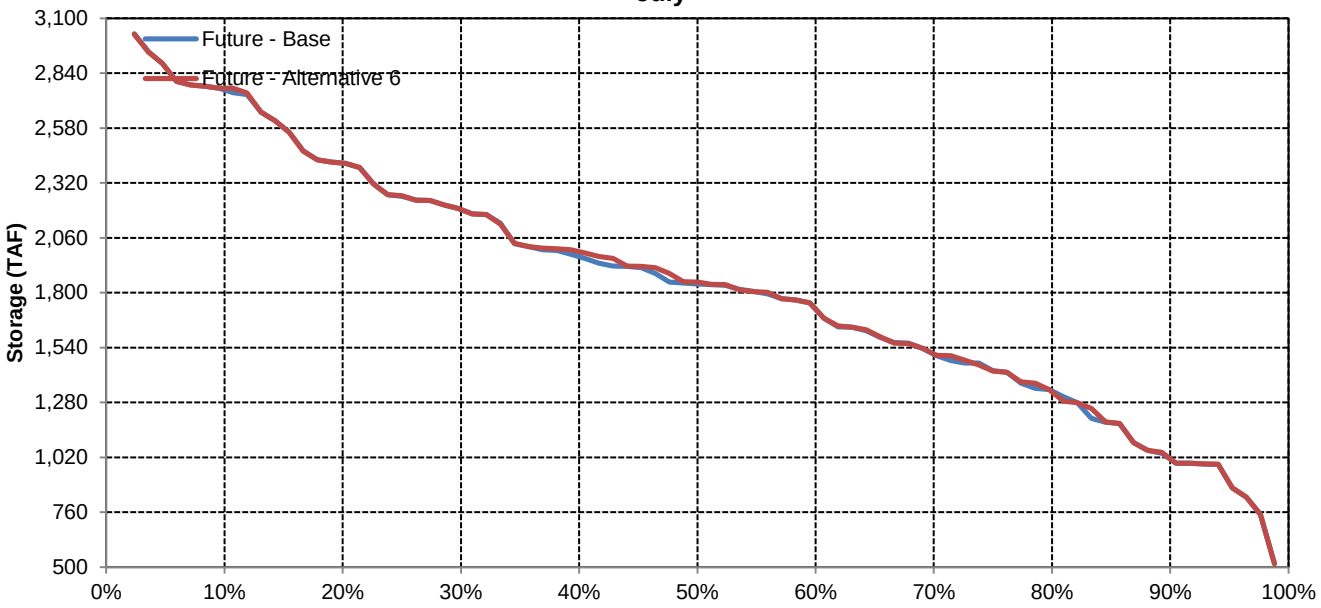


## Oroville Reservoir

### June

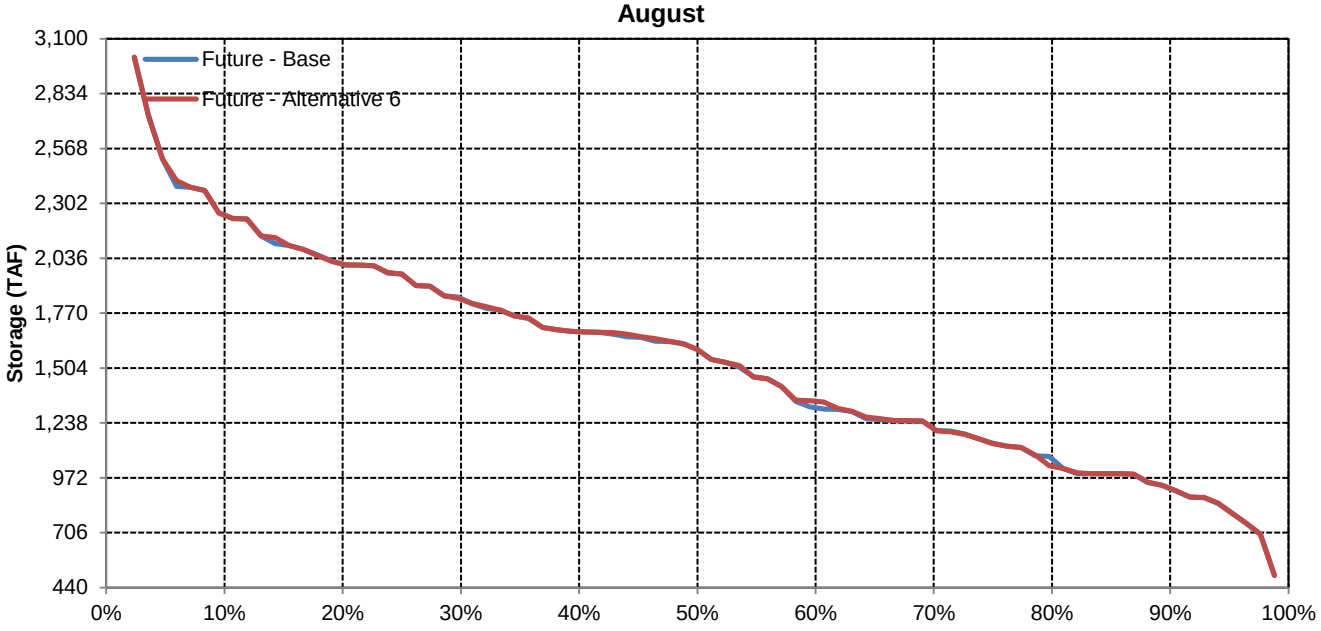



### July

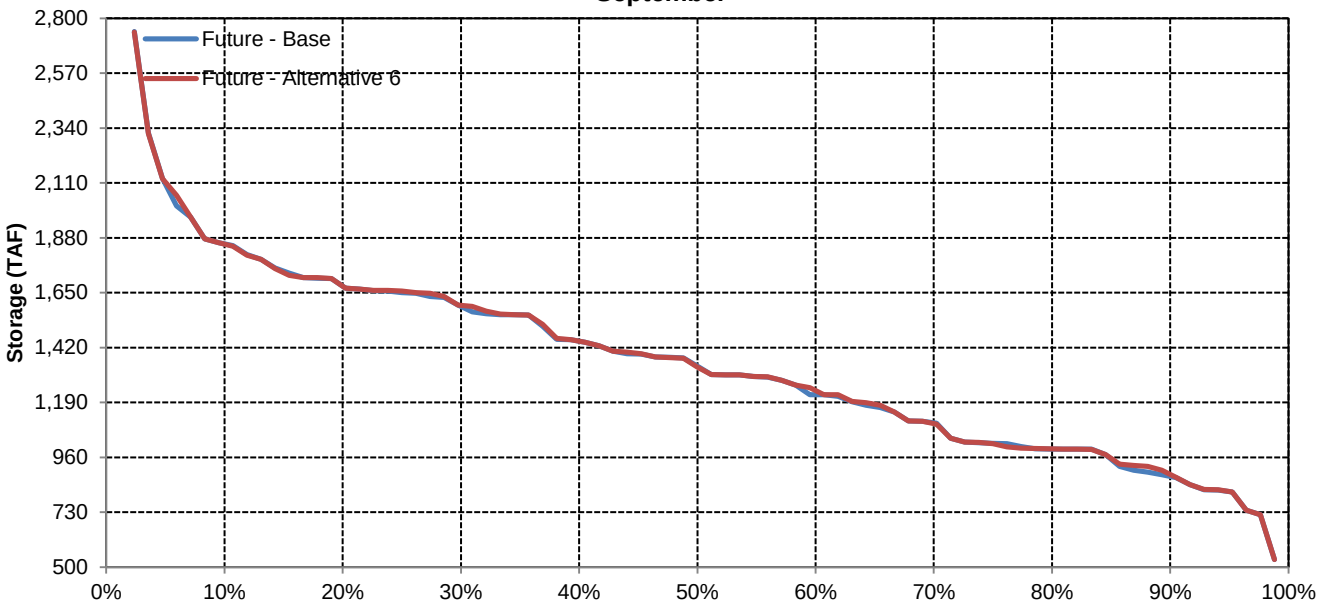


## Oroville Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Folsom Reservoir Under Future - Base and Future - Alternative 6**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 460 | 427 | 390 |
| Future - Alternative 6 | 355 | 352 | 406 | 455 | 483 | 593 | 682 | 679 | 581 | 461 | 428 | 392 |
| Difference | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 547 | 509 | 430 |
| Future - Alternative 6 | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 546 | 508 | 430 |
| Difference | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 363 | 358 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Future - Alternative 6 | 365 | 357 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 426 |
| Difference | 2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 375 | 361 | 399 | 471 | 508 | 624 | 727 | 714 | 609 | 493 | 465 | 455 |
| Future - Alternative 6 | 375 | 362 | 400 | 471 | 508 | 624 | 727 | 714 | 610 | 495 | 467 | 457 |
| Difference | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 1% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 336 | 332 | 372 | 411 | 477 | 592 | 646 | 596 | 489 | 395 | 356 | 357 |
| Future - Alternative 6 | 337 | 333 | 373 | 412 | 478 | 592 | 646 | 596 | 491 | 396 | 359 | 360 |
| Difference | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 1% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 321 | 298 | 288 | 306 | 341 | 440 | 436 | 418 | 360 | 317 | 287 | 256 |
| Future - Alternative 6 | 323 | 299 | 298 | 314 | 349 | 447 | 444 | 424 | 364 | 318 | 286 | 260 |
| Difference | 1 | 2 | 10 | 8 | 7 | 8 | 8 | 6 | 4 | 1 | 0 | 4 |
| Percent Difference | 0% | 1% | 3% | 3% | 2% | 2% | 2% | 1% | 1% | 0% | 0% | 2% |

**Folsom Reservoir**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 487 | 501 | 567 | 567 | 567 | 662 | 792 | 939 | 828 | 636 | 580 | 540 |
| 20% | 445 | 437 | 566 | 567 | 567 | 656 | 792 | 820 | 729 | 587 | 548 | 504 |
| 30% | 395 | 394 | 498 | 564 | 563 | 652 | 792 | 763 | 694 | 549 | 519 | 455 |
| 40% | 365 | 365 | 432 | 556 | 557 | 645 | 791 | 745 | 621 | 495 | 483 | 417 |
| 50% | 349 | 342 | 392 | 507 | 549 | 629 | 766 | 706 | 592 | 443 | 413 | 396 |
| 60% | 321 | 327 | 352 | 454 | 495 | 616 | 701 | 656 | 538 | 418 | 388 | 360 |
| 70% | 304 | 311 | 319 | 372 | 443 | 590 | 635 | 600 | 500 | 383 | 356 | 333 |
| 80% | 269 | 272 | 302 | 305 | 386 | 565 | 554 | 498 | 404 | 332 | 305 | 295 |
| 90% | 223 | 217 | 252 | 260 | 302 | 426 | 437 | 426 | 355 | 311 | 276 | 231 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 354 | 352 | 404 | 454 | 482 | 592 | 680 | 678 | 580 | 460 | 427 | 390 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 547 | 509 | 430 |
| Above Normal | 363 | 358 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 427 |
| Below Normal | 375 | 361 | 399 | 471 | 508 | 624 | 727 | 714 | 609 | 493 | 465 | 455 |
| Dry | 336 | 332 | 372 | 411 | 477 | 592 | 646 | 596 | 489 | 395 | 356 | 357 |
| Critical | 321 | 298 | 288 | 306 | 341 | 440 | 436 | 418 | 360 | 317 | 287 | 256 |

**Future - Alternative 6**

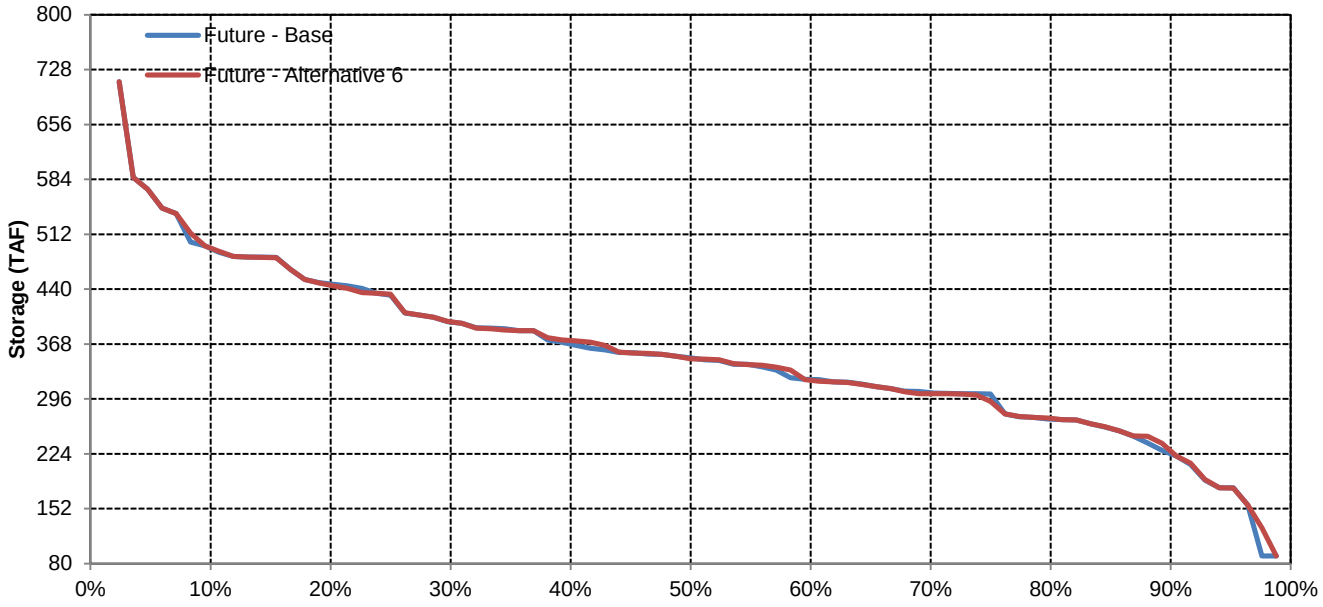
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 488 | 502 | 567 | 567 | 567 | 662 | 792 | 939 | 829 | 636 | 581 | 541 |
| 20% | 442 | 437 | 564 | 567 | 567 | 656 | 792 | 820 | 729 | 587 | 548 | 503 |
| 30% | 395 | 394 | 498 | 564 | 563 | 654 | 792 | 763 | 694 | 548 | 519 | 455 |
| 40% | 372 | 363 | 434 | 556 | 557 | 646 | 791 | 745 | 621 | 495 | 483 | 421 |
| 50% | 348 | 342 | 391 | 507 | 549 | 632 | 766 | 706 | 592 | 444 | 419 | 396 |
| 60% | 320 | 327 | 352 | 454 | 495 | 618 | 700 | 656 | 537 | 417 | 388 | 360 |
| 70% | 303 | 310 | 318 | 383 | 446 | 593 | 635 | 600 | 502 | 381 | 355 | 334 |
| 80% | 270 | 272 | 303 | 305 | 386 | 565 | 554 | 498 | 404 | 331 | 306 | 295 |
| 90% | 226 | 218 | 251 | 262 | 305 | 426 | 447 | 443 | 362 | 311 | 276 | 232 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 355 | 352 | 406 | 455 | 483 | 593 | 682 | 679 | 581 | 461 | 428 | 392 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 368 | 385 | 480 | 522 | 509 | 624 | 760 | 806 | 699 | 546 | 508 | 430 |
| Above Normal | 365 | 357 | 415 | 512 | 550 | 644 | 766 | 766 | 668 | 492 | 471 | 426 |
| Below Normal | 375 | 362 | 400 | 471 | 508 | 624 | 727 | 714 | 610 | 495 | 467 | 457 |
| Dry | 337 | 333 | 373 | 412 | 478 | 592 | 646 | 596 | 491 | 396 | 359 | 360 |
| Critical | 323 | 299 | 298 | 314 | 349 | 447 | 444 | 424 | 364 | 318 | 286 | 260 |

**Future - Alternative 6 Minus Future - Base**

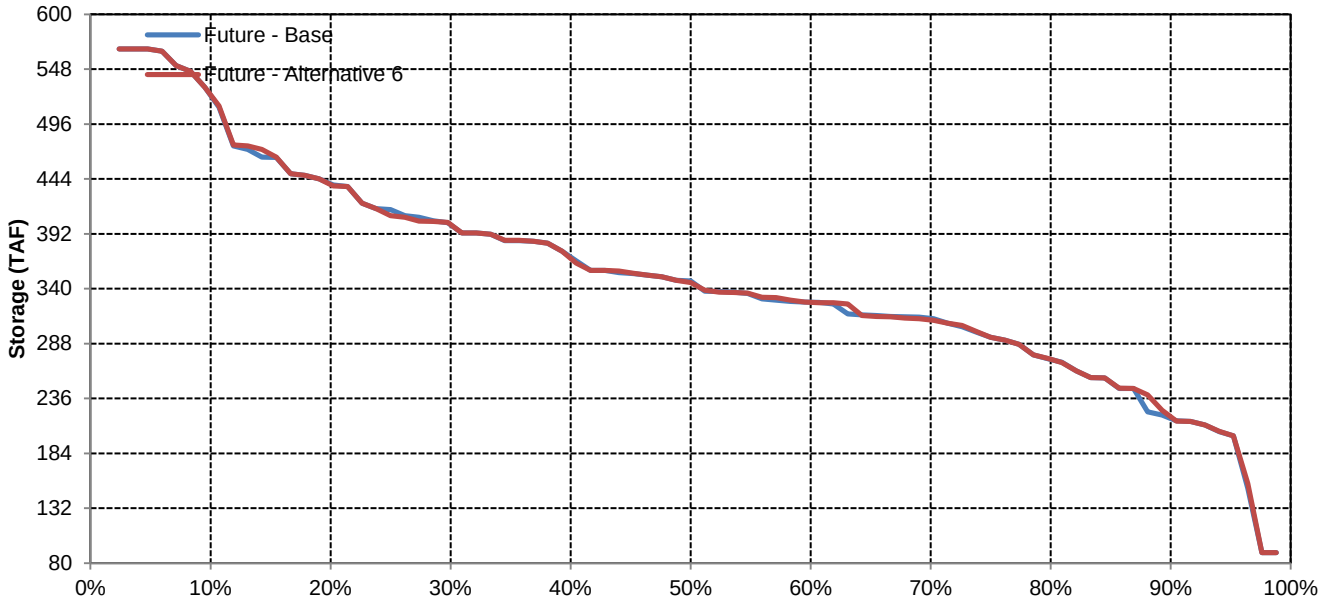
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 20% | -3 | 0 | -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 |
| 30% | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | 0 | 0 |
| 40% | 7 | -2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | -1 | -1 | 4 |
| 50% | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 5 | 0 |
| 60% | -2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | 0 | 1 |
| 70% | -1 | -1 | 0 | 11 | 3 | 3 | 0 | 0 | 1 | -3 | -2 | 0 |
| 80% | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 1 | 0 |
| 90% | 3 | 1 | 0 | 1 | 4 | 0 | 10 | 17 | 8 | 1 | 0 | 1 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 1 | 0 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Above Normal | 2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| Dry | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| Critical | 1 | 2 | 10 | 8 | 7 | 8 | 8 | 6 | 4 | 1 | 0 | 4 |

## Folsom Reservoir

### October

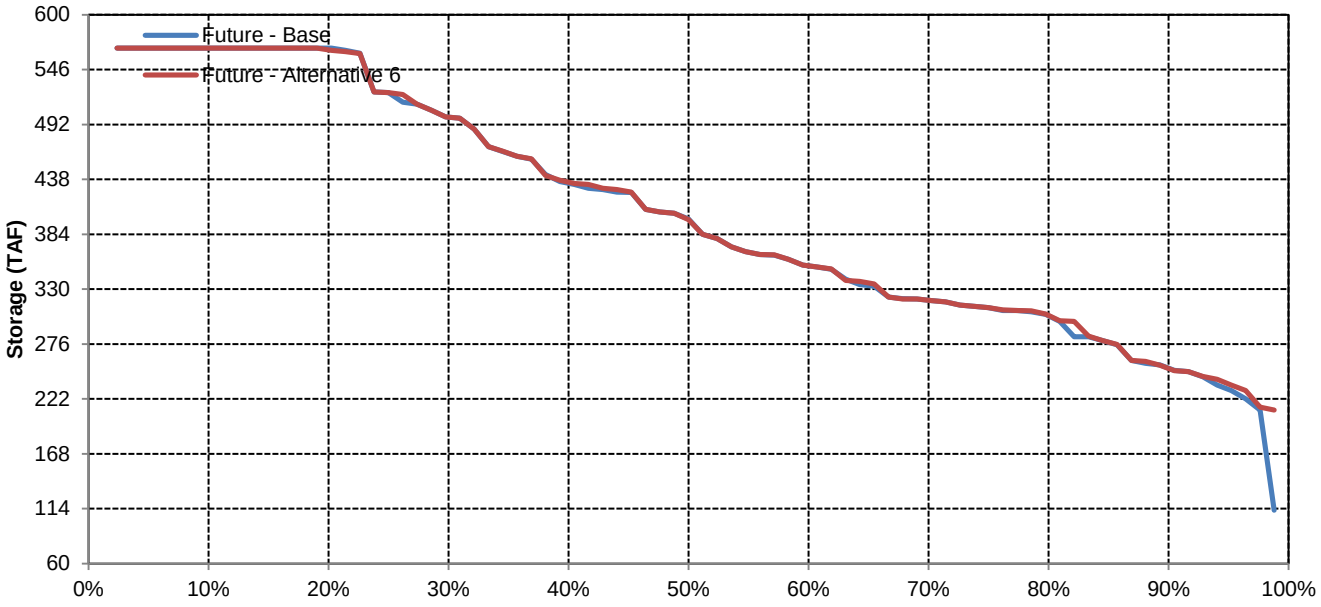



### November

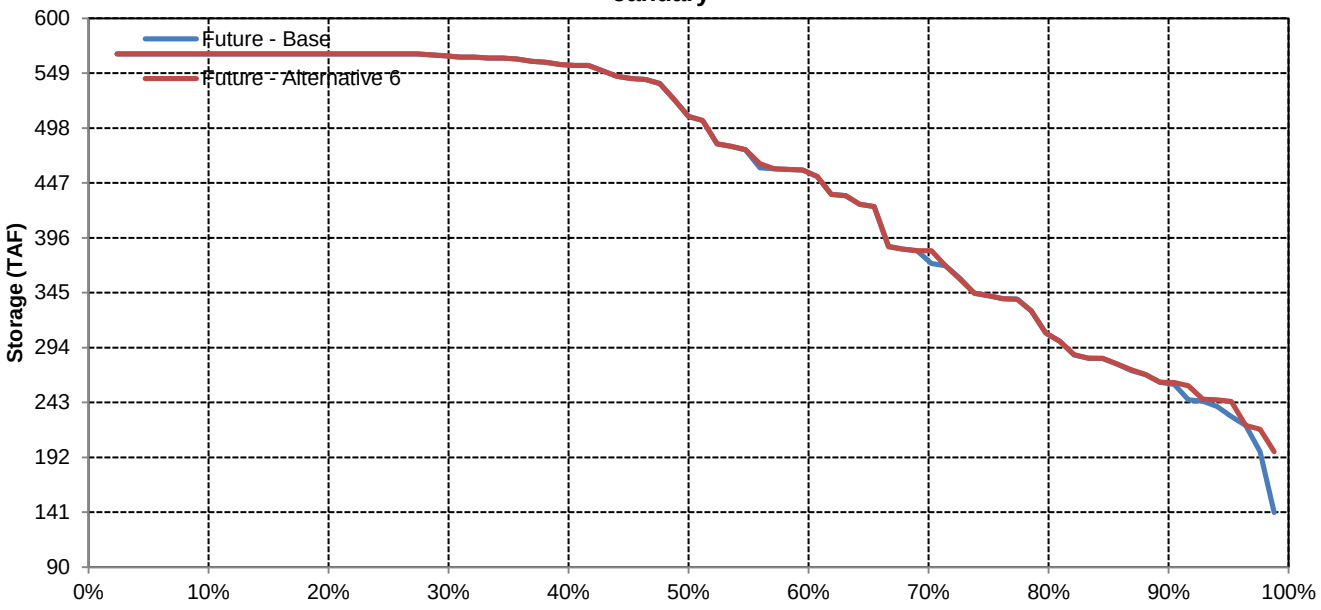


## Folsom Reservoir

### December

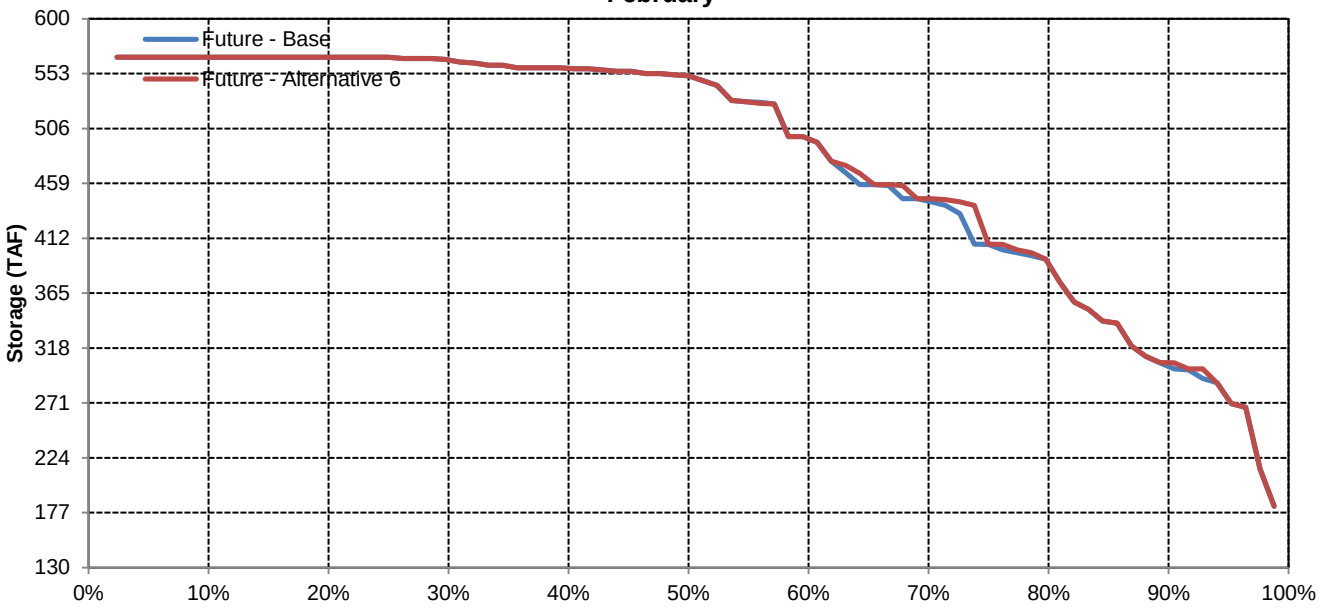



### January

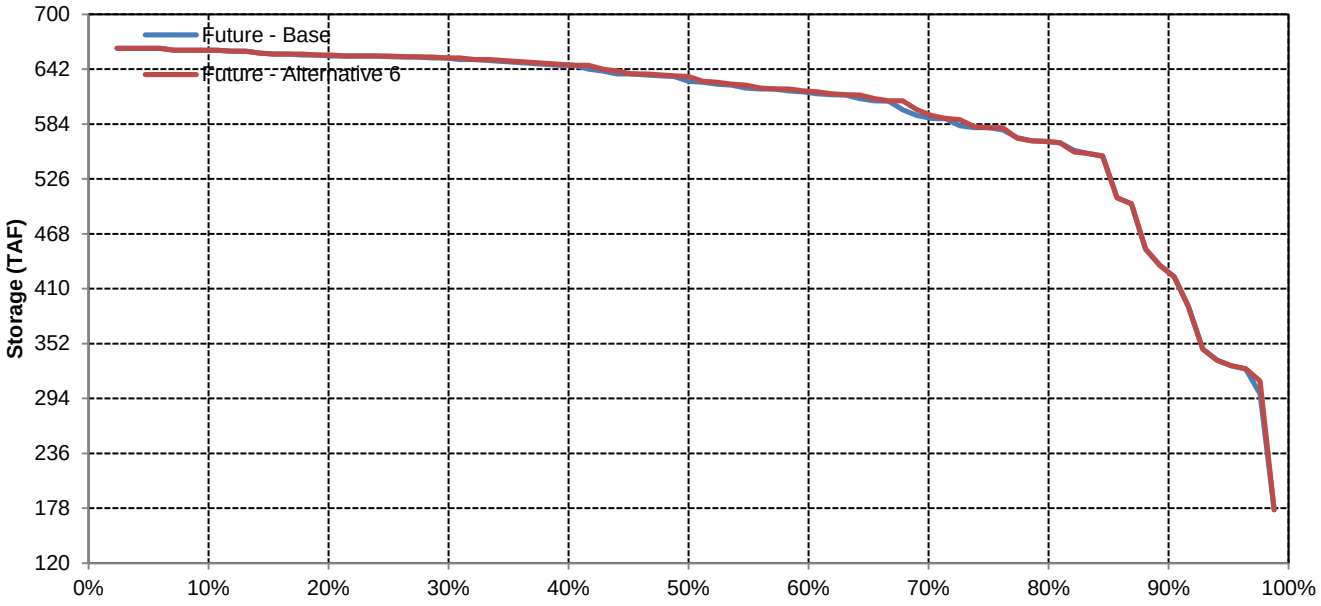


## Folsom Reservoir

### February

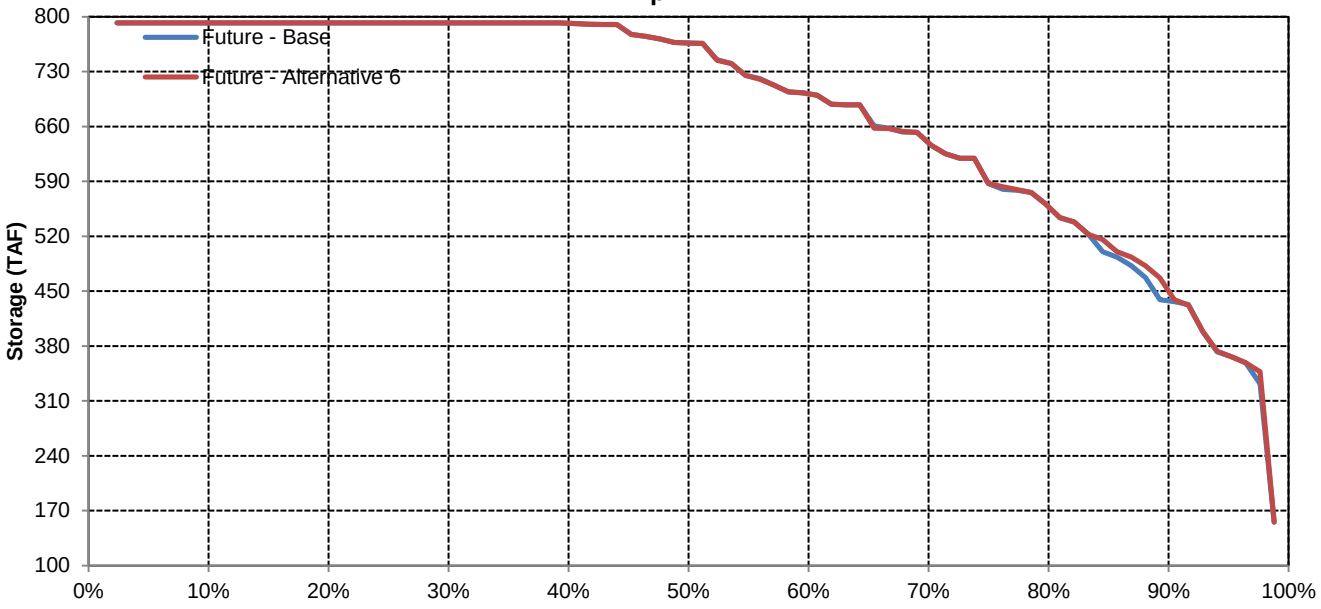



### March

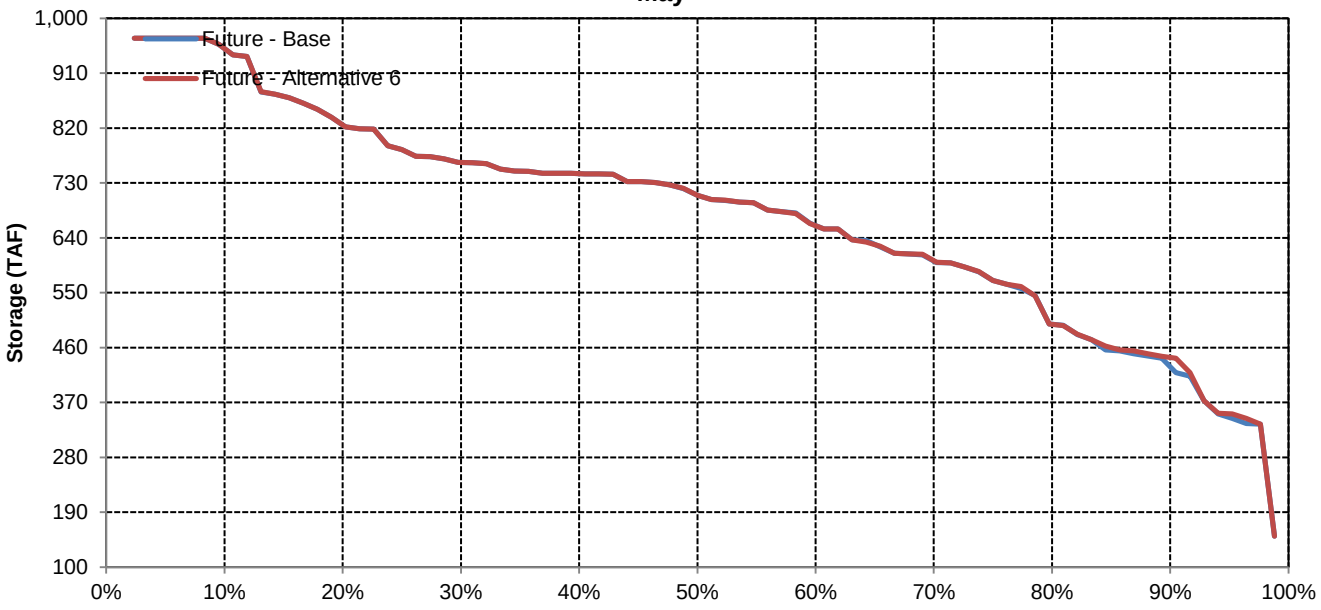


## Folsom Reservoir

### April

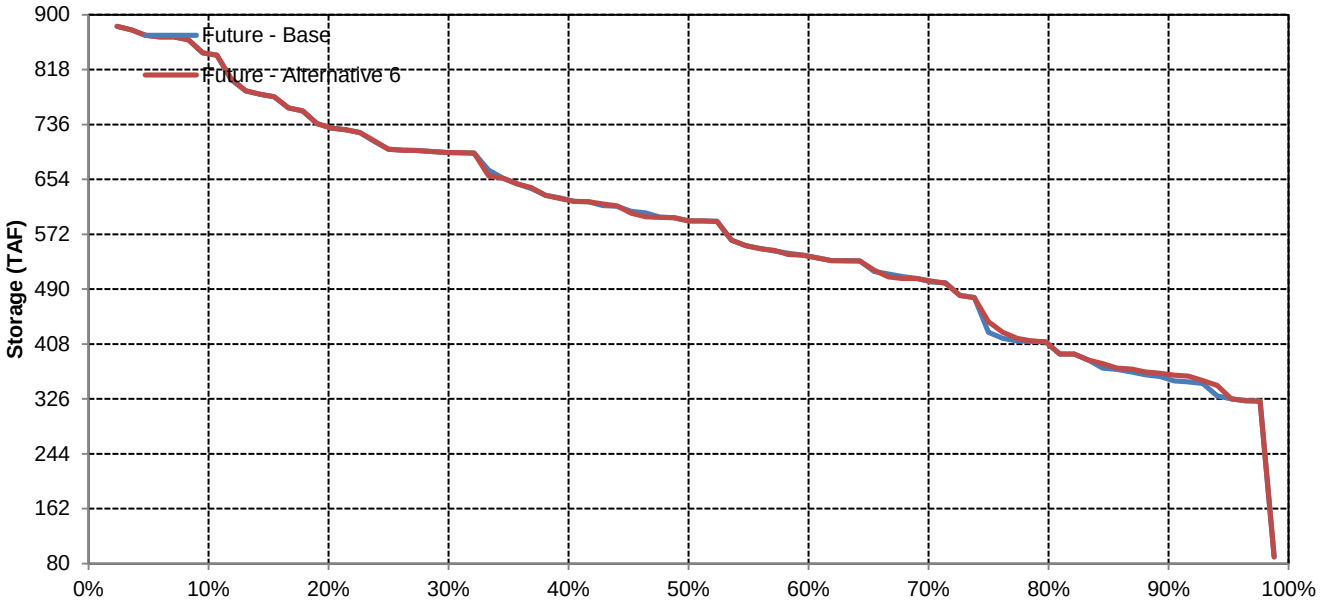



### May

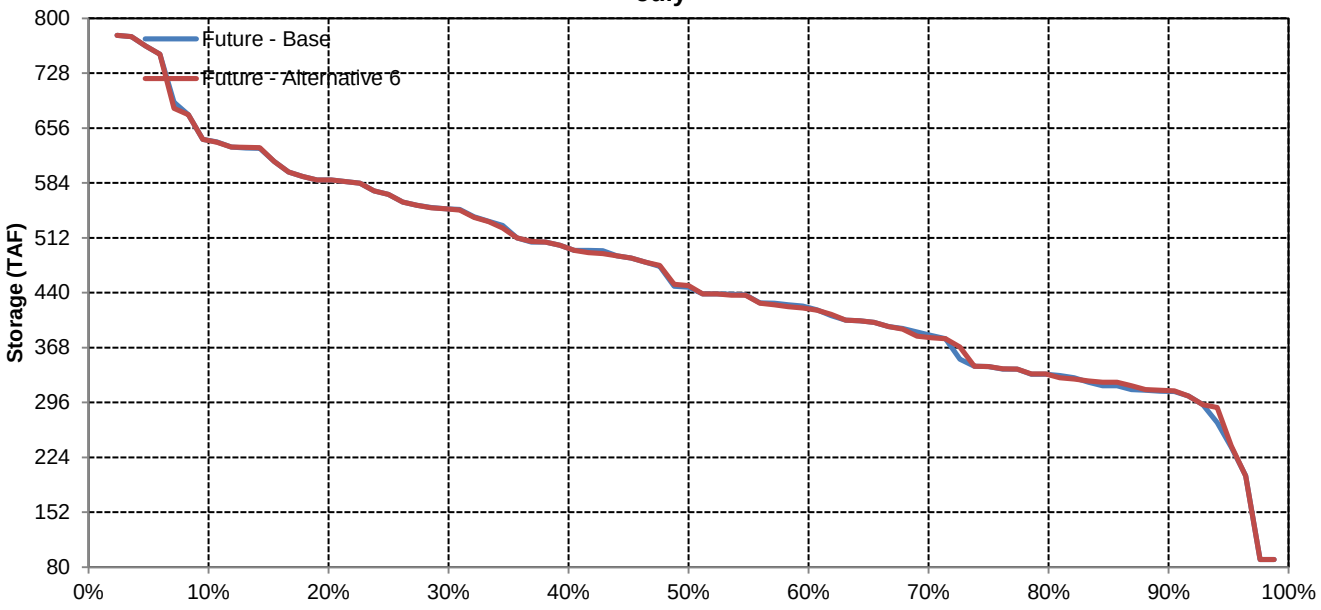


## Folsom Reservoir

### June

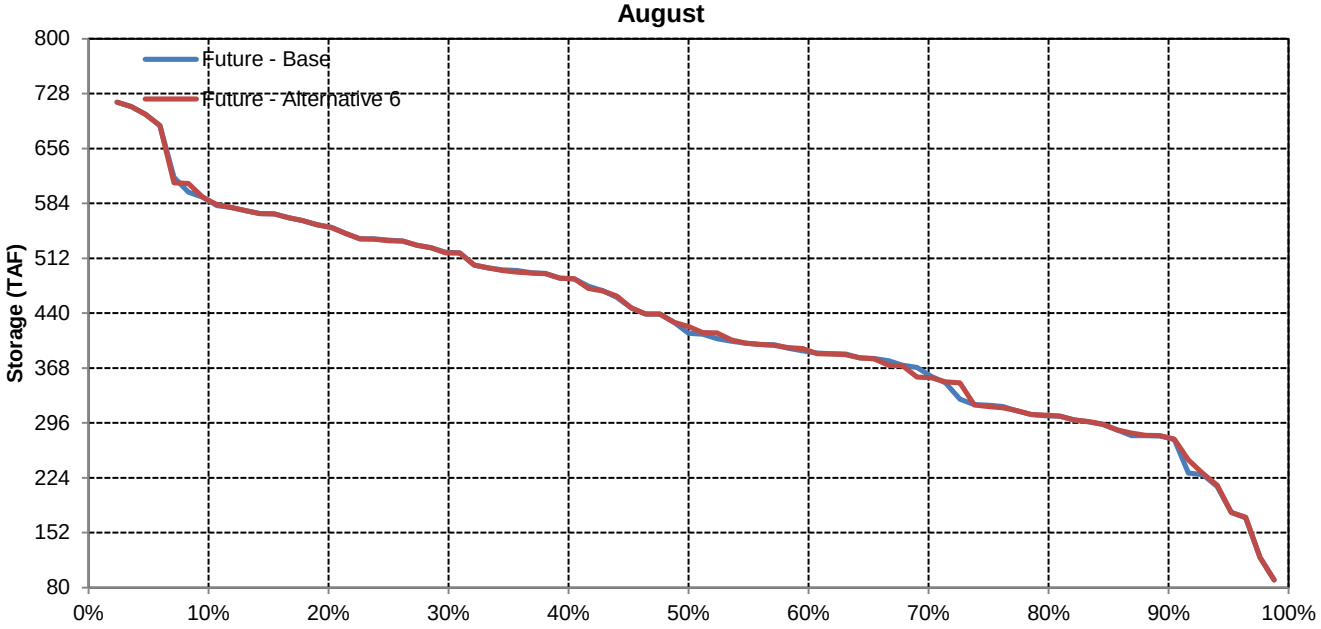



### July

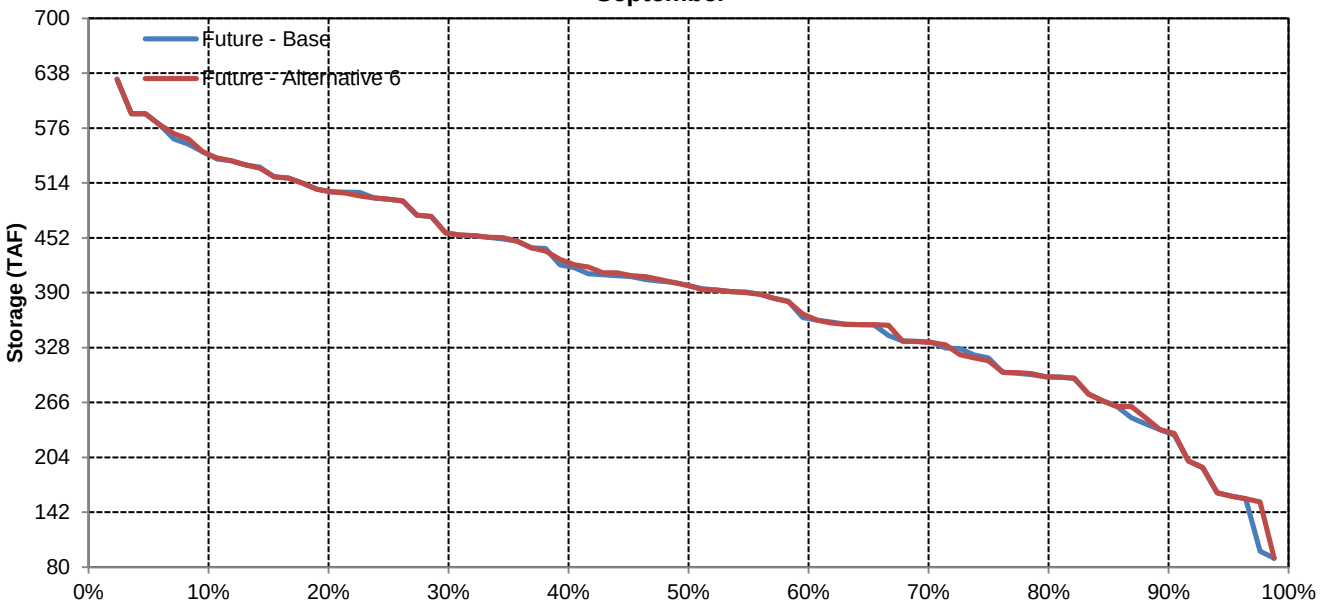


## Folsom Reservoir

### August




### September



**Long-Term and Water Year-Type Average of CVP San Luis Reservoir Under Future - Base and Future - Alternative 6**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 218 | 294 | 461 | 615 | 743 | 823 | 788 | 682 | 578 | 413 | 314 | 270 |
| Future - Alternative 6 | 216 | 291 | 457 | 611 | 740 | 821 | 786 | 680 | 576 | 412 | 311 | 267 |
| Difference | -2 | -2 | -4 | -4 | -3 | -2 | -2 | -2 | -2 | -1 | -3 | -3 |
| Percent Difference | -1% | -1% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | -1% | -1% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 203 | 294 | 487 | 682 | 836 | 918 | 880 | 792 | 678 | 499 | 390 | 304 |
| Future - Alternative 6 | 199 | 290 | 482 | 678 | 832 | 918 | 878 | 790 | 674 | 497 | 386 | 301 |
| Difference | -4 | -4 | -5 | -3 | -4 | 0 | -2 | -2 | -4 | -2 | -4 | -3 |
| Percent Difference | -2% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | -1% | 0% | -1% | -1% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 215 | 289 | 456 | 607 | 754 | 844 | 802 | 668 | 594 | 409 | 303 | 202 |
| Future - Alternative 6 | 213 | 285 | 446 | 596 | 748 | 844 | 802 | 667 | 594 | 409 | 302 | 202 |
| Difference | -2 | -3 | -10 | -11 | -6 | 0 | 0 | 0 | -1 | 0 | -1 | -1 |
| Percent Difference | -1% | -1% | -2% | -2% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 237 | 280 | 459 | 588 | 713 | 836 | 815 | 706 | 632 | 430 | 313 | 312 |
| Future - Alternative 6 | 237 | 279 | 457 | 583 | 709 | 832 | 811 | 702 | 632 | 430 | 310 | 309 |
| Difference | 0 | -1 | -2 | -5 | -4 | -4 | -3 | -4 | 0 | 0 | -4 | -3 |
| Percent Difference | 0% | 0% | 0% | -1% | -1% | 0% | 0% | -1% | 0% | 0% | -1% | -1% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 211 | 284 | 442 | 576 | 689 | 772 | 742 | 621 | 516 | 359 | 253 | 240 |
| Future - Alternative 6 | 208 | 281 | 440 | 573 | 689 | 771 | 741 | 620 | 514 | 358 | 252 | 238 |
| Difference | -3 | -3 | -2 | -3 | 0 | -1 | -1 | -1 | -2 | -1 | -2 | -1 |
| Percent Difference | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | -1% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 242 | 329 | 444 | 571 | 654 | 666 | 621 | 536 | 395 | 302 | 263 | 262 |
| Future - Alternative 6 | 245 | 330 | 444 | 569 | 651 | 662 | 617 | 533 | 391 | 299 | 258 | 257 |
| Difference | 3 | 1 | 0 | -2 | -3 | -4 | -4 | -3 | -4 | -3 | -5 | -5 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | -1% | -1% | -1% | -1% | -1% | -2% | -2% |

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 442 | 574 | 764 | 972 | 972 | 972 | 972 | 909 | 861 | 675 | 596 | 517 |
| 20% | 367 | 426 | 607 | 826 | 972 | 972 | 958 | 858 | 767 | 563 | 489 | 434 |
| 30% | 272 | 373 | 528 | 720 | 942 | 972 | 913 | 806 | 702 | 492 | 413 | 347 |
| 40% | 209 | 298 | 476 | 659 | 826 | 967 | 889 | 768 | 647 | 455 | 316 | 289 |
| 50% | 160 | 269 | 425 | 581 | 736 | 883 | 869 | 715 | 609 | 394 | 256 | 223 |
| 60% | 118 | 232 | 369 | 521 | 682 | 833 | 793 | 636 | 539 | 340 | 226 | 161 |
| 70% | 90 | 173 | 327 | 477 | 630 | 718 | 665 | 571 | 458 | 287 | 190 | 132 |
| 80% | 90 | 122 | 284 | 432 | 554 | 658 | 611 | 480 | 404 | 238 | 140 | 91 |
| 90% | 90 | 90 | 246 | 370 | 439 | 573 | 531 | 393 | 274 | 197 | 110 | 90 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 218 | 294 | 461 | 615 | 743 | 823 | 788 | 682 | 578 | 413 | 314 | 270 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 203 | 294 | 487 | 682 | 836 | 918 | 880 | 792 | 678 | 499 | 390 | 304 |
| Above Normal | 215 | 289 | 456 | 607 | 754 | 844 | 802 | 668 | 594 | 409 | 303 | 202 |
| Below Normal | 237 | 280 | 459 | 588 | 713 | 836 | 815 | 706 | 632 | 430 | 313 | 312 |
| Dry | 211 | 284 | 442 | 576 | 689 | 772 | 742 | 621 | 516 | 359 | 253 | 240 |
| Critical | 242 | 329 | 444 | 571 | 654 | 666 | 621 | 536 | 395 | 302 | 263 | 262 |

**Future - Alternative 6**

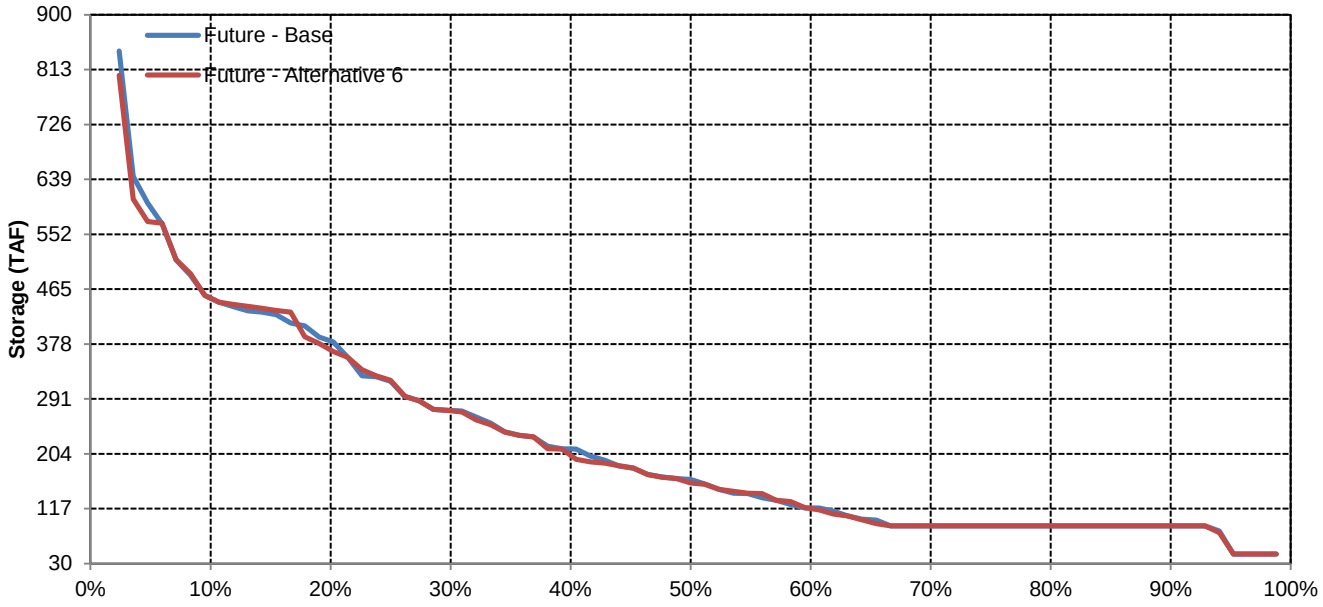
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 443 | 577 | 774 | 972 | 972 | 972 | 972 | 909 | 860 | 675 | 596 | 518 |
| 20% | 361 | 424 | 587 | 818 | 972 | 972 | 958 | 858 | 767 | 563 | 493 | 432 |
| 30% | 271 | 374 | 531 | 724 | 928 | 972 | 913 | 806 | 701 | 491 | 392 | 346 |
| 40% | 195 | 296 | 472 | 646 | 825 | 969 | 886 | 760 | 646 | 452 | 314 | 289 |
| 50% | 157 | 268 | 423 | 579 | 720 | 876 | 865 | 718 | 613 | 392 | 256 | 221 |
| 60% | 116 | 229 | 370 | 512 | 681 | 833 | 798 | 644 | 529 | 340 | 226 | 157 |
| 70% | 90 | 173 | 327 | 477 | 629 | 716 | 661 | 565 | 446 | 279 | 189 | 127 |
| 80% | 90 | 122 | 275 | 434 | 555 | 655 | 608 | 482 | 403 | 238 | 135 | 92 |
| 90% | 90 | 90 | 251 | 370 | 439 | 569 | 520 | 394 | 282 | 197 | 106 | 90 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 216 | 291 | 457 | 611 | 740 | 821 | 786 | 680 | 576 | 412 | 311 | 267 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 199 | 290 | 482 | 678 | 832 | 918 | 878 | 790 | 674 | 497 | 386 | 301 |
| Above Normal | 213 | 285 | 446 | 596 | 748 | 844 | 802 | 667 | 594 | 409 | 302 | 202 |
| Below Normal | 237 | 279 | 457 | 583 | 709 | 832 | 811 | 702 | 632 | 430 | 310 | 309 |
| Dry | 208 | 281 | 440 | 573 | 689 | 771 | 741 | 620 | 514 | 358 | 252 | 238 |
| Critical | 245 | 330 | 444 | 569 | 651 | 662 | 617 | 533 | 391 | 299 | 258 | 257 |

**Future - Alternative 6 Minus Future - Base**

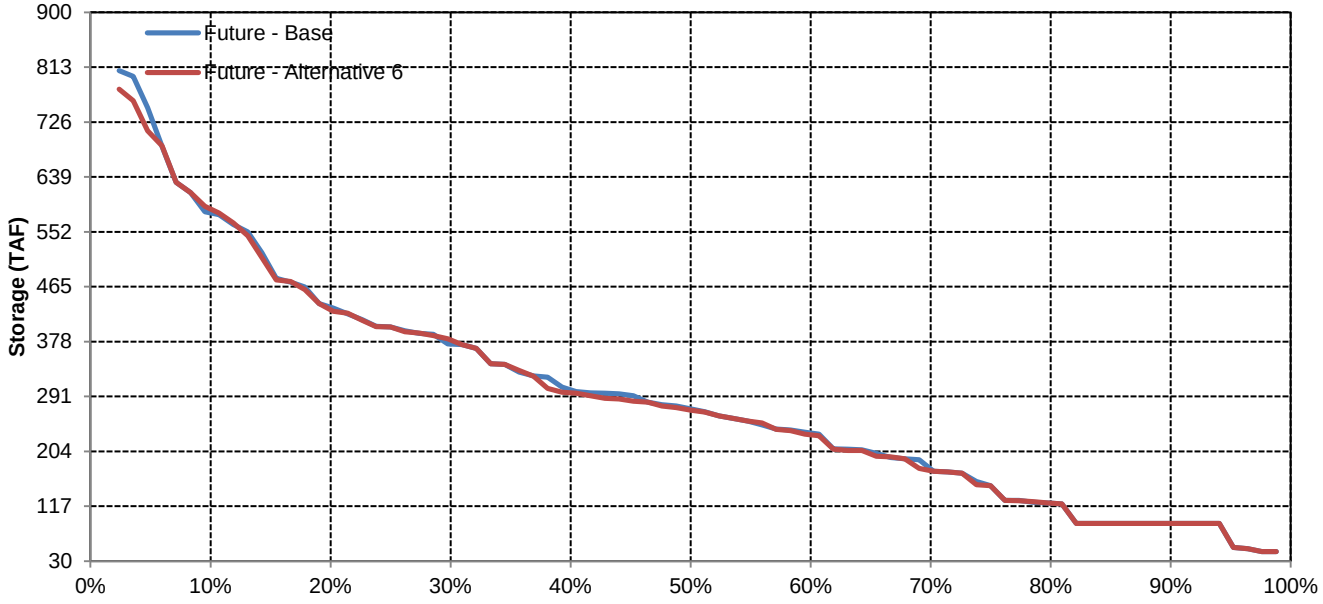
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | 3 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 20% | -6 | -2 | -20 | -9 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | -3 |
| 30% | -1 | 1 | 3 | 4 | -14 | 0 | 0 | 0 | 0 | -2 | -21 | -1 |
| 40% | -15 | -3 | -4 | -14 | -1 | 2 | -3 | -7 | -1 | -3 | -2 | 0 |
| 50% | -3 | -1 | -3 | -1 | -16 | -7 | -3 | 3 | 4 | -2 | 0 | -2 |
| 60% | -2 | -2 | 1 | -8 | -1 | 0 | 5 | 8 | -10 | 0 | 0 | -4 |
| 70% | 0 | 0 | 0 | 0 | 0 | -2 | -4 | -6 | -12 | -9 | -1 | -5 |
| 80% | 0 | 0 | -9 | 2 | 1 | -4 | -3 | 2 | -1 | 0 | -5 | 1 |
| 90% | 0 | 0 | 6 | 0 | 0 | -4 | -11 | 0 | 8 | 0 | -4 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -2 | -2 | -4 | -4 | -3 | -2 | -2 | -2 | -2 | -1 | -3 | -3 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | -4 | -4 | -5 | -3 | -4 | 0 | -2 | -2 | -4 | -2 | -4 | -3 |
| Above Normal | -2 | -3 | -10 | -11 | -6 | 0 | 0 | 0 | -1 | 0 | -1 | -1 |
| Below Normal | 0 | -1 | -2 | -5 | -4 | -4 | -3 | -4 | 0 | 0 | -4 | -3 |
| Dry | -3 | -3 | -2 | -3 | 0 | -1 | -1 | -1 | -2 | -1 | -2 | -1 |
| Critical | 3 | 1 | 0 | -2 | -3 | -4 | -4 | -3 | -4 | -3 | -5 | -5 |

## CVP San Luis Reservoir

### October

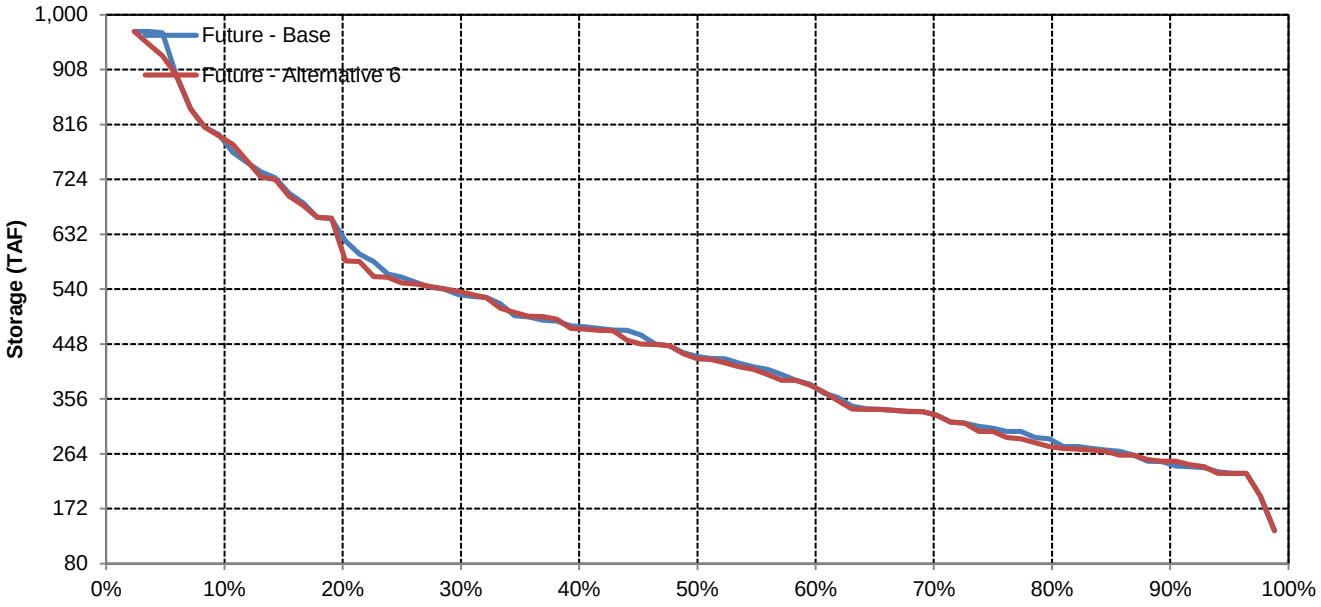



### November

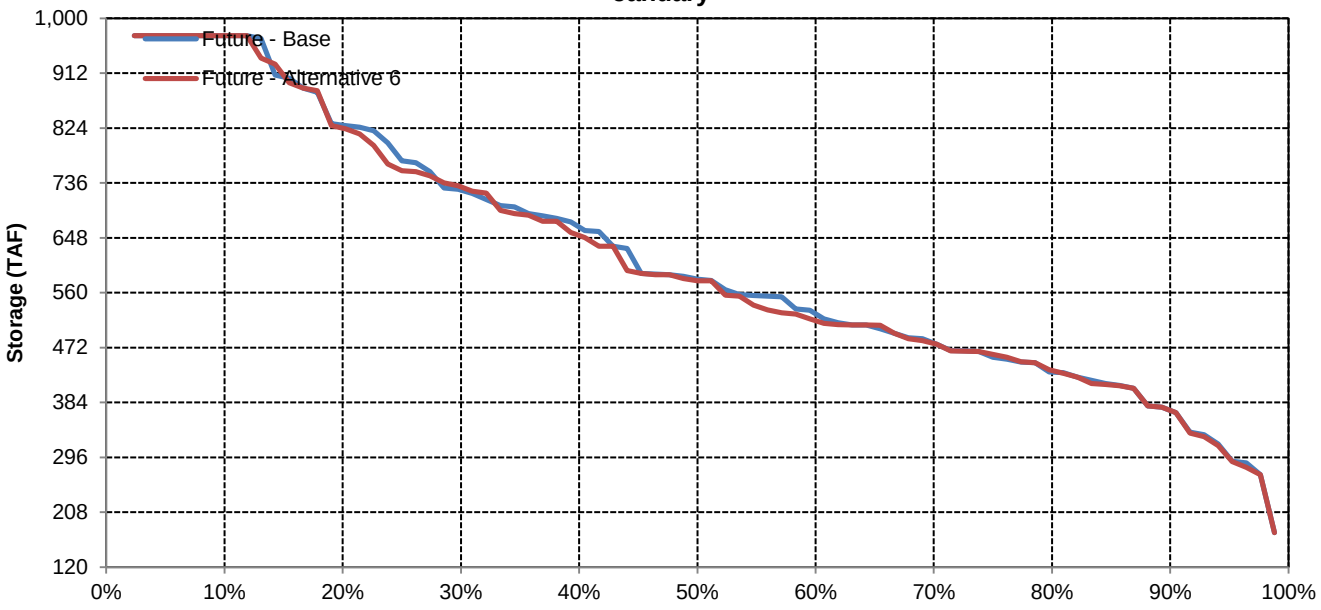


## CVP San Luis Reservoir

### December

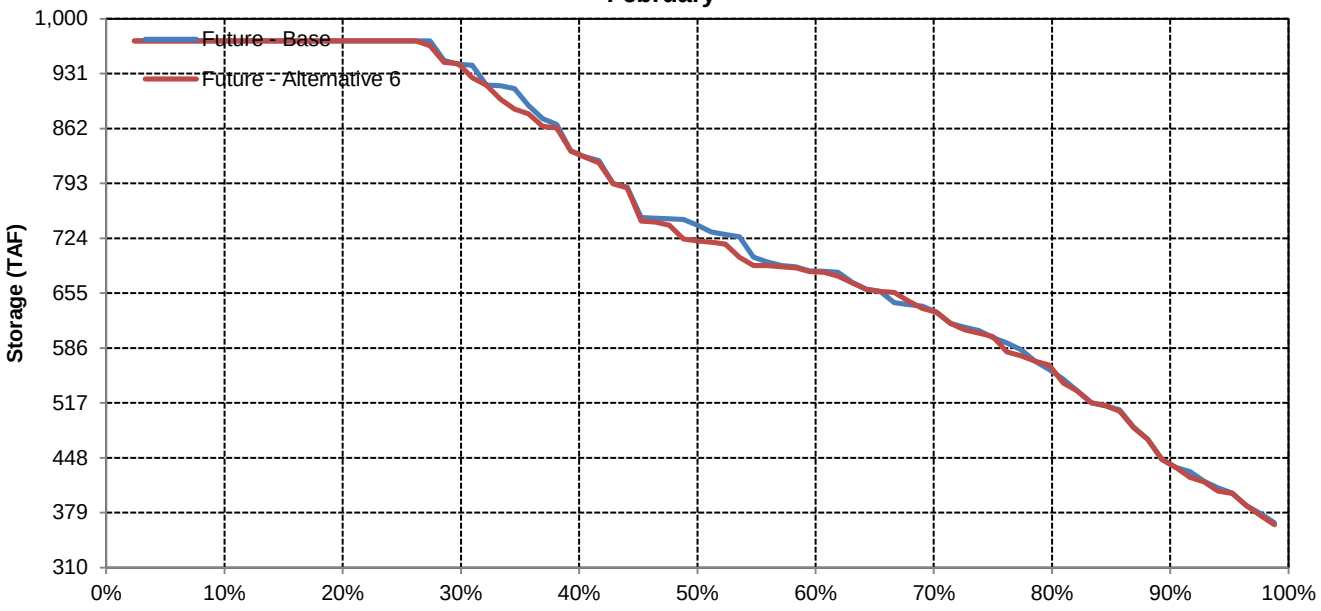



### January

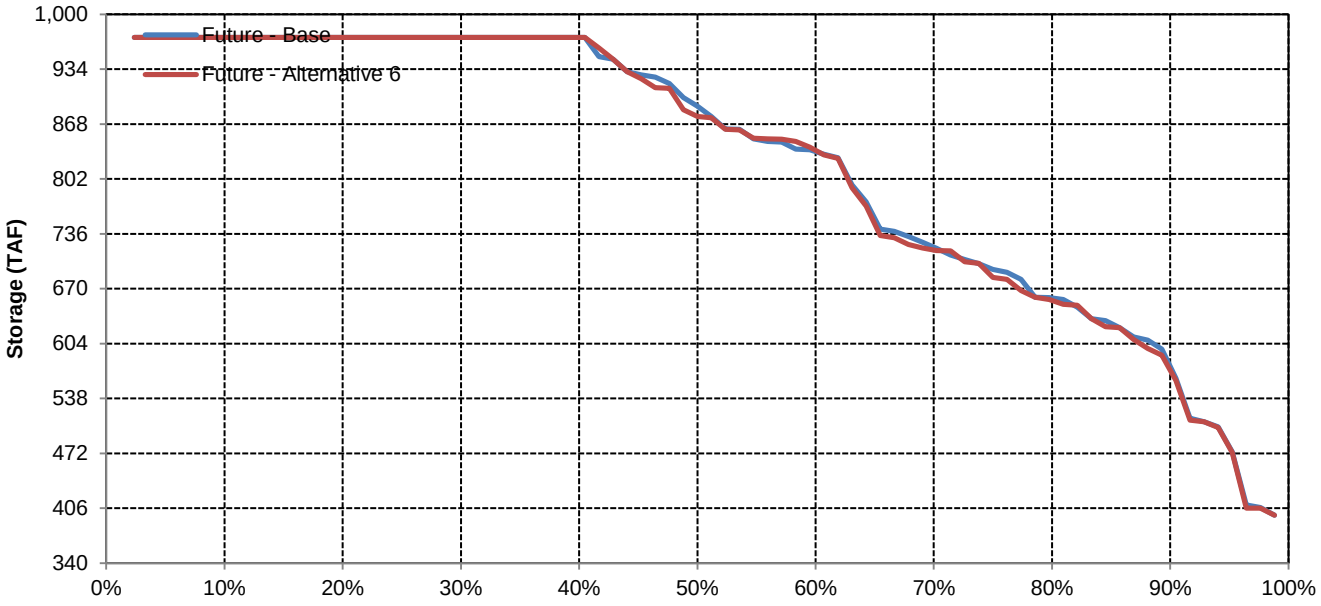


## CVP San Luis Reservoir

### February

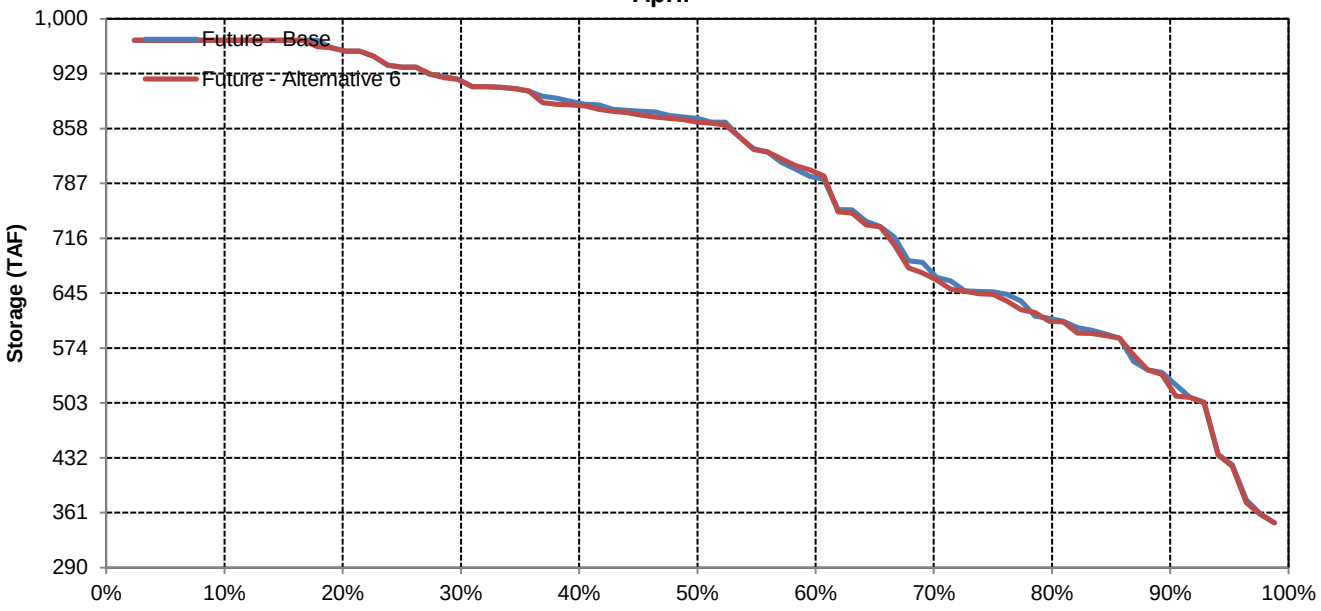



### March

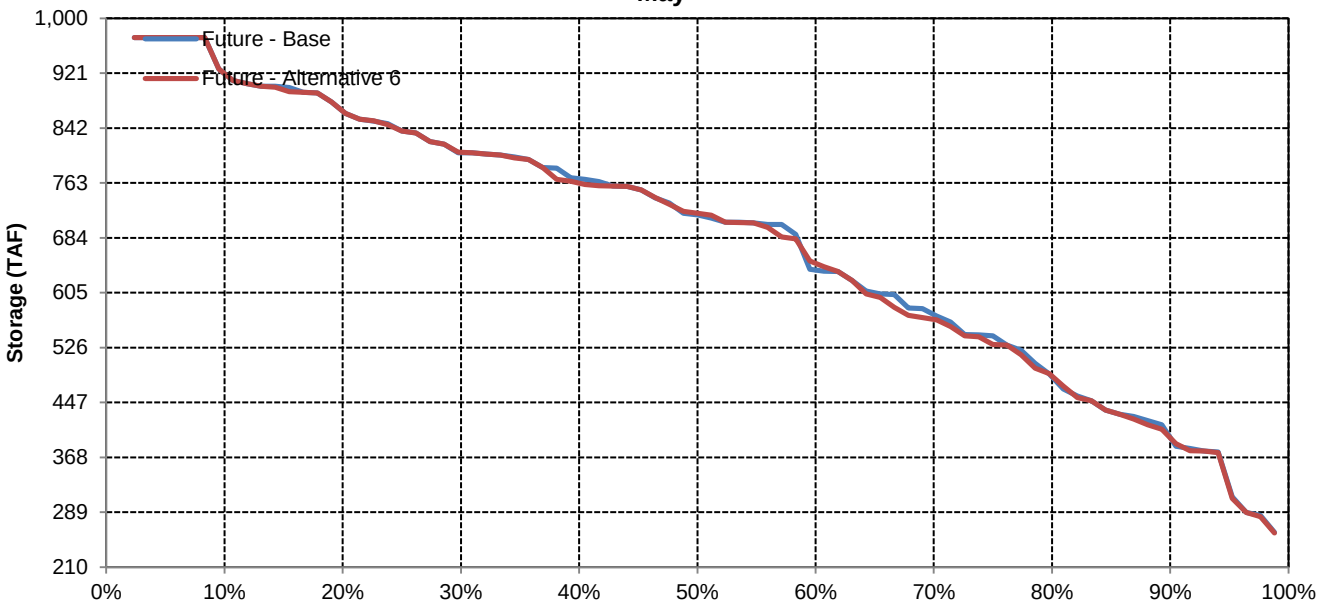


## CVP San Luis Reservoir

### April

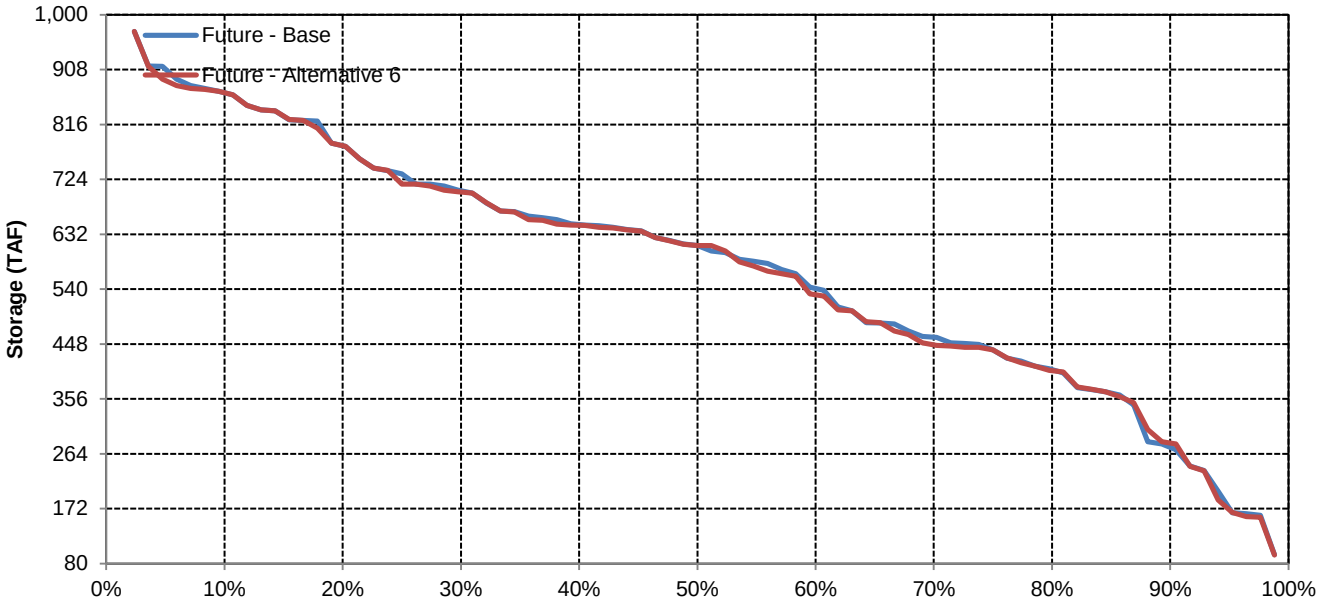



### May

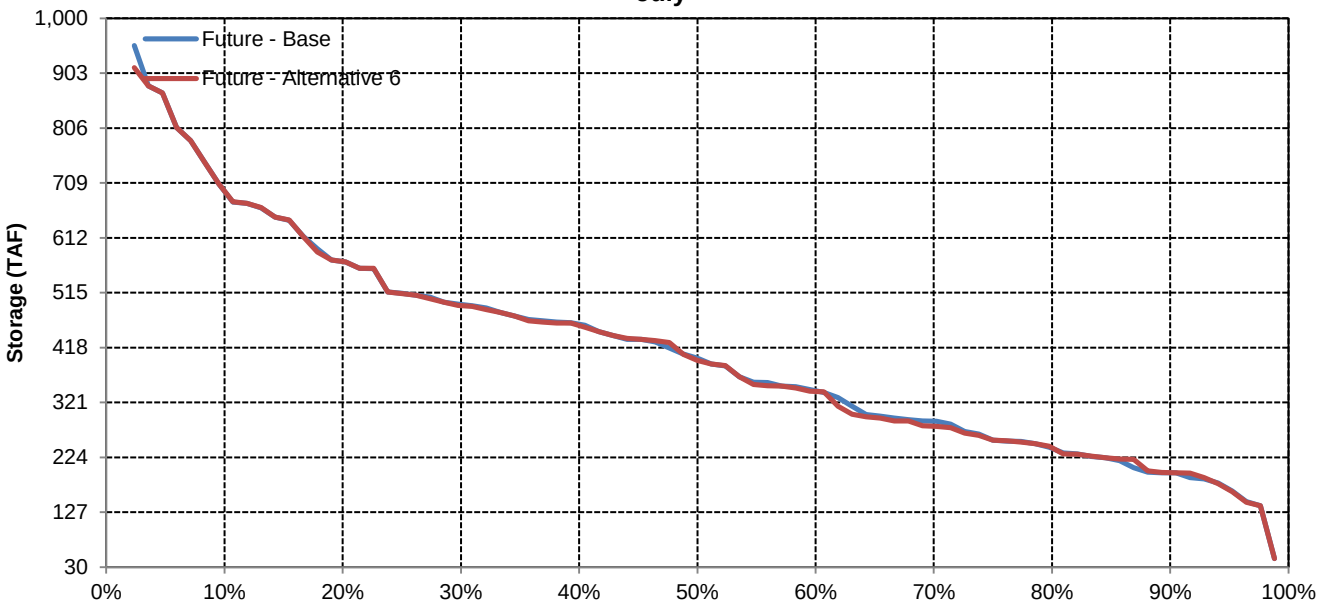


## CVP San Luis Reservoir

### June

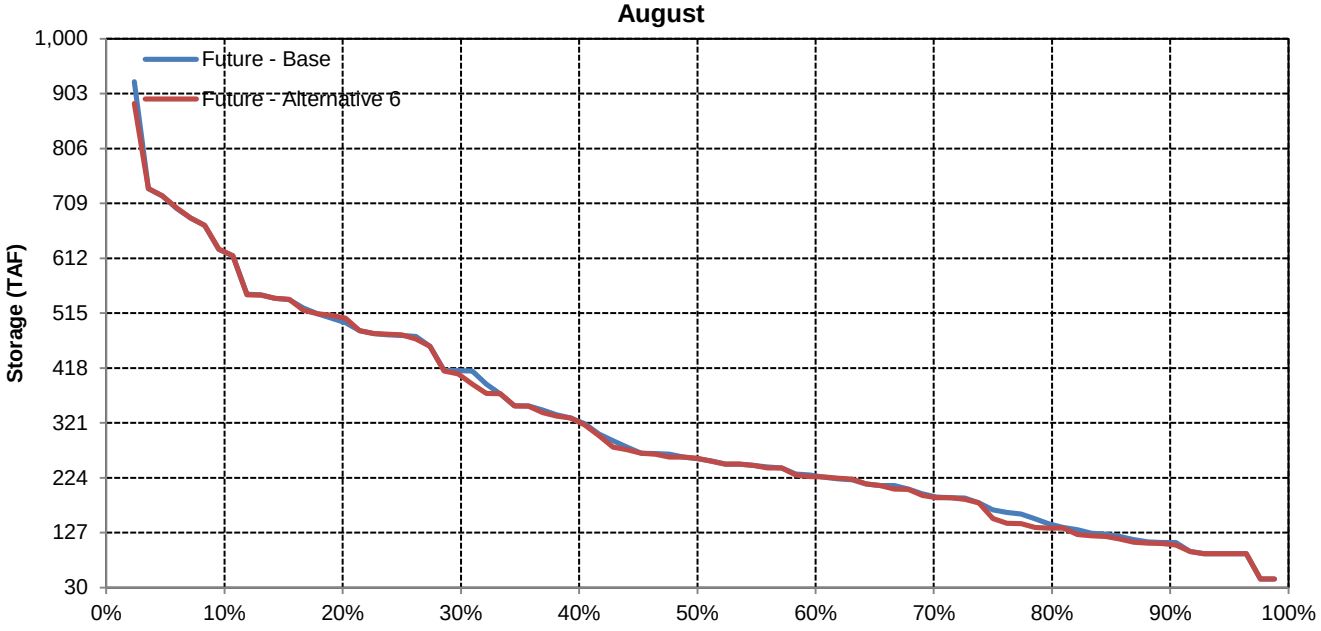



### July

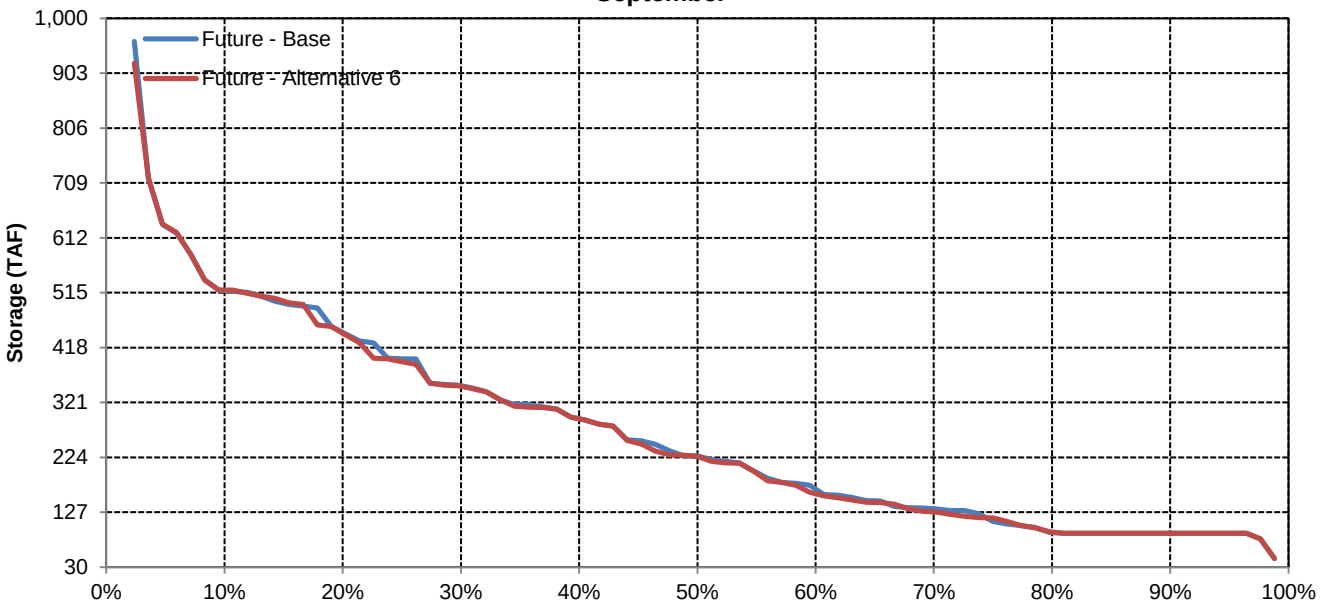


## CVP San Luis Reservoir

### August




### September



**Long-Term and Water Year-Type Average of SWP San Luis Reservoir Under Future - Base and Future - Alternative 6**

| | Average Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** |
| | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | |
| Future - Base | 181 | 218 | 351 | 573 | 767 | 885 | 811 | 640 | 506 | 467 | 355 | 257 |
| Future - Alternative 6 | 180 | 217 | 348 | 568 | 760 | 880 | 806 | 636 | 502 | 464 | 353 | 256 |
| Difference | -1 | -1 | -3 | -6 | -6 | -5 | -5 | -4 | -4 | -4 | -2 | -1 |
| Percent Difference | -1% | 0% | -1% | -1% | -1% | -1% | -1% | -1% | -1% | -1% | 0% | -1% |
| | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | |
| Future - Base | 203 | 282 | 505 | 823 | 1,011 | 1,058 | 951 | 746 | 542 | 550 | 458 | 320 |
| Future - Alternative 6 | 202 | 282 | 501 | 816 | 1,007 | 1,058 | 950 | 745 | 544 | 551 | 457 | 319 |
| Difference | 0 | 0 | -4 | -7 | -3 | 0 | -1 | -1 | 2 | 1 | -1 | -1 |
| Percent Difference | 0% | 0% | -1% | -1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | |
| Future - Base | 154 | 177 | 288 | 602 | 890 | 1,035 | 904 | 639 | 536 | 533 | 415 | 285 |
| Future - Alternative 6 | 150 | 175 | 278 | 589 | 881 | 1,027 | 897 | 633 | 531 | 529 | 411 | 283 |
| Difference | -4 | -2 | -11 | -13 | -10 | -8 | -7 | -6 | -5 | -5 | -3 | -2 |
| Percent Difference | -2% | -1% | -4% | -2% | -1% | -1% | -1% | -1% | -1% | -1% | -1% | -1% |
| **Below Normal** | | | | | | | | | | | | |
| Future - Base | 158 | 169 | 276 | 398 | 650 | 887 | 815 | 629 | 522 | 492 | 321 | 226 |
| Future - Alternative 6 | 159 | 169 | 273 | 390 | 637 | 881 | 808 | 620 | 504 | 475 | 316 | 222 |
| Difference | 0 | 0 | -3 | -8 | -12 | -7 | -7 | -9 | -18 | -17 | -5 | -4 |
| Percent Difference | 0% | 0% | -1% | -2% | -2% | -1% | -1% | -1% | -3% | -3% | -2% | -2% |
| **Dry** | | | | | | | | | | | | |
| Future - Base | 169 | 206 | 304 | 453 | 620 | 767 | 724 | 597 | 504 | 425 | 286 | 210 |
| Future - Alternative 6 | 167 | 205 | 302 | 448 | 612 | 757 | 716 | 592 | 503 | 423 | 286 | 209 |
| Difference | -2 | -1 | -2 | -5 | -8 | -10 | -8 | -5 | -1 | -1 | 0 | -1 |
| Percent Difference | -1% | -1% | -1% | -1% | -1% | -1% | -1% | -1% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | |
| Future - Base | 203 | 190 | 237 | 399 | 497 | 565 | 563 | 496 | 384 | 272 | 225 | 207 |
| Future - Alternative 6 | 204 | 189 | 241 | 403 | 496 | 563 | 561 | 494 | 377 | 270 | 226 | 208 |
| Difference | 1 | 0 | 4 | 3 | -1 | -2 | -2 | -2 | -6 | -3 | 1 | 1 |
| Percent Difference | 0% | 0% | 2% | 1% | 0% | 0% | 0% | 0% | -2% | -1% | 0% | 0% |

**SWP San Luis Reservoir**

**Future - Base**

| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 315 | 489 | 775 | 1,067 | 1,067 | 1,067 | 1,021 | 828 | 699 | 642 | 503 | 311 |
| 20% | 247 | 327 | 590 | 954 | 1,067 | 1,067 | 959 | 755 | 649 | 601 | 410 | 291 |
| 30% | 211 | 266 | 394 | 761 | 1,067 | 1,067 | 945 | 701 | 621 | 551 | 383 | 268 |
| 40% | 165 | 235 | 339 | 664 | 984 | 1,067 | 921 | 680 | 601 | 539 | 371 | 243 |
| 50% | 145 | 178 | 282 | 538 | 818 | 1,067 | 897 | 643 | 567 | 505 | 355 | 237 |
| 60% | 128 | 94 | 223 | 455 | 664 | 944 | 869 | 621 | 492 | 462 | 333 | 225 |
| 70% | 114 | 55 | 183 | 369 | 597 | 745 | 733 | 586 | 381 | 341 | 315 | 210 |
| 80% | 90 | 55 | 116 | 243 | 482 | 636 | 621 | 505 | 332 | 279 | 229 | 196 |
| 90% | 55 | 55 | 59 | 155 | 322 | 485 | 503 | 404 | 248 | 235 | 165 | 156 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 181 | 218 | 351 | 573 | 767 | 885 | 811 | 640 | 506 | 467 | 355 | 257 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 203 | 282 | 505 | 823 | 1,011 | 1,058 | 951 | 746 | 542 | 550 | 458 | 320 |
| Above Normal | 154 | 177 | 288 | 602 | 890 | 1,035 | 904 | 639 | 536 | 533 | 415 | 285 |
| Below Normal | 158 | 169 | 276 | 398 | 650 | 887 | 815 | 629 | 522 | 492 | 321 | 226 |
| Dry | 169 | 206 | 304 | 453 | 620 | 767 | 724 | 597 | 504 | 425 | 286 | 210 |
| Critical | 203 | 190 | 237 | 399 | 497 | 565 | 563 | 496 | 384 | 272 | 225 | 207 |

**Future - Alternative 6**

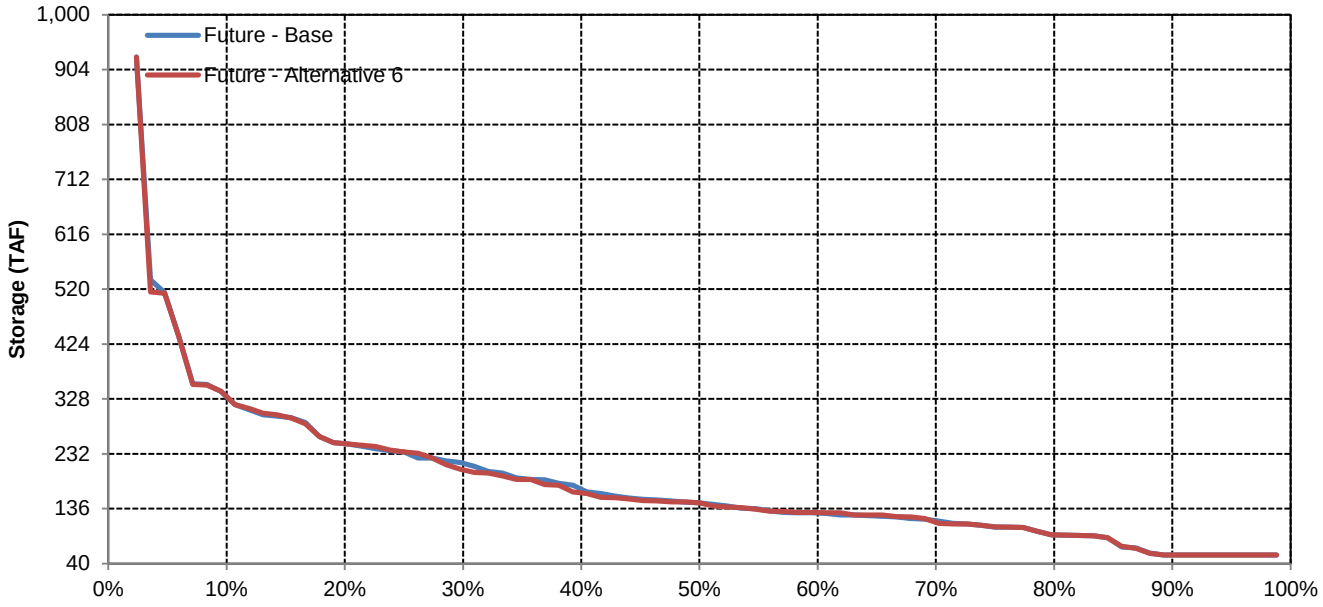
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 316 | 475 | 783 | 1,067 | 1,067 | 1,067 | 1,018 | 828 | 701 | 635 | 505 | 311 |
| 20% | 248 | 331 | 586 | 955 | 1,067 | 1,067 | 957 | 744 | 645 | 601 | 411 | 291 |
| 30% | 200 | 266 | 386 | 741 | 1,067 | 1,067 | 941 | 700 | 615 | 556 | 383 | 269 |
| 40% | 161 | 240 | 323 | 639 | 983 | 1,067 | 914 | 678 | 598 | 539 | 371 | 243 |
| 50% | 143 | 172 | 283 | 509 | 770 | 1,067 | 892 | 643 | 552 | 497 | 352 | 236 |
| 60% | 129 | 81 | 222 | 440 | 659 | 942 | 862 | 619 | 490 | 462 | 337 | 224 |
| 70% | 110 | 55 | 168 | 358 | 585 | 746 | 739 | 581 | 381 | 324 | 311 | 207 |
| 80% | 90 | 55 | 121 | 240 | 472 | 624 | 604 | 477 | 325 | 270 | 218 | 192 |
| 90% | 55 | 55 | 59 | 154 | 310 | 482 | 495 | 406 | 248 | 229 | 166 | 151 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 180 | 217 | 348 | 568 | 760 | 880 | 806 | 636 | 502 | 464 | 353 | 256 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 202 | 282 | 501 | 816 | 1,007 | 1,058 | 950 | 745 | 544 | 551 | 457 | 319 |
| Above Normal | 150 | 175 | 278 | 589 | 881 | 1,027 | 897 | 633 | 531 | 529 | 411 | 283 |
| Below Normal | 159 | 169 | 273 | 390 | 637 | 881 | 808 | 620 | 504 | 475 | 316 | 222 |
| Dry | 167 | 205 | 302 | 448 | 612 | 757 | 716 | 592 | 503 | 423 | 286 | 209 |
| Critical | 204 | 189 | 241 | 403 | 496 | 563 | 561 | 494 | 377 | 270 | 226 | 208 |

**Future - Alternative 6 Minus Future - Base**

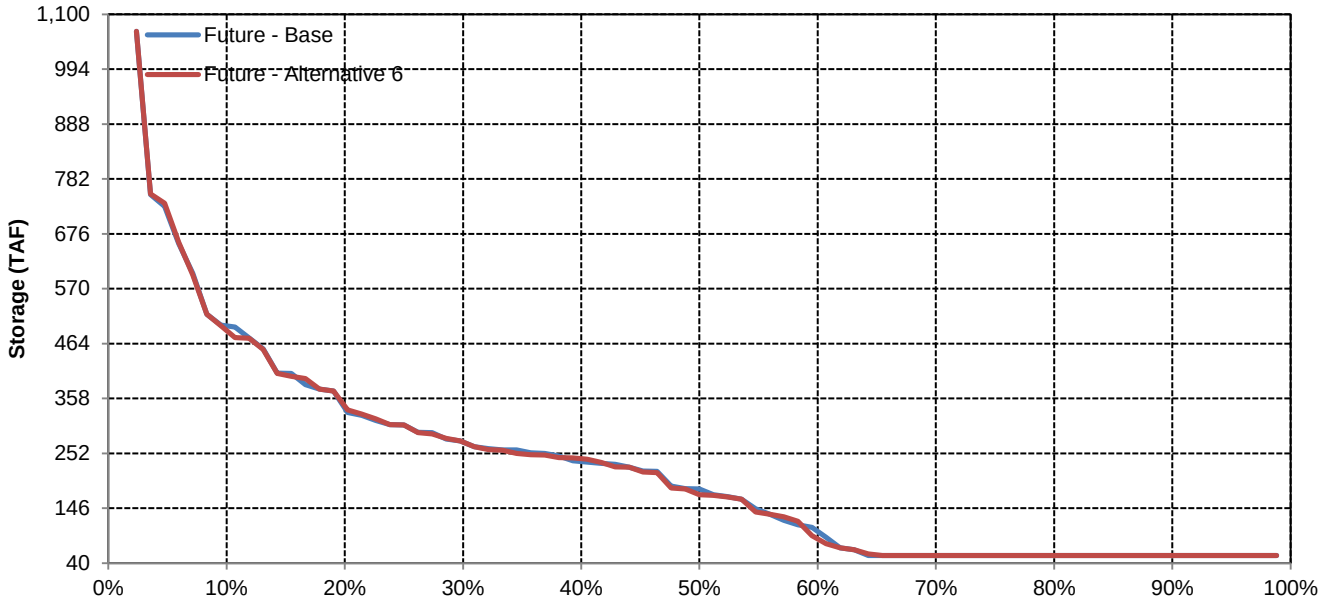
| | End-of-Month Storage (TAF) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 1 | -14 | 8 | 0 | 0 | 0 | -3 | 0 | 2 | -7 | 3 | 0 |
| 20% | 1 | 4 | -4 | 1 | 0 | 0 | -2 | -12 | -4 | -1 | 1 | 0 |
| 30% | -11 | 0 | -9 | -21 | 0 | 0 | -4 | -1 | -6 | 5 | 0 | 0 |
| 40% | -3 | 5 | -16 | -25 | 0 | 0 | -7 | -2 | -4 | 0 | 0 | 0 |
| 50% | -1 | -6 | 1 | -29 | -48 | 0 | -4 | 0 | -16 | -8 | -3 | -1 |
| 60% | 1 | -13 | 0 | -15 | -5 | -2 | -8 | -2 | -2 | 0 | 4 | -1 |
| 70% | -4 | 0 | -15 | -11 | -12 | 1 | 6 | -5 | 0 | -18 | -5 | -3 |
| 80% | 0 | 0 | 5 | -3 | -10 | -12 | -17 | -29 | -6 | -9 | -11 | -4 |
| 90% | 0 | 0 | 0 | -1 | -12 | -3 | -8 | 1 | 0 | -6 | 1 | -6 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | -1 | -1 | -3 | -6 | -6 | -5 | -5 | -4 | -4 | -4 | -2 | -1 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 0 | 0 | -4 | -7 | -3 | 0 | -1 | -1 | 2 | 1 | -1 | -1 |
| Above Normal | -4 | -2 | -11 | -13 | -10 | -8 | -7 | -6 | -5 | -5 | -3 | -2 |
| Below Normal | 0 | 0 | -3 | -8 | -12 | -7 | -7 | -9 | -18 | -17 | -5 | -4 |
| Dry | -2 | -1 | -2 | -5 | -8 | -10 | -8 | -5 | -1 | -1 | 0 | -1 |
| Critical | 1 | 0 | 4 | 3 | -1 | -2 | -2 | -2 | -6 | -3 | 1 | 1 |

## SWP San Luis Reservoir

### October

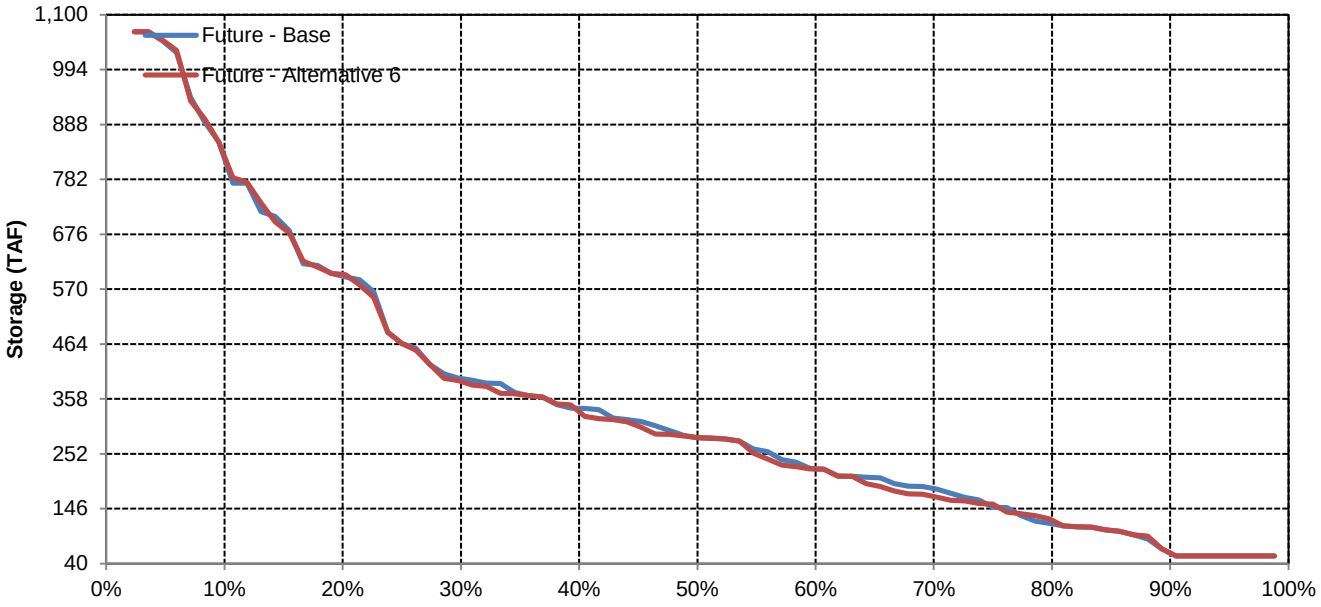



### November

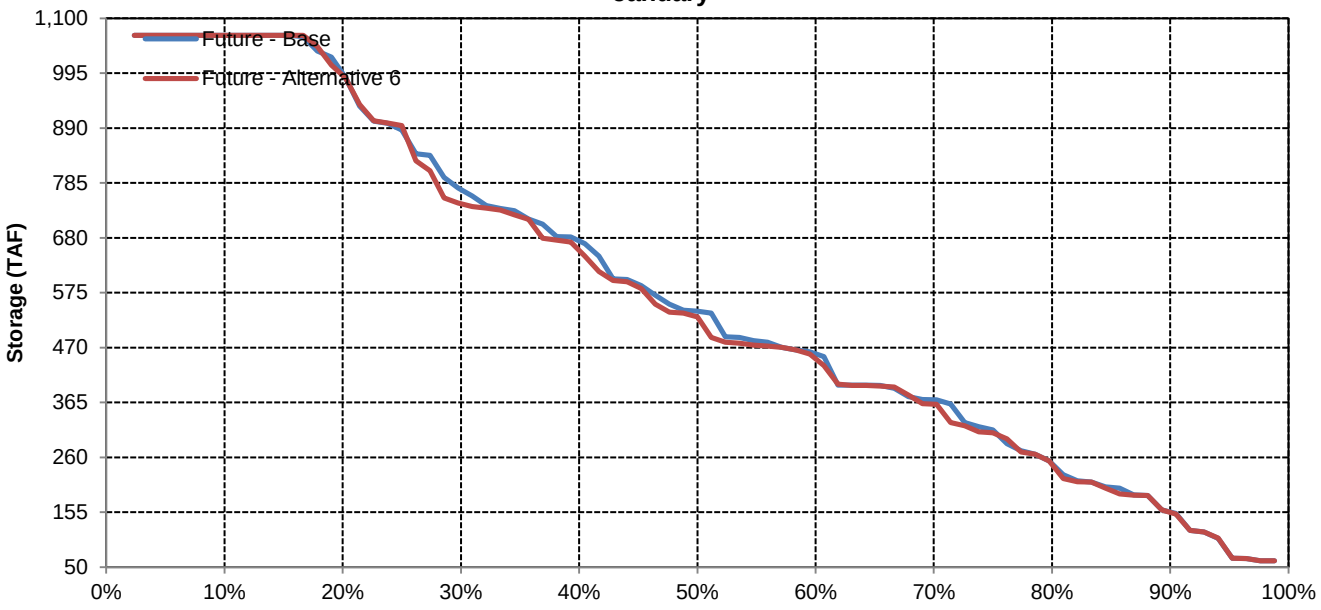


## SWP San Luis Reservoir

### December

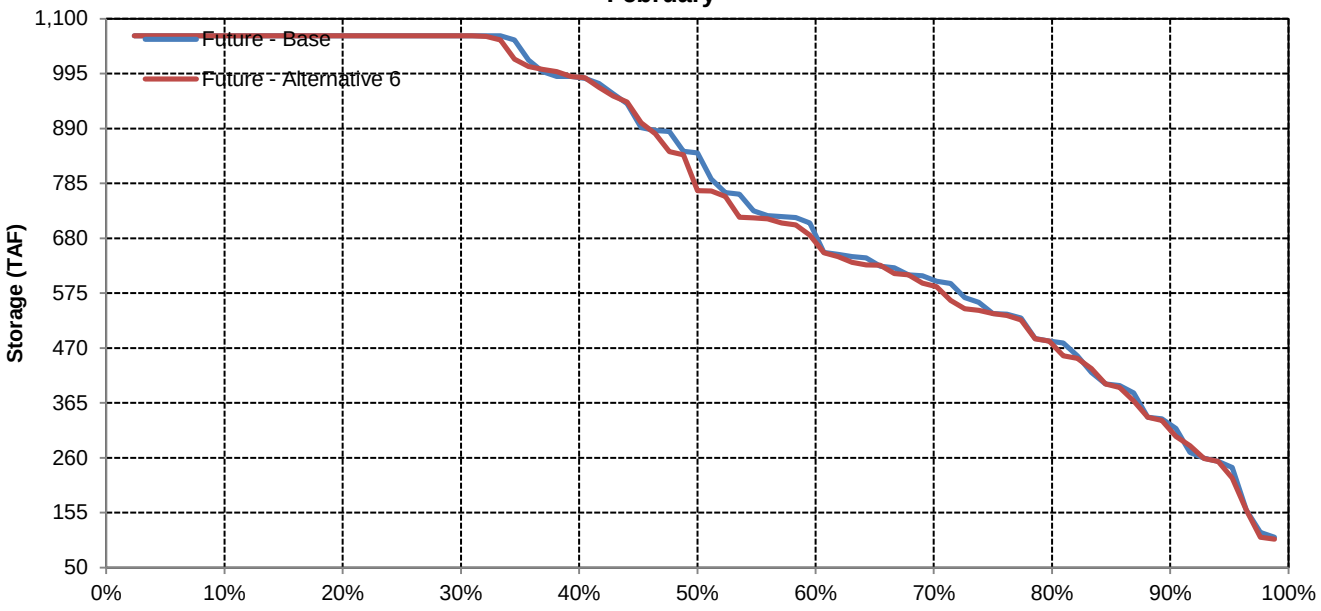



### January

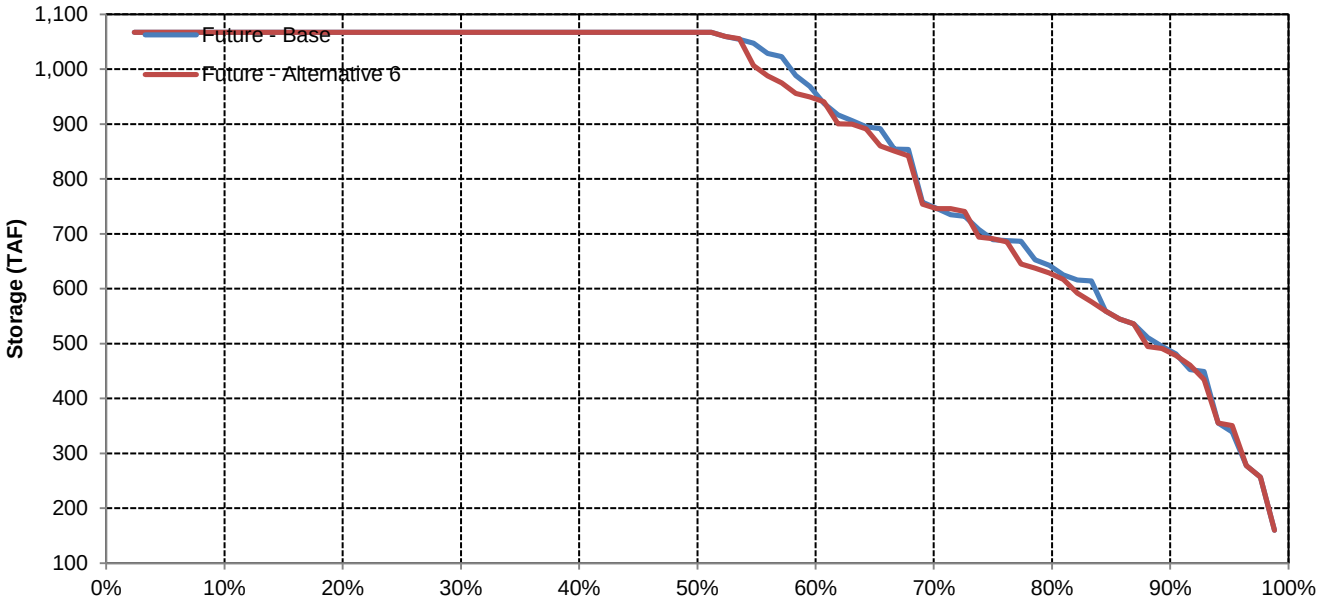


## SWP San Luis Reservoir

### February

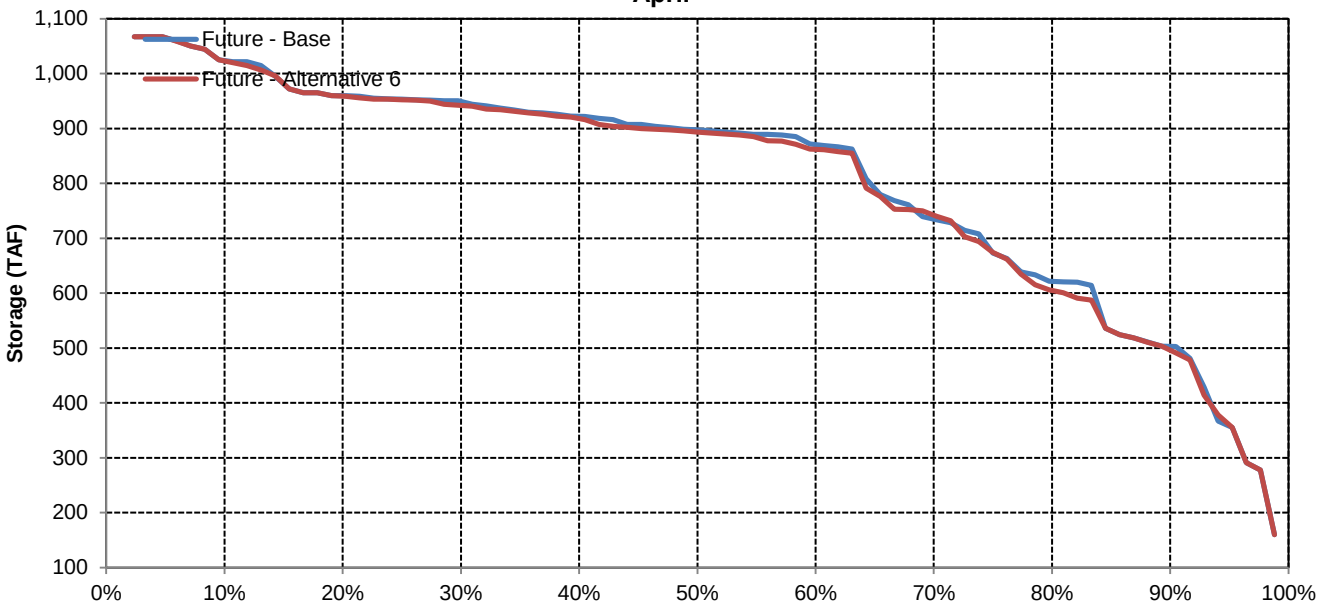



### March

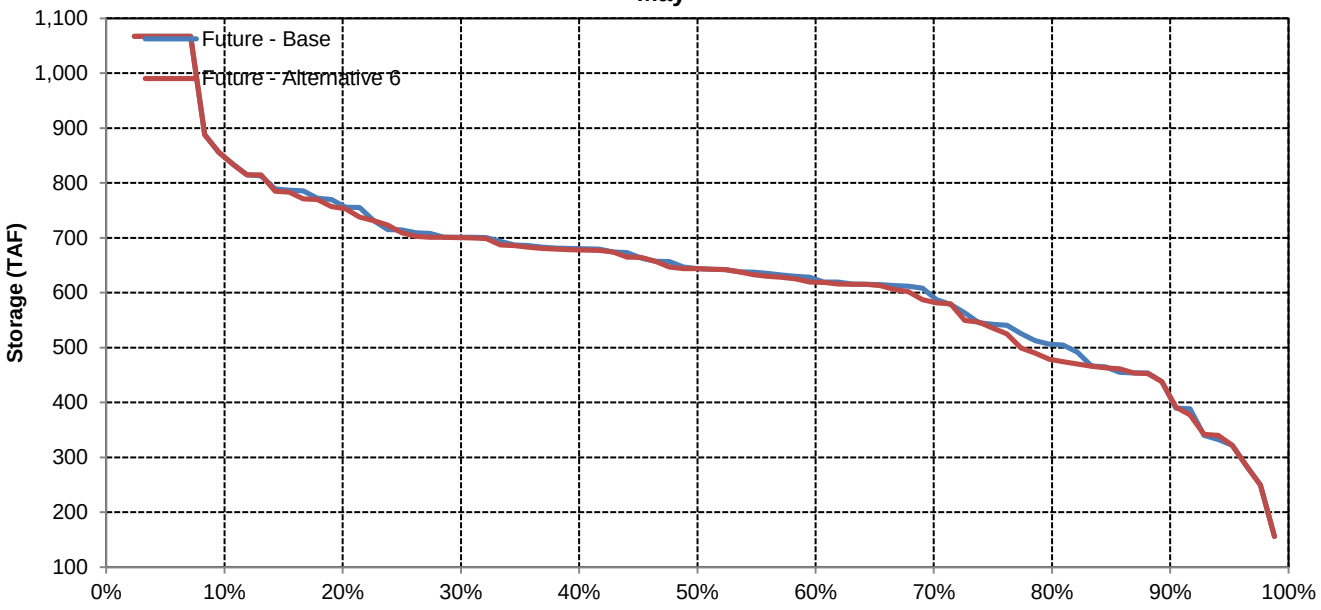


## SWP San Luis Reservoir

### April

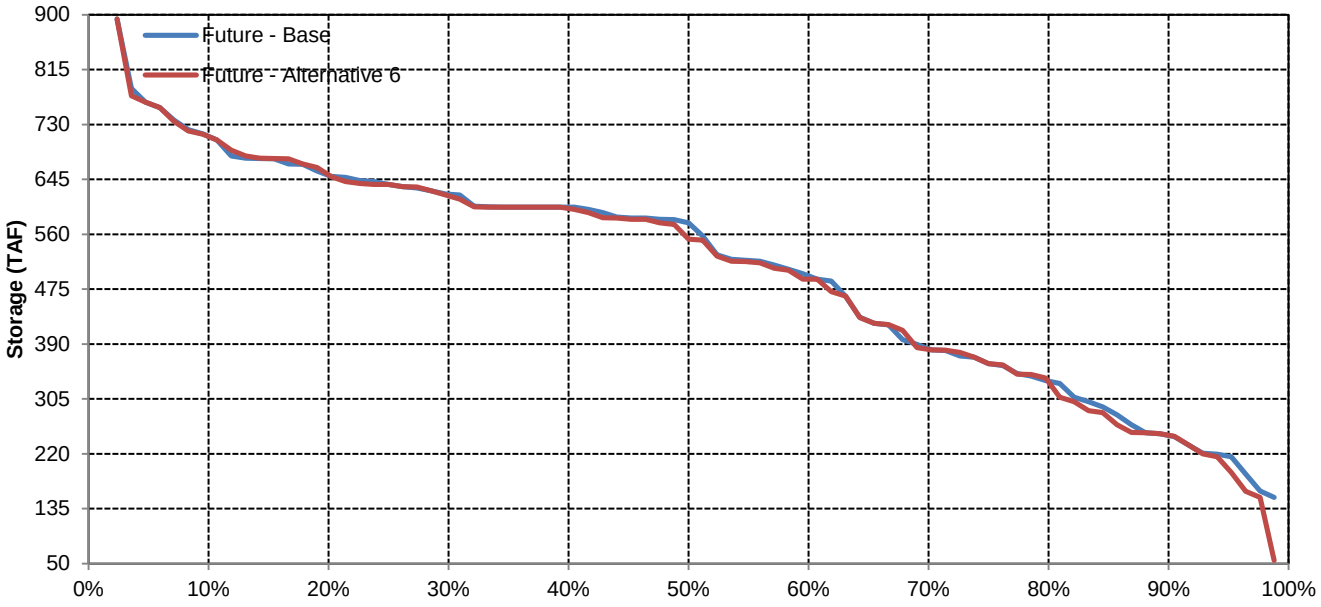



### May

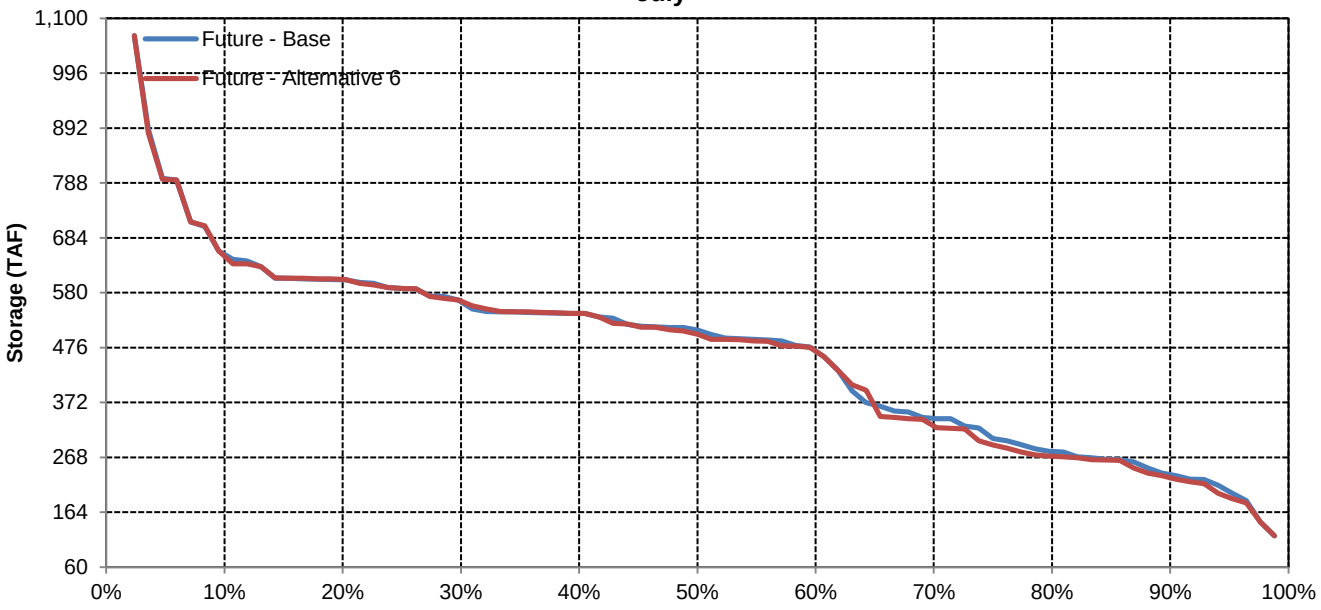


## SWP San Luis Reservoir

### June

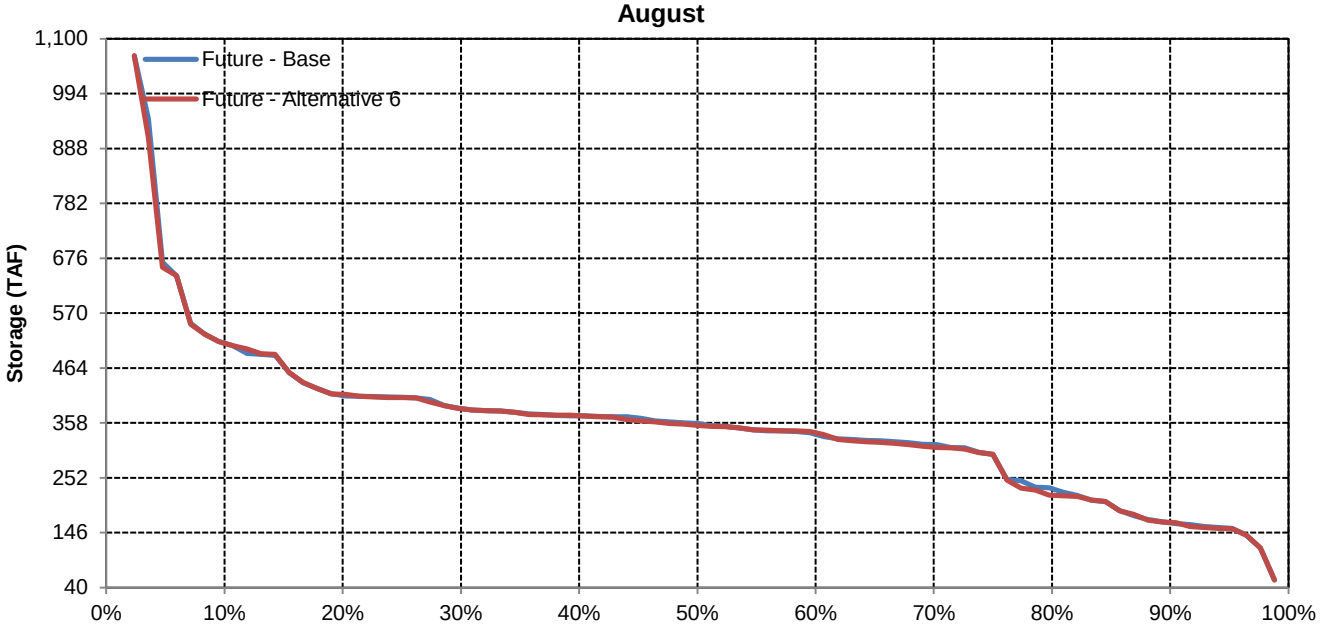



### July

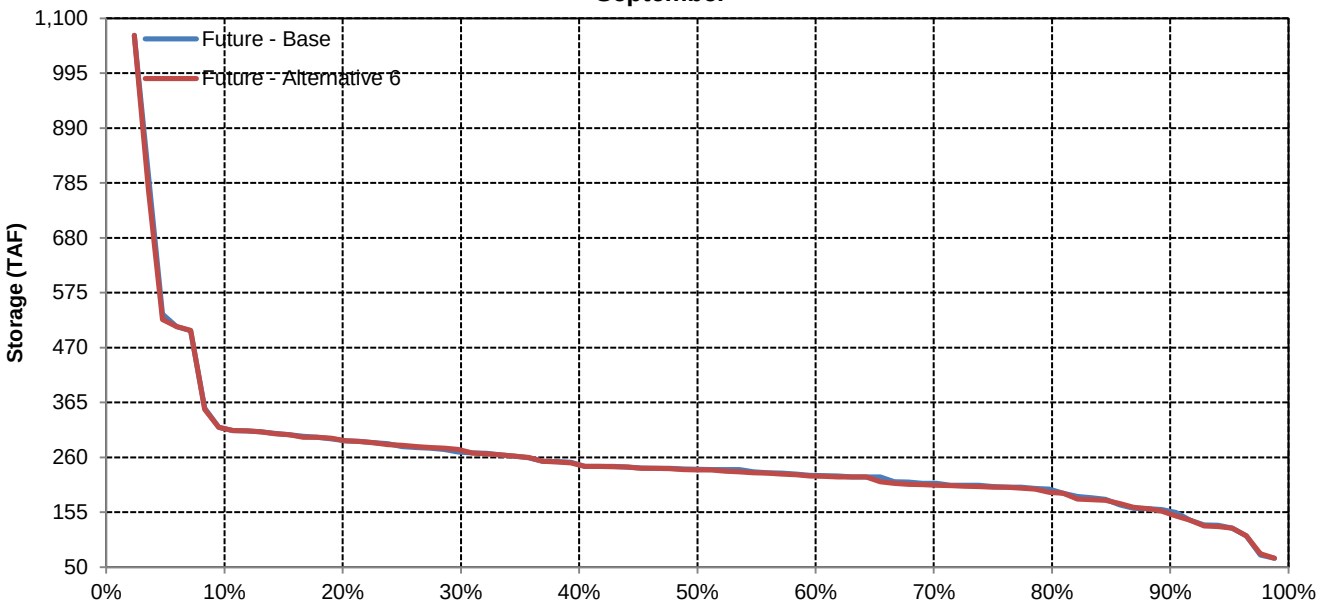


## SWP San Luis Reservoir

### August




### September



**Long-Term and Water Year-Type Average of Delta Outflow Under Future - Base and Future - Alternative 6**

| | Average Flow (cfs) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analysis Period** | **October** | **November** | **December** | **January** | **February** | **March** | **April** | **May** | **June** | **July** | **August** | **September** | **Total (TAF)** |
| | | | | | | | **Long-Term** | | | | | | |
| **Full Simulation Period** | | | | | | | | | | | | | |
| Future - Base | 8,408 | 10,099 | 24,888 | 54,896 | 70,049 | 52,500 | 29,061 | 14,179 | 8,605 | 7,157 | 4,274 | 10,294 | 17,604 |
| Future - Alternative 6 | 8,427 | 10,108 | 24,915 | 55,003 | 70,106 | 52,498 | 29,061 | 14,168 | 8,590 | 7,155 | 4,279 | 10,293 | 17,616 |
| Difference | 18 | 9 | 26 | 106 | 57 | -2 | 0 | -11 | -15 | -2 | 5 | 0 | 11 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | **Water Year-Types** | | | | | | |
| **Wet** | | | | | | | | | | | | | |
| Future - Base | 9,541 | 15,088 | 53,646 | 115,984 | 131,904 | 102,001 | 53,280 | 21,075 | 11,285 | 9,709 | 4,000 | 21,635 | 32,826 |
| Future - Alternative 6 | 9,573 | 15,087 | 53,784 | 116,099 | 131,901 | 101,964 | 53,290 | 21,051 | 11,295 | 9,706 | 4,000 | 21,635 | 32,840 |
| Difference | 33 | -2 | 137 | 116 | -3 | -36 | 10 | -24 | 9 | -3 | 0 | 0 | 15 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Above Normal** | | | | | | | | | | | | | |
| Future - Base | 9,036 | 8,854 | 16,293 | 59,685 | 102,404 | 57,212 | 27,004 | 15,829 | 8,580 | 8,899 | 4,000 | 13,224 | 19,718 |
| Future - Alternative 6 | 9,153 | 8,854 | 16,343 | 59,846 | 102,482 | 57,120 | 27,007 | 15,828 | 8,581 | 8,898 | 4,000 | 13,224 | 19,737 |
| Difference | 117 | 1 | 50 | 161 | 78 | -91 | 3 | 0 | 2 | -1 | 0 | 0 | 19 |
| Percent Difference | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Below Normal** | | | | | | | | | | | | | |
| Future - Base | 8,461 | 9,070 | 13,804 | 28,415 | 31,537 | 29,246 | 21,994 | 12,973 | 7,605 | 6,655 | 4,139 | 3,000 | 10,623 |
| Future - Alternative 6 | 8,451 | 9,100 | 13,864 | 28,547 | 31,606 | 29,283 | 21,994 | 12,957 | 7,532 | 6,649 | 4,157 | 3,000 | 10,637 |
| Difference | -10 | 30 | 59 | 133 | 69 | 38 | 0 | -16 | -73 | -6 | 18 | 0 | 15 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% |
| **Dry** | | | | | | | | | | | | | |
| Future - Base | 7,611 | 7,891 | 10,135 | 15,901 | 29,451 | 24,322 | 15,139 | 9,861 | 7,158 | 5,000 | 4,785 | 3,000 | 8,395 |
| Future - Alternative 6 | 7,616 | 7,888 | 10,165 | 15,965 | 29,545 | 24,387 | 15,130 | 9,857 | 7,161 | 5,000 | 4,786 | 3,000 | 8,410 |
| Difference | 5 | -4 | 30 | 64 | 94 | 65 | -9 | -4 | 3 | 0 | 1 | 0 | 15 |
| Percent Difference | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| **Critical** | | | | | | | | | | | | | |
| Future - Base | 6,653 | 5,227 | 7,054 | 11,831 | 15,756 | 13,084 | 9,330 | 6,228 | 6,318 | 4,170 | 4,415 | 3,092 | 5,600 |
| Future - Alternative 6 | 6,601 | 5,263 | 6,776 | 11,910 | 15,848 | 13,087 | 9,319 | 6,228 | 6,265 | 4,170 | 4,428 | 3,091 | 5,589 |
| Difference | -52 | 37 | -278 | 79 | 92 | 3 | -11 | 0 | -53 | 0 | 13 | -1 | -11 |
| Percent Difference | -1% | 1% | -4% | 1% | 1% | 0% | 0% | 0% | -1% | 0% | 0% | 0% | 0% |

**Delta Outflow**

**Future - Base**

| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 10,938 | 15,863 | 79,058 | 151,208 | 180,010 | 107,880 | 70,644 | 27,159 | 11,545 | 10,516 | 4,885 | 21,875 |
| 20% | 10,625 | 14,764 | 33,428 | 92,252 | 125,923 | 89,027 | 38,581 | 18,353 | 10,462 | 9,612 | 4,709 | 21,563 |
| 30% | 10,313 | 11,693 | 17,489 | 56,706 | 77,981 | 62,254 | 28,814 | 14,204 | 8,749 | 9,048 | 4,349 | 20,938 |
| 40% | 7,625 | 11,004 | 14,366 | 33,893 | 58,622 | 40,886 | 20,594 | 12,808 | 8,409 | 8,000 | 4,217 | 13,062 |
| 50% | 7,160 | 8,104 | 11,802 | 26,142 | 43,165 | 27,471 | 17,579 | 11,253 | 7,899 | 6,666 | 4,000 | 3,000 |
| 60% | 6,994 | 4,500 | 8,257 | 19,228 | 24,986 | 20,728 | 15,558 | 10,174 | 7,418 | 6,500 | 4,000 | 3,000 |
| 70% | 6,613 | 4,500 | 5,323 | 14,908 | 20,687 | 17,661 | 13,640 | 9,584 | 7,100 | 5,000 | 4,000 | 3,000 |
| 80% | 6,259 | 4,500 | 4,500 | 13,125 | 16,723 | 14,481 | 11,153 | 8,460 | 7,100 | 5,000 | 4,000 | 3,000 |
| 90% | 5,678 | 3,500 | 4,500 | 8,401 | 12,239 | 11,400 | 10,016 | 7,100 | 6,799 | 4,065 | 4,000 | 3,000 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,408 | 10,099 | 24,888 | 54,896 | 70,049 | 52,500 | 29,061 | 14,179 | 8,605 | 7,157 | 4,274 | 10,294 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 9,541 | 15,088 | 53,646 | 115,984 | 131,904 | 102,001 | 53,280 | 21,075 | 11,285 | 9,709 | 4,000 | 21,635 |
| Above Normal | 9,036 | 8,854 | 16,293 | 59,685 | 102,404 | 57,212 | 27,004 | 15,829 | 8,580 | 8,899 | 4,000 | 13,224 |
| Below Normal | 8,461 | 9,070 | 13,804 | 28,415 | 31,537 | 29,246 | 21,994 | 12,973 | 7,605 | 6,655 | 4,139 | 3,000 |
| Dry | 7,611 | 7,891 | 10,135 | 15,901 | 29,451 | 24,322 | 15,139 | 9,861 | 7,158 | 5,000 | 4,785 | 3,000 |
| Critical | 6,653 | 5,227 | 7,054 | 11,831 | 15,756 | 13,084 | 9,330 | 6,228 | 6,318 | 4,170 | 4,415 | 3,092 |

**Future - Alternative 6**

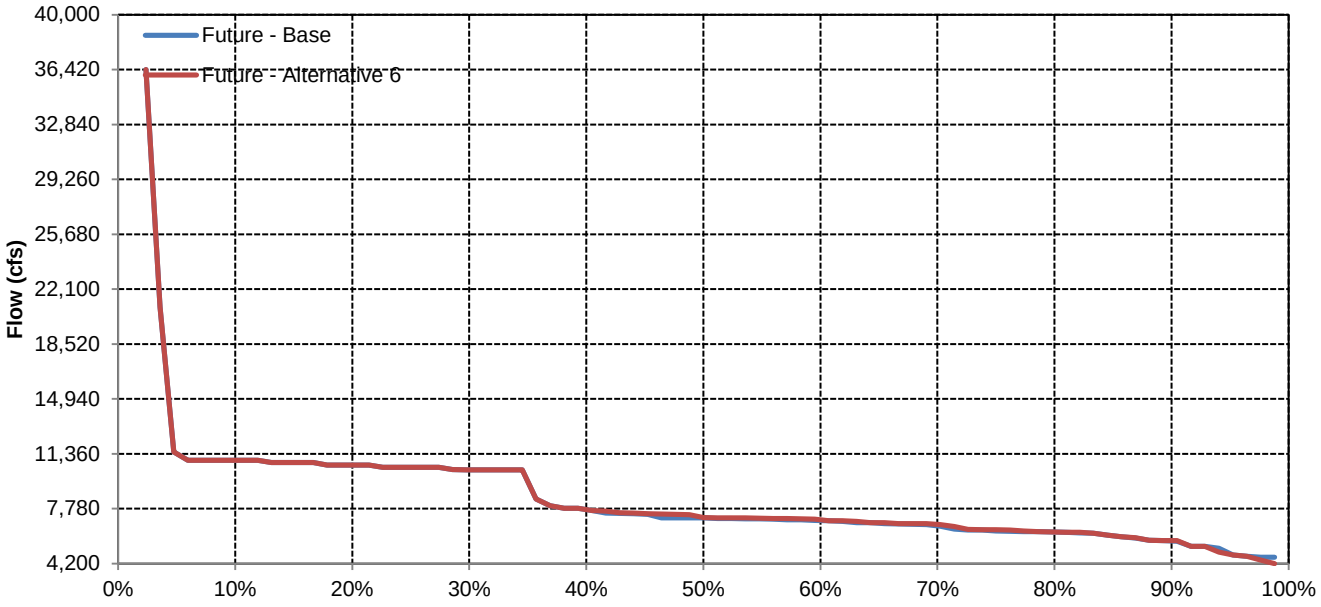
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 10,938 | 15,802 | 79,160 | 151,360 | 179,871 | 107,333 | 70,645 | 27,156 | 11,545 | 10,516 | 4,887 | 21,875 |
| 20% | 10,625 | 14,764 | 33,719 | 92,469 | 125,927 | 88,765 | 38,581 | 18,350 | 10,470 | 9,598 | 4,708 | 21,563 |
| 30% | 10,313 | 11,693 | 17,518 | 57,438 | 77,980 | 61,511 | 28,814 | 14,204 | 8,750 | 9,047 | 4,435 | 20,938 |
| 40% | 7,647 | 11,004 | 14,413 | 33,939 | 58,847 | 40,819 | 20,594 | 12,808 | 8,408 | 8,000 | 4,237 | 13,062 |
| 50% | 7,192 | 8,101 | 11,827 | 26,193 | 43,298 | 27,471 | 17,697 | 11,253 | 7,971 | 6,664 | 4,005 | 3,000 |
| 60% | 7,013 | 4,500 | 8,269 | 19,324 | 25,212 | 20,751 | 15,558 | 9,951 | 7,245 | 6,500 | 4,000 | 3,000 |
| 70% | 6,737 | 4,500 | 5,650 | 15,024 | 20,772 | 17,808 | 13,640 | 9,567 | 7,100 | 5,000 | 4,000 | 3,000 |
| 80% | 6,259 | 4,500 | 4,500 | 13,127 | 16,836 | 14,540 | 11,111 | 8,460 | 7,100 | 5,000 | 4,000 | 3,000 |
| 90% | 5,701 | 3,500 | 4,500 | 8,407 | 12,324 | 11,400 | 10,027 | 7,100 | 6,724 | 4,065 | 4,000 | 3,000 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 8,427 | 10,108 | 24,915 | 55,003 | 70,106 | 52,498 | 29,061 | 14,168 | 8,590 | 7,155 | 4,279 | 10,293 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 9,573 | 15,087 | 53,784 | 116,099 | 131,901 | 101,964 | 53,290 | 21,051 | 11,295 | 9,706 | 4,000 | 21,635 |
| Above Normal | 9,153 | 8,854 | 16,343 | 59,846 | 102,482 | 57,120 | 27,007 | 15,828 | 8,581 | 8,898 | 4,000 | 13,224 |
| Below Normal | 8,451 | 9,100 | 13,864 | 28,547 | 31,606 | 29,283 | 21,994 | 12,957 | 7,532 | 6,649 | 4,157 | 3,000 |
| Dry | 7,616 | 7,888 | 10,165 | 15,965 | 29,545 | 24,387 | 15,130 | 9,857 | 7,161 | 5,000 | 4,786 | 3,000 |
| Critical | 6,601 | 5,263 | 6,776 | 11,910 | 15,848 | 13,087 | 9,319 | 6,228 | 6,265 | 4,170 | 4,428 | 3,091 |

**Future - Alternative 6 Minus Future - Base**

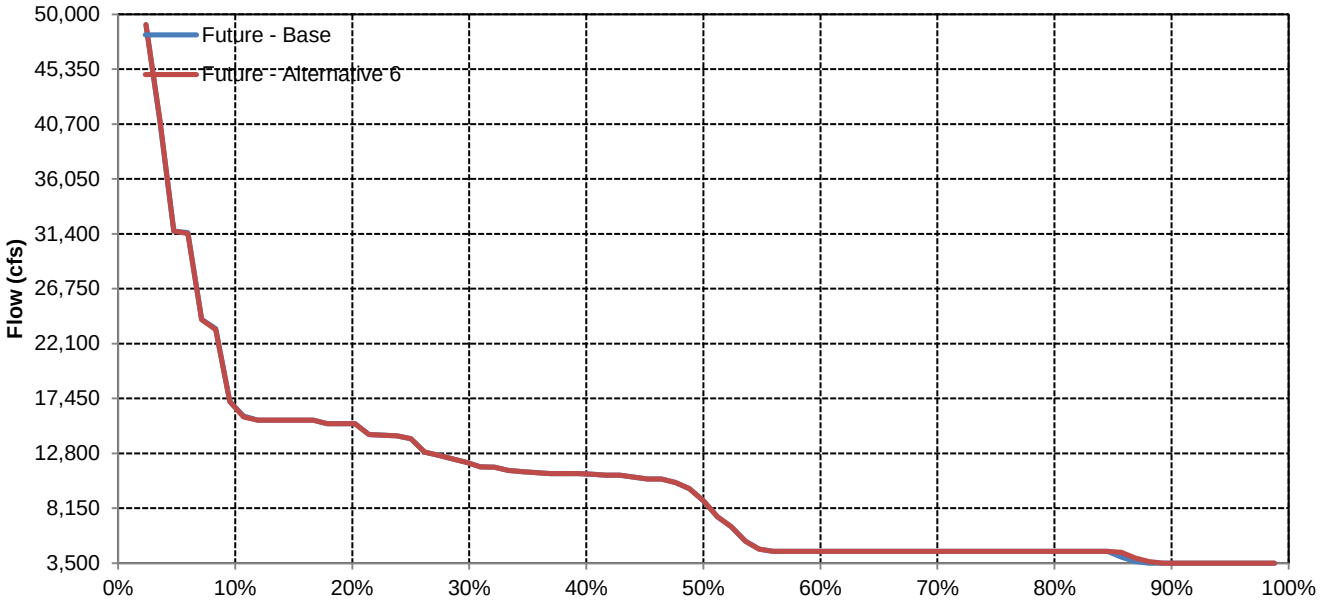
| | Average Monthly Flow (cfs) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Statistic** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** |
| **Probability of Exceedance** | | | | | | | | | | | | |
| 10% | 0 | -60 | 102 | 153 | -139 | -547 | 1 | -4 | 0 | 0 | 2 | 0 |
| 20% | 0 | 0 | 291 | 217 | 4 | -262 | 0 | -3 | 8 | -14 | 0 | 0 |
| 30% | 0 | 0 | 30 | 732 | 0 | -742 | 0 | 0 | 1 | 0 | 86 | 0 |
| 40% | 22 | 0 | 47 | 45 | 225 | -67 | 0 | 0 | 0 | 0 | 21 | 0 |
| 50% | 32 | -2 | 24 | 51 | 133 | 1 | 118 | 0 | 72 | -2 | 5 | 0 |
| 60% | 18 | 0 | 12 | 96 | 226 | 23 | 0 | -223 | -174 | 0 | 0 | 0 |
| 70% | 124 | 0 | 327 | 115 | 86 | 146 | 0 | -17 | 0 | 0 | 0 | 0 |
| 80% | 0 | 0 | 0 | 2 | 113 | 59 | -42 | 0 | 0 | 0 | 0 | 0 |
| 90% | 23 | 0 | 0 | 7 | 85 | 0 | 11 | 0 | -76 | 0 | 0 | 0 |
| **Long Term** | | | | | | | | | | | | |
| Full Simulation Period | 18 | 9 | 26 | 106 | 57 | -2 | 0 | -11 | -15 | -2 | 5 | 0 |
| **Water Year Types** | | | | | | | | | | | | |
| Wet | 33 | -2 | 137 | 116 | -3 | -36 | 10 | -24 | 9 | -3 | 0 | 0 |
| Above Normal | 117 | 1 | 50 | 161 | 78 | -91 | 3 | 0 | 2 | -1 | 0 | 0 |
| Below Normal | -10 | 30 | 59 | 133 | 69 | 38 | 0 | -16 | -73 | -6 | 18 | 0 |
| Dry | 5 | -4 | 30 | 64 | 94 | 65 | -9 | -4 | 3 | 0 | 1 | 0 |
| Critical | -52 | 37 | -278 | 79 | 92 | 3 | -11 | 0 | -53 | 0 | 13 | -1 |

## Delta Outflow

### October

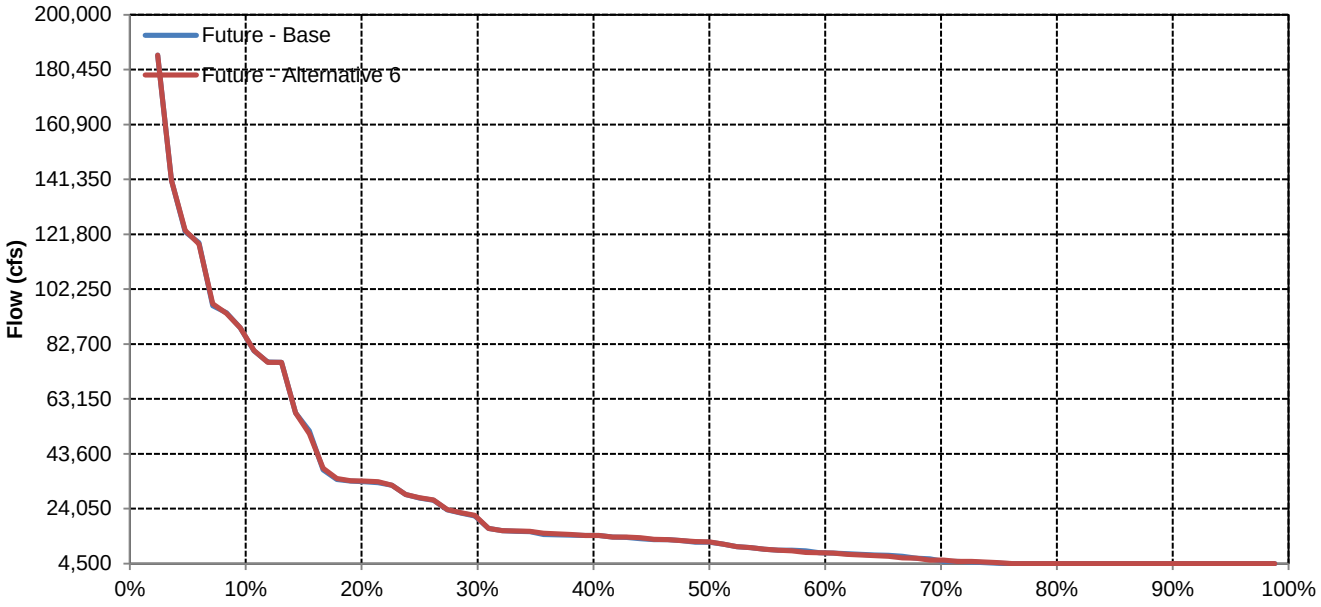



### November

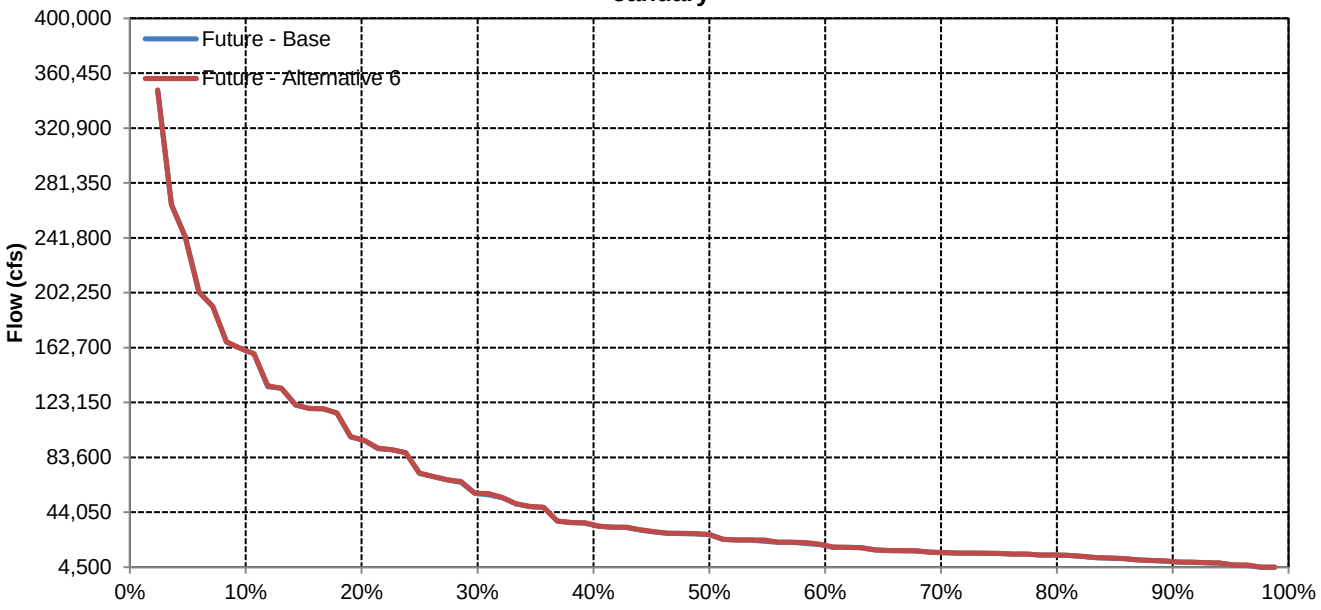


## Delta Outflow

### December

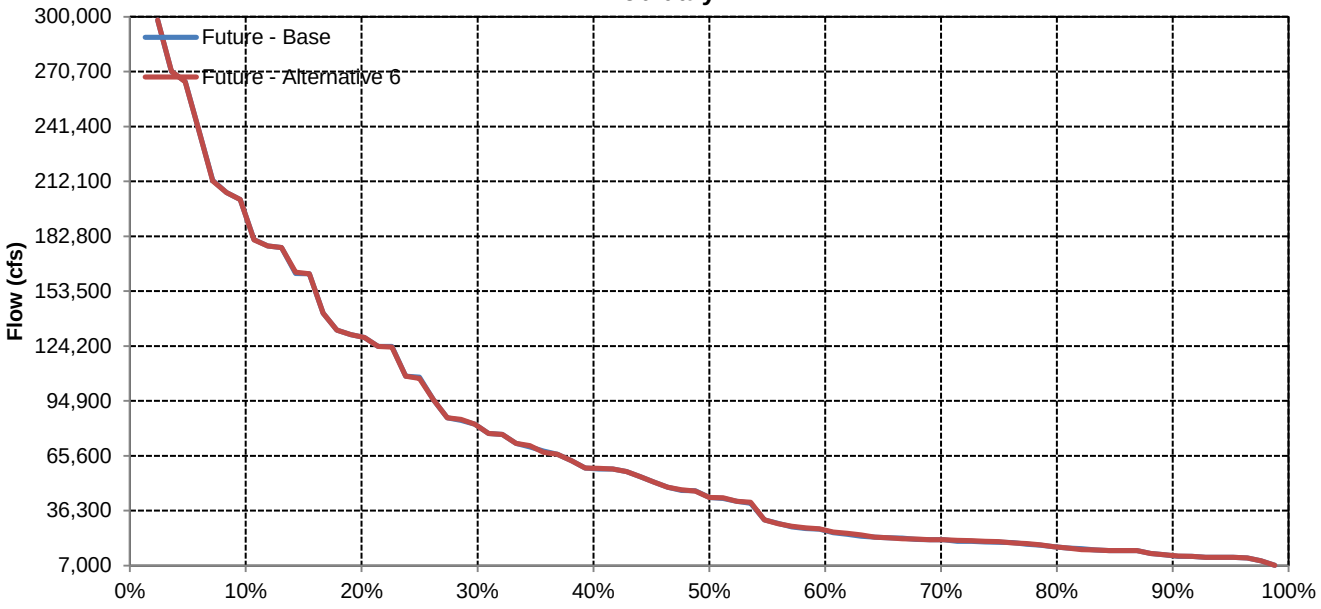



### January

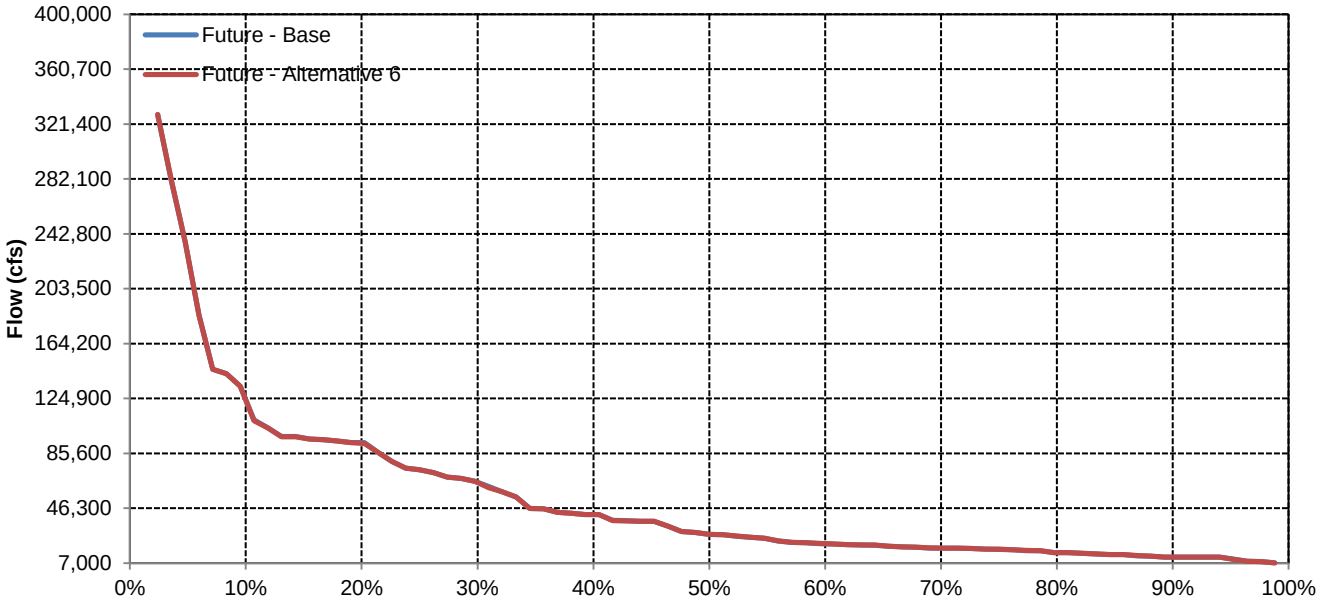


## Delta Outflow

### February

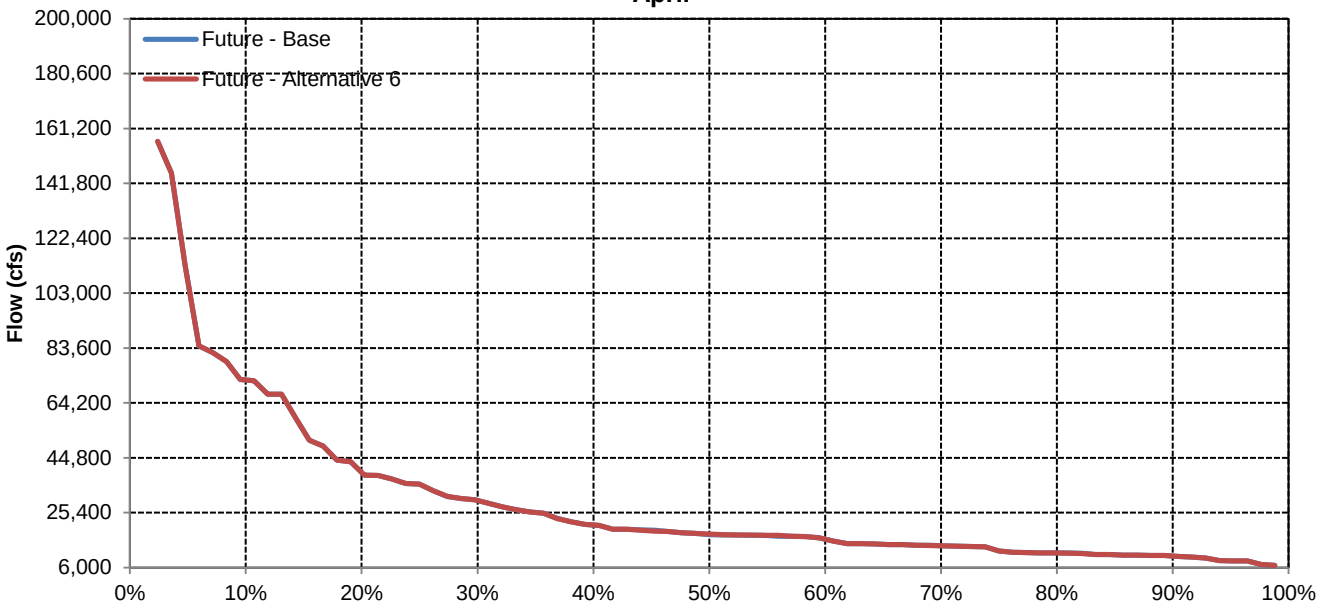



### March

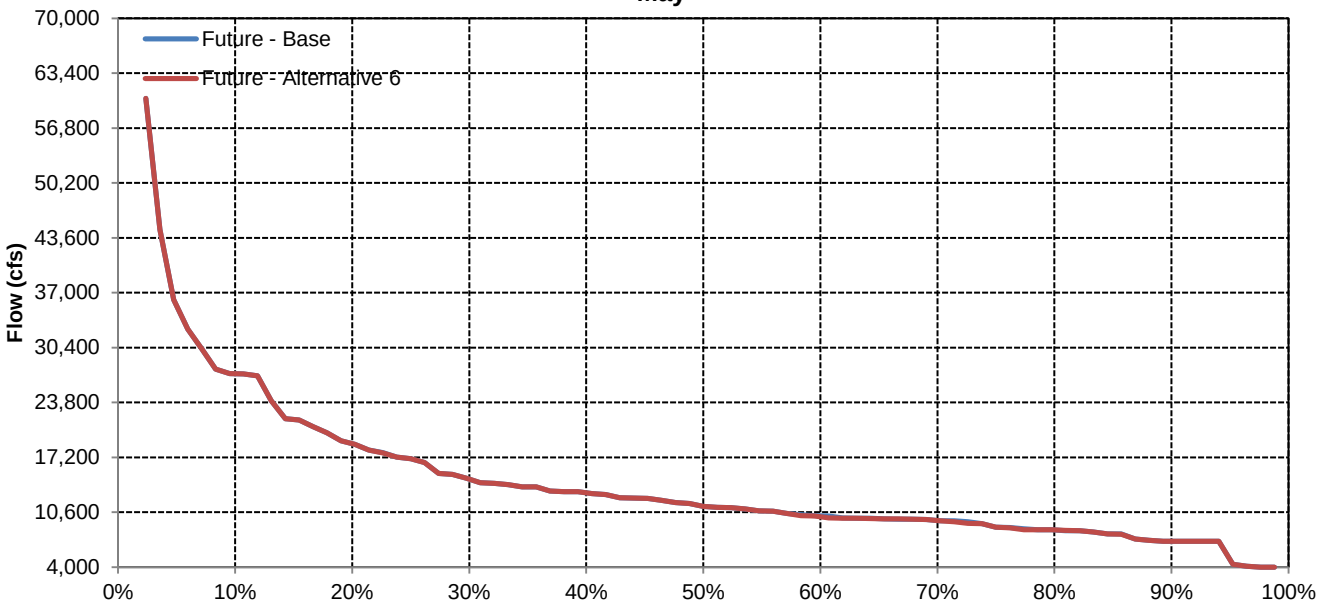


## Delta Outflow

### April

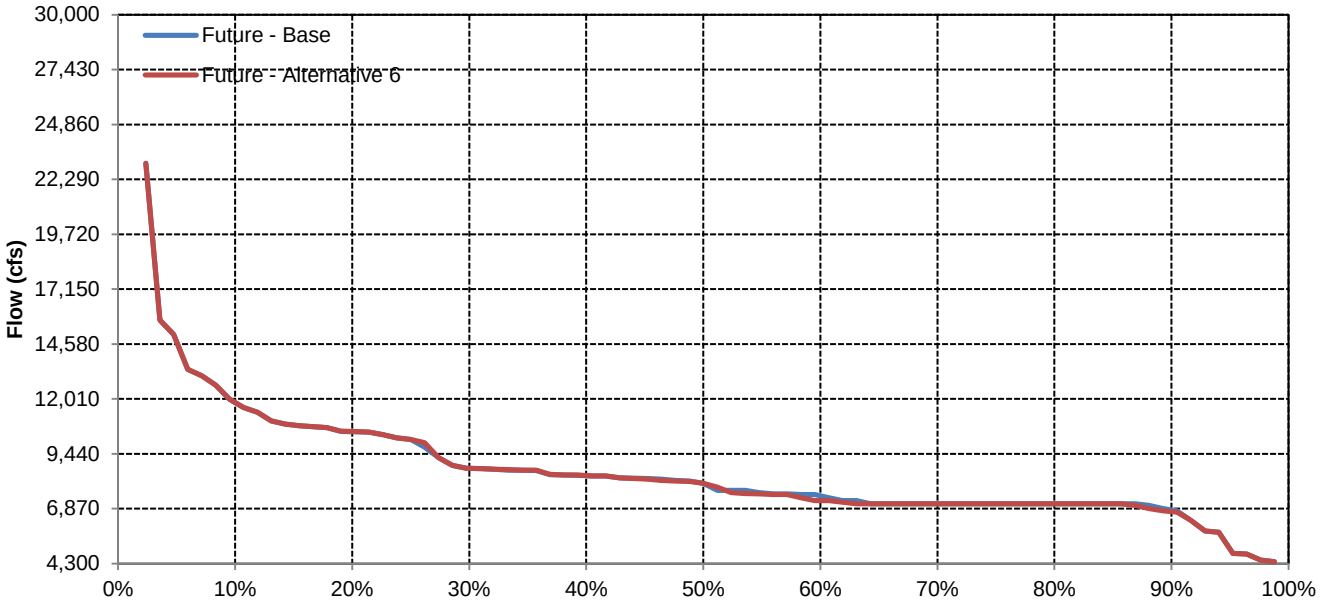



### May

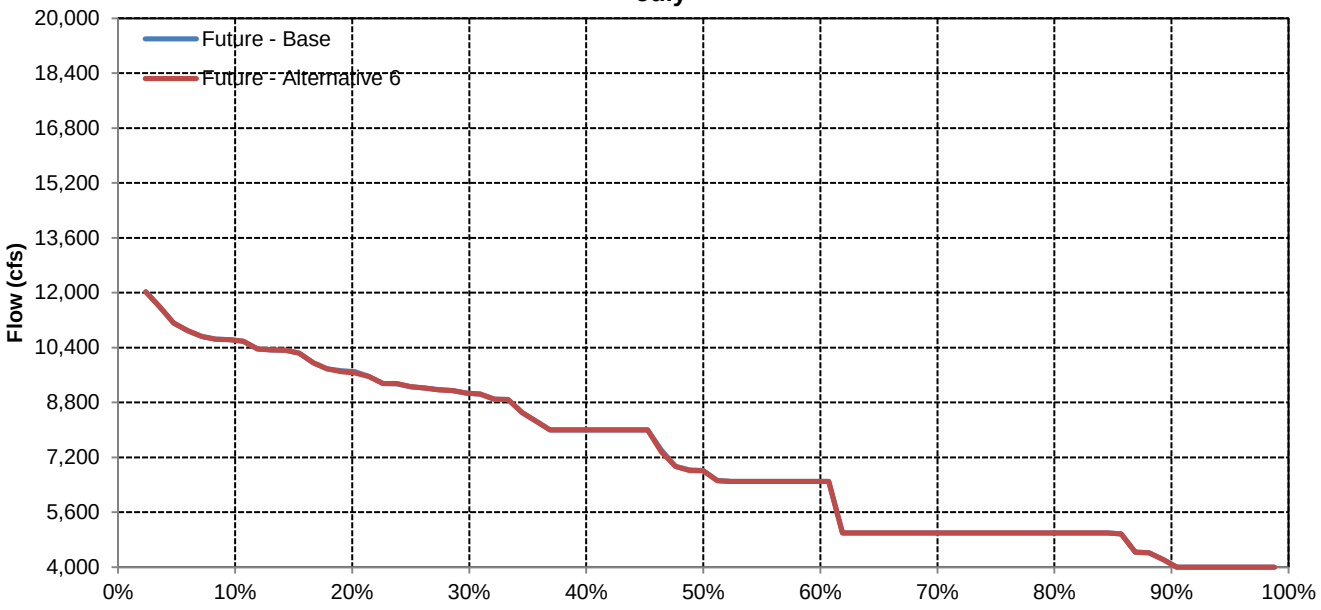


## Delta Outflow

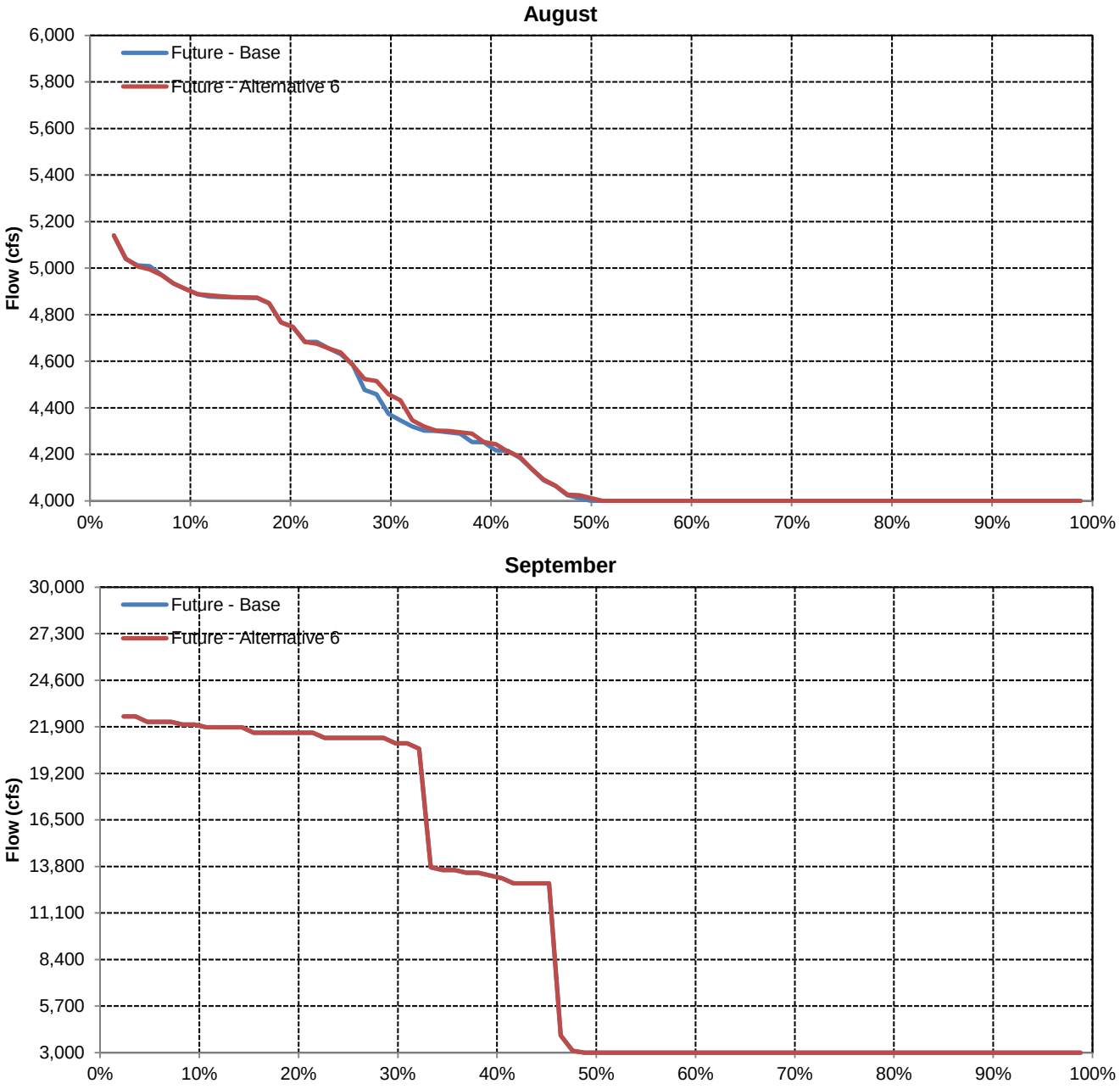
### June




### July



## Delta Outflow



## Table 185 No Action Alternative-Alternative 6 (Future)

### Winter-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | November through July | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | | 10 | Lower 40% | | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 68 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | 64 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 68 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Juvenile Rearing and Downstream Movement* | July through March | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |

## Table 186 No Action Alternative-Alternative 6 (Future)

### Spring-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | March through September | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing (and Downstream Movement) | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Smolt Emigration | October through May | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 63 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | Freeport | 63 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

## Table 187 No Action Alternative-Alternative 6 (Future)

### Fall-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Staging | July through December | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | | | | | | | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | December through July | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | Freeport | | 10 | Lower 40% | | | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | | | 65 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 188 No Action Alternative-Alternative 6 (Future)

### Late Fall-run Chinook Salmon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Staging | October through April | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| Juvenile Rearing and Downstream Movement | April through December | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 65 | | All Years | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 189 No Action Alternative-Alternative 6 (Future)

### Steelhead in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | August through March | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | Freeport | 64 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | Year-Round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 65 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | 68 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Smolt Emigration | January through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 52 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | | 55 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | 52 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | | 55 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

## Table 190 No Action Alternative-Alternative 6 (Future)

### Green Sturgeon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Holding | February through July | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Adult Post-Spawning Holding and Emigration | July through November | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | | | | | | | | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 61 | | All Years | 0.0 | 0.0 | | | | | | | | 0.0 | 0.0 | 0.0 |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 191 No Action Alternative-Alternative 6 (Future)

### White Sturgeon in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Holding | November through May | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 77 | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| Spawning and Egg Incubation | February through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | 66 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 192 No Action Alternative-Alternative 6 (Future)

### River Lamprey in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | September through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 42-60 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 |
| Ammocoete Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 72 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

**Pacific Lamprey in the Sacramento River**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration | January through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 42-60 | | All Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Ammocoete Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Freeport | 72 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 194 No Action Alternative-Alternative 6 (Future)

### Hardhead in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adults and Other Lifestages | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 |
| | | | Freeport | 61-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| Adult Spawning | April through June | Mean Monthly Flow (cfs) | Freeport | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Freeport | 59-64 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 195 No Action Alternative-Alternative 6 (Future)

### American Shad in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Spawning | April through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | | Freeport | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 60-70 | | All Years | | | | | | | 0.1 | 0.0 | 0.0 | | | |
| | | | Freeport | 60-70 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-Round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | Freeport | | 10 | Lower 40% | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 63-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 |
| | | | Freeport | 63-77 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

## Table 196 No Action Alternative-Alternative 6 (Future)

### Striped Bass in the Sacramento River

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult Immigration and Spawning | April through June | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 59-68 | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |
| Juvenile Rearing and Downstream Movement | Year-round | Mean Monthly Flow (cfs) | Verona | | 10 | Lower 40% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Mean Monthly Water Temperature (°F) | Feather River Confluence | 61-71 | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.4 |

[1]Water temperature ranges are evaluated by calculating the net change in the probability of water temperatures occurring within the specified range.

# Table 201 No Action Alternative-Alternative 6 (Future)

## Alternative 6 (Future) vs No Action Alternative
## Sacramento River at Verona, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 82.9 | 73.2 | 20.7 | 31.7 | 20.7 | 35.4 | 96.3 | 90.2 | 68.3 | 95.1 | 92.7 | 91.5 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 15.9 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 2.4 | 3.7 | 6.1 |
| X<=-10.0 | 0.0 | 2.4 | 3.7 | 13.4 | 14.6 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 1.2 | 24.4 | 70.7 | 65.9 | 79.3 | 64.6 | 2.4 | 8.5 | 23.2 | 2.4 | 2.4 | 1.2 |
| Net Change in % Exceedance: | 14.6 | -24.4 | -68.3 | -65.9 | -79.3 | -64.6 | -2.4 | -8.5 | -17.1 | 0.0 | 1.2 | 4.9 |
| Net Change in 10% Exceedance | 0.0 | -2.4 | -3.7 | -13.4 | -14.6 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| Low Flows (Upper 40% of Distribution) | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 84.8 | 84.8 | 42.4 | 57.6 | 24.2 | 51.5 | 100.0 | 93.9 | 57.6 | 87.9 | 90.9 | 97.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 12.1 | 0.0 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 3.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 3.0 | 15.2 | 42.4 | 36.4 | 75.8 | 48.5 | 0.0 | 6.1 | 39.4 | 6.1 | 3.0 | 3.0 |
| Net Change in % Exceedance: | 9.1 | -15.2 | -36.4 | -36.4 | -75.8 | -48.5 | 0.0 | -6.1 | -39.4 | 0.0 | 0.0 | -3.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 202 No Action Alternative-Alternative 6 (Future)

## Alternative 6 (Future) vs No Action Alternative
## Sacramento River at Freeport, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 89.0 | 80.5 | 26.8 | 34.1 | 24.4 | 36.6 | 98.8 | 92.7 | 79.3 | 96.3 | 91.5 | 92.7 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 11.0 | 0.0 | 2.4 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 3.7 | 2.4 |
| X<=-10.0 | 0.0 | 1.2 | 2.4 | 7.3 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 17.1 | 69.5 | 62.2 | 74.4 | 58.5 | 1.2 | 4.9 | 14.6 | 0.0 | 3.7 | 3.7 |
| Net Change in % Exceedance: | 11.0 | -17.1 | -67.1 | -59.8 | -74.4 | -58.5 | -1.2 | -4.9 | -11.0 | 3.7 | 0.0 | -1.2 |
| Net Change in 10% Exceedance | 0.0 | -1.2 | -2.4 | -7.3 | -7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 93.9 | 97.0 | 54.5 | 60.6 | 27.3 | 57.6 | 100.0 | 87.9 | 84.8 | 97.0 | 97.0 | 93.9 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 6.1 | 0.0 | 6.1 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 0.0 | 3.0 | 36.4 | 30.3 | 72.7 | 36.4 | 0.0 | 6.1 | 15.2 | 0.0 | 3.0 | 6.1 |
| Net Change in % Exceedance: | 6.1 | -3.0 | -30.3 | -24.2 | -72.7 | -36.4 | 0.0 | -6.1 | -15.2 | 3.0 | -3.0 | -6.1 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | -3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Alternative 6 (Future) vs No Action Alternative

## Sacramento River at Feather River, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.2 | 96.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 91.9 | 87.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 40.2 | 23.2 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 22.0 | 5.5 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 8.5 | 1.2 | 73.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 95.1 | 1.7 | 1.2 | 30.1 | 97.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 87.8 | 1.2 | 1.2 | 12.0 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 67.1 | 1.2 | 1.2 | 6.1 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 42.7 | 1.2 | 1.2 | 3.1 | 61.0 | 98.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 26.8 | 1.2 | 1.2 | 1.2 | 39.0 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 14.0 | 1.2 | 1.2 | 1.2 | 23.2 | 96.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 5.5 | 1.2 | 1.2 | 1.2 | 12.8 | 91.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 7.3 | 85.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 2.7 | 81.1 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 92.1 | 1.2 | 1.2 | 1.2 | 1.2 | 2.0 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 74.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | 61.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 52.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 50.0 | 98.6 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 41.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 34.5 | 98.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 23.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 23.2 | 96.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 15.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 90.7 | 98.8 | 98.8 | 98.8 | 97.4 |
| 68 | 4.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 65.2 | 96.5 | 98.8 | 98.8 | 89.6 |
| 69 | 2.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 45.1 | 95.3 | 98.8 | 98.8 | 78.9 |
| 70 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 28.7 | 86.6 | 98.8 | 98.8 | 70.7 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 15.9 | 72.0 | 98.8 | 98.8 | 57.7 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 57.3 | 97.6 | 95.9 | 46.3 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.3 | 23.2 | 74.4 | 84.1 | 18.3 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.6 | 11.0 | 54.9 | 69.5 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 18.3 | 30.5 | 3.0 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 90.7 | 86.6 | 97.6 | 97.6 | 97.6 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 50-64 | 57.3 | 97.6 | 7.3 | 0.0 | 72.0 | 97.6 | 64.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 15.9 | 0.0 | 0.0 | 1.9 | 22.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 57.3 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 51.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 33.6 | 2.3 | 0.0 | 0.0 | 9.2 |
| 59-75 | 97.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 96.2 | 87.8 | 43.9 | 29.3 | 89.0 |
| 60-70 | 97.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 79.9 | 70.1 | 12.2 | 0.0 | 0.0 | 28.1 |
| 61-71 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 82.9 | 26.8 | 0.0 | 0.0 | 41.1 |
| 63-69 | 50.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 53.5 | 3.5 | 0.0 | 0.0 | 19.9 |
| 63-77 | 51.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 97.4 | 97.6 | 80.5 | 68.3 | 95.8 |
| 65-82 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 95.1 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.5 | 85.4 | 97.6 | 97.6 | 69.5 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 96.1 | 17.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 97.6 | 97.6 | 80.5 | 68.3 | 95.8 |

### Alternative 6 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.2 | 96.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 92.1 | 87.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 40.2 | 23.2 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 20.7 | 5.5 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 8.5 | 1.2 | 73.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 95.1 | 1.7 | 1.2 | 30.1 | 97.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 87.8 | 1.2 | 1.2 | 12.0 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 67.1 | 1.2 | 1.2 | 6.1 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 42.7 | 1.2 | 1.2 | 3.1 | 61.0 | 98.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 26.8 | 1.2 | 1.2 | 1.2 | 39.0 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 14.0 | 1.2 | 1.2 | 1.2 | 23.2 | 96.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 5.5 | 1.2 | 1.2 | 1.2 | 12.8 | 91.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 7.3 | 85.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 2.7 | 81.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 92.1 | 1.2 | 1.2 | 1.2 | 1.2 | 2.0 | 74.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 73.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | 61.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 52.8 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 50.0 | 98.6 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 41.5 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 34.5 | 98.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 23.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 23.2 | 96.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 15.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 90.7 | 98.8 | 98.8 | 98.8 | 97.4 |
| 68 | 4.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 65.2 | 96.5 | 98.8 | 98.8 | 89.6 |
| 69 | 2.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 45.1 | 95.3 | 98.8 | 98.8 | 78.5 |
| 70 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 28.7 | 86.6 | 98.8 | 98.8 | 70.7 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 15.9 | 70.7 | 98.8 | 98.8 | 57.3 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 10.4 | 57.3 | 97.0 | 95.1 | 45.1 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.3 | 22.0 | 74.4 | 82.9 | 18.3 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.6 | 11.0 | 54.9 | 69.5 | 9.1 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 18.9 | 30.5 | 3.0 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 90.9 | 86.6 | 97.6 | 97.6 | 97.6 | 96.2 | 87.8 | 43.9 | 29.3 | 89.7 |
| 50-64 | 57.3 | 97.6 | 7.3 | 0.0 | 72.0 | 97.6 | 64.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 15.9 | 0.0 | 0.0 | 1.9 | 22.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 57.3 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 51.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.7 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 33.6 | 2.3 | 0.0 | 0.0 | 9.2 |
| 59-75 | 97.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 84.5 | 96.2 | 87.8 | 43.9 | 29.3 | 89.7 |
| 60-70 | 97.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 80.0 | 70.1 | 12.2 | 0.0 | 0.0 | 28.1 |
| 61-71 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 82.9 | 28.1 | 0.0 | 0.0 | 41.5 |
| 63-69 | 50.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 53.5 | 3.5 | 0.0 | 0.0 | 20.3 |
| 63-77 | 51.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 97.4 | 97.6 | 79.9 | 68.3 | 95.8 |
| 65-82 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 95.1 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.5 | 85.4 | 97.6 | 97.6 | 69.5 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 96.1 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 90.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 73.2 | 97.6 | 97.6 | 79.9 | 68.3 | 95.8 |

### Alternative 6 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.4 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.3 | 0.0 | 0.0 | -0.4 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | -0.8 | -1.2 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.2 | 0.0 | -1.2 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.7 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.4 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 | 0.0 |

## Alternative 6 (Future) vs No Action Alternative

## Sacramento River at Freeport, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.2 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 26.2 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.2 | 1.2 | 1.2 | 15.6 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 7.0 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.4 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 88.7 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 81.7 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 39.0 | 43.9 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |

### Alternative 6 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.4 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 25.6 | 8.5 | 93.9 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.7 | 1.2 | 1.2 | 15.9 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 6.8 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.3 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 40.9 | 91.5 | 89.0 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 82.3 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 | 39.0 | 42.7 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 16.5 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 16.5 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |

### Alternative 6 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -0.6 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.5 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.3 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | -1.2 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

## Table 227 No Action Alternative -Alternative 6 (Future)

**Delta Smelt in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult | December through May | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | | | | |
| | September through November | Mean Monthly $X_2$ (RKm) | $X_2$ between 74 km and 81 km | 74-81 | | Wet and Above Normal Water Years | 0.0 | 0.0 | | | | | | | | | | 0.0 |
| | December through February | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | 0.0 | 0.0 | 0.0 | | | | | | | |
| Egg and Embryo | February through May | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| Larval | March through June | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-1500 cfs | | Dry and Critical Water Years | | | | | | 0.0 | -3.3 | -3.3 | 3.3 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Juvenile | May through July | Mean Monthly Water Temperature (°F) | Sacramento River at Freeport | 59-68 | | All Years | | | | | | | | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ between RKm 65 and 80 | 0.5 RKm | | All Years | | | | | | | | 0.0 | 1.2 | 1.2 | | |

## Table 228 No Action Alternative -Alternative 6 (Future)

**Longfin Smelt in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Adult | December through March | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | |
| Larvae and Juvenile | April and May | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-1500 cfs | | Dry and Critical Water Years | | | | | | | -3.3 | -3.3 | | | | |
| | | | | < 0 cfs | | Dry and Critical Water Years | | | | | | | 0.0 | 0.0 | | | | |
| | January through June | Mean Monthly $X_2$ (RKm) | $X_2$ | < 75 RKm | | All Years | | | | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | -1.2 | | | |
| | | | | < 75 RKm | | Dry and Critical Water Years | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

## Table 229 No Action Alternative -Alternative 6 (Future)

**Winter-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through May | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | -6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

## Table 230 No Action Alternative -Alternative 6 (Future)

**Spring-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through June | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | -6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

## Table 231 No Action Alternative -Alternative 6 (Future)

**Fall- and Late Fall-run Chinook Salmon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | November through June | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | | 0.0 | -6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Adult (San Joaquin River) | December through February | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <-5000 cfs | | All Years | | | 0.0 | 0.0 | 0.0 | | | | | | | |

## Table 232 No Action Alternative -Alternative 6 (Future)

**Steelhead in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | October through July | Mean Monthly Flow (cfs) | Rio Vista | | 10 | Lower 40% | 0.0 | 0.0 | -6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | 0.0 | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly Delta Outflow (cfs) | Delta | | 10 | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Mean Monthly OMR Flow (cfs) | Old and Middle Rivers | <2500 cfs | | All Years | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 233 No Action Alternative -Alternative 6 (Future)

**Green Sturgeon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | Year-round | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | 0.0 | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Table 234 No Action Alternative -Alternative 6 (Future)

**White Sturgeon in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Juvenile Rearing and Emigration | April through June | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Table 235 No Action Alternative -Alternative 6 (Future)

**Splittail in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Spawning and Embryo Incubation | February through May | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | 65.9 | 76.8 | 0.0 | 0.0 | | | | |
| Juvenile Rearing and Emigration | April through July | Mean Monthly Flow (cfs) | Yolo Bypass | | 10 | All Years | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | |

## Table 236 No Action Alternative -Alternative 6 (Future)

**American Shad in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Egg and Larvae | April through June | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ | 1 RKm | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Table 237 No Action Alternative -Alternative 6 (Future)

**Striped Bass in the Delta**

| Lifestage | Evaluation Period | Indicator of Potential Impact | Location | Metric | | Range | Net Change in Probability of Exceedance under Alternative 6 (Future) relative to No Action Alternative | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Description | Value | % | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Egg and Larvae | April through June | Mean Monthly $X_2$ (RKm) | Changes in $X_2$ | 1 RKm | | All Years | | | | | | | 0.0 | 0.0 | 0.0 | | | |

## Alternative 6 (Future) vs No Action Alternative

## Sacramento River at Freeport, Monthly Temperature

## Exceedance of Water Temperature Index Values and Probability of Occurring within the Water Temperature Index Ranges

### No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.2 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 26.2 | 8.5 | 92.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.2 | 1.2 | 1.2 | 15.6 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 7.0 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.4 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 62.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 39.6 | 91.5 | 88.7 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 81.7 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 39.0 | 43.9 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.2 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 17.1 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.6 | 59.8 | 54.9 | 96.7 |

### Alternative 6 (Future)

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 41 | 98.8 | 98.8 | 98.8 | 97.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 42 | 98.8 | 98.8 | 98.8 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 43 | 98.8 | 98.8 | 98.3 | 96.5 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 45 | 98.8 | 98.8 | 90.2 | 86.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 48 | 98.8 | 98.8 | 43.9 | 26.4 | 97.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 49 | 98.8 | 98.8 | 25.6 | 8.5 | 93.9 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 50 | 98.8 | 98.8 | 9.8 | 1.2 | 78.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 52 | 98.8 | 97.8 | 1.5 | 1.2 | 29.3 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 53 | 98.8 | 90.7 | 1.2 | 1.2 | 15.9 | 90.2 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 54 | 98.8 | 70.7 | 1.2 | 1.2 | 6.8 | 75.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 55 | 98.8 | 50.0 | 1.2 | 1.2 | 4.6 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 56 | 98.8 | 31.7 | 1.2 | 1.2 | 2.0 | 43.9 | 97.8 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 57 | 98.8 | 22.0 | 1.2 | 1.2 | 1.2 | 27.4 | 96.6 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 58 | 98.8 | 6.1 | 1.2 | 1.2 | 1.2 | 18.9 | 92.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 59 | 98.8 | 2.3 | 1.2 | 1.2 | 1.2 | 7.3 | 88.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 60 | 98.8 | 1.2 | 1.2 | 1.2 | 1.2 | 4.9 | 81.7 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 61 | 98.0 | 1.2 | 1.2 | 1.2 | 1.2 | 2.4 | 74.0 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 62 | 89.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.9 | 63.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 63 | 63.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 49.4 | 98.8 | 98.8 | 98.8 | 98.8 | 98.8 |
| 64 | 52.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 32.3 | 98.4 | 98.8 | 98.8 | 98.8 | 98.8 |
| 65 | 35.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 27.6 | 97.0 | 98.8 | 98.8 | 98.8 | 98.8 |
| 66 | 21.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 17.1 | 92.3 | 98.8 | 98.8 | 98.8 | 98.8 |
| 68 | 4.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 78.7 | 98.8 | 98.8 | 98.8 | 95.3 |
| 69 | 2.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 54.9 | 96.6 | 98.8 | 98.8 | 89.8 |
| 70 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 38.2 | 95.2 | 98.8 | 98.8 | 78.0 |
| 71 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 21.3 | 86.9 | 98.8 | 98.8 | 70.1 |
| 72 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 13.0 | 81.7 | 98.8 | 98.8 | 53.7 |
| 74 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.6 | 40.9 | 91.5 | 89.0 | 22.0 |
| 75 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 3.1 | 20.1 | 78.7 | 82.3 | 9.8 |
| 77 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.5 | 39.0 | 42.7 | 2.1 |
| 82 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 86 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 88 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 98 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 45-75 | 97.6 | 97.6 | 89.0 | 84.8 | 97.6 | 97.6 | 97.6 | 95.7 | 78.7 | 20.1 | 16.5 | 89.0 |
| 50-64 | 46.4 | 97.6 | 8.6 | 0.0 | 76.8 | 97.6 | 66.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 18.3 | 0.0 | 0.0 | 2.6 | 19.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 46.4 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 55.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 94.1 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 20.1 | 0.0 | 0.0 | 0.0 | 3.5 |
| 59-75 | 97.6 | 1.1 | 0.0 | 0.0 | 0.0 | 6.1 | 86.8 | 95.7 | 78.7 | 20.1 | 16.5 | 89.0 |
| 60-70 | 97.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 80.5 | 60.6 | 3.6 | 0.0 | 0.0 | 20.8 |
| 61-71 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 77.5 | 11.9 | 0.0 | 0.0 | 28.7 |
| 63-69 | 60.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 43.9 | 2.2 | 0.0 | 0.0 | 9.0 |
| 63-77 | 62.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 48.2 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |
| 65-82 | 34.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.4 | 95.8 | 97.6 | 97.6 | 97.6 | 97.6 |
| 70-82 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.0 | 94.0 | 97.6 | 97.6 | 76.8 |
| 42-60 | 0.0 | 97.6 | 97.6 | 95.8 | 97.6 | 93.9 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 96.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 72.8 | 97.6 | 97.3 | 59.8 | 56.1 | 96.7 |

### Alternative 6 (Future) - No Action Alternative

| Index Value or Range | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 48 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 49 | 0.0 | 0.0 | -0.6 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 53 | 0.0 | 0.5 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 54 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 74 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.3 | 0.0 |
| 75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 |
| 77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | -1.2 | 0.0 |
| 82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 86 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45-75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 |
| 50-64 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55-56 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-64 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-68 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 59-75 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 | 0.0 |
| 60-70 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-69 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 63-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |
| 65-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70-82 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42-60 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 61-77 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 1.2 | 0.0 |

# Table 239 No Action Alternative -Alternative 6 (Future)

**Alternative 6 (Future) vs No Action Alternative**
**Sacramento River at Rio Vista, Monthly Flow**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 75.6 | 95.1 | 63.4 | 56.1 | 57.3 | 72.0 | 87.8 | 85.4 | 90.2 | 89.0 | 95.1 | 98.8 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 20.7 | 2.4 | 23.2 | 41.5 | 39.0 | 23.2 | 4.9 | 2.4 | 6.1 | 11.0 | 1.2 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 2.4 | 1.2 | 11.0 | 0.0 | 0.0 | 2.4 | 7.3 | 11.0 | 3.7 | 0.0 | 2.4 | 1.2 |
| Net Change in % Exceedance: | 18.3 | 1.2 | 12.2 | 41.5 | 39.0 | 20.7 | -2.4 | -8.5 | 2.4 | 11.0 | -1.2 | -1.2 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | -2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 90.9 | 97.0 | 69.7 | 81.8 | 54.5 | 75.8 | 87.9 | 93.9 | 97.0 | 87.9 | 90.9 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 3.0 | 0.0 | 6.1 | 15.2 | 39.4 | 24.2 | 12.1 | 0.0 | 3.0 | 12.1 | 3.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 6.1 | 3.0 | 24.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 0.0 | 0.0 | 3.0 | 0.0 |
| Net Change in % Exceedance: | -3.0 | -3.0 | -18.2 | 15.2 | 39.4 | 24.2 | 12.1 | -6.1 | 3.0 | 12.1 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | -6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 240 No Action Alternative -Alternative 6 (Future)

## Alternative 6 (Future) vs No Action Alternative
## Yolo Bypass, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **-1.0 < X < 1.0** | 100.0 | 30.5 | 29.3 | 29.3 | 23.2 | 14.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1.0 (Total %)** | 0.0 | 69.5 | 70.7 | 70.7 | 76.8 | 85.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1.0 (Total %)** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 69.5 | 70.7 | 70.7 | 76.8 | 85.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 69.5 | 64.6 | 64.6 | 65.9 | 76.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| **-1.0 < X < 1.0** | 100.0 | 75.8 | 69.7 | 48.5 | 30.3 | 12.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| **X>=10.0** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X>1 (Total %)** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<=-10.0** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **X<-1 (Total %)** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in % Exceedance:** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Change in 10% Exceedance** | 0.0 | 24.2 | 30.3 | 51.5 | 69.7 | 87.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Table 241 No Action Alternative -Alternative 6 (Future)

## Alternative 6 (Future) vs No Action Alternative
## Delta Outflow, Monthly Flow

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1.0 < X < 1.0 | 81.7 | 96.3 | 75.6 | 86.6 | 82.9 | 93.9 | 96.3 | 93.9 | 85.4 | 100.0 | 95.1 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1.0 (Total %) | 13.4 | 3.7 | 13.4 | 11.0 | 13.4 | 3.7 | 2.4 | 0.0 | 2.4 | 0.0 | 3.7 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1.0 (Total %) | 3.7 | 0.0 | 11.0 | 0.0 | 2.4 | 2.4 | 1.2 | 6.1 | 11.0 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 9.8 | 3.7 | 2.4 | 11.0 | 11.0 | 1.2 | 1.2 | -6.1 | -8.5 | 0.0 | 3.7 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | |
| **Low Flows (Upper 40% of Distribution)** | | | | | | | | | | | | |
| -1.0 < X < 1.0 | 75.8 | 90.9 | 69.7 | 90.9 | 66.7 | 87.9 | 100.0 | 87.9 | 81.8 | 100.0 | 100.0 | 100.0 |
| X>=10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X>1 (Total %) | 15.2 | 9.1 | 12.1 | 6.1 | 24.2 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<=-10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| X<-1 (Total %) | 9.1 | 0.0 | 18.2 | 0.0 | 6.1 | 3.0 | 0.0 | 12.1 | 15.2 | 0.0 | 0.0 | 0.0 |
| Net Change in % Exceedance: | 6.1 | 9.1 | -6.1 | 6.1 | 18.2 | 6.1 | 0.0 | -12.1 | -15.2 | 0.0 | 0.0 | 0.0 |
| Net Change in 10% Exceedance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

# Appendix G7

Reclamation Water Temperature Model

*This page left blank intentionally.*

# Appendix G7. Reclamation Temperature Model

This appendix provides a description of the Reclamation Temperature model used to inform the fisheries effects analysis for the Yolo Bypass Salmonid Habitat Restoration and Fish Passage project.

## G7.1 Introduction

The United States Department of the Interior, Bureau of Reclamation (Reclamation) Temperature Model was developed to assist in the planning and operational compliance of temperature objectives. The Reclamation Temperature model simulates monthly mean vertical temperature profiles and release temperatures for Trinity, Whiskeytown, Shasta, Folsom, New Melones, and Tulloch Reservoirs. The objective is to find temperature variability in these the reservoirs and streams, given CVP/SWP operations, and compare between existing and assumed future scenarios.

## G7.2 Key Processes

The following processes are simulated in the temperature model:

- Long-term operational scenarios (i.e., using CalSim-II results)
- Reservoir storage given flood control, hydropower, and reservoir release requirements
- Mean monthly downstream temperatures (using monthly meteorology data)
- Accommodate selective withdrawals (Shasta and Folsom reservoir)

## G7.3 Model and Application

The Reclamation Temperature Model was created and developed exclusively for CVP and SWP systems in the Central Valley. The reservoir temperature model simulates monthly mean vertical temperature profiles and release temperatures. The temperature models consist of two basic model elements: a reservoir component, and a downstream river component.

### G7.3.1 Reclamation Reservoir Model Description

The reservoir component of the Reclamation Temperature model simulates one-dimensional, vertical distribution of reservoir water temperature using monthly input data on initial storage and temperature conditions, inflow, outflow, evaporation, precipitation, radiation, and average

air temperature. The reservoir is divided into horizontal layers of uniform thickness. Each layer is assumed to be isothermal (i.e., the same temperature throughout its volume).

The energy exchange between the reservoir and the atmosphere is assumed to affect only the top layers of water except for energy transferred by diffusion. The energy exchange is assumed to affect water temperature linearly from a maximum effect at the surface to a minimum at the depth of energy penetration. Solar radiation, evaporation, and a combination of conduction and long-wave radiation are expressed as functions of the difference between air and water temperatures. These energy exchanges are computed before the stability and diffusion computations are made. The model used five calibration coefficients in calculating the various energy exchange functions. The Reclamation reservoir temperature model simulates monthly mean vertical temperature profiles and release temperatures for Trinity, Whiskeytown, Shasta, Folsom, New Melones and Tulloch Reservoirs based on hydrologic and climatic input data. The temperature control devices (TCD) at Shasta and Folsom Dams can selectively withdraw water from different reservoir levels to provide downstream temperature control. The TCD's are generally operated to conserve cold water for the summer and fall months when river temperatures become critical for fisheries. The model simulates the TCD operations by making upper level releases in the winter and spring, mid-level releases in the late spring and summer, and low level releases in the late summer and fall. To accomplish this function, the Shasta and Folsom temperature models operate to meet mean monthly tail-water temperature targets that function as a surrogate for downstream temperature compliance.

Temperature changes in the downstream regulating reservoirs: Lewiston, Keswick, Natomas, and Goodwin are computed from equilibrium temperature decay equations in the reservoir models, which are similar to the river model equations. The river temperature models output temperatures at 3 locations on the Trinity River from Lewiston Dam to the North Fork, 12 locations on the Sacramento River from Keswick Dam to Freeport, 9 locations on the American River from Nimbus Dam to the mouth, and 8 locations on the Stanislaus River from Goodwin Dam to the mouth (Table G7-1).

### G7.3.2 Reclamation River Model Description

The river component of the Reclamation Temperature model calculates temperature changes in the regulating reservoirs, below the main reservoirs. With regulating reservoir release temperature as the initial river temperature, the river model computes temperatures at several locations along the rivers. The calculation points for river temperatures generally coincide with tributary inflow locations. The model is one-dimensional in the longitudinal direction and assumes fully mixed river cross sections. The effect of tributary inflow on river temperature is computed by mass balance calculation. The river temperature calculations are based on regulating reservoir release temperatures, river flows, and climatic data. Monthly mean historical air temperatures for the 82-year period and other long-term average climatic data for Trinity, Shasta, Whiskeytown, Redding, Red Bluff, Colusa, Marysville, Folsom, Sacramento, New Melones, and Stockton were obtained from National Weather Service records and used to represent climatic conditions for the four river systems.

**Table G7-1. Reclamation Temperature Model Nodes**

| River or Creek System | Location |
|---|---|
| Trinity River | Trinity Dam |
| | Lewiston Dam |
| | Douglas City |
| | North Fork |
| Clear Creek | Whiskeytown Dam |
| | Above Igo |
| | Below Igo |
| | Mouth |
| American River | Folsom Dam |
| | Nimbus Dam |
| | Sunrise Bridge |
| | Cordova Park |
| | Arden Rapids |
| | Watt Avenue Bridge |
| | American River Filtration Plant |
| | H Street |
| | 16th street |
| | Mouth |
| Sacramento River | Shasta Dam |
| | Keswick Lake above Spring Creek Tunnel |
| | Spring Creek Tunnel |
| | Keswick Dam |
| | Balls Ferry |
| | Jellys Ferry |
| | Bend Bridge |
| | Red Bluff |
| | Vina |
| | Butte City |
| | Wilkins Slough |
| | Colusa Basin Drain |
| | Feather River |
| | American River |
| | Freeport |

| River or Creek System | Location |
|---|---|
| Stanislaus River | New Melones Dam |
| | Tulloch Dam |
| | Goodwin Dam |
| | Knights Ferry |
| | Orange Blossom |
| | Oakdale |
| | Riverbank |
| | McHenry Bridge |
| | Ripon |
| | Mouth |

## G7.4 Model Documentation

The temperature models for the Sacramento and American Rivers are documented in a 1990 Reclamation report (Rowell 1990, as cited in Reclamation 2008). The Trinity River temperature model is documented in a 1979 Reclamation report (Rowell 1979, as cited in Reclamation 2008). The Stanislaus River temperature model is documented in a 1993 Reclamation report (Rowell 1997, as cited in Reclamation 2008). The models are also described in Appendix IX of the 1997 Reclamation Draft CVPIA-PEIS (Reclamation 1997, as cited in Reclamation 2008).

## G7.5 Model Mathematics

The Reclamation Temperature model mechanics are described in Rowell, (1979, 1990, and 1997 as cited in Reclamation 2008).

## G7.6 Quality Assurance and Data Quality Assessment

No formal process documented the quality assurance and data quality of the Reclamation Temperature Model. This model was developed at a time where specific documentation requirements were less stringent. A peer review of the Reclamation Temperature model has not been performed.

## G7.7 Assumptions

The available cold water (in the reservoirs) is utilized efficiently depending on the month in the monthly model and storage levels in any given year in the mean daily model. These targets are developed for facilities that can modify releases for temperature control. The Reclamation Temperature Model Shasta and Folsom reservoir temperature targets are listed in Table G7-2.

**Table G7-2. Reclamation Temperature Model Tailwater Targets (° F)**

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shasta | 80 | 80 | 56 | 48 | 46 | 45 | 47 | 47 | 40 | 40 | 40 | 80 |
| Folsom | 80 | 80 | 80 | 63 | 63 | 63 | 63 | 63 | 63 | 55 | 40 | 80 |

# G7.8 Model Testing

## G7.8.1 Calibration and Validation

A discussion of the Reclamation Temperature reservoir and river model verification is presented in (Rowell 1990, as cited in Reclamation 2008) and Rowell, 1993 and 1997, as cited in Reclamation 2008). The predicted temperatures were generally within 1-2° F of measured temperature.

## G7.8.2 Sensitivity and Uncertainty of Model Inputs

Sensitivity and uncertainty analyses were not conducted for the Reclamation Temperature or the SRWQM applications

# G7.9 Model Results

For each CALSIM II run completed, the results were post-processed using the Reclamation Temperature model to estimate monthly average temperature at desired locations. CALSIM II Scenarios run through the temperature model included Existing Conditions; Alternatives 1, 4, 5, and 6 using 2030 CALSIM II Hydrology; Alternatives 1, 4, 5 and 6 using 2070 CALSIM II hydrology; and the No Action Alternative using 2070 CALSIM hydrology.

Monthly average temperatures for each alternative were output at the Feather River confluence and Freeport for use in the fisheries summary tables

# G7.10 Limitations

The main limitation of CALSIM II and the Reclamation temperature model is the time-step. Mean monthly flows and temperatures do not define daily variations that could occur in the rivers due to dynamic flow and climatic conditions. However, monthly results are still useful for general comparison of alternatives. The temperature models are also unable to accurately simulate certain aspects of the actual operations strategies used when attempting to meet temperature objectives, especially on the upper Sacramento River. In the monthly model, to account for the short-term variability and the operational flexibility of the system to respond to changing conditions, cooler water than that indicated by the model is released in order to avoid exceeding the required downstream temperature target.

There is also uncertainty regarding performance characteristics of the Shasta TCD. Due to the hydraulic characteristics of the TCD, including leakage, overflow, and performance of the side intakes, the model releases are cooler than can be achieved in real-time operations; therefore, a

more conservative approach is taken in real-time operations that is not fully represented by the model.

## G7.11 References

Reclamation. 2008. Central Valley Project and State Water Project Operations Criteria and Plan (OCAP) Biological Assessment, Appendix H Reclamation Temperature Model and SRWQM Temperature Model. U.S. Bureau of Reclamation, Sacramento, CA August 2008.

# Appendix H1

Yolo Bypass Vegetation Communities

*This page left blank intentionally.*

# Appendix H1. Yolo Bypass Vegetation Communities

Vegetation communities within the Yolo Bypass (operations study area) are shown in Figures H1-1 through H1-8.

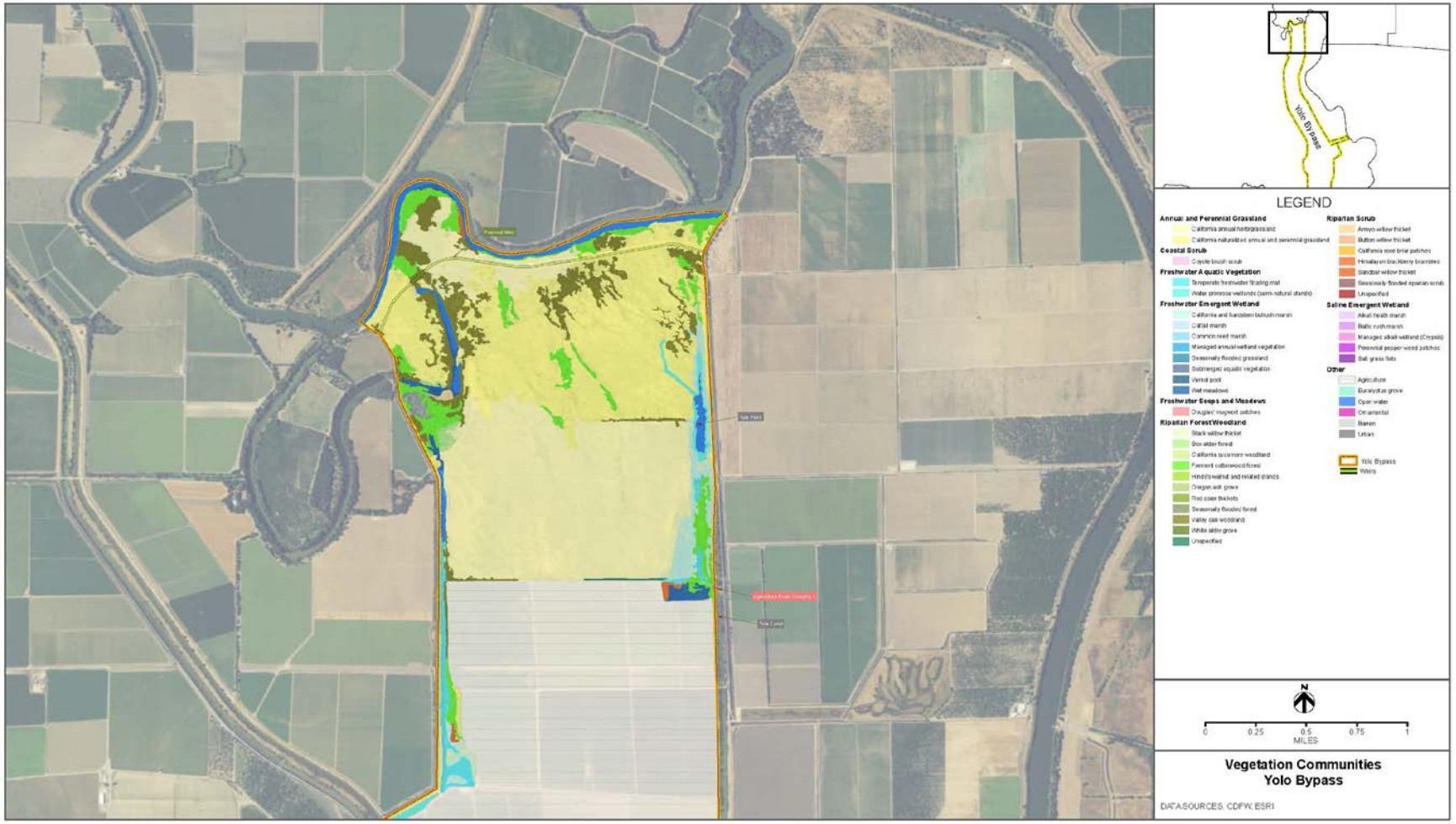



**Figure H1-1.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

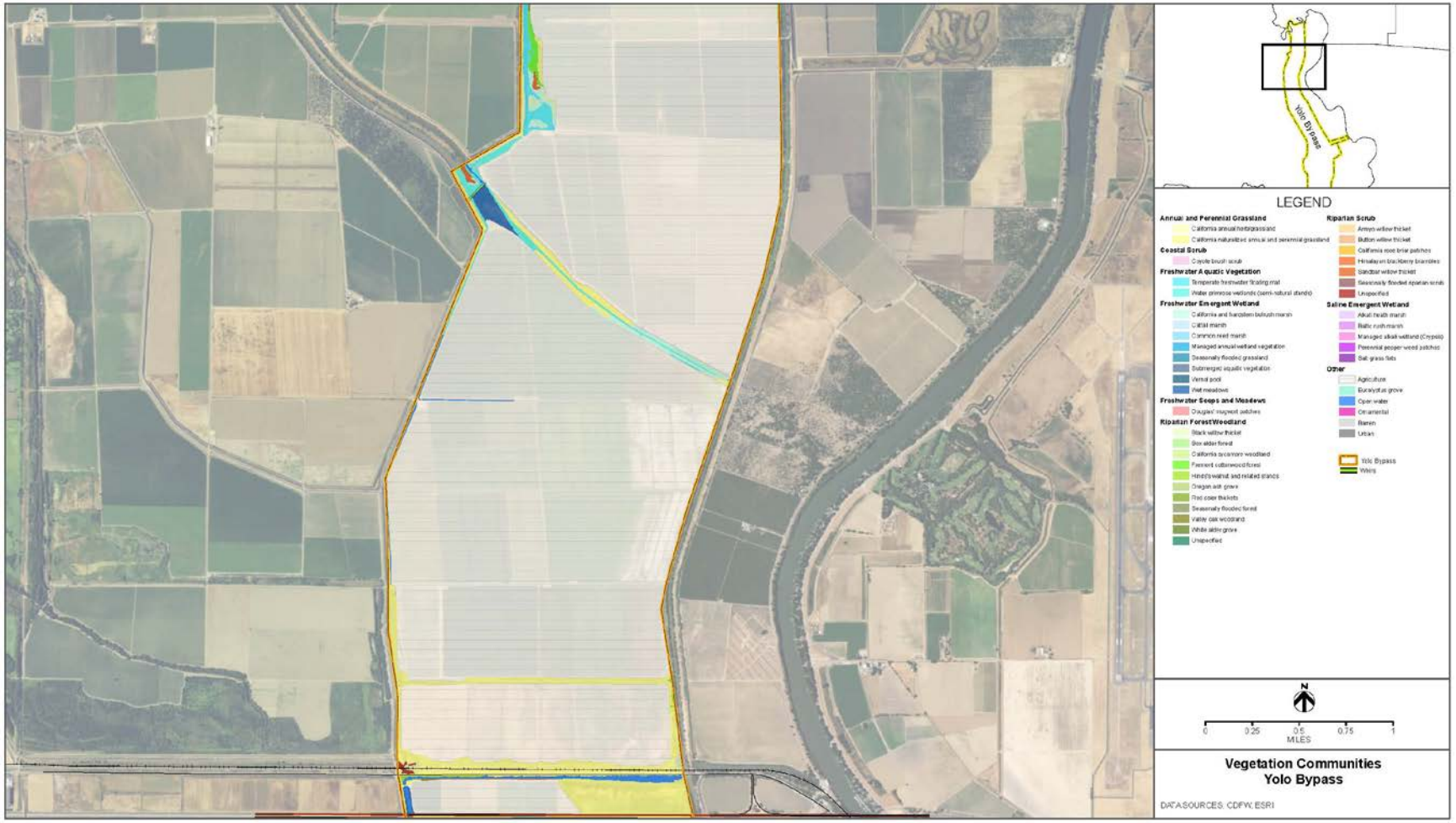



**Figure H1-2.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**


**Figure H1-3.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

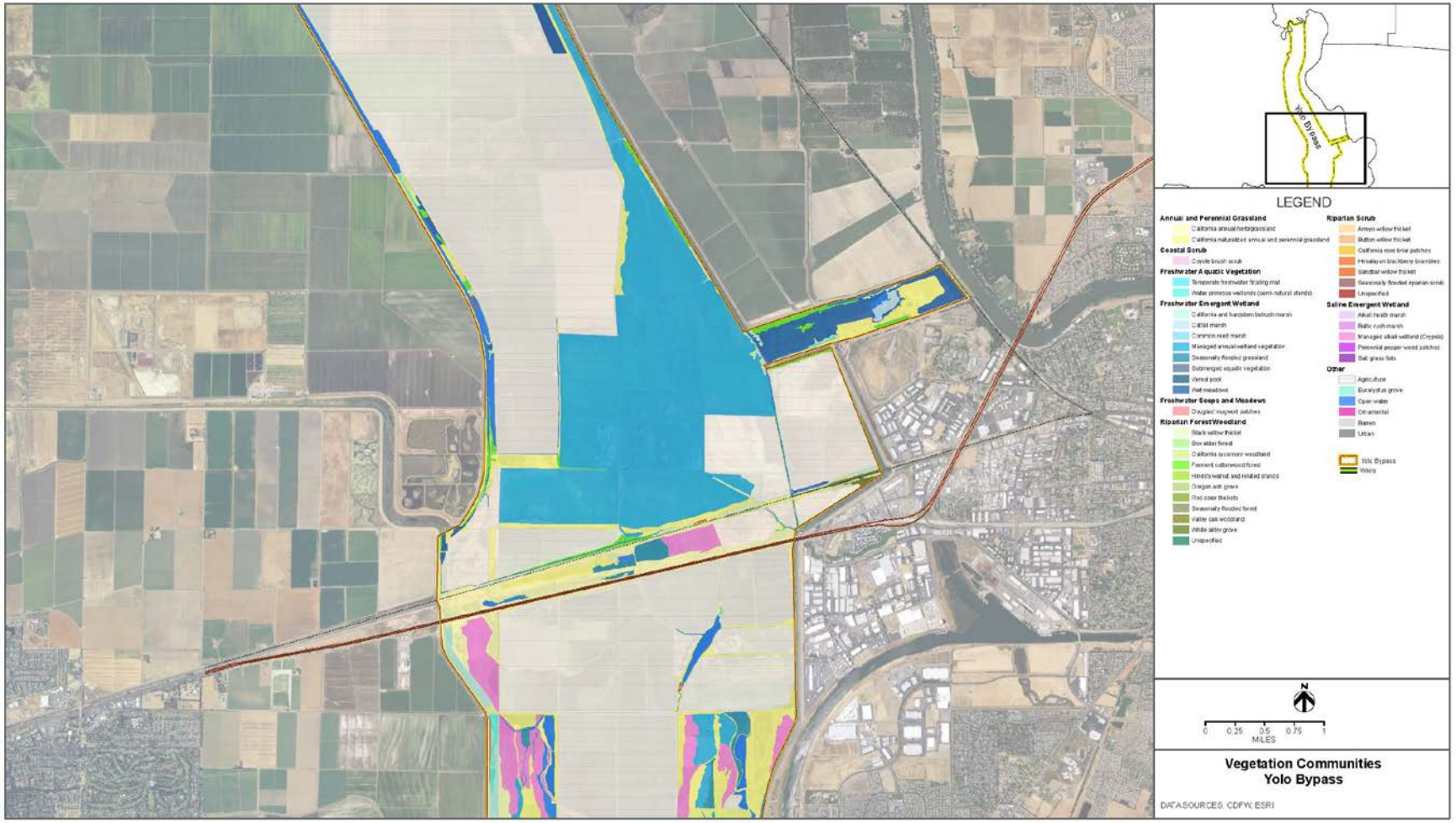



**Figure H1-4.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

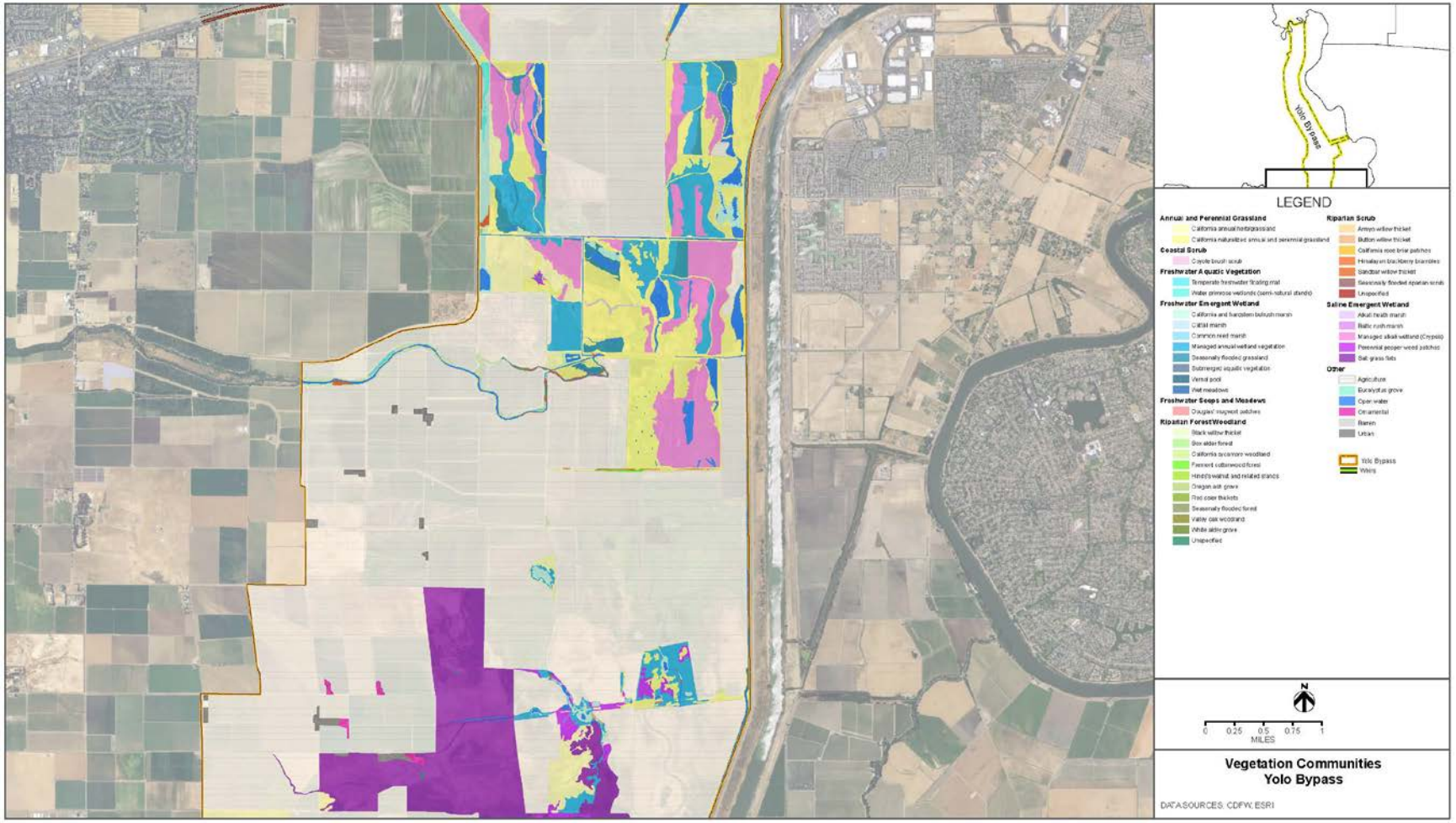



**Figure H1-5.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

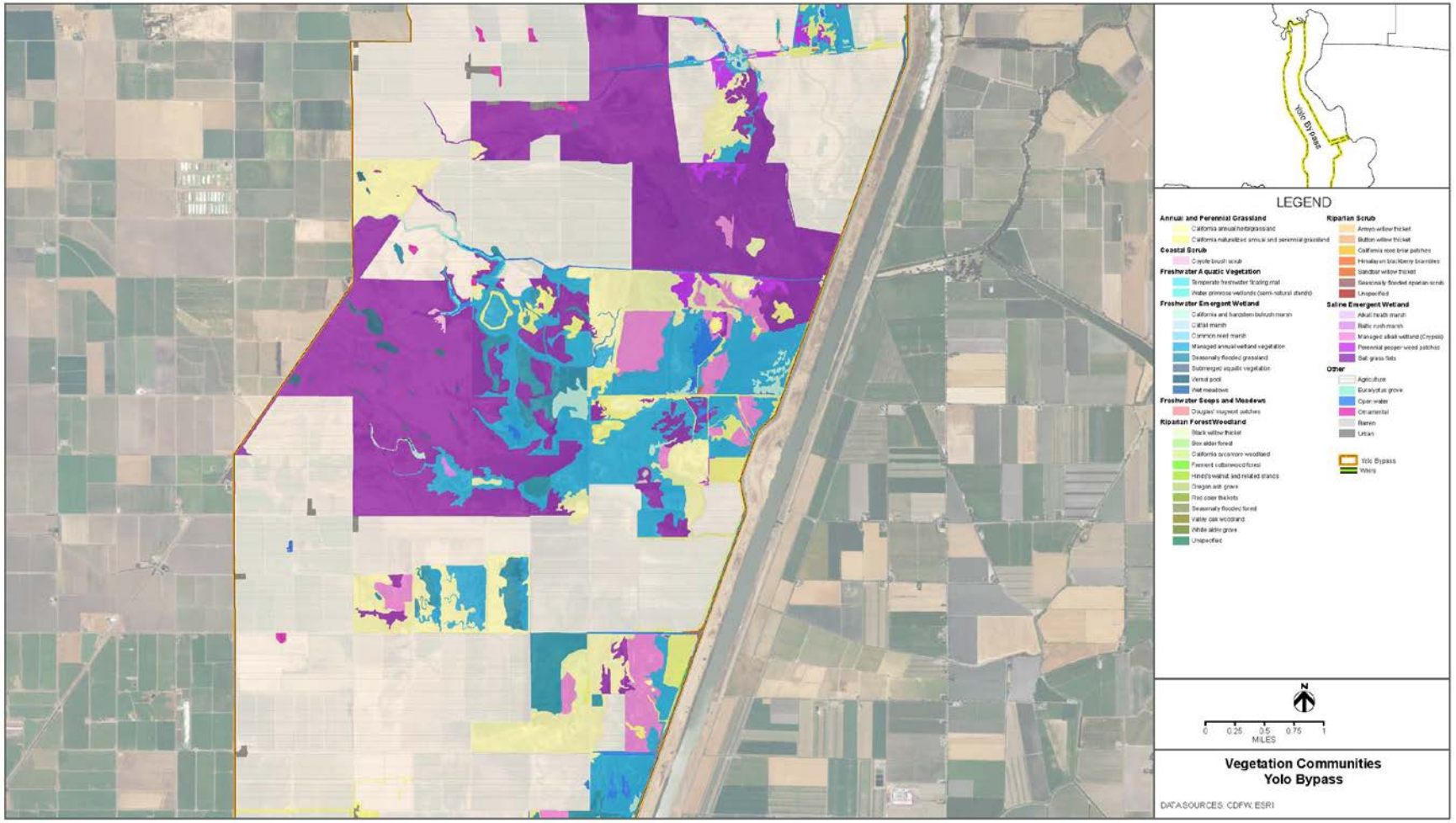



**Figure H1-6.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

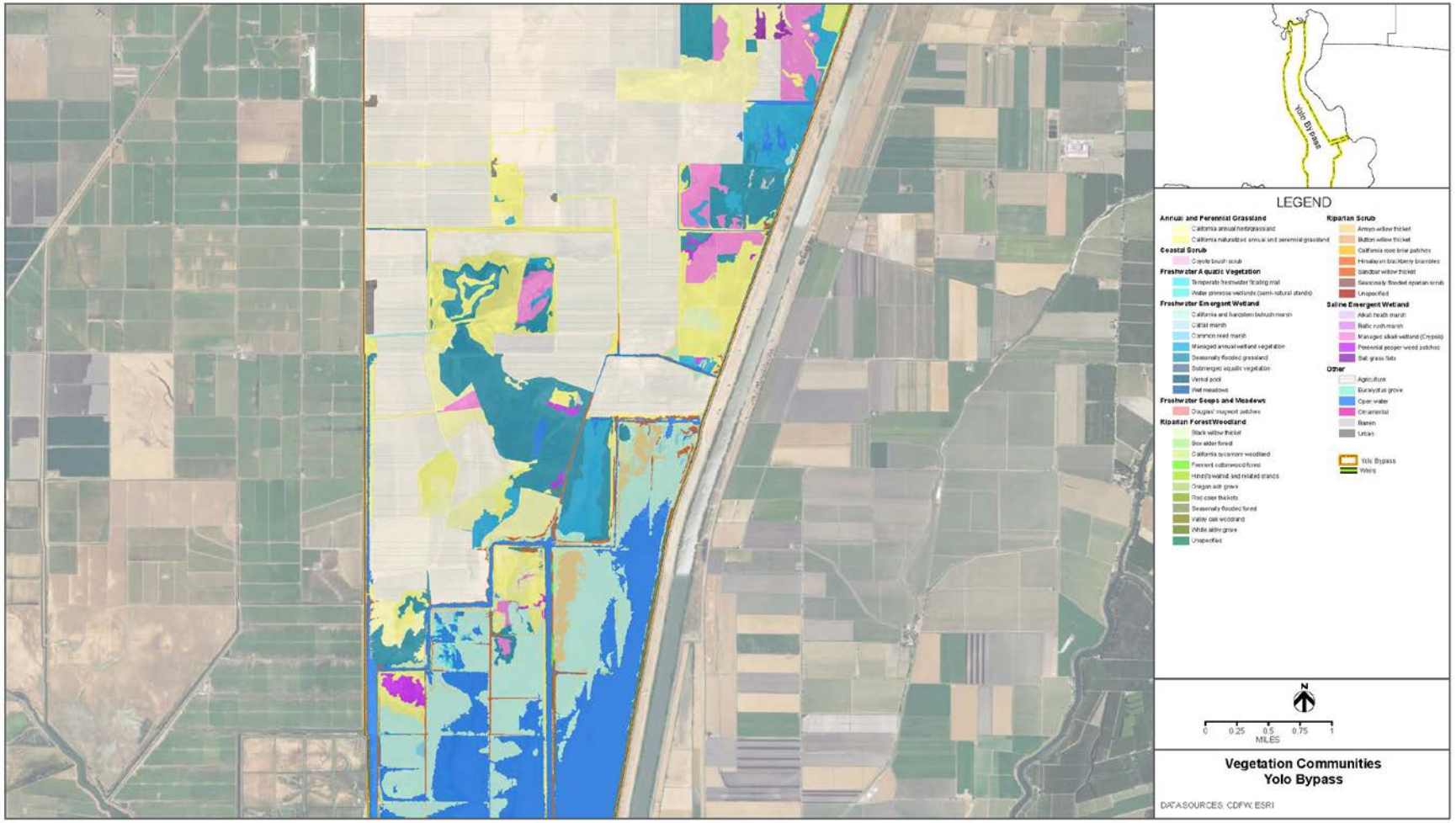



**Figure H1-7.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

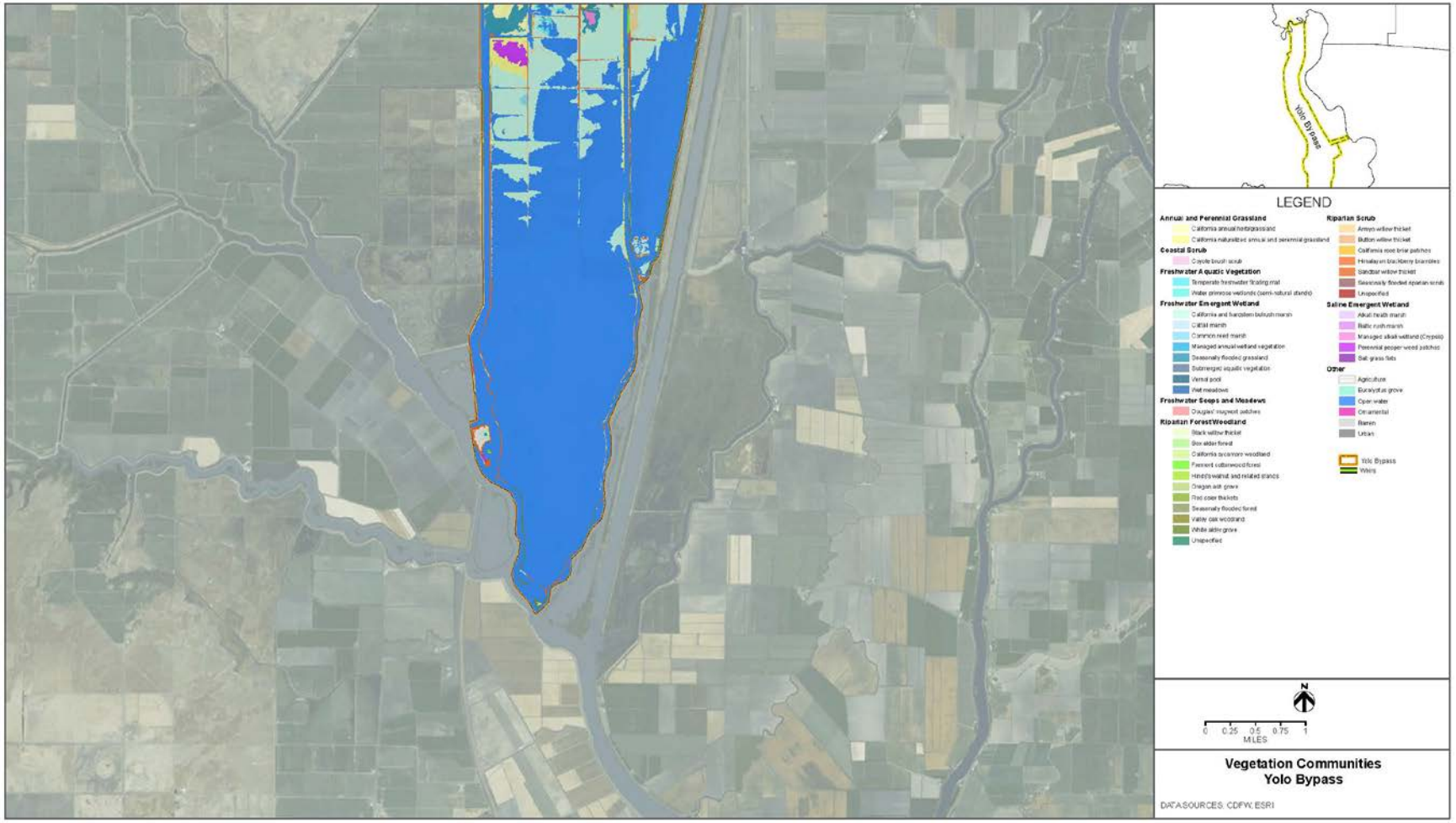



**Figure H1-8.**
**Vegetation Communities in the Yolo Bypass (Operations Study Area)**

## REFERENCES

CDFW (California Department of Fish and Wildlife). 2013. *Fine-Scale Riparian Vegetation Mapping of the Central Valley Flood Protection Plan Area Final Report*.