1 C.33. Qwest Flow

Figure C-33-1. Qwest, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-33-2. Qwest, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-33-3. Qwest, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-33-4. Qwest, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-33-5. Qwest, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-33-6. Qwest, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-33-1. Qwest, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,190 | 939 | 7,381 | 16,329 | 20,138 | 16,951 | 21,018 | 17,565 | 6,736 | 440 | 871 | 120 |
| 20\% | 515 | 53 | 1,563 | 11,264 | 12,704 | 10,469 | 13,927 | 9,636 | 3,197 | -437 | -453 | -734 |
| 30\% | 215 | -36 | -367 | 5,662 | 10,982 | 7,517 | 10,386 | 6,993 | 1,869 | -1,594 | -1,445 | -1,120 |
| 40\% | 59 | -439 | -908 | 3,520 | 7,240 | 5,489 | 9,345 | 6,123 | 1,385 | -2,172 | -2,923 | -1,931 |
| 50\% | 13 | -688 | -1,266 | 2,051 | 4,895 | 3,149 | 7,690 | 5,136 | 1,021 | -2,566 | -3,852 | -2,445 |
| 60\% | -277 | -1,356 | -1,870 | 926 | 3,228 | 2,565 | 6,087 | 2,939 | 740 | -3,117 | -4,635 | -3,011 |
| 70\% | -498 | -1,752 | -3,347 | -388 | 1,998 | 1,798 | 3,568 | 2,183 | 544 | -3,831 | -4,922 | -3,732 |
| 80\% | -771 | -2,186 | -5,079 | -1,042 | 1,138 | 1,341 | 2,090 | 1,276 | 97 | -4,457 | -5,315 | -4,050 |
| 90\% | -1,577 | -3,655 | -5,613 | -1,317 | -525 | 826 | 1,649 | 929 | -75 | -4,771 | -5,533 | -4,414 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -152 | -604 | 354 | 6,065 | 8,790 | 7,514 | 9,325 | 6,938 | 2,291 | -2,226 | -3,046 | -2,189 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -159 | -25 | 5,007 | 15,152 | 17,194 | 15,778 | 17,396 | 14,363 | 5,435 | -668 | -4,441 | -2,977 |
| Above Normal (16\%) | -434 | -1,125 | 199 | 7,163 | 9,988 | 7,324 | 10,091 | 6,608 | 909 | -2,220 | -5,358 | -1,608 |
| Below Normal (13\%) | 185 | -1,055 | -2,871 | 908 | 5,888 | 2,004 | 6,057 | 3,774 | 773 | -4,223 | -4,418 | -3,135 |
| Dry (24\%) | -166 | -978 | -2,732 | 266 | 2,980 | 3,262 | 4,539 | 2,664 | 538 | -3,920 | -846 | -2,104 |
| Critical (15\%) | -118 | -258 | -1,458 | -420 | 1,627 | 1,952 | 1,977 | 1,228 | 1,289 | -954 | 74 | -384 |

Alternative 1

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 526 | 63 | 3,807 | 14,561 | 22,874 | 19,881 | 17,707 | 11,934 | 6,962 | 589 | 574 | 51 |
| 20\% | 52 | -329 | -373 | 5,175 | 11,903 | 12,002 | 9,173 | 5,150 | 3,364 | -449 | -914 | -893 |
| 30\% | -460 | -1,268 | -1,373 | 2,351 | 7,291 | 6,402 | 5,119 | 3,265 | 1,714 | -1,165 | -1,709 | -1,906 |
| 40\% | -1,099 | -1,835 | -2,345 | 434 | 3,614 | 3,627 | 3,040 | 2,343 | 986 | -1,555 | -2,018 | -2,562 |
| 50\% | -1,755 | -2,203 | -2,771 | -770 | 1,066 | 1,641 | 2,151 | 2,056 | 282 | -1,968 | -3,060 | -3,258 |
| 60\% | -2,219 | -2,602 | -2,967 | -2,092 | -314 | 884 | 1,828 | 1,415 | 13 | -2,278 | -3,763 | -3,773 |
| 70\% | -2,740 | -3,082 | -3,330 | -2,363 | -1,709 | -252 | 1,518 | 1,130 | -706 | -2,909 | -4,291 | -3,947 |
| 80\% | -3,336 | -3,412 | -3,547 | -2,866 | -2,513 | -874 | 1,188 | 513 | -1,399 | -3,531 | -4,804 | -4,109 |
| 90\% | -3,917 | -3,663 | -4,036 | -3,611 | -3,110 | -1,605 | 763 | -453 | -2,023 | -4,332 | -5,168 | -4,339 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,596 | -1,575 | -246 | 3,386 | 6,363 | 6,391 | 5,778 | 4,362 | 1,925 | -1,726 | -2,729 | -2,654 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,042 | -1,353 | 3,511 | 12,143 | 15,965 | 16,223 | 12,737 | 10,629 | 6,448 | -533 | -3,786 | -2,986 |
| Above Normal (16\%) | -1,407 | -1,408 | -293 | 2,659 | 6,954 | 6,279 | 4,374 | 2,700 | 203 | -2,384 | -4,684 | -4,210 |
| Below Normal (13\%) | -2,223 | -2,535 | -2,647 | -2,770 | 3,655 | 366 | 2,198 | 847 | -1,135 | -4,288 | -3,305 | -3,131 |
| Dry (24\%) | -1,352 | -1,850 | -2,738 | -1,663 | -502 | 484 | 2,392 | 1,283 | -289 | -2,470 | -1,259 | -2,247 |
| Critical (15\%) | -666 | -898 | -1,983 | -742 | -1,155 | 580 | 1,146 | 938 | 485 | -14 | -243 | -491 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -664 | -876 | -3,574 | -1,768 | 2,736 | 2,930 | -3,312 | -5,631 | 226 | 149 | -297 | -69 |
| 20\% | -463 | -382 | -1,936 | -6,089 | -801 | 1,533 | -4,755 | -4,487 | 167 | -12 | -461 | -160 |
| 30\% | -675 | -1,232 | -1,006 | -3,311 | -3,691 | -1,115 | -5,267 | -3,728 | -155 | 429 | -264 | -786 |
| 40\% | -1,157 | -1,396 | -1,437 | -3,087 | -3,627 | -1,862 | -6,305 | -3,780 | -399 | 617 | 905 | -631 |
| 50\% | -1,768 | -1,515 | -1,505 | -2,821 | -3,829 | -1,507 | -5,539 | -3,080 | -740 | 597 | 792 | -813 |
| 60\% | -1,941 | -1,246 | -1,098 | -3,018 | -3,542 | -1,681 | -4,259 | -1,524 | -727 | 839 | 872 | -762 |
| 70\% | -2,242 | -1,329 | 16 | -1,975 | -3,707 | -2,049 | -2,050 | -1,053 | -1,251 | 922 | 631 | -215 |
| 80\% | -2,565 | -1,227 | 1,533 | -1,824 | -3,651 | -2,215 | -902 | -763 | -1,497 | 926 | 511 | -59 |
| 90\% | -2,340 | -8 | 1,577 | -2,294 | -2,585 | -2,431 | -886 | -1,381 | -1,948 | 440 | 365 | 75 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,444 | -971 | -600 | -2,679 | -2,427 | -1,123 | -3,546 | -2,575 | -366 | 500 | 317 | -465 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -1,883 | -1,328 | -1,496 | -3,009 | -1,229 | 445 | -4,659 | -3,734 | 1,013 | 136 | 656 | -9 |
| Above Normal (16\%) | -973 | -282 | -492 | -4,504 | -3,034 | -1,046 | -5,717 | -3,908 | -707 | -164 | 674 | -2,602 |
| Below Normal (13\%) | -2,408 | -1,480 | 224 | -3,677 | -2,233 | -1,637 | -3,858 | -2,927 | -1,908 | -65 | 1,112 | 4 |
| Dry (24\%) | -1,186 | -872 | -6 | -1,929 | -3,482 | -2,778 | -2,147 | -1,381 | -827 | 1,451 | -413 | -142 |
| Critical (15\%) | -549 | -640 | -524 | -322 | -2,782 | -1,372 | -831 | -291 | -804 | 940 | -317 | -107 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-33-2. Qwest, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,190 | 939 | 7,381 | 16,329 | 20,138 | 16,951 | 21,018 | 17,565 | 6,736 | 440 | 871 | 120 |
| 20\% | 515 | 53 | 1,563 | 11,264 | 12,704 | 10,469 | 13,927 | 9,636 | 3,197 | -437 | -453 | -734 |
| 30\% | 215 | -36 | -367 | 5,662 | 10,982 | 7,517 | 10,386 | 6,993 | 1,869 | -1,594 | -1,445 | -1,120 |
| 40\% | 59 | -439 | -908 | 3,520 | 7,240 | 5,489 | 9,345 | 6,123 | 1,385 | -2,172 | -2,923 | -1,931 |
| 50\% | 13 | -688 | -1,266 | 2,051 | 4,895 | 3,149 | 7,690 | 5,136 | 1,021 | -2,566 | -3,852 | -2,445 |
| 60\% | -277 | -1,356 | -1,870 | 926 | 3,228 | 2,565 | 6,087 | 2,939 | 740 | -3,117 | -4,635 | -3,011 |
| 70\% | -498 | -1,752 | -3,347 | -388 | 1,998 | 1,798 | 3,568 | 2,183 | 544 | -3,831 | -4,922 | -3,732 |
| 80\% | -771 | -2,186 | -5,079 | -1,042 | 1,138 | 1,341 | 2,090 | 1,276 | 97 | -4,457 | -5,315 | -4,050 |
| 90\% | -1,577 | -3,655 | -5,613 | -1,317 | -525 | 826 | 1,649 | 929 | -75 | -4,771 | -5,533 | -4,414 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -152 | -604 | 354 | 6,065 | 8,790 | 7,514 | 9,325 | 6,938 | 2,291 | -2,226 | -3,046 | -2,189 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -159 | -25 | 5,007 | 15,152 | 17,194 | 15,778 | 17,396 | 14,363 | 5,435 | -668 | -4,441 | -2,977 |
| Above Normal (16\%) | -434 | -1,125 | 199 | 7,163 | 9,988 | 7,324 | 10,091 | 6,608 | 909 | -2,220 | -5,358 | -1,608 |
| Below Normal (13\%) | 185 | -1,055 | -2,871 | 908 | 5,888 | 2,004 | 6,057 | 3,774 | 773 | -4,223 | -4,418 | -3,135 |
| Dry (24\%) | -166 | -978 | -2,732 | 266 | 2,980 | 3,262 | 4,539 | 2,664 | 538 | -3,920 | -846 | -2,104 |
| Critical (15\%) | -118 | -258 | -1,458 | -420 | 1,627 | 1,952 | 1,977 | 1,228 | 1,289 | -954 | 74 | -384 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 83 | 73 | 6,891 | 16,697 | 23,223 | 20,213 | 15,887 | 10,799 | 4,840 | 710 | 346 | 66 |
| 20\% | 49 | -17 | 1,659 | 10,215 | 12,269 | 10,204 | 8,880 | 3,919 | 1,899 | -325 | -670 | -971 |
| 30\% | -115 | -844 | 38 | 6,317 | 10,027 | 6,380 | 5,473 | 2,022 | 631 | -717 | -1,640 | -1,833 |
| 40\% | -600 | -1,792 | -930 | 3,541 | 6,548 | 4,551 | 3,460 | 1,600 | 180 | -1,862 | -2,730 | -2,462 |
| 50\% | -1,730 | -2,278 | -1,568 | 2,754 | 4,145 | 2,910 | 3,048 | 1,243 | -175 | -2,431 | -3,512 | -3,217 |
| 60\% | -2,231 | -2,540 | -2,531 | 1,900 | 2,573 | 2,148 | 2,142 | 1,036 | -675 | -2,945 | -4,187 | -3,653 |
| 70\% | -2,815 | -3,019 | -3,073 | 841 | 1,626 | 1,517 | 1,694 | 609 | -916 | -3,376 | -4,629 | -3,809 |
| 80\% | -3,331 | -3,396 | -3,382 | 65 | 567 | 806 | 1,255 | 288 | -1,370 | -4,175 | -5,134 | -4,063 |
| 90\% | -3,941 | -3,786 | -3,798 | -532 | -963 | -483 | 662 | -390 | -1,638 | -4,926 | -5,457 | -4,430 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,568 | $-1,486$ | 783 | 6,530 | 8,539 | 7,092 | 5,910 | 3,725 | 1,179 | -1,964 | -2,963 | -2,627 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,011 | -1,326 | 5,481 | 14,861 | 16,783 | 15,532 | 12,500 | 9,420 | 4,460 | -362 | -3,821 | -2,846 |
| Above Normal (16\%) | -1,488 | -1,523 | 820 | 7,597 | 9,153 | 6,379 | 4,758 | 1,601 | -233 | -2,368 | -5,066 | -4,165 |
| Below Normal (13\%) | -2,014 | -2,255 | -2,401 | 1,759 | 5,969 | 1,128 | 2,884 | 1,043 | -736 | -4,525 | -4,783 | -3,620 |
| Dry (24\%) | -1,461 | -1,779 | -2,408 | 1,318 | 3,030 | 2,961 | 2,470 | 798 | -649 | -3,392 | -1,162 | -2,111 |
| Critical (15\%) | -467 | -597 | -1,196 | 387 | 1,547 | 1,928 | 1,383 | 1,023 | 400 | -269 | -158 | -435 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -1,107 | -866 | -489 | 368 | 3,084 | 3,263 | -5,131 | -6,766 | -1,896 | 270 | -526 | -54 |
| 20\% | -467 | -70 | 96 | -1,049 | -435 | -265 | -5,048 | -5,718 | -1,298 | 112 | -217 | -237 |
| 30\% | -329 | -808 | 405 | 655 | -955 | -1,137 | -4,913 | -4,971 | -1,238 | 877 | -196 | -713 |
| 40\% | -659 | -1,353 | -22 | 20 | -692 | -938 | -5,885 | -4,523 | -1,205 | 310 | 194 | -532 |
| 50\% | -1,743 | -1,590 | -301 | 703 | -751 | -239 | -4,642 | -3,892 | -1,196 | 134 | 340 | -772 |
| 60\% | -1,953 | -1,183 | -661 | 974 | -654 | -417 | -3,945 | -1,903 | -1,415 | 172 | 448 | -642 |
| 70\% | -2,318 | -1,267 | 273 | 1,229 | -372 | -281 | -1,874 | -1,574 | -1,460 | 455 | 293 | -77 |
| 80\% | -2,560 | -1,210 | 1,698 | 1,107 | -571 | -535 | -835 | -989 | -1,468 | 282 | 182 | -13 |
| 90\% | -2,364 | -131 | 1,816 | 785 | -438 | -1,309 | -987 | -1,319 | -1,563 | -154 | 76 | -16 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,416 | -882 | 429 | 465 | -251 | -423 | -3,415 | -3,213 | -1,112 | 262 | 83 | -438 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -1,852 | -1,302 | 474 | -291 | -410 | -246 | -4,897 | -4,943 | -975 | 306 | 620 | 131 |
| Above Normal (16\%) | -1,055 | -397 | 622 | 434 | -834 | -946 | -5,332 | -5,007 | -1,143 | -148 | 292 | -2,557 |
| Below Normal (13\%) | -2,199 | -1,200 | 469 | 851 | 81 | -876 | -3,172 | -2,731 | -1,509 | -302 | -365 | -485 |
| Dry (24\%) | -1,295 | -801 | 323 | 1,052 | 50 | -301 | -2,069 | -1,866 | -1,187 | 528 | -316 | -7 |
| Critical (15\%) | -349 | -338 | 262 | 807 | -80 | -24 | -594 | -205 | -888 | 685 | -232 | -51 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-33-3. Qwest, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,190 | 939 | 7,381 | 16,329 | 20,138 | 16,951 | 21,018 | 17,565 | 6,736 | 440 | 871 | 120 |
| 20\% | 515 | 53 | 1,563 | 11,264 | 12,704 | 10,469 | 13,927 | 9,636 | 3,197 | -437 | -453 | -734 |
| 30\% | 215 | -36 | -367 | 5,662 | 10,982 | 7,517 | 10,386 | 6,993 | 1,869 | -1,594 | -1,445 | -1,120 |
| 40\% | 59 | -439 | -908 | 3,520 | 7,240 | 5,489 | 9,345 | 6,123 | 1,385 | -2,172 | -2,923 | -1,931 |
| 50\% | 13 | -688 | -1,266 | 2,051 | 4,895 | 3,149 | 7,690 | 5,136 | 1,021 | -2,566 | -3,852 | -2,445 |
| 60\% | -277 | -1,356 | -1,870 | 926 | 3,228 | 2,565 | 6,087 | 2,939 | 740 | -3,117 | -4,635 | -3,011 |
| 70\% | -498 | -1,752 | -3,347 | -388 | 1,998 | 1,798 | 3,568 | 2,183 | 544 | -3,831 | -4,922 | -3,732 |
| 80\% | -771 | -2,186 | -5,079 | -1,042 | 1,138 | 1,341 | 2,090 | 1,276 | 97 | -4,457 | -5,315 | -4,050 |
| 90\% | -1,577 | -3,655 | -5,613 | -1,317 | -525 | 826 | 1,649 | 929 | -75 | -4,771 | -5,533 | -4,414 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -152 | -604 | 354 | 6,065 | 8,790 | 7,514 | 9,325 | 6,938 | 2,291 | -2,226 | -3,046 | -2,189 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -159 | -25 | 5,007 | 15,152 | 17,194 | 15,778 | 17,396 | 14,363 | 5,435 | -668 | -4,441 | -2,977 |
| Above Normal (16\%) | -434 | -1,125 | 199 | 7,163 | 9,988 | 7,324 | 10,091 | 6,608 | 909 | -2,220 | -5,358 | -1,608 |
| Below Normal (13\%) | 185 | -1,055 | -2,871 | 908 | 5,888 | 2,004 | 6,057 | 3,774 | 773 | -4,223 | -4,418 | -3,135 |
| Dry (24\%) | -166 | -978 | -2,732 | 266 | 2,980 | 3,262 | 4,539 | 2,664 | 538 | -3,920 | -846 | -2,104 |
| Critical (15\%) | -118 | -258 | -1,458 | -420 | 1,627 | 1,952 | 1,977 | 1,228 | 1,289 | -954 | 74 | -384 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,313 | 968 | 7,282 | 16,331 | 20,138 | 16,955 | 21,014 | 17,566 | 6,728 | 437 | 81 | 120 |
| 20\% | 638 | 63 | 1,597 | 11,247 | 13,399 | 10,470 | 13,753 | 9,636 | 2,812 | -820 | -724 | -747 |
| 30\% | 229 | -54 | -137 | 5,649 | 11,039 | 7,466 | 10,689 | 7,517 | 1,840 | -1,646 | -2,006 | -1,275 |
| 40\% | 63 | -389 | -911 | 3,523 | 7,238 | 5,229 | 9,387 | 6,665 | 1,308 | -2,129 | -3,225 | -1,958 |
| 50\% | 33 | -628 | -1,305 | 2,059 | 4,891 | 3,149 | 7,939 | 5,892 | 916 | -2,560 | -4,387 | -2,417 |
| 60\% | -304 | -1,160 | -1,901 | 635 | 3,241 | 2,564 | 6,513 | 4,370 | 682 | -3,583 | -4,645 | -3,022 |
| 70\% | -529 | -1,607 | -3,368 | -267 | 1,998 | 1,797 | 4,975 | 3,342 | 316 | -4,074 | -4,946 | -3,631 |
| 80\% | -808 | -2,205 | -5,076 | -1,042 | 1,131 | 1,339 | 4,199 | 3,100 | 38 | -4,661 | -5,317 | -3,869 |
| 90\% | -1,328 | -3,634 | -5,605 | -1,318 | -523 | 826 | 3,332 | 2,556 | -228 | -4,898 | -5,527 | -4,431 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -126 | -568 | 324 | 6,049 | 8,782 | 7,475 | 10,009 | 7,798 | 2,216 | -2,354 | -3,255 | -2,188 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -116 | -170 | 4,930 | 15,168 | 17,253 | 15,677 | 17,395 | 14,643 | 5,404 | -643 | -4,504 | -2,838 |
| Above Normal (16\%) | -494 | -665 | 200 | 7,142 | 9,916 | 7,321 | 10,237 | 7,138 | 900 | -2,243 | -5,317 | -1,571 |
| Below Normal (13\%) | 244 | -1,049 | -2,835 | 903 | 5,803 | 1,948 | 6,741 | 4,691 | 713 | -4,254 | -4,527 | -3,334 |
| Dry (24\%) | -104 | -940 | -2,793 | 263 | 2,969 | 3,260 | 6,004 | 4,146 | 362 | -4,324 | -1,270 | -2,188 |
| Critical (15\%) | -124 | -260 | -1,433 | -530 | 1,622 | 1,961 | 3,430 | 2,612 | 1,200 | -1,154 | -455 | -399 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 124 | 28 | -99 | 2 | -1 | 4 | -4 | 0 | -8 | -3 | -790 | 0 |
| 20\% | 122 | 9 | 34 | -17 | 695 | 1 | -174 | 0 | -385 | -382 | -271 | -14 |
| 30\% | 14 | -18 | 230 | -13 | 57 | -51 | 303 | 524 | -29 | -52 | -561 | -155 |
| 40\% | 4 | 50 | -3 | 3 | -2 | -260 | 42 | 542 | -77 | 43 | -301 | -27 |
| 50\% | 20 | 60 | -39 | 8 | -4 | 0 | 249 | 756 | -105 | 5 | -535 | 28 |
| 60\% | -27 | 197 | -31 | -291 | 13 | -1 | 426 | 1,431 | -58 | -466 | -10 | -11 |
| 70\% | -31 | 145 | -21 | 121 | 0 | -1 | 1,407 | 1,159 | -229 | -243 | -24 | 100 |
| 80\% | -37 | -19 | 3 | 0 | -7 | -2 | 2,109 | 1,824 | -59 | -204 | -2 | 181 |
| 90\% | 250 | 21 | 8 | -1 | 2 | 0 | 1,683 | 1,628 | -153 | -126 | 6 | -17 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 26 | 36 | -31 | -16 | -8 | -40 | 684 | 860 | -75 | -128 | -209 | 1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 43 | -146 | -77 | 16 | 59 | -102 | -2 | 280 | -31 | 25 | -63 | 139 |
| Above Normal (16\%) | -60 | 460 | 1 | -20 | -72 | -4 | 146 | 530 | -10 | -23 | 41 | 37 |
| Below Normal (13\%) | 59 | 6 | 35 | -5 | -86 | -55 | 684 | 918 | -60 | -31 | -109 | -199 |
| Dry (24\%) | 62 | 38 | -62 | -3 | -12 | -2 | 1,465 | 1,482 | -177 | -404 | -423 | -84 |
| Critical (15\%) | -7 | -2 | 26 | -110 | -5 | 8 | 1,453 | 1,383 | -89 | -200 | -529 | -15 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-33-4. Qwest, Monthly Flow

Second Basis of Comparison

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 526 | 63 | 3,807 | 14,561 | 22,874 | 19,881 | 17,707 | 11,934 | 6,962 | 589 | 574 | 51 |
| 20\% | 52 | -329 | -373 | 5,175 | 11,903 | 12,002 | 9,173 | 5,150 | 3,364 | -449 | -914 | -893 |
| 30\% | -460 | -1,268 | -1,373 | 2,351 | 7,291 | 6,402 | 5,119 | 3,265 | 1,714 | -1,165 | -1,709 | -1,906 |
| 40\% | -1,099 | -1,835 | -2,345 | 434 | 3,614 | 3,627 | 3,040 | 2,343 | 986 | -1,555 | -2,018 | -2,562 |
| 50\% | -1,755 | -2,203 | -2,771 | -770 | 1,066 | 1,641 | 2,151 | 2,056 | 282 | -1,968 | -3,060 | -3,258 |
| 60\% | -2,219 | -2,602 | -2,967 | -2,092 | -314 | 884 | 1,828 | 1,415 | 13 | -2,278 | -3,763 | -3,773 |
| 70\% | -2,740 | -3,082 | -3,330 | -2,363 | -1,709 | -252 | 1,518 | 1,130 | -706 | -2,909 | -4,291 | -3,947 |
| 80\% | -3,336 | -3,412 | -3,547 | -2,866 | -2,513 | -874 | 1,188 | 513 | -1,399 | -3,531 | -4,804 | -4,109 |
| 90\% | -3,917 | -3,663 | -4,036 | -3,611 | -3,110 | -1,605 | 763 | -453 | -2,023 | -4,332 | -5,168 | -4,339 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,596 | -1,575 | -246 | 3,386 | 6,363 | 6,391 | 5,778 | 4,362 | 1,925 | -1,726 | -2,729 | -2,654 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,042 | -1,353 | 3,511 | 12,143 | 15,965 | 16,223 | 12,737 | 10,629 | 6,448 | -533 | -3,786 | -2,986 |
| Above Normal (16\%) | -1,407 | -1,408 | -293 | 2,659 | 6,954 | 6,279 | 4,374 | 2,700 | 203 | -2,384 | -4,684 | -4,210 |
| Below Normal (13\%) | -2,223 | -2,535 | -2,647 | -2,770 | 3,655 | 366 | 2,198 | 847 | -1,135 | -4,288 | -3,305 | -3,131 |
| Dry (24\%) | -1,352 | -1,850 | -2,738 | -1,663 | -502 | 484 | 2,392 | 1,283 | -289 | -2,470 | -1,259 | $-2,247$ |
| Critical (15\%) | -666 | -898 | -1,983 | -742 | -1,155 | 580 | 1,146 | 938 | 485 | -14 | -243 | -491 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,190 | 939 | 7,381 | 16,329 | 20,138 | 16,951 | 21,018 | 17,565 | 6,736 | 440 | 871 | 120 |
| 20\% | 515 | 53 | 1,563 | 11,264 | 12,704 | 10,469 | 13,927 | 9,636 | 3,197 | -437 | -453 | -734 |
| 30\% | 215 | -36 | -367 | 5,662 | 10,982 | 7,517 | 10,386 | 6,993 | 1,869 | -1,594 | -1,445 | -1,120 |
| 40\% | 59 | -439 | -908 | 3,520 | 7,240 | 5,489 | 9,345 | 6,123 | 1,385 | -2,172 | -2,923 | -1,931 |
| 50\% | 13 | -688 | -1,266 | 2,051 | 4,895 | 3,149 | 7,690 | 5,136 | 1,021 | -2,566 | -3,852 | -2,445 |
| 60\% | -277 | -1,356 | -1,870 | 926 | 3,228 | 2,565 | 6,087 | 2,939 | 740 | -3,117 | -4,635 | -3,011 |
| 70\% | -498 | -1,752 | -3,347 | -388 | 1,998 | 1,798 | 3,568 | 2,183 | 544 | -3,831 | -4,922 | -3,732 |
| 80\% | -771 | -2,186 | -5,079 | -1,042 | 1,138 | 1,341 | 2,090 | 1,276 | 97 | -4,457 | -5,315 | -4,050 |
| 90\% | -1,577 | -3,655 | -5,613 | -1,317 | -525 | 826 | 1,649 | 929 | -75 | -4,771 | -5,533 | -4,414 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -152 | -604 | 354 | 6,065 | 8,790 | 7,514 | 9,325 | 6,938 | 2,291 | -2,226 | -3,046 | -2,189 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -159 | -25 | 5,007 | 15,152 | 17,194 | 15,778 | 17,396 | 14,363 | 5,435 | -668 | -4,441 | -2,977 |
| Above Normal (16\%) | -434 | -1,125 | 199 | 7,163 | 9,988 | 7,324 | 10,091 | 6,608 | 909 | -2,220 | -5,358 | -1,608 |
| Below Normal (13\%) | 185 | -1,055 | -2,871 | 908 | 5,888 | 2,004 | 6,057 | 3,774 | 773 | -4,223 | -4,418 | -3,135 |
| Dry (24\%) | -166 | -978 | -2,732 | 266 | 2,980 | 3,262 | 4,539 | 2,664 | 538 | -3,920 | -846 | -2,104 |
| Critical (15\%) | -118 | -258 | -1,458 | -420 | 1,627 | 1,952 | 1,977 | 1,228 | 1,289 | -954 | 74 | -384 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 664 | 876 | 3,574 | 1,768 | -2,736 | -2,930 | 3,312 | 5,631 | -226 | -149 | 297 | 69 |
| 20\% | 463 | 382 | 1,936 | 6,089 | 801 | -1,533 | 4,755 | 4,487 | -167 | 12 | 461 | 160 |
| 30\% | 675 | 1,232 | 1,006 | 3,311 | 3,691 | 1,115 | 5,267 | 3,728 | 155 | -429 | 264 | 786 |
| 40\% | 1,157 | 1,396 | 1,437 | 3,087 | 3,627 | 1,862 | 6,305 | 3,780 | 399 | -617 | -905 | 631 |
| 50\% | 1,768 | 1,515 | 1,505 | 2,821 | 3,829 | 1,507 | 5,539 | 3,080 | 740 | -597 | -792 | 813 |
| 60\% | 1,941 | 1,246 | 1,098 | 3,018 | 3,542 | 1,681 | 4,259 | 1,524 | 727 | -839 | -872 | 762 |
| 70\% | 2,242 | 1,329 | -16 | 1,975 | 3,707 | 2,049 | 2,050 | 1,053 | 1,251 | -922 | -631 | 215 |
| 80\% | 2,565 | 1,227 | -1,533 | 1,824 | 3,651 | 2,215 | 902 | 763 | 1,497 | -926 | -511 | 59 |
| 90\% | 2,340 | 8 | -1,577 | 2,294 | 2,585 | 2,431 | 886 | 1,381 | 1,948 | -440 | -365 | -75 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,444 | 971 | 600 | 2,679 | 2,427 | 1,123 | 3,546 | 2,575 | 366 | -500 | -317 | 465 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1,883 | 1,328 | 1,496 | 3,009 | 1,229 | -445 | 4,659 | 3,734 | -1,013 | -136 | -656 | 9 |
| Above Normal (16\%) | 973 | 282 | 492 | 4,504 | 3,034 | 1,046 | 5,717 | 3,908 | 707 | 164 | -674 | 2,602 |
| Below Normal (13\%) | 2,408 | 1,480 | -224 | 3,677 | 2,233 | 1,637 | 3,858 | 2,927 | 1,908 | 65 | -1,112 | -4 |
| Dry (24\%) | 1,186 | 872 | 6 | 1,929 | 3,482 | 2,778 | 2,147 | 1,381 | 827 | -1,451 | 413 | 142 |
| Critical (15\%) | 549 | 640 | 524 | 322 | 2,782 | 1,372 | 831 | 291 | 804 | -940 | 317 | 107 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-33-5. Qwest, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 526 | 63 | 3,807 | 14,561 | 22,874 | 19,881 | 17,707 | 11,934 | 6,962 | 589 | 574 | 51 |
| 20\% | 52 | -329 | -373 | 5,175 | 11,903 | 12,002 | 9,173 | 5,150 | 3,364 | -449 | -914 | -893 |
| 30\% | -460 | -1,268 | -1,373 | 2,351 | 7,291 | 6,402 | 5,119 | 3,265 | 1,714 | -1,165 | -1,709 | -1,906 |
| 40\% | -1,099 | -1,835 | -2,345 | 434 | 3,614 | 3,627 | 3,040 | 2,343 | 986 | -1,555 | -2,018 | -2,562 |
| 50\% | -1,755 | -2,203 | -2,771 | -770 | 1,066 | 1,641 | 2,151 | 2,056 | 282 | -1,968 | -3,060 | -3,258 |
| 60\% | -2,219 | -2,602 | -2,967 | -2,092 | -314 | 884 | 1,828 | 1,415 | 13 | -2,278 | -3,763 | -3,773 |
| 70\% | -2,740 | -3,082 | -3,330 | -2,363 | -1,709 | -252 | 1,518 | 1,130 | -706 | -2,909 | -4,291 | -3,947 |
| 80\% | -3,336 | -3,412 | -3,547 | -2,866 | -2,513 | -874 | 1,188 | 513 | -1,399 | -3,531 | -4,804 | -4,109 |
| 90\% | -3,917 | -3,663 | -4,036 | -3,611 | -3,110 | -1,605 | 763 | -453 | -2,023 | -4,332 | -5,168 | -4,339 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,596 | -1,575 | -246 | 3,386 | 6,363 | 6,391 | 5,778 | 4,362 | 1,925 | -1,726 | -2,729 | -2,654 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,042 | -1,353 | 3,511 | 12,143 | 15,965 | 16,223 | 12,737 | 10,629 | 6,448 | -533 | -3,786 | -2,986 |
| Above Normal (16\%) | -1,407 | -1,408 | -293 | 2,659 | 6,954 | 6,279 | 4,374 | 2,700 | 203 | -2,384 | -4,684 | -4,210 |
| Below Normal (13\%) | -2,223 | -2,535 | -2,647 | -2,770 | 3,655 | 366 | 2,198 | 847 | -1,135 | -4,288 | -3,305 | -3,131 |
| Dry (24\%) | -1,352 | -1,850 | -2,738 | -1,663 | -502 | 484 | 2,392 | 1,283 | -289 | -2,470 | -1,259 | -2,247 |
| Critical (15\%) | -666 | -898 | -1,983 | -742 | -1,155 | 580 | 1,146 | 938 | 485 | -14 | -243 | -491 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 83 | 73 | 6,891 | 16,697 | 23,223 | 20,213 | 15,887 | 10,799 | 4,840 | 710 | 346 | 66 |
| 20\% | 49 | -17 | 1,659 | 10,215 | 12,269 | 10,204 | 8,880 | 3,919 | 1,899 | -325 | -670 | -971 |
| 30\% | -115 | -844 | 38 | 6,317 | 10,027 | 6,380 | 5,473 | 2,022 | 631 | -717 | -1,640 | -1,833 |
| 40\% | -600 | -1,792 | -930 | 3,541 | 6,548 | 4,551 | 3,460 | 1,600 | 180 | -1,862 | -2,730 | -2,462 |
| 50\% | -1,730 | -2,278 | -1,568 | 2,754 | 4,145 | 2,910 | 3,048 | 1,243 | -175 | -2,431 | -3,512 | -3,217 |
| 60\% | -2,231 | -2,540 | -2,531 | 1,900 | 2,573 | 2,148 | 2,142 | 1,036 | -675 | -2,945 | -4,187 | -3,653 |
| 70\% | -2,815 | -3,019 | -3,073 | 841 | 1,626 | 1,517 | 1,694 | 609 | -916 | -3,376 | -4,629 | -3,809 |
| 80\% | -3,331 | -3,396 | -3,382 | 65 | 567 | 806 | 1,255 | 288 | -1,370 | -4,175 | -5,134 | -4,063 |
| 90\% | -3,941 | -3,786 | -3,798 | -532 | -963 | -483 | 662 | -390 | -1,638 | -4,926 | -5,457 | -4,430 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,568 | -1,486 | 783 | 6,530 | 8,539 | 7,092 | 5,910 | 3,725 | 1,179 | -1,964 | -2,963 | -2,627 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,011 | -1,326 | 5,481 | 14,861 | 16,783 | 15,532 | 12,500 | 9,420 | 4,460 | -362 | -3,821 | -2,846 |
| Above Normal (16\%) | -1,488 | -1,523 | 820 | 7,597 | 9,153 | 6,379 | 4,758 | 1,601 | -233 | -2,368 | -5,066 | -4,165 |
| Below Normal (13\%) | -2,014 | -2,255 | -2,401 | 1,759 | 5,969 | 1,128 | 2,884 | 1,043 | -736 | -4,525 | -4,783 | -3,620 |
| Dry (24\%) | -1,461 | -1,779 | -2,408 | 1,318 | 3,030 | 2,961 | 2,470 | 798 | -649 | -3,392 | -1,162 | -2,111 |
| Critical (15\%) | -467 | -597 | -1,196 | 387 | 1,547 | 1,928 | 1,383 | 1,023 | 400 | -269 | -158 | -435 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -443 | 10 | 3,084 | 2,136 | 349 | 333 | -1,819 | -1,135 | -2,122 | 121 | -229 | 16 |
| 20\% | -4 | 312 | 2,032 | 5,040 | 365 | -1,798 | -293 | -1,231 | -1,465 | 124 | 244 | -77 |
| 30\% | 345 | 424 | 1,412 | 3,966 | 2,736 | -22 | 354 | -1,243 | -1,083 | 448 | 68 | 73 |
| 40\% | 498 | 43 | 1,415 | 3,107 | 2,934 | 924 | 420 | -742 | -806 | -306 | -712 | 100 |
| 50\% | 25 | -75 | 1,203 | 3,524 | 3,079 | 1,268 | 897 | -812 | -456 | -463 | -452 | 41 |
| 60\% | -12 | 62 | 436 | 3,991 | 2,888 | 1,264 | 314 | -379 | -689 | -667 | -424 | 120 |
| 70\% | -76 | 63 | 257 | 3,204 | 3,335 | 1,768 | 176 | -521 | -210 | -467 | -339 | 138 |
| 80\% | 6 | 17 | 165 | 2,931 | 3,080 | 1,680 | 67 | -225 | 29 | -644 | -330 | 46 |
| 90\% | -24 | -123 | 239 | 3,079 | 2,147 | 1,122 | -101 | 63 | 386 | -594 | -289 | -91 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 27 | 89 | 1,030 | 3,144 | 2,176 | 700 | 131 | -637 | -746 | -238 | -234 | 27 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 31 | 26 | 1,970 | 2,718 | 819 | -691 | -238 | -1,209 | -1,988 | 170 | -36 | 140 |
| Above Normal (16\%) | -82 | -115 | 1,113 | 4,938 | 2,200 | 100 | 385 | -1,099 | -436 | 16 | -382 | 45 |
| Below Normal (13\%) | 209 | 280 | 245 | 4,529 | 2,314 | 761 | 686 | 196 | 399 | -237 | -1,477 | -489 |
| Dry (24\%) | -110 | 70 | 330 | 2,981 | 3,532 | 2,477 | 78 | -485 | -360 | -923 | 98 | 136 |
| Critical (15\%) | 199 | 302 | 786 | 1,129 | 2,702 | 1,348 | 237 | 85 | -84 | -255 | 85 | 56 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-33-6. Qwest, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 526 | 63 | 3,807 | 14,561 | 22,874 | 19,881 | 17,707 | 11,934 | 6,962 | 589 | 574 | 51 |
| 20\% | 52 | -329 | -373 | 5,175 | 11,903 | 12,002 | 9,173 | 5,150 | 3,364 | -449 | -914 | -893 |
| 30\% | -460 | -1,268 | -1,373 | 2,351 | 7,291 | 6,402 | 5,119 | 3,265 | 1,714 | -1,165 | -1,709 | -1,906 |
| 40\% | -1,099 | -1,835 | -2,345 | 434 | 3,614 | 3,627 | 3,040 | 2,343 | 986 | -1,555 | -2,018 | -2,562 |
| 50\% | -1,755 | -2,203 | -2,771 | -770 | 1,066 | 1,641 | 2,151 | 2,056 | 282 | -1,968 | -3,060 | -3,258 |
| 60\% | -2,219 | -2,602 | -2,967 | -2,092 | -314 | 884 | 1,828 | 1,415 | 13 | -2,278 | -3,763 | -3,773 |
| 70\% | -2,740 | -3,082 | -3,330 | -2,363 | -1,709 | -252 | 1,518 | 1,130 | -706 | -2,909 | -4,291 | -3,947 |
| 80\% | -3,336 | -3,412 | -3,547 | -2,866 | -2,513 | -874 | 1,188 | 513 | -1,399 | -3,531 | -4,804 | -4,109 |
| 90\% | -3,917 | -3,663 | -4,036 | -3,611 | -3,110 | -1,605 | 763 | -453 | -2,023 | -4,332 | -5,168 | -4,339 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -1,596 | -1,575 | -246 | 3,386 | 6,363 | 6,391 | 5,778 | 4,362 | 1,925 | -1,726 | -2,729 | -2,654 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -2,042 | -1,353 | 3,511 | 12,143 | 15,965 | 16,223 | 12,737 | 10,629 | 6,448 | -533 | -3,786 | -2,986 |
| Above Normal (16\%) | -1,407 | -1,408 | -293 | 2,659 | 6,954 | 6,279 | 4,374 | 2,700 | 203 | -2,384 | -4,684 | -4,210 |
| Below Normal (13\%) | -2,223 | -2,535 | -2,647 | -2,770 | 3,655 | 366 | 2,198 | 847 | -1,135 | -4,288 | -3,305 | -3,131 |
| Dry (24\%) | -1,352 | -1,850 | -2,738 | -1,663 | -502 | 484 | 2,392 | 1,283 | -289 | -2,470 | -1,259 | -2,247 |
| Critical (15\%) | -666 | -898 | -1,983 | -742 | -1,155 | 580 | 1,146 | 938 | 485 | -14 | -243 | -491 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,313 | 968 | 7,282 | 16,331 | 20,138 | 16,955 | 21,014 | 17,566 | 6,728 | 437 | 81 | 120 |
| 20\% | 638 | 63 | 1,597 | 11,247 | 13,399 | 10,470 | 13,753 | 9,636 | 2,812 | -820 | -724 | -747 |
| 30\% | 229 | -54 | -137 | 5,649 | 11,039 | 7,466 | 10,689 | 7,517 | 1,840 | -1,646 | -2,006 | -1,275 |
| 40\% | 63 | -389 | -911 | 3,523 | 7,238 | 5,229 | 9,387 | 6,665 | 1,308 | -2,129 | -3,225 | -1,958 |
| 50\% | 33 | -628 | -1,305 | 2,059 | 4,891 | 3,149 | 7,939 | 5,892 | 916 | -2,560 | -4,387 | -2,417 |
| 60\% | -304 | -1,160 | -1,901 | 635 | 3,241 | 2,564 | 6,513 | 4,370 | 682 | -3,583 | -4,645 | -3,022 |
| 70\% | -529 | -1,607 | -3,368 | -267 | 1,998 | 1,797 | 4,975 | 3,342 | 316 | -4,074 | -4,946 | -3,631 |
| 80\% | -808 | -2,205 | -5,076 | -1,042 | 1,131 | 1,339 | 4,199 | 3,100 | 38 | -4,661 | -5,317 | -3,869 |
| 90\% | -1,328 | -3,634 | -5,605 | -1,318 | -523 | 826 | 3,332 | 2,556 | -228 | -4,898 | -5,527 | -4,431 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -126 | -568 | 324 | 6,049 | 8,782 | 7,475 | 10,009 | 7,798 | 2,216 | -2,354 | $-3,255$ | -2,188 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -116 | -170 | 4,930 | 15,168 | 17,253 | 15,677 | 17,395 | 14,643 | 5,404 | -643 | -4,504 | -2,838 |
| Above Normal (16\%) | -494 | -665 | 200 | 7,142 | 9,916 | 7,321 | 10,237 | 7,138 | 900 | -2,243 | -5,317 | -1,571 |
| Below Normal (13\%) | 244 | -1,049 | -2,835 | 903 | 5,803 | 1,948 | 6,741 | 4,691 | 713 | -4,254 | -4,527 | -3,334 |
| Dry (24\%) | -104 | -940 | -2,793 | 263 | 2,969 | 3,260 | 6,004 | 4,146 | 362 | -4,324 | -1,270 | -2,188 |
| Critical (15\%) | -124 | -260 | -1,433 | -530 | 1,622 | 1,961 | 3,430 | 2,612 | 1,200 | -1,154 | -455 | -399 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 787 | 904 | 3,475 | 1,770 | -2,737 | -2,926 | 3,308 | 5,632 | -234 | -152 | -493 | 69 |
| 20\% | 585 | 391 | 1,970 | 6,072 | 1,495 | -1,532 | 4,580 | 4,487 | -552 | -370 | 190 | 146 |
| 30\% | 689 | 1,214 | 1,237 | 3,298 | 3,748 | 1,064 | 5,570 | 4,252 | 126 | -481 | -297 | 631 |
| 40\% | 1,161 | 1,446 | 1,434 | 3,090 | 3,625 | 1,602 | 6,347 | 4,322 | 322 | -574 | -1,207 | 604 |
| 50\% | 1,787 | 1,575 | 1,466 | 2,829 | 3,825 | 1,508 | 5,787 | 3,836 | 634 | -592 | -1,327 | 841 |
| 60\% | 1,915 | 1,442 | 1,066 | 2,726 | 3,555 | 1,680 | 4,685 | 2,955 | 669 | -1,305 | -882 | 751 |
| 70\% | 2,211 | 1,474 | -37 | 2,096 | 3,706 | 2,049 | 3,457 | 2,212 | 1,022 | -1,165 | -655 | 316 |
| 80\% | 2,528 | 1,208 | -1,530 | 1,824 | 3,643 | 2,213 | 3,011 | 2,587 | 1,438 | -1,129 | -513 | 240 |
| 90\% | 2,590 | 29 | -1,568 | 2,293 | 2,588 | 2,431 | 2,569 | 3,009 | 1,795 | -566 | -359 | -92 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,470 | 1,007 | 570 | 2,663 | 2,419 | 1,083 | 4,231 | 3,435 | 291 | -627 | -525 | 466 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1,927 | 1,182 | 1,419 | 3,025 | 1,288 | -547 | 4,657 | 4,014 | -1,043 | -110 | -718 | 148 |
| Above Normal (16\%) | 913 | 742 | 493 | 4,484 | 2,962 | 1,042 | 5,863 | 4,438 | 697 | 141 | -633 | 2,639 |
| Below Normal (13\%) | 2,467 | 1,487 | -189 | 3,672 | 2,148 | 1,582 | 4,542 | 3,844 | 1,847 | 34 | -1,222 | -202 |
| Dry (24\%) | 1,248 | 910 | -56 | 1,926 | 3,471 | 2,776 | 3,612 | 2,863 | 651 | -1,855 | -10 | 58 |
| Critical (15\%) | 542 | 638 | 550 | 213 | 2,776 | 1,380 | 2,284 | 1,674 | 715 | -1,140 | -212 | 93 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

## 1 C.34. San Joaquin River Flow at Vernalis

Figure C-34-1. San Joaquin River at Vernalis, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-34-2. San Joaquin River at Vernalis, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-34-3. San Joaquin River at Vernalis, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-34-4. San Joaquin River at Vernalis, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-34-5. San Joaquin River at Vernalis, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-34-6. San Joaquin River at Vernalis, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-34-1. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,498 | 2,953 | 4,804 | 11,135 | 14,596 | 15,471 | 14,974 | 14,174 | 9,351 | 5,890 | 2,796 | 3,060 |
| 20\% | 3,161 | 2,777 | 2,857 | 4,812 | 10,143 | 10,197 | 10,637 | 8,318 | 4,690 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,980 | 2,527 | 2,401 | 3,610 | 6,118 | 8,459 | 8,616 | 5,534 | 3,364 | 1,985 | 1,904 | 2,490 |
| 40\% | 2,796 | 2,395 | 2,215 | 2,629 | 4,232 | 5,570 | 7,564 | 4,609 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,601 | 2,219 | 2,101 | 2,402 | 3,420 | 3,847 | 6,017 | 3,925 | 2,246 | 1,487 | 1,488 | 1,930 |
| 60\% | 2,401 | 2,169 | 2,046 | 2,293 | 2,683 | 3,459 | 4,832 | 3,062 | 1,859 | 1,366 | 1,403 | 1,835 |
| 70\% | 2,247 | 2,059 | 1,979 | 2,114 | 2,305 | 2,906 | 3,776 | 2,699 | 1,448 | 1,154 | 1,307 | 1,739 |
| 80\% | 1,994 | 1,951 | 1,829 | 1,884 | 2,150 | 2,371 | 2,789 | 2,153 | 1,293 | 1,087 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 1,887 | 1,678 | 1,085 | 885 | 1,067 | 1,476 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,672 | 2,611 | 3,391 | 5,070 | 6,655 | 7,278 | 7,528 | 6,039 | 4,194 | 2,622 | 1,847 | 2,223 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,918 | 3,513 | 6,545 | 11,446 | 15,776 | 16,863 | 15,423 | 14,628 | 11,335 | 6,676 | 3,135 | 3,416 |
| Above Normal (24\%) | 2,700 | 2,416 | 2,663 | 4,883 | 6,881 | 7,536 | 8,542 | 5,264 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,538 | 2,249 | 3,661 | 3,507 | 3,651 | 4,149 | 6,337 | 4,140 | 2,076 | 1,463 | 1,446 | 1,837 |
| Dry (16\%) | 2,767 | 2,569 | 2,232 | 2,402 | 2,549 | 3,241 | 3,996 | 2,805 | 1,680 | 1,254 | 1,347 | 1,776 |
| Critical (27\%) | 2,426 | 2,168 | 1,915 | 1,877 | 2,090 | 2,288 | 2,307 | 1,929 | 1,115 | 926 | 1,060 | 1,487 |

Alternative 1

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,015 | 3,156 | 4,932 | 11,157 | 14,594 | 15,467 | 14,666 | 14,360 | 10,139 | 5,612 | 2,740 | 3,146 |
| 20\% | 2,692 | 2,843 | 2,953 | 4,819 | 10,200 | 9,482 | 10,169 | 8,291 | 5,696 | 2,636 | 2,600 | 2,658 |
| 30\% | 2,520 | 2,663 | 2,541 | 3,655 | 6,300 | 7,933 | 8,421 | 5,676 | 3,488 | 1,990 | 1,897 | 2,503 |
| 40\% | 2,331 | 2,500 | 2,341 | 2,692 | 4,268 | 5,393 | 7,435 | 4,617 | 3,188 | 1,742 | 1,676 | 2,142 |
| 50\% | 2,157 | 2,386 | 2,257 | 2,544 | 3,420 | 3,883 | 6,016 | 4,043 | 2,349 | 1,506 | 1,500 | 1,944 |
| 60\% | 1,952 | 2,244 | 2,165 | 2,343 | 2,774 | 3,511 | 4,349 | 3,276 | 1,895 | 1,379 | 1,415 | 1,842 |
| 70\% | 1,752 | 2,141 | 2,027 | 2,153 | 2,443 | 2,963 | 3,119 | 2,891 | 1,485 | 1,170 | 1,321 | 1,743 |
| 80\% | 1,597 | 1,984 | 1,903 | 1,923 | 2,174 | 2,414 | 2,442 | 2,362 | 1,274 | 1,088 | 1,211 | 1,611 |
| 90\% | 1,411 | 1,793 | 1,699 | 1,733 | 1,945 | 2,230 | 1,779 | 1,890 | 1,085 | 941 | 1,071 | 1,478 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,241 | 2,721 | 3,492 | 5,136 | 6,700 | 7,131 | 7,255 | 6,101 | 4,547 | 2,625 | 1,838 | 2,238 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,497 | 3,627 | 6,644 | 11,506 | 15,763 | 16,308 | 15,374 | 14,433 | 12,512 | 6,641 | 3,078 | 3,456 |
| Above Normal (24\%) | 2,288 | 2,532 | 2,757 | 4,947 | 6,946 | 7,415 | 8,260 | 5,348 | 3,525 | 1,999 | 1,977 | 2,352 |
| Below Normal (10\%) | 2,086 | 2,397 | 3,810 | 3,608 | 3,723 | 4,101 | 5,842 | 4,213 | 2,225 | 1,481 | 1,457 | 1,856 |
| Dry (16\%) | 2,339 | 2,684 | 2,347 | 2,487 | 2,628 | 3,304 | 3,551 | 2,976 | 1,714 | 1,267 | 1,362 | 1,789 |
| Critical (27\%) | 1,974 | 2,251 | 1,998 | 1,927 | 2,138 | 2,311 | 2,031 | 2,122 | 1,116 | 943 | 1,059 | 1,485 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -483 | 203 | 128 | 23 | -2 | -4 | -308 | 186 | 788 | -278 | -56 | 86 |
| 20\% | -469 | 65 | 96 | 7 | 57 | -714 | -468 | -26 | 1,006 | 8 | 11 | 4 |
| 30\% | -460 | 136 | 141 | 44 | 182 | -526 | -195 | 142 | 124 | 5 | -7 | 13 |
| 40\% | -465 | 105 | 125 | 64 | 36 | -177 | -129 | 8 | 241 | 8 | 10 | 17 |
| 50\% | -444 | 166 | 156 | 143 | 0 | 36 | -2 | 118 | 103 | 20 | 12 | 14 |
| 60\% | -449 | 75 | 119 | 50 | 91 | 52 | -483 | 214 | 36 | 14 | 13 | 7 |
| 70\% | -494 | 82 | 48 | 39 | 139 | 57 | -657 | 192 | 37 | 15 | 14 | 4 |
| 80\% | -397 | 33 | 74 | 40 | 23 | 43 | -347 | 209 | -19 | 1 | 9 | 1 |
| 90\% | -438 | 30 | 30 | 34 | -2 | 26 | -108 | 213 | 0 | 56 | 5 | 2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -431 | 110 | 101 | 66 | 45 | -147 | -273 | 61 | 353 | 3 | -9 | 14 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -420 | 114 | 99 | 60 | -13 | -555 | -49 | -195 | 1,177 | -35 | -57 | 40 |
| Above Normal (24\%) | -412 | 116 | 94 | 63 | 65 | -121 | -282 | 83 | 244 | 10 | 2 | 7 |
| Below Normal (10\%) | -452 | 148 | 148 | 102 | 72 | -49 | -495 | 74 | 149 | 18 | 11 | 19 |
| Dry (16\%) | -428 | 115 | 115 | 85 | 79 | 63 | -445 | 171 | 33 | 12 | 15 | 13 |
| Critical (27\%) | -452 | 83 | 83 | 49 | 48 | 23 | -276 | 194 | 2 | 17 | -1 | -2 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-34-2. San Joaquin River at Vernalis, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,498 | 2,953 | 4,804 | 11,135 | 14,596 | 15,471 | 14,974 | 14,174 | 9,351 | 5,890 | 2,796 | 3,060 |
| 20\% | 3,161 | 2,777 | 2,857 | 4,812 | 10,143 | 10,197 | 10,637 | 8,318 | 4,690 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,980 | 2,527 | 2,401 | 3,610 | 6,118 | 8,459 | 8,616 | 5,534 | 3,364 | 1,985 | 1,904 | 2,490 |
| 40\% | 2,796 | 2,395 | 2,215 | 2,629 | 4,232 | 5,570 | 7,564 | 4,609 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,601 | 2,219 | 2,101 | 2,402 | 3,420 | 3,847 | 6,017 | 3,925 | 2,246 | 1,487 | 1,488 | 1,930 |
| 60\% | 2,401 | 2,169 | 2,046 | 2,293 | 2,683 | 3,459 | 4,832 | 3,062 | 1,859 | 1,366 | 1,403 | 1,835 |
| 70\% | 2,247 | 2,059 | 1,979 | 2,114 | 2,305 | 2,906 | 3,776 | 2,699 | 1,448 | 1,154 | 1,307 | 1,739 |
| 80\% | 1,994 | 1,951 | 1,829 | 1,884 | 2,150 | 2,371 | 2,789 | 2,153 | 1,293 | 1,087 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 1,887 | 1,678 | 1,085 | 885 | 1,067 | 1,476 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,672 | 2,611 | 3,391 | 5,070 | 6,655 | 7,278 | 7,528 | 6,039 | 4,194 | 2,622 | 1,847 | 2,223 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,918 | 3,513 | 6,545 | 11,446 | 15,776 | 16,863 | 15,423 | 14,628 | 11,335 | 6,676 | 3,135 | 3,416 |
| Above Normal (24\%) | 2,700 | 2,416 | 2,663 | 4,883 | 6,881 | 7,536 | 8,542 | 5,264 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,538 | 2,249 | 3,661 | 3,507 | 3,651 | 4,149 | 6,337 | 4,140 | 2,076 | 1,463 | 1,446 | 1,837 |
| Dry (16\%) | 2,767 | 2,569 | 2,232 | 2,402 | 2,549 | 3,241 | 3,996 | 2,805 | 1,680 | 1,254 | 1,347 | 1,776 |
| Critical (27\%) | 2,426 | 2,168 | 1,915 | 1,877 | 2,090 | 2,288 | 2,307 | 1,929 | 1,115 | 926 | 1,060 | 1,487 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,023 | 3,053 | 4,949 | 12,089 | 17,246 | 15,467 | 14,936 | 14,309 | 10,004 | 6,473 | 3,525 | 3,287 |
| 20\% | 2,667 | 2,830 | 2,938 | 4,833 | 10,213 | 9,874 | 10,251 | 7,931 | 4,627 | 2,495 | 2,587 | 2,623 |
| 30\% | 2,494 | 2,583 | 2,421 | 3,540 | 6,797 | 7,753 | 8,532 | 5,438 | 2,558 | 1,926 | 1,892 | 2,464 |
| 40\% | 2,328 | 2,478 | 2,304 | 2,753 | 4,210 | 5,305 | 7,580 | 4,344 | 2,294 | 1,722 | 1,667 | 2,125 |
| 50\% | 2,137 | 2,313 | 2,191 | 2,439 | 3,215 | 3,847 | 6,112 | 3,821 | 1,955 | 1,506 | 1,495 | 1,932 |
| 60\% | 1,956 | 2,244 | 2,140 | 2,236 | 2,668 | 3,440 | 4,501 | 2,907 | 1,700 | 1,361 | 1,415 | 1,838 |
| 70\% | 1,782 | 2,148 | 2,012 | 2,088 | 2,360 | 2,906 | 3,355 | 2,502 | 1,364 | 1,164 | 1,319 | 1,743 |
| 80\% | 1,609 | 1,974 | 1,886 | 1,824 | 2,090 | 2,371 | 2,581 | 2,158 | 1,241 | 1,026 | 1,211 | 1,612 |
| 90\% | 1,466 | 1,763 | 1,669 | 1,639 | 1,849 | 2,205 | 1,936 | 1,650 | 1,001 | 930 | 1,065 | 1,477 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,252 | 2,683 | 3,501 | 5,108 | 6,872 | 7,145 | 7,431 | 5,830 | 4,009 | 2,655 | 1,882 | 2,271 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,505 | 3,604 | 6,760 | 11,512 | 16,584 | 16,445 | 15,425 | 14,237 | 11,476 | 6,916 | 3,267 | 3,610 |
| Above Normal (24\%) | 2,310 | 2,488 | 2,775 | 4,925 | 6,937 | 7,444 | 8,476 | 5,078 | 2,579 | 1,910 | 1,972 | 2,341 |
| Below Normal (10\%) | 2,067 | 2,299 | 3,711 | 3,708 | 3,857 | 4,057 | 6,015 | 3,856 | 1,865 | 1,472 | 1,454 | 1,834 |
| Dry (16\%) | 2,346 | 2,646 | 2,309 | 2,419 | 2,607 | 3,241 | 3,785 | 2,611 | 1,568 | 1,253 | 1,360 | 1,782 |
| Critical (27\%) | 1,991 | 2,227 | 1,974 | 1,842 | 2,043 | 2,273 | 2,247 | 1,874 | 1,080 | 912 | 1,067 | 1,497 |


|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -474 | 100 | 146 | 954 | 2,651 | -4 | -38 | 135 | 653 | 582 | 729 | 227 |
| 20\% | -495 | 53 | 80 | 21 | 70 | -322 | -386 | -387 | -63 | -134 | -2 | -31 |
| 30\% | -486 | 56 | 20 | -71 | 679 | -706 | -84 | -95 | -806 | -59 | -11 | -25 |
| 40\% | -468 | 83 | 89 | 124 | -22 | -264 | 17 | -265 | -653 | -12 | 1 | 0 |
| 50\% | -464 | 94 | 91 | 37 | -205 | 1 | 95 | -104 | -291 | 19 | 6 | 3 |
| 60\% | -444 | 75 | 94 | -57 | -15 | -19 | -331 | -155 | -159 | -5 | 13 | 3 |
| 70\% | -465 | 89 | 33 | -26 | 55 | 0 | -421 | -197 | -83 | 10 | 12 | 4 |
| 80\% | -385 | 23 | 56 | -59 | -60 | 1 | -208 | 5 | -52 | -61 | 9 | 2 |
| 90\% | -382 | 0 | 0 | -59 | -98 | 1 | 49 | -27 | -84 | 45 | -1 | 1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -420 | 72 | 110 | 38 | 218 | -132 | -97 | -209 | -186 | 33 | 35 | 47 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -412 | 91 | 215 | 66 | 808 | -418 | 2 | -391 | 141 | 240 | 132 | 194 |
| Above Normal (24\%) | -390 | 72 | 112 | 42 | 56 | -93 | -66 | -186 | -701 | -79 | -3 | -4 |
| Below Normal (10\%) | -471 | 50 | 50 | 201 | 206 | -92 | -322 | -284 | -210 | 9 | 8 | -3 |
| Dry (16\%) | -421 | 77 | 77 | 17 | 58 | 1 | -212 | -194 | -112 | -2 | 13 | 6 |
| Critical (27\%) | -435 | 59 | 59 | -35 | -47 | -15 | -61 | -54 | -34 | -14 | 7 | 10 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

1/0/1900

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,498 | 2,953 | 4,804 | 11,135 | 14,596 | 15,471 | 14,974 | 14,174 | 9,351 | 5,890 | 2,796 | 3,060 |
| 20\% | 3,161 | 2,777 | 2,857 | 4,812 | 10,143 | 10,197 | 10,637 | 8,318 | 4,690 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,980 | 2,527 | 2,401 | 3,610 | 6,118 | 8,459 | 8,616 | 5,534 | 3,364 | 1,985 | 1,904 | 2,490 |
| 40\% | 2,796 | 2,395 | 2,215 | 2,629 | 4,232 | 5,570 | 7,564 | 4,609 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,601 | 2,219 | 2,101 | 2,402 | 3,420 | 3,847 | 6,017 | 3,925 | 2,246 | 1,487 | 1,488 | 1,930 |
| 60\% | 2,401 | 2,169 | 2,046 | 2,293 | 2,683 | 3,459 | 4,832 | 3,062 | 1,859 | 1,366 | 1,403 | 1,835 |
| 70\% | 2,247 | 2,059 | 1,979 | 2,114 | 2,305 | 2,906 | 3,776 | 2,699 | 1,448 | 1,154 | 1,307 | 1,739 |
| 80\% | 1,994 | 1,951 | 1,829 | 1,884 | 2,150 | 2,371 | 2,789 | 2,153 | 1,293 | 1,087 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 1,887 | 1,678 | 1,085 | 885 | 1,067 | 1,476 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,672 | 2,611 | 3,391 | 5,070 | 6,655 | 7,278 | 7,528 | 6,039 | 4,194 | 2,622 | 1,847 | 2,223 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,918 | 3,513 | 6,545 | 11,446 | 15,776 | 16,863 | 15,423 | 14,628 | 11,335 | 6,676 | 3,135 | 3,416 |
| Above Normal (24\%) | 2,700 | 2,416 | 2,663 | 4,883 | 6,881 | 7,536 | 8,542 | 5,264 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,538 | 2,249 | 3,661 | 3,507 | 3,651 | 4,149 | 6,337 | 4,140 | 2,076 | 1,463 | 1,446 | 1,837 |
| Dry (16\%) | 2,767 | 2,569 | 2,232 | 2,402 | 2,549 | 3,241 | 3,996 | 2,805 | 1,680 | 1,254 | 1,347 | 1,776 |
| Critical (27\%) | 2,426 | 2,168 | 1,915 | 1,877 | 2,090 | 2,288 | 2,307 | 1,929 | 1,115 | 926 | 1,060 | 1,487 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,495 | 2,953 | 4,804 | 11,129 | 14,597 | 15,473 | 14,976 | 14,176 | 9,351 | 5,773 | 2,776 | 3,084 |
| 20\% | 3,146 | 2,777 | 2,897 | 4,811 | 10,142 | 9,856 | 10,265 | 8,232 | 4,688 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,938 | 2,527 | 2,401 | 3,610 | 6,118 | 8,461 | 8,576 | 5,670 | 3,364 | 1,985 | 1,904 | 2,488 |
| 40\% | 2,763 | 2,395 | 2,204 | 2,629 | 4,232 | 5,570 | 7,567 | 5,162 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,588 | 2,219 | 2,101 | 2,402 | 3,420 | 3,846 | 6,110 | 4,183 | 2,219 | 1,484 | 1,488 | 1,930 |
| 60\% | 2,385 | 2,169 | 2,046 | 2,289 | 2,683 | 3,459 | 5,047 | 3,554 | 1,860 | 1,365 | 1,402 | 1,835 |
| 70\% | 2,196 | 2,059 | 1,979 | 2,083 | 2,303 | 2,906 | 4,317 | 2,916 | 1,447 | 1,155 | 1,307 | 1,739 |
| 80\% | 1,988 | 1,951 | 1,829 | 1,883 | 2,145 | 2,371 | 3,100 | 2,401 | 1,283 | 1,052 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 2,461 | 2,245 | 1,000 | 885 | 1,025 | 1,431 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,660 | 2,609 | 3,371 | 5,071 | 6,639 | 7,235 | 7,686 | 6,290 | 4,174 | 2,597 | 1,818 | 2,213 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,903 | 3,513 | 6,448 | 11,445 | 15,743 | 16,679 | 15,389 | 14,666 | 11,287 | 6,580 | 3,020 | 3,379 |
| Above Normal (24\%) | 2,691 | 2,411 | 2,679 | 4,897 | 6,864 | 7,536 | 8,487 | 5,671 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,531 | 2,249 | 3,661 | 3,506 | 3,650 | 4,149 | 6,299 | 4,206 | 2,062 | 1,462 | 1,446 | 1,837 |
| Dry (16\%) | 2,750 | 2,569 | 2,232 | 2,400 | 2,547 | 3,241 | 4,420 | 3,245 | 1,672 | 1,253 | 1,346 | 1,776 |
| Critical (27\%) | 2,418 | 2,163 | 1,910 | 1,871 | 2,078 | 2,288 | 2,741 | 2,177 | 1,090 | 916 | 1,051 | 1,480 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -2 | 0 | 0 | -6 | 1 | 2 | 2 | 2 | 0 | -117 | -20 | 24 |
| 20\% | -16 | 0 | 39 | 0 | 0 | -341 | -372 | -86 | -2 | -1 | 0 | 0 |
| 30\% | -42 | 0 | 0 | 0 | 0 | 1 | -40 | 136 | 0 | 0 | 0 | -1 |
| 40\% | -32 | 0 | -11 | 0 | 0 | 0 | 3 | 553 | 0 | 0 | 0 | 0 |
| 50\% | -14 | 0 | 0 | 0 | 0 | 0 | 92 | 258 | -26 | -3 | 0 | 0 |
| 60\% | -15 | 0 | 0 | -4 | 0 | 0 | 215 | 492 | 0 | -1 | 0 | 0 |
| 70\% | -51 | 0 | 0 | -31 | -2 | 0 | 541 | 216 | 0 | 1 | 0 | 0 |
| 80\% | -7 | 0 | 0 | 0 | -6 | 0 | 311 | 248 | -10 | -36 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | 0 | 0 | 574 | 568 | -85 | 0 | -42 | -45 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -11 | -2 | -20 | 1 | -15 | -43 | 158 | 251 | -20 | -25 | -29 | -11 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -15 | 0 | -97 | 0 | -32 | -185 | -34 | 38 | -47 | -96 | -115 | -38 |
| Above Normal (24\%) | -9 | -5 | 16 | 13 | -17 | 0 | -55 | 407 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | -7 | 0 | 0 | -1 | -1 | 0 | -38 | 66 | -14 | 0 | 0 | 0 |
| Dry (16\%) | -17 | 0 | 0 | -2 | -2 | 0 | 424 | 439 | -9 | -1 | -1 | 0 |
| Critical (27\%) | -8 | -5 | -5 | -6 | -13 | 0 | 434 | 248 | -24 | -10 | -9 | -7 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-34-4. San Joaquin River at Vernalis, Monthly Flow

Second Basis of Comparison

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,015 | 3,156 | 4,932 | 11,157 | 14,594 | 15,467 | 14,666 | 14,360 | 10,139 | 5,612 | 2,740 | 3,146 |
| 20\% | 2,692 | 2,843 | 2,953 | 4,819 | 10,200 | 9,482 | 10,169 | 8,291 | 5,696 | 2,636 | 2,600 | 2,658 |
| 30\% | 2,520 | 2,663 | 2,541 | 3,655 | 6,300 | 7,933 | 8,421 | 5,676 | 3,488 | 1,990 | 1,897 | 2,503 |
| 40\% | 2,331 | 2,500 | 2,341 | 2,692 | 4,268 | 5,393 | 7,435 | 4,617 | 3,188 | 1,742 | 1,676 | 2,142 |
| 50\% | 2,157 | 2,386 | 2,257 | 2,544 | 3,420 | 3,883 | 6,016 | 4,043 | 2,349 | 1,506 | 1,500 | 1,944 |
| 60\% | 1,952 | 2,244 | 2,165 | 2,343 | 2,774 | 3,511 | 4,349 | 3,276 | 1,895 | 1,379 | 1,415 | 1,842 |
| 70\% | 1,752 | 2,141 | 2,027 | 2,153 | 2,443 | 2,963 | 3,119 | 2,891 | 1,485 | 1,170 | 1,321 | 1,743 |
| 80\% | 1,597 | 1,984 | 1,903 | 1,923 | 2,174 | 2,414 | 2,442 | 2,362 | 1,274 | 1,088 | 1,211 | 1,611 |
| 90\% | 1,411 | 1,793 | 1,699 | 1,733 | 1,945 | 2,230 | 1,779 | 1,890 | 1,085 | 941 | 1,071 | 1,478 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,241 | 2,721 | 3,492 | 5,136 | 6,700 | 7,131 | 7,255 | 6,101 | 4,547 | 2,625 | 1,838 | 2,238 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,497 | 3,627 | 6,644 | 11,506 | 15,763 | 16,308 | 15,374 | 14,433 | 12,512 | 6,641 | 3,078 | 3,456 |
| Above Normal (24\%) | 2,288 | 2,532 | 2,757 | 4,947 | 6,946 | 7,415 | 8,260 | 5,348 | 3,525 | 1,999 | 1,977 | 2,352 |
| Below Normal (10\%) | 2,086 | 2,397 | 3,810 | 3,608 | 3,723 | 4,101 | 5,842 | 4,213 | 2,225 | 1,481 | 1,457 | 1,856 |
| Dry (16\%) | 2,339 | 2,684 | 2,347 | 2,487 | 2,628 | 3,304 | 3,551 | 2,976 | 1,714 | 1,267 | 1,362 | 1,789 |
| Critical (27\%) | 1,974 | 2,251 | 1,998 | 1,927 | 2,138 | 2,311 | 2,031 | 2,122 | 1,116 | 943 | 1,059 | 1,485 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,498 | 2,953 | 4,804 | 11,135 | 14,596 | 15,471 | 14,974 | 14,174 | 9,351 | 5,890 | 2,796 | 3,060 |
| 20\% | 3,161 | 2,777 | 2,857 | 4,812 | 10,143 | 10,197 | 10,637 | 8,318 | 4,690 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,980 | 2,527 | 2,401 | 3,610 | 6,118 | 8,459 | 8,616 | 5,534 | 3,364 | 1,985 | 1,904 | 2,490 |
| 40\% | 2,796 | 2,395 | 2,215 | 2,629 | 4,232 | 5,570 | 7,564 | 4,609 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,601 | 2,219 | 2,101 | 2,402 | 3,420 | 3,847 | 6,017 | 3,925 | 2,246 | 1,487 | 1,488 | 1,930 |
| 60\% | 2,401 | 2,169 | 2,046 | 2,293 | 2,683 | 3,459 | 4,832 | 3,062 | 1,859 | 1,366 | 1,403 | 1,835 |
| 70\% | 2,247 | 2,059 | 1,979 | 2,114 | 2,305 | 2,906 | 3,776 | 2,699 | 1,448 | 1,154 | 1,307 | 1,739 |
| 80\% | 1,994 | 1,951 | 1,829 | 1,884 | 2,150 | 2,371 | 2,789 | 2,153 | 1,293 | 1,087 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 1,887 | 1,678 | 1,085 | 885 | 1,067 | 1,476 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,672 | 2,611 | 3,391 | 5,070 | 6,655 | 7,278 | 7,528 | 6,039 | 4,194 | 2,622 | 1,847 | 2,223 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,918 | 3,513 | 6,545 | 11,446 | 15,776 | 16,863 | 15,423 | 14,628 | 11,335 | 6,676 | 3,135 | 3,416 |
| Above Normal (24\%) | 2,700 | 2,416 | 2,663 | 4,883 | 6,881 | 7,536 | 8,542 | 5,264 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,538 | 2,249 | 3,661 | 3,507 | 3,651 | 4,149 | 6,337 | 4,140 | 2,076 | 1,463 | 1,446 | 1,837 |
| Dry (16\%) | 2,767 | 2,569 | 2,232 | 2,402 | 2,549 | 3,241 | 3,996 | 2,805 | 1,680 | 1,254 | 1,347 | 1,776 |
| Critical (27\%) | 2,426 | 2,168 | 1,915 | 1,877 | 2,090 | 2,288 | 2,307 | 1,929 | 1,115 | 926 | 1,060 | 1,487 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 483 | -203 | -128 | -23 | 2 | 4 | 308 | -186 | -788 | 278 | 56 | -86 |
| 20\% | 469 | -65 | -96 | -7 | -57 | 714 | 468 | 26 | -1,006 | -8 | -11 | -4 |
| 30\% | 460 | -136 | -141 | -44 | -182 | 526 | 195 | -142 | -124 | -5 | 7 | -13 |
| 40\% | 465 | -105 | -125 | -64 | -36 | 177 | 129 | -8 | -241 | -8 | -10 | -17 |
| 50\% | 444 | -166 | -156 | -143 | 0 | -36 | 2 | -118 | -103 | -20 | -12 | -14 |
| 60\% | 449 | -75 | -119 | -50 | -91 | -52 | 483 | -214 | -36 | -14 | -13 | -7 |
| 70\% | 494 | -82 | -48 | -39 | -139 | -57 | 657 | -192 | -37 | -15 | -14 | -4 |
| 80\% | 397 | -33 | -74 | -40 | -23 | -43 | 347 | -209 | 19 | -1 | -9 | -1 |
| 90\% | 438 | -30 | -30 | -34 | 2 | -26 | 108 | -213 | 0 | -56 | -5 | -2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 431 | -110 | -101 | -66 | -45 | 147 | 273 | -61 | -353 | -3 | 9 | -14 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 420 | -114 | -99 | -60 | 13 | 555 | 49 | 195 | -1,177 | 35 | 57 | -40 |
| Above Normal (24\%) | 412 | -116 | -94 | -63 | -65 | 121 | 282 | -83 | -244 | -10 | -2 | -7 |
| Below Normal (10\%) | 452 | -148 | -148 | -102 | -72 | 49 | 495 | -74 | -149 | -18 | -11 | -19 |
| Dry (16\%) | 428 | -115 | -115 | -85 | -79 | -63 | 445 | -171 | -33 | -12 | -15 | -13 |
| Critical (27\%) | 452 | -83 | -83 | -49 | -48 | -23 | 276 | -194 | -2 | -17 | 1 | 2 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-34-5. San Joaquin River at Vernalis, Monthly Flow

Second Basis of Comparison

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,015 | 3,156 | 4,932 | 11,157 | 14,594 | 15,467 | 14,666 | 14,360 | 10,139 | 5,612 | 2,740 | 3,146 |
| 20\% | 2,692 | 2,843 | 2,953 | 4,819 | 10,200 | 9,482 | 10,169 | 8,291 | 5,696 | 2,636 | 2,600 | 2,658 |
| 30\% | 2,520 | 2,663 | 2,541 | 3,655 | 6,300 | 7,933 | 8,421 | 5,676 | 3,488 | 1,990 | 1,897 | 2,503 |
| 40\% | 2,331 | 2,500 | 2,341 | 2,692 | 4,268 | 5,393 | 7,435 | 4,617 | 3,188 | 1,742 | 1,676 | 2,142 |
| 50\% | 2,157 | 2,386 | 2,257 | 2,544 | 3,420 | 3,883 | 6,016 | 4,043 | 2,349 | 1,506 | 1,500 | 1,944 |
| 60\% | 1,952 | 2,244 | 2,165 | 2,343 | 2,774 | 3,511 | 4,349 | 3,276 | 1,895 | 1,379 | 1,415 | 1,842 |
| 70\% | 1,752 | 2,141 | 2,027 | 2,153 | 2,443 | 2,963 | 3,119 | 2,891 | 1,485 | 1,170 | 1,321 | 1,743 |
| 80\% | 1,597 | 1,984 | 1,903 | 1,923 | 2,174 | 2,414 | 2,442 | 2,362 | 1,274 | 1,088 | 1,211 | 1,611 |
| 90\% | 1,411 | 1,793 | 1,699 | 1,733 | 1,945 | 2,230 | 1,779 | 1,890 | 1,085 | 941 | 1,071 | 1,478 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,241 | 2,721 | 3,492 | 5,136 | 6,700 | 7,131 | 7,255 | 6,101 | 4,547 | 2,625 | 1,838 | 2,238 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,497 | 3,627 | 6,644 | 11,506 | 15,763 | 16,308 | 15,374 | 14,433 | 12,512 | 6,641 | 3,078 | 3,456 |
| Above Normal (24\%) | 2,288 | 2,532 | 2,757 | 4,947 | 6,946 | 7,415 | 8,260 | 5,348 | 3,525 | 1,999 | 1,977 | 2,352 |
| Below Normal (10\%) | 2,086 | 2,397 | 3,810 | 3,608 | 3,723 | 4,101 | 5,842 | 4,213 | 2,225 | 1,481 | 1,457 | 1,856 |
| Dry (16\%) | 2,339 | 2,684 | 2,347 | 2,487 | 2,628 | 3,304 | 3,551 | 2,976 | 1,714 | 1,267 | 1,362 | 1,789 |
| Critical (27\%) | 1,974 | 2,251 | 1,998 | 1,927 | 2,138 | 2,311 | 2,031 | 2,122 | 1,116 | 943 | 1,059 | 1,485 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,023 | 3,053 | 4,949 | 12,089 | 17,246 | 15,467 | 14,936 | 14,309 | 10,004 | 6,473 | 3,525 | 3,287 |
| 20\% | 2,667 | 2,830 | 2,938 | 4,833 | 10,213 | 9,874 | 10,251 | 7,931 | 4,627 | 2,495 | 2,587 | 2,623 |
| 30\% | 2,494 | 2,583 | 2,421 | 3,540 | 6,797 | 7,753 | 8,532 | 5,438 | 2,558 | 1,926 | 1,892 | 2,464 |
| 40\% | 2,328 | 2,478 | 2,304 | 2,753 | 4,210 | 5,305 | 7,580 | 4,344 | 2,294 | 1,722 | 1,667 | 2,125 |
| 50\% | 2,137 | 2,313 | 2,191 | 2,439 | 3,215 | 3,847 | 6,112 | 3,821 | 1,955 | 1,506 | 1,495 | 1,932 |
| 60\% | 1,956 | 2,244 | 2,140 | 2,236 | 2,668 | 3,440 | 4,501 | 2,907 | 1,700 | 1,361 | 1,415 | 1,838 |
| 70\% | 1,782 | 2,148 | 2,012 | 2,088 | 2,360 | 2,906 | 3,355 | 2,502 | 1,364 | 1,164 | 1,319 | 1,743 |
| 80\% | 1,609 | 1,974 | 1,886 | 1,824 | 2,090 | 2,371 | 2,581 | 2,158 | 1,241 | 1,026 | 1,211 | 1,612 |
| 90\% | 1,466 | 1,763 | 1,669 | 1,639 | 1,849 | 2,205 | 1,936 | 1,650 | 1,001 | 930 | 1,065 | 1,477 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,252 | 2,683 | 3,501 | 5,108 | 6,872 | 7,145 | 7,431 | 5,830 | 4,009 | 2,655 | 1,882 | 2,271 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,505 | 3,604 | 6,760 | 11,512 | 16,584 | 16,445 | 15,425 | 14,237 | 11,476 | 6,916 | 3,267 | 3,610 |
| Above Normal (24\%) | 2,310 | 2,488 | 2,775 | 4,925 | 6,937 | 7,444 | 8,476 | 5,078 | 2,579 | 1,910 | 1,972 | 2,341 |
| Below Normal (10\%) | 2,067 | 2,299 | 3,711 | 3,708 | 3,857 | 4,057 | 6,015 | 3,856 | 1,865 | 1,472 | 1,454 | 1,834 |
| Dry (16\%) | 2,346 | 2,646 | 2,309 | 2,419 | 2,607 | 3,241 | 3,785 | 2,611 | 1,568 | 1,253 | 1,360 | 1,782 |
| Critical (27\%) | 1,991 | 2,227 | 1,974 | 1,842 | 2,043 | 2,273 | 2,247 | 1,874 | 1,080 | 912 | 1,067 | 1,497 |


|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 8 | -103 | 17 | 932 | 2,652 | 0 | 270 | -51 | -135 | 861 | 785 | 140 |
| 20\% | -25 | -12 | -15 | 14 | 13 | 392 | 82 | -360 | -1,070 | -142 | -13 | -34 |
| 30\% | -26 | -80 | -120 | -115 | 497 | -180 | 111 | -238 | -930 | -64 | -5 | -39 |
| 40\% | -3 | -22 | -36 | 60 | -58 | -88 | 145 | -273 | -894 | -20 | -9 | -17 |
| 50\% | -20 | -72 | -65 | -105 | -205 | -36 | 97 | -222 | -394 | -1 | -6 | -11 |
| 60\% | 5 | 0 | -25 | -107 | -107 | -71 | 152 | -369 | -195 | -19 | 0 | -5 |
| 70\% | 30 | 7 | -15 | -65 | -84 | -57 | 237 | -389 | -121 | -5 | -2 | -1 |
| 80\% | 12 | -9 | -17 | -99 | -84 | -42 | 140 | -203 | -33 | -62 | 0 | 1 |
| 90\% | 55 | -30 | -30 | -94 | -96 | -25 | 156 | -240 | -84 | -11 | -6 | -1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 11 | -38 | 9 | -27 | 172 | 14 | 176 | -271 | -538 | 31 | 44 | 33 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 8 | -23 | 116 | 6 | 821 | 137 | 51 | -197 | -1,036 | 275 | 190 | 154 |
| Above Normal (24\%) | 22 | -45 | 18 | -21 | -9 | 29 | 216 | -269 | -945 | -89 | -5 | -11 |
| Below Normal (10\%) | -19 | -98 | -98 | 100 | 134 | -44 | 174 | -357 | -359 | -9 | -4 | -22 |
| Dry (16\%) | 7 | -38 | -38 | -68 | -21 | -62 | 233 | -365 | -146 | -14 | -2 | -7 |
| Critical (27\%) | 16 | -24 | -24 | -84 | -95 | -38 | 215 | -248 | -36 | -31 | 8 | 12 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-34-6. San Joaquin River at Vernalis, Monthly Flow

Second Basis of Comparison

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,015 | 3,156 | 4,932 | 11,157 | 14,594 | 15,467 | 14,666 | 14,360 | 10,139 | 5,612 | 2,740 | 3,146 |
| 20\% | 2,692 | 2,843 | 2,953 | 4,819 | 10,200 | 9,482 | 10,169 | 8,291 | 5,696 | 2,636 | 2,600 | 2,658 |
| 30\% | 2,520 | 2,663 | 2,541 | 3,655 | 6,300 | 7,933 | 8,421 | 5,676 | 3,488 | 1,990 | 1,897 | 2,503 |
| 40\% | 2,331 | 2,500 | 2,341 | 2,692 | 4,268 | 5,393 | 7,435 | 4,617 | 3,188 | 1,742 | 1,676 | 2,142 |
| 50\% | 2,157 | 2,386 | 2,257 | 2,544 | 3,420 | 3,883 | 6,016 | 4,043 | 2,349 | 1,506 | 1,500 | 1,944 |
| 60\% | 1,952 | 2,244 | 2,165 | 2,343 | 2,774 | 3,511 | 4,349 | 3,276 | 1,895 | 1,379 | 1,415 | 1,842 |
| 70\% | 1,752 | 2,141 | 2,027 | 2,153 | 2,443 | 2,963 | 3,119 | 2,891 | 1,485 | 1,170 | 1,321 | 1,743 |
| 80\% | 1,597 | 1,984 | 1,903 | 1,923 | 2,174 | 2,414 | 2,442 | 2,362 | 1,274 | 1,088 | 1,211 | 1,611 |
| 90\% | 1,411 | 1,793 | 1,699 | 1,733 | 1,945 | 2,230 | 1,779 | 1,890 | 1,085 | 941 | 1,071 | 1,478 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,241 | 2,721 | 3,492 | 5,136 | 6,700 | 7,131 | 7,255 | 6,101 | 4,547 | 2,625 | 1,838 | 2,238 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,497 | 3,627 | 6,644 | 11,506 | 15,763 | 16,308 | 15,374 | 14,433 | 12,512 | 6,641 | 3,078 | 3,456 |
| Above Normal (24\%) | 2,288 | 2,532 | 2,757 | 4,947 | 6,946 | 7,415 | 8,260 | 5,348 | 3,525 | 1,999 | 1,977 | 2,352 |
| Below Normal (10\%) | 2,086 | 2,397 | 3,810 | 3,608 | 3,723 | 4,101 | 5,842 | 4,213 | 2,225 | 1,481 | 1,457 | 1,856 |
| Dry (16\%) | 2,339 | 2,684 | 2,347 | 2,487 | 2,628 | 3,304 | 3,551 | 2,976 | 1,714 | 1,267 | 1,362 | 1,789 |
| Critical (27\%) | 1,974 | 2,251 | 1,998 | 1,927 | 2,138 | 2,311 | 2,031 | 2,122 | 1,116 | 943 | 1,059 | 1,485 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3,495 | 2,953 | 4,804 | 11,129 | 14,597 | 15,473 | 14,976 | 14,176 | 9,351 | 5,773 | 2,776 | 3,084 |
| 20\% | 3,146 | 2,777 | 2,897 | 4,811 | 10,142 | 9,856 | 10,265 | 8,232 | 4,688 | 2,628 | 2,589 | 2,654 |
| 30\% | 2,938 | 2,527 | 2,401 | 3,610 | 6,118 | 8,461 | 8,576 | 5,670 | 3,364 | 1,985 | 1,904 | 2,488 |
| 40\% | 2,763 | 2,395 | 2,204 | 2,629 | 4,232 | 5,570 | 7,567 | 5,162 | 2,947 | 1,735 | 1,666 | 2,125 |
| 50\% | 2,588 | 2,219 | 2,101 | 2,402 | 3,420 | 3,846 | 6,110 | 4,183 | 2,219 | 1,484 | 1,488 | 1,930 |
| 60\% | 2,385 | 2,169 | 2,046 | 2,289 | 2,683 | 3,459 | 5,047 | 3,554 | 1,860 | 1,365 | 1,402 | 1,835 |
| 70\% | 2,196 | 2,059 | 1,979 | 2,083 | 2,303 | 2,906 | 4,317 | 2,916 | 1,447 | 1,155 | 1,307 | 1,739 |
| 80\% | 1,988 | 1,951 | 1,829 | 1,883 | 2,145 | 2,371 | 3,100 | 2,401 | 1,283 | 1,052 | 1,202 | 1,611 |
| 90\% | 1,849 | 1,763 | 1,669 | 1,699 | 1,947 | 2,204 | 2,461 | 2,245 | 1,000 | 885 | 1,025 | 1,431 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2,660 | 2,609 | 3,371 | 5,071 | 6,639 | 7,235 | 7,686 | 6,290 | 4,174 | 2,597 | 1,818 | 2,213 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,903 | 3,513 | 6,448 | 11,445 | 15,743 | 16,679 | 15,389 | 14,666 | 11,287 | 6,580 | 3,020 | 3,379 |
| Above Normal (24\%) | 2,691 | 2,411 | 2,679 | 4,897 | 6,864 | 7,536 | 8,487 | 5,671 | 3,280 | 1,989 | 1,975 | 2,345 |
| Below Normal (10\%) | 2,531 | 2,249 | 3,661 | 3,506 | 3,650 | 4,149 | 6,299 | 4,206 | 2,062 | 1,462 | 1,446 | 1,837 |
| Dry (16\%) | 2,750 | 2,569 | 2,232 | 2,400 | 2,547 | 3,241 | 4,420 | 3,245 | 1,672 | 1,253 | 1,346 | 1,776 |
| Critical (27\%) | 2,418 | 2,163 | 1,910 | 1,871 | 2,078 | 2,288 | 2,741 | 2,177 | 1,090 | 916 | 1,051 | 1,480 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 480 | -204 | -128 | -28 | 3 | 6 | 310 | -184 | -788 | 161 | 37 | -62 |
| 20\% | 454 | -65 | -56 | -8 | -57 | 373 | 95 | -60 | -1,008 | -8 | -10 | -3 |
| 30\% | 418 | -136 | -141 | -44 | -182 | 527 | 155 | -6 | -124 | -4 | 7 | -14 |
| 40\% | 432 | -105 | -137 | -64 | -36 | 176 | 131 | 545 | -241 | -8 | -9 | -18 |
| 50\% | 430 | -166 | -156 | -143 | 0 | -36 | 94 | 140 | -129 | -22 | -12 | -14 |
| 60\% | 433 | -75 | -119 | -54 | -91 | -52 | 697 | 278 | -35 | -14 | -13 | -7 |
| 70\% | 444 | -82 | -48 | -69 | -141 | -57 | 1,198 | 24 | -37 | -15 | -14 | -4 |
| 80\% | 390 | -33 | -74 | -40 | -29 | -43 | 659 | 39 | 9 | -37 | -9 | -1 |
| 90\% | 438 | -30 | -30 | -34 | 2 | -26 | 682 | 355 | -85 | -56 | -46 | -47 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 420 | -112 | -121 | -65 | -61 | 104 | 431 | 189 | -373 | -28 | -20 | -25 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 406 | -114 | -196 | -60 | -20 | 371 | 14 | 233 | -1,224 | -61 | -58 | -77 |
| Above Normal (24\%) | 403 | -121 | -79 | -50 | -82 | 121 | 227 | 323 | -244 | -10 | -3 | -7 |
| Below Normal (10\%) | 444 | -148 | -148 | -102 | -73 | 48 | 457 | -8 | -162 | -18 | -12 | -19 |
| Dry (16\%) | 411 | -115 | -115 | -86 | -81 | -63 | 869 | 269 | -42 | -13 | -15 | -14 |
| Critical (27\%) | 443 | -88 | -88 | -55 | -61 | -23 | 710 | 54 | -26 | -27 | -8 | -5 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

1 C.35. Stanislaus River Flow below Goodwin

Figure C-35-1. Stanislaus River below Goodwin, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-35-2. Stanislaus River below Goodwin, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-35-3. Stanislaus River below Goodwin, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-35-4. Stanislaus River below Goodwin, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-35-5. Stanislaus River below Goodwin, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-35-6. Stanislaus River below Goodwin, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-35-1. Stanislaus River below Goodwin, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 837 | 290 | 306 | 358 | 897 | 1,648 | 1,633 | 1,929 | 1,103 | 429 | 390 | 390 |
| 20\% | 797 | 200 | 218 | 232 | 409 | 1,521 | 1,553 | 1,555 | 1,090 | 310 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 290 | 440 | 1,553 | 1,296 | 940 | 300 | 284 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 855 | 300 | 283 | 250 |
| 50\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 363 | 271 | 283 | 250 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 812 | 918 | 363 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 229 | 200 | 767 | 705 | 297 | 265 | 283 | 249 |
| 80\% | 578 | 200 | 200 | 214 | 221 | 200 | 767 | 631 | 261 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 215 | 200 | 505 | 546 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 723 | 278 | 365 | 518 | 595 | 754 | 1,158 | 1,123 | 680 | 394 | 361 | 351 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 781 | 499 | 787 | 999 | 1,201 | 2,016 | 1,536 | 1,691 | 1,140 | 715 | 639 | 692 |
| Above Normal (24\%) | 714 | 216 | 282 | 663 | 676 | 645 | 1,224 | 1,146 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 740 | 225 | 225 | 282 | 346 | 365 | 1,454 | 1,201 | 476 | 269 | 285 | 256 |
| Dry (16\%) | 707 | 208 | 216 | 234 | 313 | 200 | 1,030 | 930 | 374 | 275 | 277 | 245 |
| Critical (27\%) | 683 | 205 | 215 | 227 | 255 | 234 | 741 | 699 | 281 | 269 | 262 | 231 |

Alternative 1

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 499 | 508 | 508 | 907 | 709 | 1,500 | 1,500 | 2,887 | 360 | 300 | 300 |
| 20\% | 350 | 415 | 415 | 415 | 503 | 415 | 1,462 | 1,500 | 1,709 | 306 | 300 | 300 |
| 30\% | 331 | 386 | 415 | 408 | 415 | 415 | 1,337 | 1,434 | 1,571 | 300 | 296 | 268 |
| 40\% | 286 | 318 | 326 | 318 | 415 | 318 | 991 | 1,303 | 845 | 300 | 283 | 268 |
| 50\% | 286 | 318 | 318 | 318 | 318 | 318 | 664 | 1,303 | 450 | 284 | 283 | 268 |
| 60\% | 194 | 247 | 275 | 242 | 318 | 275 | 512 | 1,112 | 398 | 268 | 283 | 249 |
| 70\% | 194 | 247 | 247 | 242 | 260 | 242 | 461 | 920 | 289 | 268 | 283 | 249 |
| 80\% | 173 | 233 | 247 | 242 | 242 | 242 | 424 | 848 | 257 | 265 | 283 | 249 |
| 90\% | 164 | 230 | 230 | 200 | 239 | 200 | 378 | 760 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 291 | 388 | 466 | 584 | 642 | 607 | 884 | 1,181 | 1,028 | 390 | 347 | 363 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 360 | 612 | 886 | 1,060 | 1,196 | 1,462 | 1,488 | 1,497 | 2,316 | 678 | 580 | 731 |
| Above Normal (24\%) | 301 | 332 | 376 | 726 | 742 | 523 | 940 | 1,225 | 1,200 | 354 | 288 | 271 |
| Below Normal (10\%) | 288 | 373 | 373 | 383 | 418 | 316 | 955 | 1,266 | 613 | 272 | 285 | 270 |
| Dry (16\%) | 278 | 323 | 331 | 318 | 392 | 262 | 581 | 1,094 | 399 | 276 | 283 | 255 |
| Critical (27\%) | 230 | 287 | 298 | 275 | 303 | 256 | 464 | 890 | 280 | 283 | 259 | 228 |

Alternative 1 minus No Action Alternative

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -487 | 209 | 203 | 150 | 10 | -939 | -133 | -429 | 1,783 | -69 | -90 | -90 |
| 20\% | -447 | 215 | 197 | 183 | 94 | -1,106 | -91 | -55 | 619 | -4 | 0 | 0 |
| 30\% | -443 | 186 | 215 | 176 | 125 | -25 | -216 | 138 | 631 | 0 | 12 | 18 |
| 40\% | -488 | 118 | 126 | 92 | 179 | 118 | -409 | 61 | -10 | 0 | 0 | 18 |
| 50\% | -488 | 118 | 118 | 92 | 83 | 118 | -736 | 61 | 87 | 13 | 0 | 18 |
| 60\% | -441 | 47 | 75 | 23 | 90 | 75 | -300 | 194 | 35 | 3 | 0 | 0 |
| 70\% | -441 | 47 | 47 | 23 | 31 | 42 | -306 | 215 | -8 | 3 | 0 | 0 |
| 80\% | -405 | 33 | 47 | 28 | 21 | 42 | -343 | 218 | -4 | 0 | 0 | 0 |
| 90\% | -413 | 30 | 30 | -13 | 24 | 0 | -127 | 214 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -432 | 110 | 101 | 66 | 47 | -147 | -275 | 58 | 348 | -4 | -15 | 12 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -421 | 113 | 99 | 61 | -5 | -554 | -48 | -195 | 1,176 | -37 | -59 | 39 |
| Above Normal (24\%) | -413 | 116 | 94 | 63 | 66 | -122 | -284 | 79 | 238 | 1 | -4 | 4 |
| Below Normal (10\%) | -453 | 148 | 148 | 101 | 72 | -50 | -500 | 65 | 138 | 2 | 0 | 14 |
| Dry (16\%) | -429 | 115 | 115 | 84 | 79 | 62 | -449 | 164 | 25 | 1 | 6 | 9 |
| Critical (27\%) | -453 | 83 | 83 | 49 | 47 | 23 | -277 | 192 | -1 | 14 | -3 | -3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-35-2. Stanislaus River below Goodwin, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 837 | 290 | 306 | 358 | 897 | 1,648 | 1,633 | 1,929 | 1,103 | 429 | 390 | 390 |
| 20\% | 797 | 200 | 218 | 232 | 409 | 1,521 | 1,553 | 1,555 | 1,090 | 310 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 290 | 440 | 1,553 | 1,296 | 940 | 300 | 284 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 855 | 300 | 283 | 250 |
| 50\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 363 | 271 | 283 | 250 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 812 | 918 | 363 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 229 | 200 | 767 | 705 | 297 | 265 | 283 | 249 |
| 80\% | 578 | 200 | 200 | 214 | 221 | 200 | 767 | 631 | 261 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 215 | 200 | 505 | 546 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 723 | 278 | 365 | 518 | 595 | 754 | 1,158 | 1,123 | 680 | 394 | 361 | 351 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 781 | 499 | 787 | 999 | 1,201 | 2,016 | 1,536 | 1,691 | 1,140 | 715 | 639 | 692 |
| Above Normal (24\%) | 714 | 216 | 282 | 663 | 676 | 645 | 1,224 | 1,146 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 740 | 225 | 225 | 282 | 346 | 365 | 1,454 | 1,201 | 476 | 269 | 285 | 256 |
| Dry (16\%) | 707 | 208 | 216 | 234 | 313 | 200 | 1,030 | 930 | 374 | 275 | 277 | 245 |
| Critical (27\%) | 683 | 205 | 215 | 227 | 255 | 234 | 741 | 699 | 281 | 269 | 262 | 231 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 300 | 300 | 609 | 1,135 | 2,548 | 1,189 | 1,500 | 1,165 | 255 | 265 | 283 | 952 |
| 20\% | 300 | 300 | 305 | 300 | 1,157 | 344 | 1,500 | 1,165 | 255 | 265 | 283 | 249 |
| 30\% | 300 | 300 | 300 | 300 | 333 | 300 | 1,500 | 1,165 | 255 | 265 | 283 | 249 |
| 40\% | 252 | 300 | 300 | 300 | 300 | 300 | 1,034 | 963 | 255 | 265 | 283 | 249 |
| 50\% | 252 | 300 | 300 | 150 | 176 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 60\% | 252 | 300 | 300 | 150 | 173 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 70\% | 252 | 300 | 300 | 150 | 173 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 80\% | 200 | 200 | 220 | 150 | 173 | 200 | 528 | 466 | 255 | 265 | 283 | 249 |
| 90\% | 200 | 200 | 200 | 150 | 173 | 200 | 493 | 466 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 302 | 349 | 475 | 557 | 814 | 622 | 1,060 | 911 | 490 | 421 | 391 | 397 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 368 | 589 | 1,001 | 1,066 | 2,016 | 1,599 | 1,538 | 1,300 | 1,279 | 952 | 768 | 885 |
| Above Normal (24\%) | 323 | 287 | 394 | 705 | 732 | 552 | 1,155 | 955 | 255 | 265 | 283 | 260 |
| Below Normal (10\%) | 269 | 275 | 275 | 483 | 552 | 272 | 1,128 | 909 | 255 | 265 | 283 | 249 |
| Dry (16\%) | 285 | 285 | 293 | 251 | 371 | 200 | 815 | 730 | 255 | 265 | 283 | 249 |
| Critical (27\%) | 246 | 264 | 274 | 191 | 208 | 218 | 680 | 643 | 245 | 254 | 268 | 240 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -537 | 10 | 303 | 776 | 1,651 | -460 | -133 | -765 | -848 | -164 | -107 | 562 |
| 20\% | -497 | 100 | 86 | 68 | 748 | -1,177 | -53 | -390 | -835 | -45 | -17 | -51 |
| 30\% | -474 | 100 | 100 | 68 | 43 | -140 | -53 | -131 | -685 | -35 | -1 | -1 |
| 40\% | -522 | 100 | 100 | 74 | 64 | 100 | -366 | -279 | -599 | -35 | 0 | -1 |
| 50\% | -522 | 100 | 100 | -76 | -59 | 0 | -507 | -413 | -108 | -5 | 0 | -1 |
| 60\% | -384 | 100 | 100 | -69 | -56 | 0 | 81 | -89 | -108 | 0 | 0 | 0 |
| 70\% | -384 | 100 | 100 | -69 | -56 | 0 | 127 | 124 | -42 | 0 | 0 | 0 |
| 80\% | -378 | 0 | 20 | -64 | -48 | 0 | -238 | -165 | -5 | 0 | 0 | 0 |
| 90\% | -377 | 0 | 0 | -63 | -42 | 0 | -12 | -79 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -421 | 71 | 110 | 39 | 219 | -132 | -99 | -212 | -190 | 27 | 30 | 45 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -413 | 90 | 215 | 67 | 815 | -417 | 2 | -392 | 139 | 237 | 130 | 193 |
| Above Normal (24\%) | -391 | 71 | 112 | 42 | 57 | -93 | -69 | -191 | -707 | -88 | -9 | -7 |
| Below Normal (10\%) | -471 | 50 | 50 | 201 | 206 | -93 | -327 | -292 | -220 | -4 | -2 | -7 |
| Dry (16\%) | -422 | 77 | 77 | 16 | 58 | 0 | -215 | -199 | -119 | -10 | 6 | 3 |
| Critical (27\%) | -436 | 59 | 59 | -36 | -47 | -15 | -61 | -56 | -35 | -15 | 6 | 9 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-35-3. Stanislaus River below Goodwin, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 837 | 290 | 306 | 358 | 897 | 1,648 | 1,633 | 1,929 | 1,103 | 429 | 390 | 390 |
| 20\% | 797 | 200 | 218 | 232 | 409 | 1,521 | 1,553 | 1,555 | 1,090 | 310 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 290 | 440 | 1,553 | 1,296 | 940 | 300 | 284 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 855 | 300 | 283 | 250 |
| 50\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 363 | 271 | 283 | 250 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 812 | 918 | 363 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 229 | 200 | 767 | 705 | 297 | 265 | 283 | 249 |
| 80\% | 578 | 200 | 200 | 214 | 221 | 200 | 767 | 631 | 261 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 215 | 200 | 505 | 546 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 723 | 278 | 365 | 518 | 595 | 754 | 1,158 | 1,123 | 680 | 394 | 361 | 351 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 781 | 499 | 787 | 999 | 1,201 | 2,016 | 1,536 | 1,691 | 1,140 | 715 | 639 | 692 |
| Above Normal (24\%) | 714 | 216 | 282 | 663 | 676 | 645 | 1,224 | 1,146 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 740 | 225 | 225 | 282 | 346 | 365 | 1,454 | 1,201 | 476 | 269 | 285 | 256 |
| Dry (16\%) | 707 | 208 | 216 | 234 | 313 | 200 | 1,030 | 930 | 374 | 275 | 277 | 245 |
| Critical (27\%) | 683 | 205 | 215 | 227 | 255 | 234 | 741 | 699 | 281 | 269 | 262 | 231 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 797 | 200 | 306 | 358 | 885 | 1,636 | 1,717 | 1,958 | 1,103 | 423 | 300 | 300 |
| 20\% | 797 | 200 | 211 | 232 | 415 | 1,521 | 1,633 | 1,815 | 979 | 307 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 274 | 343 | 1,553 | 1,595 | 940 | 300 | 283 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,487 | 1,555 | 759 | 297 | 283 | 250 |
| 50\% | 636 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,341 | 363 | 265 | 283 | 249 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 1,324 | 1,242 | 342 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 222 | 200 | 1,134 | 1,068 | 270 | 265 | 283 | 249 |
| 80\% | 577 | 200 | 200 | 213 | 221 | 200 | 825 | 887 | 255 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 214 | 200 | 767 | 798 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 711 | 276 | 345 | 520 | 580 | 712 | 1,317 | 1,375 | 660 | 369 | 332 | 341 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 766 | 499 | 690 | 998 | 1,169 | 1,831 | 1,502 | 1,730 | 1,093 | 619 | 523 | 655 |
| Above Normal (24\%) | 705 | 211 | 298 | 676 | 659 | 645 | 1,170 | 1,553 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 733 | 225 | 225 | 281 | 345 | 365 | 1,416 | 1,267 | 462 | 269 | 285 | 256 |
| Dry (16\%) | 690 | 208 | 216 | 233 | 312 | 200 | 1,454 | 1,370 | 366 | 275 | 277 | 245 |
| Critical (27\%) | 674 | 200 | 210 | 221 | 242 | 234 | 1,175 | 948 | 257 | 260 | 253 | 224 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -41 | -90 | 0 | 0 | -12 | -13 | 83 | 29 | 0 | -6 | -90 | -90 |
| 20\% | 0 | 0 | -7 | 0 | 6 | 0 | 80 | 261 | -111 | -3 | 0 | 0 |
| 30\% | 0 | 0 | 0 | 0 | -15 | -97 | 0 | 299 | 0 | 0 | -1 | 0 |
| 40\% | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 313 | -96 | -3 | 0 | 0 |
| 50\% | -139 | 0 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | -5 | 0 | -1 |
| 60\% | 0 | 0 | 0 | 0 | 0 | 0 | 512 | 324 | -21 | 0 | 0 | 0 |
| 70\% | 0 | 0 | 0 | 0 | -6 | 0 | 367 | 363 | -27 | 0 | 0 | 0 |
| 80\% | -1 | 0 | 0 | -1 | 0 | 0 | 59 | 256 | -5 | 0 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | -1 | 0 | 262 | 252 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -11 | -2 | -20 | 1 | -15 | -43 | 159 | 251 | -20 | -25 | -29 | -11 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -15 | 0 | -97 | 0 | -33 | -185 | -34 | 38 | -47 | -96 | -115 | -38 |
| Above Normal (24\%) | -9 | -5 | 16 | 13 | -17 | 0 | -55 | 407 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | -7 | 0 | 0 | -1 | -1 | 0 | -38 | 66 | -13 | 0 | 0 | 0 |
| Dry (16\%) | -17 | 0 | 0 | -1 | -2 | 0 | 424 | 440 | -8 | 0 | 0 | 0 |
| Critical (27\%) | -8 | -5 | -5 | -6 | -13 | 0 | 434 | 250 | -24 | -10 | -9 | -7 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-35-4. Stanislaus River below Goodwin, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 499 | 508 | 508 | 907 | 709 | 1,500 | 1,500 | 2,887 | 360 | 300 | 300 |
| 20\% | 350 | 415 | 415 | 415 | 503 | 415 | 1,462 | 1,500 | 1,709 | 306 | 300 | 300 |
| 30\% | 331 | 386 | 415 | 408 | 415 | 415 | 1,337 | 1,434 | 1,571 | 300 | 296 | 268 |
| 40\% | 286 | 318 | 326 | 318 | 415 | 318 | 991 | 1,303 | 845 | 300 | 283 | 268 |
| 50\% | 286 | 318 | 318 | 318 | 318 | 318 | 664 | 1,303 | 450 | 284 | 283 | 268 |
| 60\% | 194 | 247 | 275 | 242 | 318 | 275 | 512 | 1,112 | 398 | 268 | 283 | 249 |
| 70\% | 194 | 247 | 247 | 242 | 260 | 242 | 461 | 920 | 289 | 268 | 283 | 249 |
| 80\% | 173 | 233 | 247 | 242 | 242 | 242 | 424 | 848 | 257 | 265 | 283 | 249 |
| 90\% | 164 | 230 | 230 | 200 | 239 | 200 | 378 | 760 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 291 | 388 | 466 | 584 | 642 | 607 | 884 | 1,181 | 1,028 | 390 | 347 | 363 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 360 | 612 | 886 | 1,060 | 1,196 | 1,462 | 1,488 | 1,497 | 2,316 | 678 | 580 | 731 |
| Above Normal (24\%) | 301 | 332 | 376 | 726 | 742 | 523 | 940 | 1,225 | 1,200 | 354 | 288 | 271 |
| Below Normal (10\%) | 288 | 373 | 373 | 383 | 418 | 316 | 955 | 1,266 | 613 | 272 | 285 | 270 |
| Dry (16\%) | 278 | 323 | 331 | 318 | 392 | 262 | 581 | 1,094 | 399 | 276 | 283 | 255 |
| Critical (27\%) | 230 | 287 | 298 | 275 | 303 | 256 | 464 | 890 | 280 | 283 | 259 | 228 |

No Action Alternative

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 837 | 290 | 306 | 358 | 897 | 1,648 | 1,633 | 1,929 | 1,103 | 429 | 390 | 390 |
| 20\% | 797 | 200 | 218 | 232 | 409 | 1,521 | 1,553 | 1,555 | 1,090 | 310 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 290 | 440 | 1,553 | 1,296 | 940 | 300 | 284 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 855 | 300 | 283 | 250 |
| 50\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,242 | 363 | 271 | 283 | 250 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 812 | 918 | 363 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 229 | 200 | 767 | 705 | 297 | 265 | 283 | 249 |
| 80\% | 578 | 200 | 200 | 214 | 221 | 200 | 767 | 631 | 261 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 215 | 200 | 505 | 546 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 723 | 278 | 365 | 518 | 595 | 754 | 1,158 | 1,123 | 680 | 394 | 361 | 351 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 781 | 499 | 787 | 999 | 1,201 | 2,016 | 1,536 | 1,691 | 1,140 | 715 | 639 | 692 |
| Above Normal (24\%) | 714 | 216 | 282 | 663 | 676 | 645 | 1,224 | 1,146 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 740 | 225 | 225 | 282 | 346 | 365 | 1,454 | 1,201 | 476 | 269 | 285 | 256 |
| Dry (16\%) | 707 | 208 | 216 | 234 | 313 | 200 | 1,030 | 930 | 374 | 275 | 277 | 245 |
| Critical (27\%) | 683 | 205 | 215 | 227 | 255 | 234 | 741 | 699 | 281 | 269 | 262 | 231 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 487 | -209 | -203 | -150 | -10 | 939 | 133 | 429 | -1,783 | 69 | 90 | 90 |
| 20\% | 447 | -215 | -197 | -183 | -94 | 1,106 | 91 | 55 | -619 | 4 | 0 | 0 |
| 30\% | 443 | -186 | -215 | -176 | -125 | 25 | 216 | -138 | -631 | 0 | -12 | -18 |
| 40\% | 488 | -118 | -126 | -92 | -179 | -118 | 409 | -61 | 10 | 0 | 0 | -18 |
| 50\% | 488 | -118 | -118 | -92 | -83 | -118 | 736 | -61 | -87 | -13 | 0 | -18 |
| 60\% | 441 | -47 | -75 | -23 | -90 | -75 | 300 | -194 | -35 | -3 | 0 | 0 |
| 70\% | 441 | -47 | -47 | -23 | -31 | -42 | 306 | -215 | 8 | -3 | 0 | 0 |
| 80\% | 405 | -33 | -47 | -28 | -21 | -42 | 343 | -218 | 4 | 0 | 0 | 0 |
| 90\% | 413 | -30 | -30 | 13 | -24 | 0 | 127 | -214 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 432 | -110 | -101 | -66 | -47 | 147 | 275 | -58 | -348 | 4 | 15 | -12 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 421 | -113 | -99 | -61 | 5 | 554 | 48 | 195 | -1,176 | 37 | 59 | -39 |
| Above Normal (24\%) | 413 | -116 | -94 | -63 | -66 | 122 | 284 | -79 | -238 | -1 | 4 | -4 |
| Below Normal (10\%) | 453 | -148 | -148 | -101 | -72 | 50 | 500 | -65 | -138 | -2 | 0 | -14 |
| Dry (16\%) | 429 | -115 | -115 | -84 | -79 | -62 | 449 | -164 | -25 | -1 | -6 | -9 |
| Critical (27\%) | 453 | -83 | -83 | -49 | -47 | -23 | 277 | -192 | 1 | -14 | 3 | 3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-35-5. Stanislaus River below Goodwin, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 499 | 508 | 508 | 907 | 709 | 1,500 | 1,500 | 2,887 | 360 | 300 | 300 |
| 20\% | 350 | 415 | 415 | 415 | 503 | 415 | 1,462 | 1,500 | 1,709 | 306 | 300 | 300 |
| 30\% | 331 | 386 | 415 | 408 | 415 | 415 | 1,337 | 1,434 | 1,571 | 300 | 296 | 268 |
| 40\% | 286 | 318 | 326 | 318 | 415 | 318 | 991 | 1,303 | 845 | 300 | 283 | 268 |
| 50\% | 286 | 318 | 318 | 318 | 318 | 318 | 664 | 1,303 | 450 | 284 | 283 | 268 |
| 60\% | 194 | 247 | 275 | 242 | 318 | 275 | 512 | 1,112 | 398 | 268 | 283 | 249 |
| 70\% | 194 | 247 | 247 | 242 | 260 | 242 | 461 | 920 | 289 | 268 | 283 | 249 |
| 80\% | 173 | 233 | 247 | 242 | 242 | 242 | 424 | 848 | 257 | 265 | 283 | 249 |
| 90\% | 164 | 230 | 230 | 200 | 239 | 200 | 378 | 760 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 291 | 388 | 466 | 584 | 642 | 607 | 884 | 1,181 | 1,028 | 390 | 347 | 363 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 360 | 612 | 886 | 1,060 | 1,196 | 1,462 | 1,488 | 1,497 | 2,316 | 678 | 580 | 731 |
| Above Normal (24\%) | 301 | 332 | 376 | 726 | 742 | 523 | 940 | 1,225 | 1,200 | 354 | 288 | 271 |
| Below Normal (10\%) | 288 | 373 | 373 | 383 | 418 | 316 | 955 | 1,266 | 613 | 272 | 285 | 270 |
| Dry (16\%) | 278 | 323 | 331 | 318 | 392 | 262 | 581 | 1,094 | 399 | 276 | 283 | 255 |
| Critical (27\%) | 230 | 287 | 298 | 275 | 303 | 256 | 464 | 890 | 280 | 283 | 259 | 228 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 300 | 300 | 609 | 1,135 | 2,548 | 1,189 | 1,500 | 1,165 | 255 | 265 | 283 | 952 |
| 20\% | 300 | 300 | 305 | 300 | 1,157 | 344 | 1,500 | 1,165 | 255 | 265 | 283 | 249 |
| 30\% | 300 | 300 | 300 | 300 | 333 | 300 | 1,500 | 1,165 | 255 | 265 | 283 | 249 |
| 40\% | 252 | 300 | 300 | 300 | 300 | 300 | 1,034 | 963 | 255 | 265 | 283 | 249 |
| 50\% | 252 | 300 | 300 | 150 | 176 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 60\% | 252 | 300 | 300 | 150 | 173 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 70\% | 252 | 300 | 300 | 150 | 173 | 200 | 893 | 829 | 255 | 265 | 283 | 249 |
| 80\% | 200 | 200 | 220 | 150 | 173 | 200 | 528 | 466 | 255 | 265 | 283 | 249 |
| 90\% | 200 | 200 | 200 | 150 | 173 | 200 | 493 | 466 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 302 | 349 | 475 | 557 | 814 | 622 | 1,060 | 911 | 490 | 421 | 391 | 397 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 368 | 589 | 1,001 | 1,066 | 2,016 | 1,599 | 1,538 | 1,300 | 1,279 | 952 | 768 | 885 |
| Above Normal (24\%) | 323 | 287 | 394 | 705 | 732 | 552 | 1,155 | 955 | 255 | 265 | 283 | 260 |
| Below Normal (10\%) | 269 | 275 | 275 | 483 | 552 | 272 | 1,128 | 909 | 255 | 265 | 283 | 249 |
| Dry (16\%) | 285 | 285 | 293 | 251 | 371 | 200 | 815 | 730 | 255 | 265 | 283 | 249 |
| Critical (27\%) | 246 | 264 | 274 | 191 | 208 | 218 | 680 | 643 | 245 | 254 | 268 | 240 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -50 | -199 | 100 | 626 | 1,641 | 479 | 0 | -335 | -2,631 | -94 | -17 | 652 |
| 20\% | -50 | -115 | -110 | -115 | 654 | -71 | 38 | -335 | -1,454 | -41 | -17 | -51 |
| 30\% | -31 | -86 | -115 | -108 | -82 | -115 | 163 | -269 | -1,316 | -35 | -13 | -19 |
| 40\% | -34 | -18 | -26 | -18 | -115 | -18 | 43 | -340 | -590 | -35 | 0 | -19 |
| 50\% | -34 | -18 | -18 | -168 | -142 | -118 | 229 | -474 | -195 | -19 | 0 | -19 |
| 60\% | 58 | 53 | 25 | -92 | -145 | -75 | 381 | -283 | -143 | -3 | 0 | 0 |
| 70\% | 58 | 53 | 53 | -92 | -87 | -42 | 432 | -91 | -34 | -3 | 0 | 0 |
| 80\% | 27 | -33 | -27 | -92 | -69 | -42 | 104 | -382 | -1 | 0 | 0 | 0 |
| 90\% | 36 | -30 | -30 | -50 | -66 | 0 | 116 | -294 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 11 | -38 | 9 | -27 | 172 | 15 | 176 | -270 | -538 | 32 | 45 | 33 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 8 | -23 | 116 | 6 | 820 | 137 | 50 | -197 | -1,037 | 274 | 189 | 154 |
| Above Normal (24\%) | 22 | -45 | 18 | -21 | -9 | 29 | 215 | -269 | -945 | -89 | -5 | -11 |
| Below Normal (10\%) | -19 | -98 | -98 | 100 | 134 | -43 | 173 | -356 | -358 | -7 | -2 | -21 |
| Dry (16\%) | 7 | -38 | -38 | -68 | -21 | -62 | 234 | -364 | -144 | -11 | 0 | -6 |
| Critical (27\%) | 17 | -24 | -24 | -84 | -95 | -38 | 216 | -247 | -35 | -29 | 9 | 12 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Altermative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-35-6. Stanislaus River below Goodwin, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 499 | 508 | 508 | 907 | 709 | 1,500 | 1,500 | 2,887 | 360 | 300 | 300 |
| 20\% | 350 | 415 | 415 | 415 | 503 | 415 | 1,462 | 1,500 | 1,709 | 306 | 300 | 300 |
| 30\% | 331 | 386 | 415 | 408 | 415 | 415 | 1,337 | 1,434 | 1,571 | 300 | 296 | 268 |
| 40\% | 286 | 318 | 326 | 318 | 415 | 318 | 991 | 1,303 | 845 | 300 | 283 | 268 |
| 50\% | 286 | 318 | 318 | 318 | 318 | 318 | 664 | 1,303 | 450 | 284 | 283 | 268 |
| 60\% | 194 | 247 | 275 | 242 | 318 | 275 | 512 | 1,112 | 398 | 268 | 283 | 249 |
| 70\% | 194 | 247 | 247 | 242 | 260 | 242 | 461 | 920 | 289 | 268 | 283 | 249 |
| 80\% | 173 | 233 | 247 | 242 | 242 | 242 | 424 | 848 | 257 | 265 | 283 | 249 |
| 90\% | 164 | 230 | 230 | 200 | 239 | 200 | 378 | 760 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 291 | 388 | 466 | 584 | 642 | 607 | 884 | 1,181 | 1,028 | 390 | 347 | 363 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 360 | 612 | 886 | 1,060 | 1,196 | 1,462 | 1,488 | 1,497 | 2,316 | 678 | 580 | 731 |
| Above Normal (24\%) | 301 | 332 | 376 | 726 | 742 | 523 | 940 | 1,225 | 1,200 | 354 | 288 | 271 |
| Below Normal (10\%) | 288 | 373 | 373 | 383 | 418 | 316 | 955 | 1,266 | 613 | 272 | 285 | 270 |
| Dry (16\%) | 278 | 323 | 331 | 318 | 392 | 262 | 581 | 1,094 | 399 | 276 | 283 | 255 |
| Critical (27\%) | 230 | 287 | 298 | 275 | 303 | 256 | 464 | 890 | 280 | 283 | 259 | 228 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 797 | 200 | 306 | 358 | 885 | 1,636 | 1,717 | 1,958 | 1,103 | 423 | 300 | 300 |
| 20\% | 797 | 200 | 211 | 232 | 415 | 1,521 | 1,633 | 1,815 | 979 | 307 | 300 | 300 |
| 30\% | 774 | 200 | 200 | 232 | 274 | 343 | 1,553 | 1,595 | 940 | 300 | 283 | 250 |
| 40\% | 774 | 200 | 200 | 226 | 236 | 200 | 1,487 | 1,555 | 759 | 297 | 283 | 250 |
| 50\% | 636 | 200 | 200 | 226 | 236 | 200 | 1,400 | 1,341 | 363 | 265 | 283 | 249 |
| 60\% | 636 | 200 | 200 | 219 | 229 | 200 | 1,324 | 1,242 | 342 | 265 | 283 | 249 |
| 70\% | 636 | 200 | 200 | 219 | 222 | 200 | 1,134 | 1,068 | 270 | 265 | 283 | 249 |
| 80\% | 577 | 200 | 200 | 213 | 221 | 200 | 825 | 887 | 255 | 265 | 283 | 249 |
| 90\% | 577 | 200 | 200 | 213 | 214 | 200 | 767 | 798 | 255 | 265 | 283 | 249 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 711 | 276 | 345 | 520 | 580 | 712 | 1,317 | 1,375 | 660 | 369 | 332 | 341 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 766 | 499 | 690 | 998 | 1,169 | 1,831 | 1,502 | 1,730 | 1,093 | 619 | 523 | 655 |
| Above Normal (24\%) | 705 | 211 | 298 | 676 | 659 | 645 | 1,170 | 1,553 | 962 | 353 | 292 | 267 |
| Below Normal (10\%) | 733 | 225 | 225 | 281 | 345 | 365 | 1,416 | 1,267 | 462 | 269 | 285 | 256 |
| Dry (16\%) | 690 | 208 | 216 | 233 | 312 | 200 | 1,454 | 1,370 | 366 | 275 | 277 | 245 |
| Critical (27\%) | 674 | 200 | 210 | 221 | 242 | 234 | 1,175 | 948 | 257 | 260 | 253 | 224 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 447 | -299 | -203 | -150 | -22 | 926 | 217 | 458 | -1,783 | 63 | 0 | 0 |
| 20\% | 447 | -215 | -204 | -183 | -88 | 1,106 | 171 | 315 | -730 | 1 | 0 | 0 |
| 30\% | 443 | -186 | -215 | -176 | -141 | -72 | 216 | 161 | -631 | 0 | -13 | -18 |
| 40\% | 488 | -118 | -126 | -92 | -179 | -118 | 496 | 252 | -86 | -3 | 0 | -18 |
| 50\% | 349 | -118 | -118 | -92 | -83 | -118 | 736 | 38 | -87 | -19 | 0 | -19 |
| 60\% | 441 | -47 | -75 | -23 | -90 | -75 | 812 | 130 | -56 | -3 | 0 | 0 |
| 70\% | 441 | -47 | -47 | -23 | -38 | -42 | 673 | 148 | -19 | -3 | 0 | 0 |
| 80\% | 404 | -33 | -47 | -29 | -21 | -42 | 401 | 38 | -1 | 0 | 0 | 0 |
| 90\% | 413 | -30 | -30 | 13 | -25 | 0 | 389 | 38 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 421 | -112 | -121 | -65 | -62 | 104 | 433 | 193 | -368 | -21 | -15 | -22 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 407 | -113 | -196 | -61 | -27 | 369 | 14 | 233 | -1,223 | -59 | -56 | -76 |
| Above Normal (24\%) | 404 | -121 | -78 | -50 | -83 | 122 | 230 | 328 | -238 | -1 | 4 | -4 |
| Below Normal (10\%) | 445 | -148 | -148 | -102 | -73 | 50 | 462 | 2 | -151 | -2 | 0 | -14 |
| Dry (16\%) | 412 | -115 | -115 | -86 | -80 | -62 | 873 | 276 | -34 | -1 | -6 | -9 |
| Critical (27\%) | 445 | -87 | -87 | -55 | -60 | -23 | 711 | 58 | -23 | -23 | -6 | -3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

1 C.36. Stanislaus River Flow at Mouth

Figure C-36-1. Stanislaus River at Mouth, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-36-2. Stanislaus River at Mouth, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-36-3. Stanislaus River at Mouth, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-36-4. Stanislaus River at Mouth, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-36-5. Stanislaus River at Mouth, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-36-6. Stanislaus River at Mouth, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-36-1. Stanislaus River at Mouth, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,122 | 463 | 442 | 576 | 1,084 | 1,969 | 1,886 | 1,989 | 1,536 | 751 | 587 | 646 |
| 20\% | 1,029 | 384 | 368 | 427 | 643 | 1,708 | 1,769 | 1,647 | 1,334 | 606 | 488 | 507 |
| 30\% | 982 | 348 | 319 | 368 | 472 | 520 | 1,696 | 1,536 | 1,221 | 502 | 462 | 473 |
| 40\% | 958 | 337 | 304 | 347 | 406 | 433 | 1,610 | 1,362 | 1,053 | 442 | 445 | 443 |
| 50\% | 879 | 319 | 290 | 337 | 369 | 367 | 1,485 | 1,289 | 635 | 412 | 445 | 439 |
| 60\% | 826 | 292 | 281 | 326 | 331 | 336 | 936 | 873 | 510 | 383 | 416 | 428 |
| 70\% | 772 | 267 | 262 | 312 | 279 | 314 | 806 | 755 | 406 | 372 | 395 | 389 |
| 80\% | 755 | 260 | 241 | 295 | 253 | 241 | 686 | 646 | 358 | 341 | 371 | 360 |
| 90\% | 676 | 248 | 224 | 273 | 230 | 207 | 572 | 576 | 311 | 308 | 331 | 318 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 903 | 398 | 448 | 630 | 719 | 903 | 1,279 | 1,207 | 883 | 546 | 505 | 533 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 952 | 624 | 881 | 1,115 | 1,412 | 2,258 | 1,779 | 1,828 | 1,456 | 976 | 831 | 946 |
| Above Normal (24\%) | 907 | 347 | 357 | 776 | 786 | 801 | 1,410 | 1,244 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 932 | 354 | 358 | 430 | 517 | 539 | 1,556 | 1,378 | 669 | 449 | 440 | 429 |
| Dry (16\%) | 916 | 322 | 300 | 349 | 405 | 345 | 1,064 | 1,002 | 530 | 375 | 397 | 399 |
| Critical (27\%) | 837 | 310 | 277 | 317 | 319 | 286 | 754 | 695 | 335 | 321 | 346 | 342 |

Alternative 1

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 662 | 653 | 656 | 688 | 1,117 | 1,153 | 1,804 | 1,679 | 3,009 | 661 | 569 | 673 |
| 20\% | 582 | 548 | 522 | 557 | 694 | 613 | 1,608 | 1,592 | 2,016 | 555 | 485 | 508 |
| 30\% | 507 | 492 | 464 | 518 | 562 | 562 | 1,489 | 1,533 | 1,772 | 502 | 461 | 481 |
| 40\% | 471 | 459 | 427 | 473 | 512 | 522 | 1,040 | 1,423 | 1,092 | 444 | 445 | 457 |
| 50\% | 405 | 421 | 378 | 412 | 484 | 446 | 821 | 1,331 | 694 | 412 | 443 | 439 |
| 60\% | 377 | 388 | 341 | 364 | 423 | 394 | 637 | 1,049 | 572 | 386 | 416 | 431 |
| 70\% | 346 | 355 | 329 | 339 | 331 | 361 | 529 | 972 | 402 | 378 | 395 | 396 |
| 80\% | 327 | 312 | 311 | 318 | 296 | 295 | 440 | 865 | 352 | 350 | 373 | 373 |
| 90\% | 249 | 280 | 269 | 283 | 257 | 233 | 406 | 787 | 312 | 318 | 331 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 471 | 507 | 549 | 696 | 766 | 756 | 1,004 | 1,265 | 1,231 | 542 | 491 | 545 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 530 | 737 | 980 | 1,176 | 1,407 | 1,704 | 1,731 | 1,634 | 2,632 | 939 | 772 | 985 |
| Above Normal (24\%) | 494 | 463 | 451 | 840 | 852 | 680 | 1,126 | 1,323 | 1,495 | 535 | 463 | 484 |
| Below Normal (10\%) | 480 | 503 | 506 | 532 | 589 | 489 | 1,057 | 1,443 | 807 | 452 | 440 | 443 |
| Dry (16\%) | 487 | 437 | 415 | 433 | 484 | 407 | 616 | 1,166 | 555 | 377 | 404 | 408 |
| Critical (27\%) | 384 | 393 | 360 | 366 | 367 | 309 | 476 | 887 | 334 | 335 | 343 | 338 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -461 | 190 | 214 | 112 | 33 | -816 | -82 | -311 | 1,473 | -90 | -18 | 28 |
| 20\% | -447 | 165 | 154 | 130 | 51 | -1,094 | -161 | -55 | 682 | -51 | -3 | 1 |
| 30\% | -475 | 145 | 146 | 150 | 89 | 42 | -208 | -3 | 551 | 0 | -1 | 9 |
| 40\% | -488 | 122 | 123 | 125 | 106 | 89 | -570 | 61 | 39 | 2 | 0 | 13 |
| 50\% | -474 | 102 | 88 | 74 | 115 | 80 | -663 | 42 | 59 | 0 | -2 | 0 |
| 60\% | -449 | 96 | 61 | 38 | 92 | 59 | -299 | 176 | 62 | 2 | 0 | 3 |
| 70\% | -426 | 88 | 67 | 27 | 52 | 48 | -277 | 218 | -4 | 5 | 0 | 8 |
| 80\% | -427 | 52 | 70 | 23 | 43 | 54 | -247 | 219 | -5 | 9 | 2 | 12 |
| 90\% | -427 | 32 | 46 | 9 | 27 | 26 | -165 | 211 | 1 | 9 | 0 | -2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -432 | 110 | 101 | 66 | 47 | -147 | -275 | 58 | 348 | -4 | -15 | 12 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -421 | 113 | 99 | 61 | -5 | -554 | -48 | -195 | 1,176 | -37 | -59 | 39 |
| Above Normal (24\%) | -413 | 116 | 94 | 63 | 66 | -122 | -284 | 79 | 238 | 1 | -4 | 4 |
| Below Normal (10\%) | -453 | 148 | 148 | 101 | 72 | -50 | -500 | 65 | 138 | 2 | 0 | 14 |
| Dry (16\%) | -429 | 115 | 115 | 84 | 79 | 62 | -449 | 164 | 25 | 1 | 6 | 9 |
| Critical (27\%) | -453 | 83 | 83 | 49 | 47 | 23 | -277 | 192 | -1 | 14 | -3 | -3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 .
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-36-2. Stanislaus River at Mouth, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,122 | 463 | 442 | 576 | 1,084 | 1,969 | 1,886 | 1,989 | 1,536 | 751 | 587 | 646 |
| 20\% | 1,029 | 384 | 368 | 427 | 643 | 1,708 | 1,769 | 1,647 | 1,334 | 606 | 488 | 507 |
| 30\% | 982 | 348 | 319 | 368 | 472 | 520 | 1,696 | 1,536 | 1,221 | 502 | 462 | 473 |
| 40\% | 958 | 337 | 304 | 347 | 406 | 433 | 1,610 | 1,362 | 1,053 | 442 | 445 | 443 |
| 50\% | 879 | 319 | 290 | 337 | 369 | 367 | 1,485 | 1,289 | 635 | 412 | 445 | 439 |
| 60\% | 826 | 292 | 281 | 326 | 331 | 336 | 936 | 873 | 510 | 383 | 416 | 428 |
| 70\% | 772 | 267 | 262 | 312 | 279 | 314 | 806 | 755 | 406 | 372 | 395 | 389 |
| 80\% | 755 | 260 | 241 | 295 | 253 | 241 | 686 | 646 | 358 | 341 | 371 | 360 |
| 90\% | 676 | 248 | 224 | 273 | 230 | 207 | 572 | 576 | 311 | 308 | 331 | 318 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 903 | 398 | 448 | 630 | 719 | 903 | 1,279 | 1,207 | 883 | 546 | 505 | 533 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 952 | 624 | 881 | 1,115 | 1,412 | 2,258 | 1,779 | 1,828 | 1,456 | 976 | 831 | 946 |
| Above Normal (24\%) | 907 | 347 | 357 | 776 | 786 | 801 | 1,410 | 1,244 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 932 | 354 | 358 | 430 | 517 | 539 | 1,556 | 1,378 | 669 | 449 | 440 | 429 |
| Dry (16\%) | 916 | 322 | 300 | 349 | 405 | 345 | 1,064 | 1,002 | 530 | 375 | 397 | 399 |
| Critical (27\%) | 837 | 310 | 277 | 317 | 319 | 286 | 754 | 695 | 335 | 321 | 346 | 342 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 679 | 485 | 722 | 1,267 | 2,628 | 1,444 | 1,865 | 1,414 | 950 | 885 | 571 | 1,146 |
| 20\% | 557 | 456 | 438 | 518 | 1,301 | 734 | 1,634 | 1,306 | 679 | 535 | 480 | 489 |
| 30\% | 482 | 441 | 411 | 410 | 502 | 486 | 1,552 | 1,233 | 558 | 476 | 457 | 450 |
| 40\% | 448 | 424 | 400 | 374 | 416 | 419 | 1,240 | 1,043 | 428 | 424 | 445 | 439 |
| 50\% | 435 | 402 | 381 | 311 | 366 | 367 | 1,064 | 920 | 413 | 382 | 440 | 435 |
| 60\% | 392 | 372 | 362 | 275 | 308 | 334 | 996 | 882 | 374 | 374 | 410 | 415 |
| 70\% | 377 | 359 | 325 | 251 | 238 | 312 | 893 | 829 | 352 | 350 | 390 | 384 |
| 80\% | 360 | 333 | 300 | 232 | 201 | 238 | 575 | 550 | 304 | 327 | 367 | 360 |
| 90\% | 293 | 260 | 239 | 198 | 180 | 203 | 493 | 489 | 273 | 290 | 347 | 320 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 482 | 469 | 558 | 669 | 938 | 770 | 1,180 | 995 | 693 | 573 | 535 | 578 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 539 | 714 | 1,096 | 1,183 | 2,227 | 1,841 | 1,781 | 1,437 | 1,596 | 1,213 | 961 | 1,139 |
| Above Normal (24\%) | 516 | 418 | 468 | 818 | 843 | 708 | 1,341 | 1,054 | 550 | 446 | 457 | 473 |
| Below Normal (10\%) | 461 | 404 | 408 | 632 | 723 | 446 | 1,230 | 1,086 | 449 | 445 | 438 | 422 |
| Dry (16\%) | 495 | 399 | 377 | 365 | 463 | 345 | 849 | 803 | 411 | 365 | 404 | 402 |
| Critical (27\%) | 401 | 369 | 336 | 282 | 272 | 271 | 692 | 639 | 299 | 305 | 351 | 351 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -443 | 22 | 279 | 690 | 1,545 | -525 | -22 | -575 | -586 | 133 | -16 | 500 |
| 20\% | -472 | 72 | 71 | 92 | 658 | -974 | -135 | -341 | -654 | -71 | -8 | -18 |
| 30\% | -501 | 93 | 92 | 42 | 30 | -34 | -144 | -303 | -663 | -25 | -5 | -23 |
| 40\% | -511 | 87 | 95 | 26 | 11 | -14 | -370 | -319 | -626 | -18 | 0 | -4 |
| 50\% | -444 | 83 | 91 | -26 | -3 | 0 | -420 | -368 | -222 | -29 | -4 | -5 |
| 60\% | -434 | 80 | 81 | -50 | -23 | -2 | 59 | 9 | -136 | -9 | -5 | -12 |
| 70\% | -395 | 93 | 63 | -61 | -41 | -2 | 87 | 74 | -54 | -22 | -5 | -5 |
| 80\% | -395 | 73 | 59 | -63 | -52 | -3 | -112 | -96 | -54 | -13 | -3 | 0 |
| 90\% | -383 | 12 | 16 | -75 | -50 | -4 | -78 | -88 | -39 | -18 | 16 | 2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -421 | 71 | 110 | 39 | 219 | -132 | -99 | -212 | -190 | 27 | 30 | 45 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -413 | 90 | 215 | 67 | 815 | -417 | 2 | -392 | 139 | 237 | 130 | 193 |
| Above Normal (24\%) | -391 | 71 | 112 | 42 | 57 | -93 | -69 | -191 | -707 | -88 | -9 | -7 |
| Below Normal (10\%) | -471 | 50 | 50 | 201 | 206 | -93 | -327 | -292 | -220 | -4 | -2 | -7 |
| Dry (16\%) | -422 | 77 | 77 | 16 | 58 | 0 | -215 | -199 | -119 | -10 | 6 | 3 |
| Critical (27\%) | -436 | 59 | 59 | -36 | -47 | -15 | -61 | -56 | -35 | -15 | 6 | 9 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-36-3. Stanislaus River at Mouth, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,122 | 463 | 442 | 576 | 1,084 | 1,969 | 1,886 | 1,989 | 1,536 | 751 | 587 | 646 |
| 20\% | 1,029 | 384 | 368 | 427 | 643 | 1,708 | 1,769 | 1,647 | 1,334 | 606 | 488 | 507 |
| 30\% | 982 | 348 | 319 | 368 | 472 | 520 | 1,696 | 1,536 | 1,221 | 502 | 462 | 473 |
| 40\% | 958 | 337 | 304 | 347 | 406 | 433 | 1,610 | 1,362 | 1,053 | 442 | 445 | 443 |
| 50\% | 879 | 319 | 290 | 337 | 369 | 367 | 1,485 | 1,289 | 635 | 412 | 445 | 439 |
| 60\% | 826 | 292 | 281 | 326 | 331 | 336 | 936 | 873 | 510 | 383 | 416 | 428 |
| 70\% | 772 | 267 | 262 | 312 | 279 | 314 | 806 | 755 | 406 | 372 | 395 | 389 |
| 80\% | 755 | 260 | 241 | 295 | 253 | 241 | 686 | 646 | 358 | 341 | 371 | 360 |
| 90\% | 676 | 248 | 224 | 273 | 230 | 207 | 572 | 576 | 311 | 308 | 331 | 318 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 903 | 398 | 448 | 630 | 719 | 903 | 1,279 | 1,207 | 883 | 546 | 505 | 533 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 952 | 624 | 881 | 1,115 | 1,412 | 2,258 | 1,779 | 1,828 | 1,456 | 976 | 831 | 946 |
| Above Normal (24\%) | 907 | 347 | 357 | 776 | 786 | 801 | 1,410 | 1,244 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 932 | 354 | 358 | 430 | 517 | 539 | 1,556 | 1,378 | 669 | 449 | 440 | 429 |
| Dry (16\%) | 916 | 322 | 300 | 349 | 405 | 345 | 1,064 | 1,002 | 530 | 375 | 397 | 399 |
| Critical (27\%) | 837 | 310 | 277 | 317 | 319 | 286 | 754 | 695 | 335 | 321 | 346 | 342 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,121 | 456 | 442 | 570 | 1,081 | 1,952 | 1,950 | 2,148 | 1,536 | 719 | 571 | 659 |
| 20\% | 1,029 | 382 | 378 | 416 | 586 | 1,708 | 1,815 | 1,974 | 1,319 | 564 | 488 | 501 |
| 30\% | 979 | 348 | 319 | 363 | 483 | 495 | 1,707 | 1,806 | 1,139 | 502 | 461 | 473 |
| 40\% | 903 | 336 | 304 | 347 | 401 | 415 | 1,630 | 1,672 | 1,034 | 442 | 445 | 443 |
| 50\% | 854 | 318 | 290 | 337 | 368 | 365 | 1,529 | 1,434 | 635 | 407 | 443 | 439 |
| 60\% | 818 | 292 | 281 | 326 | 319 | 333 | 1,311 | 1,290 | 485 | 382 | 413 | 428 |
| 70\% | 764 | 267 | 262 | 312 | 272 | 312 | 1,168 | 1,183 | 383 | 371 | 389 | 389 |
| 80\% | 748 | 260 | 241 | 295 | 245 | 241 | 1,044 | 962 | 343 | 339 | 367 | 356 |
| 90\% | 681 | 248 | 224 | 270 | 230 | 207 | 865 | 752 | 300 | 307 | 305 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 891 | 396 | 428 | 631 | 704 | 860 | 1,437 | 1,458 | 863 | 521 | 476 | 522 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 937 | 624 | 784 | 1,115 | 1,380 | 2,073 | 1,744 | 1,866 | 1,409 | 880 | 716 | 909 |
| Above Normal (24\%) | 898 | 342 | 372 | 790 | 770 | 801 | 1,356 | 1,651 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 925 | 354 | 358 | 430 | 516 | 539 | 1,518 | 1,444 | 656 | 449 | 440 | 429 |
| Dry (16\%) | 900 | 322 | 300 | 347 | 403 | 345 | 1,488 | 1,442 | 522 | 375 | 397 | 399 |
| Critical (27\%) | 829 | 306 | 272 | 311 | 306 | 286 | 1,187 | 944 | 310 | 311 | 337 | 335 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -2 | -7 | 0 | -6 | -3 | -17 | 64 | 158 | 0 | -32 | -16 | 13 |
| 20\% | 0 | -2 | 10 | -11 | -57 | 0 | 46 | 327 | -15 | -42 | 0 | -6 |
| 30\% | -4 | 0 | 0 | -6 | 10 | -25 | 10 | 270 | -82 | 0 | -1 | 0 |
| 40\% | -56 | -1 | 0 | -1 | -4 | -18 | 21 | 310 | -19 | 0 | 0 | 0 |
| 50\% | -25 | -1 | 0 | 0 | -1 | -2 | 44 | 145 | 0 | -4 | -2 | 0 |
| 60\% | -8 | 0 | 0 | 0 | -12 | -3 | 375 | 417 | -25 | -1 | -3 | 0 |
| 70\% | -7 | 0 | 0 | 0 | -8 | -2 | 362 | 428 | -23 | -2 | -6 | 0 |
| 80\% | -6 | 0 | 0 | 0 | -8 | 0 | 357 | 316 | -15 | -2 | -3 | -4 |
| 90\% | 5 | 0 | 0 | -3 | 0 | 0 | 293 | 176 | -12 | -1 | -25 | -2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -11 | -2 | -20 | 1 | -15 | -43 | 159 | 251 | -20 | -25 | -29 | -11 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -15 | 0 | -97 | 0 | -33 | -185 | -34 | 38 | -47 | -96 | -115 | -38 |
| Above Normal (24\%) | -9 | -5 | 16 | 13 | -17 | 0 | -55 | 407 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | -7 | 0 | 0 | -1 | -1 | 0 | -38 | 66 | -13 | 0 | 0 | 0 |
| Dry (16\%) | -17 | 0 | 0 | -1 | -2 | 0 | 424 | 440 | -8 | 0 | 0 | 0 |
| Critical (27\%) | -8 | -5 | -5 | -6 | -13 | 0 | 434 | 250 | -24 | -10 | -9 | -7 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley $40-30-30$ Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Altermative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-36-4. Stanislaus River at Mouth, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 662 | 653 | 656 | 688 | 1,117 | 1,153 | 1,804 | 1,679 | 3,009 | 661 | 569 | 673 |
| 20\% | 582 | 548 | 522 | 557 | 694 | 613 | 1,608 | 1,592 | 2,016 | 555 | 485 | 508 |
| 30\% | 507 | 492 | 464 | 518 | 562 | 562 | 1,489 | 1,533 | 1,772 | 502 | 461 | 481 |
| 40\% | 471 | 459 | 427 | 473 | 512 | 522 | 1,040 | 1,423 | 1,092 | 444 | 445 | 457 |
| 50\% | 405 | 421 | 378 | 412 | 484 | 446 | 821 | 1,331 | 694 | 412 | 443 | 439 |
| 60\% | 377 | 388 | 341 | 364 | 423 | 394 | 637 | 1,049 | 572 | 386 | 416 | 431 |
| 70\% | 346 | 355 | 329 | 339 | 331 | 361 | 529 | 972 | 402 | 378 | 395 | 396 |
| 80\% | 327 | 312 | 311 | 318 | 296 | 295 | 440 | 865 | 352 | 350 | 373 | 373 |
| 90\% | 249 | 280 | 269 | 283 | 257 | 233 | 406 | 787 | 312 | 318 | 331 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 471 | 507 | 549 | 696 | 766 | 756 | 1,004 | 1,265 | 1,231 | 542 | 491 | 545 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 530 | 737 | 980 | 1,176 | 1,407 | 1,704 | 1,731 | 1,634 | 2,632 | 939 | 772 | 985 |
| Above Normal (24\%) | 494 | 463 | 451 | 840 | 852 | 680 | 1,126 | 1,323 | 1,495 | 535 | 463 | 484 |
| Below Normal (10\%) | 480 | 503 | 506 | 532 | 589 | 489 | 1,057 | 1,443 | 807 | 452 | 440 | 443 |
| Dry (16\%) | 487 | 437 | 415 | 433 | 484 | 407 | 616 | 1,166 | 555 | 377 | 404 | 408 |
| Critical (27\%) | 384 | 393 | 360 | 366 | 367 | 309 | 476 | 887 | 334 | 335 | 343 | 338 |

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,122 | 463 | 442 | 576 | 1,084 | 1,969 | 1,886 | 1,989 | 1,536 | 751 | 587 | 646 |
| 20\% | 1,029 | 384 | 368 | 427 | 643 | 1,708 | 1,769 | 1,647 | 1,334 | 606 | 488 | 507 |
| 30\% | 982 | 348 | 319 | 368 | 472 | 520 | 1,696 | 1,536 | 1,221 | 502 | 462 | 473 |
| 40\% | 958 | 337 | 304 | 347 | 406 | 433 | 1,610 | 1,362 | 1,053 | 442 | 445 | 443 |
| 50\% | 879 | 319 | 290 | 337 | 369 | 367 | 1,485 | 1,289 | 635 | 412 | 445 | 439 |
| 60\% | 826 | 292 | 281 | 326 | 331 | 336 | 936 | 873 | 510 | 383 | 416 | 428 |
| 70\% | 772 | 267 | 262 | 312 | 279 | 314 | 806 | 755 | 406 | 372 | 395 | 389 |
| 80\% | 755 | 260 | 241 | 295 | 253 | 241 | 686 | 646 | 358 | 341 | 371 | 360 |
| 90\% | 676 | 248 | 224 | 273 | 230 | 207 | 572 | 576 | 311 | 308 | 331 | 318 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 903 | 398 | 448 | 630 | 719 | 903 | 1,279 | 1,207 | 883 | 546 | 505 | 533 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 952 | 624 | 881 | 1,115 | 1,412 | 2,258 | 1,779 | 1,828 | 1,456 | 976 | 831 | 946 |
| Above Normal ( $24 \%$ ) | 907 | 347 | 357 | 776 | 786 | 801 | 1,410 | 1,244 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 932 | 354 | 358 | 430 | 517 | 539 | 1,556 | 1,378 | 669 | 449 | 440 | 429 |
| Dry (16\%) | 916 | 322 | 300 | 349 | 405 | 345 | 1,064 | 1,002 | 530 | 375 | 397 | 399 |
| Critical (27\%) | 837 | 310 | 277 | 317 | 319 | 286 | 754 | 695 | 335 | 321 | 346 | 342 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 461 | -190 | -214 | -112 | -33 | 816 | 82 | 311 | -1,473 | 90 | 18 | -28 |
| 20\% | 447 | -165 | -154 | -130 | -51 | 1,094 | 161 | 55 | -682 | 51 | 3 | -1 |
| 30\% | 475 | -145 | -146 | -150 | -89 | -42 | 208 | 3 | -551 | 0 | 1 | -9 |
| 40\% | 488 | -122 | -123 | -125 | -106 | -89 | 570 | -61 | -39 | -2 | 0 | -13 |
| 50\% | 474 | -102 | -88 | -74 | -115 | -80 | 663 | -42 | -59 | 0 | 2 | 0 |
| 60\% | 449 | -96 | -61 | -38 | -92 | -59 | 299 | -176 | -62 | -2 | 0 | -3 |
| 70\% | 426 | -88 | -67 | -27 | -52 | -48 | 277 | -218 | 4 | -5 | 0 | -8 |
| 80\% | 427 | -52 | -70 | -23 | -43 | -54 | 247 | -219 | 5 | -9 | -2 | -12 |
| 90\% | 427 | -32 | -46 | -9 | -27 | -26 | 165 | -211 | -1 | -9 | 0 | 2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 432 | -110 | -101 | -66 | -47 | 147 | 275 | -58 | -348 | 4 | 15 | -12 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 421 | -113 | -99 | -61 | 5 | 554 | 48 | 195 | -1,176 | 37 | 59 | -39 |
| Above Normal (24\%) | 413 | -116 | -94 | -63 | -66 | 122 | 284 | -79 | -238 | -1 | 4 | -4 |
| Below Normal (10\%) | 453 | -148 | -148 | -101 | -72 | 50 | 500 | -65 | -138 | -2 | 0 | -14 |
| Dry (16\%) | 429 | -115 | -115 | -84 | -79 | -62 | 449 | -164 | -25 | -1 | -6 | -9 |
| Critical (27\%) | 453 | -83 | -83 | -49 | -47 | -23 | 277 | -192 | 1 | -14 | 3 | 3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-36-5. Stanislaus River at Mouth, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 662 | 653 | 656 | 688 | 1,117 | 1,153 | 1,804 | 1,679 | 3,009 | 661 | 569 | 673 |
| 20\% | 582 | 548 | 522 | 557 | 694 | 613 | 1,608 | 1,592 | 2,016 | 555 | 485 | 508 |
| 30\% | 507 | 492 | 464 | 518 | 562 | 562 | 1,489 | 1,533 | 1,772 | 502 | 461 | 481 |
| 40\% | 471 | 459 | 427 | 473 | 512 | 522 | 1,040 | 1,423 | 1,092 | 444 | 445 | 457 |
| 50\% | 405 | 421 | 378 | 412 | 484 | 446 | 821 | 1,331 | 694 | 412 | 443 | 439 |
| 60\% | 377 | 388 | 341 | 364 | 423 | 394 | 637 | 1,049 | 572 | 386 | 416 | 431 |
| 70\% | 346 | 355 | 329 | 339 | 331 | 361 | 529 | 972 | 402 | 378 | 395 | 396 |
| 80\% | 327 | 312 | 311 | 318 | 296 | 295 | 440 | 865 | 352 | 350 | 373 | 373 |
| 90\% | 249 | 280 | 269 | 283 | 257 | 233 | 406 | 787 | 312 | 318 | 331 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 471 | 507 | 549 | 696 | 766 | 756 | 1,004 | 1,265 | 1,231 | 542 | 491 | 545 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 530 | 737 | 980 | 1,176 | 1,407 | 1,704 | 1,731 | 1,634 | 2,632 | 939 | 772 | 985 |
| Above Normal (24\%) | 494 | 463 | 451 | 840 | 852 | 680 | 1,126 | 1,323 | 1,495 | 535 | 463 | 484 |
| Below Normal (10\%) | 480 | 503 | 506 | 532 | 589 | 489 | 1,057 | 1,443 | 807 | 452 | 440 | 443 |
| Dry (16\%) | 487 | 437 | 415 | 433 | 484 | 407 | 616 | 1,166 | 555 | 377 | 404 | 408 |
| Critical (27\%) | 384 | 393 | 360 | 366 | 367 | 309 | 476 | 887 | 334 | 335 | 343 | 338 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 679 | 485 | 722 | 1,267 | 2,628 | 1,444 | 1,865 | 1,414 | 950 | 885 | 571 | 1,146 |
| 20\% | 557 | 456 | 438 | 518 | 1,301 | 734 | 1,634 | 1,306 | 679 | 535 | 480 | 489 |
| 30\% | 482 | 441 | 411 | 410 | 502 | 486 | 1,552 | 1,233 | 558 | 476 | 457 | 450 |
| 40\% | 448 | 424 | 400 | 374 | 416 | 419 | 1,240 | 1,043 | 428 | 424 | 445 | 439 |
| 50\% | 435 | 402 | 381 | 311 | 366 | 367 | 1,064 | 920 | 413 | 382 | 440 | 435 |
| 60\% | 392 | 372 | 362 | 275 | 308 | 334 | 996 | 882 | 374 | 374 | 410 | 415 |
| 70\% | 377 | 359 | 325 | 251 | 238 | 312 | 893 | 829 | 352 | 350 | 390 | 384 |
| 80\% | 360 | 333 | 300 | 232 | 201 | 238 | 575 | 550 | 304 | 327 | 367 | 360 |
| 90\% | 293 | 260 | 239 | 198 | 180 | 203 | 493 | 489 | 273 | 290 | 347 | 320 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 482 | 469 | 558 | 669 | 938 | 770 | 1,180 | 995 | 693 | 573 | 535 | 578 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 539 | 714 | 1,096 | 1,183 | 2,227 | 1,841 | 1,781 | 1,437 | 1,596 | 1,213 | 961 | 1,139 |
| Above Normal (24\%) | 516 | 418 | 468 | 818 | 843 | 708 | 1,341 | 1,054 | 550 | 446 | 457 | 473 |
| Below Normal (10\%) | 461 | 404 | 408 | 632 | 723 | 446 | 1,230 | 1,086 | 449 | 445 | 438 | 422 |
| Dry (16\%) | 495 | 399 | 377 | 365 | 463 | 345 | 849 | 803 | 411 | 365 | 404 | 402 |
| Critical (27\%) | 401 | 369 | 336 | 282 | 272 | 271 | 692 | 639 | 299 | 305 | 351 | 351 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 17 | -168 | 65 | 578 | 1,512 | 291 | 60 | -265 | -2,059 | 223 | 2 | 473 |
| 20\% | -26 | -93 | -84 | -39 | 607 | 121 | 26 | -286 | -1,336 | -20 | -5 | -19 |
| 30\% | -26 | -51 | -53 | -108 | -59 | -76 | 63 | -300 | -1,214 | -25 | -4 | -32 |
| 40\% | -23 | -36 | -28 | -99 | -96 | -103 | 200 | -380 | -664 | -20 | 0 | -17 |
| 50\% | 30 | -19 | 2 | -100 | -119 | -80 | 243 | -410 | -281 | -29 | -2 | -5 |
| 60\% | 15 | -16 | 20 | -89 | -115 | -61 | 359 | -167 | -199 | -12 | -5 | -15 |
| 70\% | 31 | 4 | -4 | -88 | -93 | -49 | 364 | -143 | -50 | -28 | -5 | -13 |
| 80\% | 33 | 21 | -11 | -86 | -95 | -56 | 135 | -315 | -49 | -23 | -5 | -12 |
| 90\% | 44 | -20 | -30 | -84 | -77 | -30 | 87 | -299 | -39 | -27 | 16 | 4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 11 | -38 | 9 | -27 | 172 | 15 | 176 | -270 | -538 | 32 | 45 | 33 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 8 | -23 | 116 | 6 | 820 | 137 | 50 | -197 | -1,037 | 274 | 189 | 154 |
| Above Normal (24\%) | 22 | -45 | 18 | -21 | -9 | 29 | 215 | -269 | -945 | -89 | -5 | -11 |
| Below Normal (10\%) | -19 | -98 | -98 | 100 | 134 | -43 | 173 | -356 | -358 | -7 | -2 | -21 |
| Dry (16\%) | 7 | -38 | -38 | -68 | -21 | -62 | 234 | -364 | -144 | -11 | 0 | -6 |
| Critical (27\%) | 17 | -24 | -24 | -84 | -95 | -38 | 216 | -247 | -35 | -29 | 9 | 12 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-36-6. Stanislaus River at Mouth, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 662 | 653 | 656 | 688 | 1,117 | 1,153 | 1,804 | 1,679 | 3,009 | 661 | 569 | 673 |
| 20\% | 582 | 548 | 522 | 557 | 694 | 613 | 1,608 | 1,592 | 2,016 | 555 | 485 | 508 |
| 30\% | 507 | 492 | 464 | 518 | 562 | 562 | 1,489 | 1,533 | 1,772 | 502 | 461 | 481 |
| 40\% | 471 | 459 | 427 | 473 | 512 | 522 | 1,040 | 1,423 | 1,092 | 444 | 445 | 457 |
| 50\% | 405 | 421 | 378 | 412 | 484 | 446 | 821 | 1,331 | 694 | 412 | 443 | 439 |
| 60\% | 377 | 388 | 341 | 364 | 423 | 394 | 637 | 1,049 | 572 | 386 | 416 | 431 |
| 70\% | 346 | 355 | 329 | 339 | 331 | 361 | 529 | 972 | 402 | 378 | 395 | 396 |
| 80\% | 327 | 312 | 311 | 318 | 296 | 295 | 440 | 865 | 352 | 350 | 373 | 373 |
| 90\% | 249 | 280 | 269 | 283 | 257 | 233 | 406 | 787 | 312 | 318 | 331 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 471 | 507 | 549 | 696 | 766 | 756 | 1,004 | 1,265 | 1,231 | 542 | 491 | 545 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 530 | 737 | 980 | 1,176 | 1,407 | 1,704 | 1,731 | 1,634 | 2,632 | 939 | 772 | 985 |
| Above Normal (24\%) | 494 | 463 | 451 | 840 | 852 | 680 | 1,126 | 1,323 | 1,495 | 535 | 463 | 484 |
| Below Normal (10\%) | 480 | 503 | 506 | 532 | 589 | 489 | 1,057 | 1,443 | 807 | 452 | 440 | 443 |
| Dry (16\%) | 487 | 437 | 415 | 433 | 484 | 407 | 616 | 1,166 | 555 | 377 | 404 | 408 |
| Critical (27\%) | 384 | 393 | 360 | 366 | 367 | 309 | 476 | 887 | 334 | 335 | 343 | 338 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1,121 | 456 | 442 | 570 | 1,081 | 1,952 | 1,950 | 2,148 | 1,536 | 719 | 571 | 659 |
| 20\% | 1,029 | 382 | 378 | 416 | 586 | 1,708 | 1,815 | 1,974 | 1,319 | 564 | 488 | 501 |
| 30\% | 979 | 348 | 319 | 363 | 483 | 495 | 1,707 | 1,806 | 1,139 | 502 | 461 | 473 |
| 40\% | 903 | 336 | 304 | 347 | 401 | 415 | 1,630 | 1,672 | 1,034 | 442 | 445 | 443 |
| 50\% | 854 | 318 | 290 | 337 | 368 | 365 | 1,529 | 1,434 | 635 | 407 | 443 | 439 |
| 60\% | 818 | 292 | 281 | 326 | 319 | 333 | 1,311 | 1,290 | 485 | 382 | 413 | 428 |
| 70\% | 764 | 267 | 262 | 312 | 272 | 312 | 1,168 | 1,183 | 383 | 371 | 389 | 389 |
| 80\% | 748 | 260 | 241 | 295 | 245 | 241 | 1,044 | 962 | 343 | 339 | 367 | 356 |
| 90\% | 681 | 248 | 224 | 270 | 230 | 207 | 865 | 752 | 300 | 307 | 305 | 316 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 891 | 396 | 428 | 631 | 704 | 860 | 1,437 | 1,458 | 863 | 521 | 476 | 522 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 937 | 624 | 784 | 1,115 | 1,380 | 2,073 | 1,744 | 1,866 | 1,409 | 880 | 716 | 909 |
| Above Normal (24\%) | 898 | 342 | 372 | 790 | 770 | 801 | 1,356 | 1,651 | 1,257 | 534 | 467 | 480 |
| Below Normal (10\%) | 925 | 354 | 358 | 430 | 516 | 539 | 1,518 | 1,444 | 656 | 449 | 440 | 429 |
| Dry (16\%) | 900 | 322 | 300 | 347 | 403 | 345 | 1,488 | 1,442 | 522 | 375 | 397 | 399 |
| Critical (27\%) | 829 | 306 | 272 | 311 | 306 | 286 | 1,187 | 944 | 310 | 311 | 337 | 335 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 459 | -197 | -214 | -118 | -36 | 799 | 146 | 469 | -1,473 | 58 | 2 | -15 |
| 20\% | 447 | -166 | -144 | -141 | -109 | 1,094 | 207 | 381 | -697 | 9 | 3 | -7 |
| 30\% | 471 | -145 | -146 | -155 | -79 | -67 | 218 | 273 | -633 | 0 | 0 | -9 |
| 40\% | 432 | -123 | -123 | -126 | -110 | -107 | 590 | 248 | -58 | -2 | 0 | -13 |
| 50\% | 449 | -103 | -88 | -74 | -116 | -82 | 708 | 103 | -59 | -4 | 0 | 0 |
| 60\% | 441 | -96 | -61 | -38 | -104 | -61 | 674 | 241 | -87 | -4 | -3 | -3 |
| 70\% | 418 | -88 | -67 | -27 | -60 | -49 | 639 | 211 | -19 | -7 | -6 | -8 |
| 80\% | 421 | -52 | -70 | -23 | -50 | -54 | 604 | 97 | -9 | -11 | -5 | -16 |
| 90\% | 432 | -32 | -46 | -13 | -27 | -26 | 459 | -35 | -13 | -11 | -25 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 421 | -112 | -121 | -65 | -62 | 104 | 433 | 193 | -368 | -21 | -15 | -22 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 407 | -113 | -196 | -61 | -27 | 369 | 14 | 233 | -1,223 | -59 | -56 | -76 |
| Above Normal (24\%) | 404 | -121 | -78 | -50 | -83 | 122 | 230 | 328 | -238 | -1 | 4 | -4 |
| Below Normal (10\%) | 445 | -148 | -148 | -102 | -73 | 50 | 462 | 2 | -151 | -2 | 0 | -14 |
| Dry (16\%) | 412 | -115 | -115 | -86 | -80 | -62 | 873 | 276 | -34 | -1 | -6 | -9 |
| Critical (27\%) | 445 | -87 | -87 | -55 | -60 | -23 | 711 | 58 | -23 | -23 | -6 | -3 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1 ) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

1 C.37. San Joaquin River Flow downstream of Merced River Confluence

Figure C-37-1. San Joaquin River d/s of Merced Confluence, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-37-2. San Joaquin River d/s of Merced Confluence, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-37-3. San Joaquin River d/s of Merced Confluence, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-37-4. San Joaquin River d/s of Merced Confluence, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-37-5. San Joaquin River d/s of Merced Confluence, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-37-6. San Joaquin River d/s of Merced Confluence, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-37-1. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,518 | 6,030 | 7,514 | 7,799 | 3,969 | 1,656 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,846 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 206 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,262 | 398 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,323 | 7,527 | 7,783 | 7,422 | 5,839 | 2,267 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 129 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 39 | 60 | 451 |

Alternative 1

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,509 | 6,029 | 7,513 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 826 | 906 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,845 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,212 | 2,088 | 3,330 | 787 | 496 | 217 | 208 | 605 |
| 50\% | 588 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 578 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 148 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 11 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,528 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,094 | 8,315 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 454 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 475 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 130 | 523 |
| Critical (27\%) | 609 | 1,029 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 164 | 40 | 61 | 451 |

Alternative 1 minus No Action Alternative

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-37-2. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,518 | 6,030 | 7,514 | 7,799 | 3,969 | 1,656 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,846 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 206 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,262 | 398 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,323 | 7,527 | 7,783 | 7,422 | 5,839 | 2,267 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 129 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 39 | 60 | 451 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,501 | 6,029 | 7,512 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,721 | 2,395 | 827 | 907 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,846 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 892 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,213 | 2,088 | 3,330 | 787 | 495 | 216 | 208 | 605 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 147 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,529 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,095 | 8,317 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 453 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,897 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 474 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 129 | 523 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 40 | 60 | 451 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | 0 | -17 | 0 | -2 | 0 | 0 | 1 | 0 | 0 |
| 20\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 |
| 30\% | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 1 |
| 40\% | 0 | 0 | 0 | 0 | -7 | 0 | 1 | 1 | 1 | 1 | 2 | 0 |
| 50\% | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 |
| 60\% | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 70\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| 80\% | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | -2 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | -1 | -7 | -2 | -1 | -1 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefero Alternative 1 and 4 results are not presented. Quailiative difierences, if applicable, are discussed in
therefore Alternative 2 results are not presented. Qualititive differences, if applicabbe, are discussed in text.

Table C-37-3. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,518 | 6,030 | 7,514 | 7,799 | 3,969 | 1,656 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,846 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 206 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,262 | 398 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,323 | 7,527 | 7,783 | 7,422 | 5,839 | 2,267 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 129 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 39 | 60 | 451 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,519 | 6,030 | 7,517 | 7,800 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,719 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,845 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 207 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,261 | 397 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 320 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,324 | 7,527 | 7,783 | 7,423 | 5,839 | 2,268 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 128 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 269 | 163 | 39 | 60 | 451 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 1 | 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 | 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 | 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley $40-30-30$ Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-37-4. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,509 | 6,029 | 7,513 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 826 | 906 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,845 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,212 | 2,088 | 3,330 | 787 | 496 | 217 | 208 | 605 |
| 50\% | 588 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 578 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 148 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 11 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,528 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,094 | 8,315 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 454 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 475 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 130 | 523 |
| Critical (27\%) | 609 | 1,029 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 164 | 40 | 61 | 451 |

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,518 | 6,030 | 7,514 | 7,799 | 3,969 | 1,656 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,846 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 206 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,262 | 398 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,323 | 7,527 | 7,783 | 7,422 | 5,839 | 2,267 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 129 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 39 | 60 | 451 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | 0 | 9 | 1 | 1 | 0 | 0 | -1 | 0 | 0 |
| 20\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 |
| 30\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -2 | 0 | 0 |
| 40\% | 0 | 0 | 0 | 0 | 8 | 0 | -1 | -1 | -2 | -1 | -2 | 0 |
| 50\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -1 | -1 |
| 60\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -1 | -1 | -1 |
| 70\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -2 | 0 |
| 80\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 1 | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -2 | -2 | -1 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -2 | -1 | -1 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley $40-30-30$ Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
herefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same,
thereforere Attemative and 4 resulis are not presented. Quailititive differences, if apppicable, are discusssed in
therefere

Table C-37-5. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,509 | 6,029 | 7,513 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 826 | 906 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,845 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,212 | 2,088 | 3,330 | 787 | 496 | 217 | 208 | 605 |
| 50\% | 588 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 578 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 148 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 11 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,528 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,094 | 8,315 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 454 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 475 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 130 | 523 |
| Critical (27\%) | 609 | 1,029 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 164 | 40 | 61 | 451 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,501 | 6,029 | 7,512 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,721 | 2,395 | 827 | 907 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,846 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 892 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,213 | 2,088 | 3,330 | 787 | 495 | 216 | 208 | 605 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 147 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,529 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,095 | 8,317 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 453 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,897 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 474 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 129 | 523 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 163 | 40 | 60 | 451 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | 0 | -8 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| 20\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 30\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | -1 | -1 | 0 | 0 |
| 50\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 |
| 60\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 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 | -1 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 1 | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-37-6. San Joaquin River d/s of Merced Confluence, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,509 | 6,029 | 7,513 | 7,799 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,720 | 2,395 | 826 | 906 | 994 |
| 30\% | 691 | 1,174 | 1,020 | 1,845 | 3,057 | 2,816 | 3,740 | 1,695 | 670 | 270 | 306 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,212 | 2,088 | 3,330 | 787 | 496 | 217 | 208 | 605 |
| 50\% | 588 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 578 | 425 | 162 | 152 | 555 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,762 | 459 | 372 | 148 | 135 | 536 |
| 70\% | 504 | 1,034 | 890 | 852 | 1,222 | 1,478 | 1,262 | 399 | 297 | 107 | 119 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 858 | 321 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 11 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,528 | 3,227 | 3,322 | 2,290 | 1,687 | 653 | 380 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,094 | 8,315 | 7,525 | 7,782 | 7,421 | 5,839 | 2,267 | 936 | 1,096 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,795 | 2,934 | 3,720 | 1,544 | 799 | 329 | 454 | 781 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,282 | 564 | 475 | 179 | 158 | 533 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 417 | 308 | 121 | 130 | 523 |
| Critical (27\%) | 609 | 1,029 | 901 | 819 | 1,092 | 1,293 | 615 | 270 | 164 | 40 | 61 | 451 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 961 | 1,382 | 3,009 | 4,348 | 9,519 | 6,030 | 7,517 | 7,800 | 3,969 | 1,657 | 1,016 | 1,095 |
| 20\% | 792 | 1,288 | 1,482 | 2,766 | 4,303 | 3,738 | 4,295 | 2,719 | 2,395 | 825 | 906 | 994 |
| 30\% | 691 | 1,173 | 1,020 | 1,845 | 3,057 | 2,816 | 3,739 | 1,695 | 669 | 268 | 305 | 891 |
| 40\% | 660 | 1,114 | 970 | 1,219 | 2,220 | 2,088 | 3,329 | 786 | 494 | 215 | 207 | 604 |
| 50\% | 587 | 1,087 | 935 | 1,002 | 1,583 | 1,813 | 2,337 | 577 | 424 | 160 | 151 | 554 |
| 60\% | 559 | 1,064 | 902 | 926 | 1,421 | 1,608 | 1,761 | 458 | 371 | 147 | 133 | 535 |
| 70\% | 504 | 1,033 | 890 | 852 | 1,222 | 1,478 | 1,261 | 397 | 296 | 106 | 118 | 521 |
| 80\% | 486 | 1,004 | 870 | 819 | 1,116 | 1,378 | 857 | 320 | 219 | 34 | 74 | 495 |
| 90\% | 438 | 895 | 810 | 748 | 1,018 | 1,273 | 326 | 229 | 130 | 0 | 10 | 444 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 675 | 1,230 | 1,664 | 2,454 | 3,531 | 3,227 | 3,322 | 2,290 | 1,686 | 652 | 379 | 700 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 780 | 1,541 | 3,334 | 6,096 | 8,324 | 7,527 | 7,783 | 7,423 | 5,839 | 2,268 | 935 | 1,095 |
| Above Normal (24\%) | 688 | 1,177 | 1,261 | 2,146 | 3,796 | 2,934 | 3,719 | 1,544 | 798 | 328 | 453 | 780 |
| Below Normal (10\%) | 581 | 1,161 | 1,896 | 1,433 | 1,865 | 1,766 | 2,281 | 562 | 473 | 177 | 157 | 532 |
| Dry (16\%) | 672 | 1,243 | 991 | 1,000 | 1,270 | 1,565 | 1,414 | 416 | 307 | 120 | 128 | 522 |
| Critical (27\%) | 609 | 1,028 | 901 | 819 | 1,092 | 1,293 | 615 | 269 | 163 | 39 | 60 | 451 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | 0 | 10 | 1 | 4 | 1 | 0 | -1 | 0 | 0 |
| 20\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 |
| 30\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | -2 | 0 | -1 |
| 40\% | 0 | 0 | 0 | 0 | 7 | 0 | -1 | -1 | -2 | -1 | -2 | 0 |
| 50\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -1 | -1 |
| 60\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -1 | -1 | -1 |
| 70\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -2 | 0 |
| 80\% | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 0 | 0 | 0 | 0 |
| 90\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | -1 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 1 | 8 | 2 | 0 | 2 | 1 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -2 | -2 | -2 | -1 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -2 | -1 | -1 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.
C.38. San Joaquin River Restoration Flow

Figure C-38-1. San Joaquin River Restoration Flows, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-38-2. San Joaquin River Restoration Flows, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-38-3. San Joaquin River Restoration Flows, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-38-4. San Joaquin River Restoration Flows, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-38-5. San Joaquin River Restoration Flows, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-38-6. San Joaquin River Restoration Flows, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-38-1. San Joaquin River Restoration Flows, Monthly Flow

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 1

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 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 |
| 60\% | 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 |
| 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-38-2. San Joaquin River Restoration Flows, Monthly Flow

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 3 minus No Action Alternative

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-38-3. San Joaquin River Restoration Flows, Monthly Flow

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 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 |
| 60\% | 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 |
| 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and № Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-38-4. San Joaquin River Restoration Flows, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

No Action Alternative

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 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 |
| 60\% | 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 |
| 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley $40-30-30$ Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Aternaive 1 and 4 results are not presented. Quatiative differences, if appicicabe, are discussed in
therefore Altemative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-38-5. San Joaquin River Restoration Flows, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 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 |
| 60\% | 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 |
| 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-38-6. San Joaquin River Restoration Flows, Monthly Flow

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 2,000 | 2,000 | 350 | 350 | 350 |
| 20\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 771 | 771 | 350 | 350 | 350 |
| 30\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 3,249 | 435 | 435 | 350 | 350 | 350 |
| 40\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,970 | 350 | 350 | 350 | 350 | 350 |
| 50\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 2,008 | 350 | 350 | 350 | 350 | 350 |
| 60\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,543 | 350 | 350 | 350 | 350 | 350 |
| 70\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,281 | 350 | 350 | 350 | 350 | 350 |
| 80\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 817 | 350 | 350 | 350 | 350 | 350 |
| 90\% | 350 | 467 | 350 | 350 | 350 | 1,016 | 388 | 350 | 350 | 350 | 350 | 350 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 338 | 445 | 336 | 335 | 335 | 1,005 | 2,055 | 692 | 692 | 343 | 343 | 344 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 340 | 449 | 338 | 337 | 337 | 1,016 | 3,249 | 1,711 | 1,711 | 350 | 350 | 350 |
| Above Normal (24\%) | 341 | 447 | 339 | 338 | 338 | 1,016 | 2,967 | 500 | 500 | 350 | 350 | 350 |
| Below Normal (10\%) | 303 | 394 | 293 | 290 | 290 | 1,016 | 2,071 | 350 | 350 | 350 | 350 | 350 |
| Dry (16\%) | 350 | 467 | 350 | 350 | 350 | 1,016 | 1,300 | 350 | 350 | 350 | 350 | 350 |
| Critical (27\%) | 341 | 444 | 340 | 339 | 339 | 976 | 636 | 312 | 312 | 323 | 323 | 327 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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\% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40\% | 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 |
| 60\% | 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 |
| 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 ${ }^{\text {b }}$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Above Normal (24\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dry (16\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Critical (27\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.
C.39. San Joaquin River Flow at Vernalis minus San Joaquin River Flow downstream of Merced River Confluence

Figure C-39-1. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Long-Term* Average Flow

*Based on the 82-year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-39-2. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Wet Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-39-3. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Above Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-39-4. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Below Normal Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-39-5. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Dry Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Figure C-39-6. San Joaquin River at Vernalis - Joaquin River d/s of Merced Confluence, Critical Year* Long-Term** Average Flow

*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
**Based on the 82 -year simulation period.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-39-1. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Confluence, Monthly Flow

No Action Alternative

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,674 | 7,184 | 5,515 | 4,577 | 1,821 | 1,918 |
| 20\% | 2,335 | 1,468 | 1,469 | 2,369 | 4,963 | 6,708 | 6,148 | 4,646 | 3,168 | 2,020 | 1,670 | 1,665 |
| 30\% | 2,208 | 1,301 | 1,329 | 1,606 | 2,516 | 5,262 | 5,007 | 4,152 | 2,696 | 1,654 | 1,571 | 1,591 |
| 40\% | 2,111 | 1,199 | 1,200 | 1,485 | 1,609 | 3,567 | 4,388 | 3,639 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,994 | 1,129 | 1,125 | 1,387 | 1,375 | 2,036 | 3,598 | 3,113 | 1,799 | 1,305 | 1,334 | 1,382 |
| 60\% | 1,822 | 1,079 | 1,105 | 1,255 | 1,259 | 1,609 | 2,904 | 2,543 | 1,390 | 1,184 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,245 | 2,213 | 1,163 | 1,112 | 1,192 | 1,219 |
| 80\% | 1,581 | 932 | 971 | 1,018 | 1,022 | 1,076 | 1,832 | 1,772 | 1,095 | 990 | 1,088 | 1,146 |
| 90\% | 1,337 | 843 | 854 | 888 | 895 | 909 | 1,496 | 1,509 | 904 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,997 | 1,381 | 1,727 | 2,616 | 3,124 | 4,051 | 4,206 | 3,750 | 2,508 | 1,970 | 1,468 | 1,523 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,138 | 1,972 | 3,211 | 5,350 | 7,453 | 9,336 | 7,641 | 7,206 | 5,495 | 4,409 | 2,200 | 2,321 |
| Above Normal (24\%) | 2,012 | 1,239 | 1,402 | 2,737 | 3,085 | 4,602 | 4,823 | 3,720 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,957 | 1,088 | 1,765 | 2,074 | 1,785 | 2,383 | 4,056 | 3,577 | 1,603 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,095 | 1,326 | 1,241 | 1,402 | 1,279 | 1,676 | 2,582 | 2,389 | 1,374 | 1,134 | 1,218 | 1,254 |
| Critical (27\%) | 1,817 | 1,139 | 1,014 | 1,058 | 999 | 995 | 1,692 | 1,659 | 951 | 886 | 999 | 1,036 |

Alternative 1

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,056 | 1,892 | 2,379 | 4,517 | 8,588 | 8,333 | 7,534 | 7,093 | 6,724 | 4,063 | 1,810 | 2,005 |
| 20\% | 1,882 | 1,616 | 1,613 | 2,452 | 5,143 | 6,125 | 5,907 | 4,546 | 3,985 | 2,031 | 1,668 | 1,681 |
| 30\% | 1,754 | 1,411 | 1,461 | 1,695 | 2,701 | 4,985 | 4,748 | 4,121 | 2,812 | 1,658 | 1,570 | 1,591 |
| 40\% | 1,648 | 1,330 | 1,340 | 1,625 | 1,750 | 3,378 | 4,029 | 3,788 | 2,430 | 1,546 | 1,470 | 1,494 |
| 50\% | 1,511 | 1,256 | 1,231 | 1,483 | 1,481 | 2,117 | 3,199 | 3,223 | 1,861 | 1,317 | 1,341 | 1,397 |
| 60\% | 1,343 | 1,148 | 1,167 | 1,302 | 1,326 | 1,662 | 2,392 | 2,757 | 1,394 | 1,198 | 1,252 | 1,289 |
| 70\% | 1,248 | 1,078 | 1,139 | 1,162 | 1,201 | 1,259 | 1,796 | 2,398 | 1,173 | 1,115 | 1,203 | 1,227 |
| 80\% | 1,127 | 981 | 1,025 | 1,055 | 1,078 | 1,095 | 1,552 | 1,965 | 1,102 | 1,001 | 1,092 | 1,147 |
| 90\% | 921 | 885 | 885 | 927 | 920 | 935 | 1,311 | 1,726 | 907 | 869 | 980 | 1,023 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,565 | 1,491 | 1,828 | 2,682 | 3,172 | 3,904 | 3,933 | 3,811 | 2,860 | 1,972 | 1,458 | 1,537 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,717 | 2,086 | 3,310 | 5,411 | 7,448 | 8,783 | 7,592 | 7,012 | 6,673 | 4,374 | 2,142 | 2,360 |
| Above Normal (24\%) | 1,600 | 1,356 | 1,496 | 2,801 | 3,151 | 4,481 | 4,540 | 3,803 | 2,725 | 1,670 | 1,524 | 1,571 |
| Below Normal (10\%) | 1,505 | 1,236 | 1,913 | 2,176 | 1,858 | 2,335 | 3,560 | 3,650 | 1,750 | 1,302 | 1,299 | 1,323 |
| Dry (16\%) | 1,667 | 1,442 | 1,356 | 1,486 | 1,358 | 1,739 | 2,137 | 2,559 | 1,406 | 1,145 | 1,232 | 1,267 |
| Critical (27\%) | 1,365 | 1,222 | 1,097 | 1,107 | 1,047 | 1,018 | 1,416 | 1,852 | 953 | 903 | 998 | 1,034 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -448 | 207 | 118 | 36 | 0 | -1,106 | -141 | -91 | 1,209 | -514 | -12 | 87 |
| 20\% | -453 | 148 | 144 | 83 | 180 | -583 | -240 | -100 | 817 | 12 | -2 | 16 |
| 30\% | -454 | 110 | 132 | 88 | 184 | -277 | -259 | -31 | 116 | 4 | -2 | -1 |
| 40\% | -464 | 131 | 140 | 139 | 141 | -189 | -359 | 149 | 131 | 10 | 4 | 20 |
| 50\% | -483 | 127 | 106 | 96 | 106 | 81 | -399 | 110 | 62 | 13 | 7 | 15 |
| 60\% | -478 | 70 | 62 | 47 | 67 | 53 | -512 | 214 | 4 | 14 | 9 | 5 |
| 70\% | -422 | 78 | 106 | 54 | 68 | 61 | -449 | 185 | 10 | 3 | 10 | 8 |
| 80\% | -454 | 49 | 55 | 37 | 56 | 20 | -280 | 193 | 7 | 11 | 4 | 1 |
| 90\% | -416 | 42 | 32 | 39 | 25 | 26 | -186 | 217 | 4 | 8 | -16 | 4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -431 | 110 | 101 | 66 | 47 | -146 | -273 | 61 | 352 | 2 | -10 | 14 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -420 | 114 | 99 | 61 | -5 | -554 | -49 | -193 | 1,177 | -35 | -57 | 39 |
| Above Normal (24\%) | -413 | 116 | 94 | 63 | 66 | -121 | -283 | 83 | 243 | 9 | 1 | 7 |
| Below Normal (10\%) | -452 | 148 | 148 | 102 | 72 | -49 | -496 | 72 | 147 | 16 | 10 | 18 |
| Dry (16\%) | -428 | 115 | 115 | 85 | 79 | 63 | -446 | 170 | 32 | 11 | 13 | 13 |
| Critical (27\%) | -452 | 83 | 83 | 49 | 48 | 23 | -276 | 193 | 1 | 17 | -1 | -2 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed
Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-39-2. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Confluence, Monthly Flow

No Action Alternative

|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,674 | 7,184 | 5,515 | 4,577 | 1,821 | 1,918 |
| 20\% | 2,335 | 1,468 | 1,469 | 2,369 | 4,963 | 6,708 | 6,148 | 4,646 | 3,168 | 2,020 | 1,670 | 1,665 |
| 30\% | 2,208 | 1,301 | 1,329 | 1,606 | 2,516 | 5,262 | 5,007 | 4,152 | 2,696 | 1,654 | 1,571 | 1,591 |
| 40\% | 2,111 | 1,199 | 1,200 | 1,485 | 1,609 | 3,567 | 4,388 | 3,639 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,994 | 1,129 | 1,125 | 1,387 | 1,375 | 2,036 | 3,598 | 3,113 | 1,799 | 1,305 | 1,334 | 1,382 |
| 60\% | 1,822 | 1,079 | 1,105 | 1,255 | 1,259 | 1,609 | 2,904 | 2,543 | 1,390 | 1,184 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,245 | 2,213 | 1,163 | 1,112 | 1,192 | 1,219 |
| 80\% | 1,581 | 932 | 971 | 1,018 | 1,022 | 1,076 | 1,832 | 1,772 | 1,095 | 990 | 1,088 | 1,146 |
| 90\% | 1,337 | 843 | 854 | 888 | 895 | 909 | 1,496 | 1,509 | 904 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,997 | 1,381 | 1,727 | 2,616 | 3,124 | 4,051 | 4,206 | 3,750 | 2,508 | 1,970 | 1,468 | 1,523 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,138 | 1,972 | 3,211 | 5,350 | 7,453 | 9,336 | 7,641 | 7,206 | 5,495 | 4,409 | 2,200 | 2,321 |
| Above Normal (24\%) | 2,012 | 1,239 | 1,402 | 2,737 | 3,085 | 4,602 | 4,823 | 3,720 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,957 | 1,088 | 1,765 | 2,074 | 1,785 | 2,383 | 4,056 | 3,577 | 1,603 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,095 | 1,326 | 1,241 | 1,402 | 1,279 | 1,676 | 2,582 | 2,389 | 1,374 | 1,134 | 1,218 | 1,254 |
| Critical (27\%) | 1,817 | 1,139 | 1,014 | 1,058 | 999 | 995 | 1,692 | 1,659 | 951 | 886 | 999 | 1,036 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,042 | 1,844 | 2,484 | 5,349 | 8,588 | 8,881 | 7,550 | 6,797 | 5,625 | 4,924 | 2,340 | 2,418 |
| 20\% | 1,863 | 1,547 | 1,542 | 2,459 | 5,856 | 6,228 | 6,133 | 4,336 | 2,364 | 1,873 | 1,653 | 1,667 |
| 30\% | 1,740 | 1,374 | 1,398 | 1,640 | 2,799 | 4,941 | 5,081 | 3,850 | 1,900 | 1,614 | 1,570 | 1,561 |
| 40\% | 1,655 | 1,277 | 1,300 | 1,525 | 1,684 | 3,279 | 4,146 | 3,453 | 1,709 | 1,517 | 1,468 | 1,473 |
| 50\% | 1,495 | 1,222 | 1,211 | 1,386 | 1,347 | 2,037 | 3,450 | 2,840 | 1,416 | 1,290 | 1,339 | 1,380 |
| 60\% | 1,374 | 1,127 | 1,159 | 1,224 | 1,186 | 1,632 | 2,578 | 2,458 | 1,192 | 1,177 | 1,248 | 1,286 |
| 70\% | 1,280 | 1,087 | 1,110 | 1,059 | 1,050 | 1,199 | 2,146 | 2,040 | 1,141 | 1,069 | 1,199 | 1,224 |
| 80\% | 1,147 | 995 | 1,030 | 981 | 901 | 1,076 | 1,815 | 1,831 | 987 | 954 | 1,083 | 1,147 |
| 90\% | 959 | 880 | 891 | 812 | 811 | 903 | 1,401 | 1,397 | 899 | 855 | 1,002 | 1,021 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,576 | 1,453 | 1,837 | 2,654 | 3,344 | 3,919 | 4,109 | 3,541 | 2,322 | 2,002 | 1,502 | 1,570 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,725 | 2,063 | 3,426 | 5,417 | 8,268 | 8,920 | 7,644 | 6,816 | 5,637 | 4,649 | 2,332 | 2,515 |
| Above Normal (24\%) | 1,622 | 1,311 | 1,514 | 2,779 | 3,142 | 4,510 | 4,756 | 3,534 | 1,780 | 1,581 | 1,518 | 1,560 |
| Below Normal (10\%) | 1,486 | 1,138 | 1,815 | 2,276 | 1,992 | 2,291 | 3,734 | 3,292 | 1,391 | 1,293 | 1,296 | 1,302 |
| Dry (16\%) | 1,674 | 1,403 | 1,318 | 1,418 | 1,337 | 1,676 | 2,370 | 2,194 | 1,260 | 1,132 | 1,230 | 1,260 |
| Critical (27\%) | 1,382 | 1,199 | 1,073 | 1,023 | 952 | 980 | 1,632 | 1,604 | 917 | 872 | 1,006 | 1,046 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -463 | 159 | 222 | 867 | 0 | -558 | -124 | -387 | 110 | 347 | 519 | 500 |
| 20\% | -472 | 79 | 73 | 90 | 892 | -480 | -15 | -310 | -804 | -147 | -17 | 2 |
| 30\% | -468 | 73 | 69 | 34 | 283 | -321 | 74 | -302 | -797 | -40 | -1 | -30 |
| 40\% | -456 | 79 | 100 | 39 | 75 | -288 | -242 | -186 | -590 | -20 | 3 | 0 |
| 50\% | -499 | 94 | 86 | -2 | -27 | 1 | -148 | -273 | -383 | -15 | 5 | -1 |
| 60\% | -448 | 48 | 54 | -31 | -73 | 23 | -327 | -85 | -198 | -7 | 5 | 1 |
| 70\% | -390 | 86 | 77 | -49 | -83 | 0 | -100 | -173 | -22 | -43 | 7 | 5 |
| 80\% | -434 | 63 | 60 | -37 | -121 | 0 | -17 | 59 | -108 | -37 | -5 | 0 |
| 90\% | -378 | 38 | 37 | -75 | -84 | -6 | -95 | -112 | -5 | -5 | 6 | 2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -420 | 71 | 110 | 39 | 219 | -132 | -97 | -209 | -186 | 32 | 34 | 47 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -412 | 91 | 215 | 67 | 815 | -417 | 3 | -390 | 141 | 240 | 132 | 194 |
| Above Normal (24\%) | -390 | 72 | 112 | 42 | 57 | -93 | -67 | -186 | -702 | -81 | -4 | -5 |
| Below Normal (10\%) | -471 | 50 | 50 | 201 | 206 | -92 | -322 | -285 | -212 | 7 | 6 | -3 |
| Dry (16\%) | -421 | 77 | 77 | 17 | 58 | 0 | -212 | -195 | -113 | -3 | 12 | 6 |
| Critical (27\%) | -435 | 59 | 59 | -35 | -47 | -15 | -61 | -55 | -34 | -14 | 7 | 9 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and № Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-39-3. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Confluence, Monthly Flow

No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,674 | 7,184 | 5,515 | 4,577 | 1,821 | 1,918 |
| 20\% | 2,335 | 1,468 | 1,469 | 2,369 | 4,963 | 6,708 | 6,148 | 4,646 | 3,168 | 2,020 | 1,670 | 1,665 |
| 30\% | 2,208 | 1,301 | 1,329 | 1,606 | 2,516 | 5,262 | 5,007 | 4,152 | 2,696 | 1,654 | 1,571 | 1,591 |
| 40\% | 2,111 | 1,199 | 1,200 | 1,485 | 1,609 | 3,567 | 4,388 | 3,639 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,994 | 1,129 | 1,125 | 1,387 | 1,375 | 2,036 | 3,598 | 3,113 | 1,799 | 1,305 | 1,334 | 1,382 |
| 60\% | 1,822 | 1,079 | 1,105 | 1,255 | 1,259 | 1,609 | 2,904 | 2,543 | 1,390 | 1,184 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,245 | 2,213 | 1,163 | 1,112 | 1,192 | 1,219 |
| 80\% | 1,581 | 932 | 971 | 1,018 | 1,022 | 1,076 | 1,832 | 1,772 | 1,095 | 990 | 1,088 | 1,146 |
| 90\% | 1,337 | 843 | 854 | 888 | 895 | 909 | 1,496 | 1,509 | 904 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,997 | 1,381 | 1,727 | 2,616 | 3,124 | 4,051 | 4,206 | 3,750 | 2,508 | 1,970 | 1,468 | 1,523 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,138 | 1,972 | 3,211 | 5,350 | 7,453 | 9,336 | 7,641 | 7,206 | 5,495 | 4,409 | 2,200 | 2,321 |
| Above Normal (24\%) | 2,012 | 1,239 | 1,402 | 2,737 | 3,085 | 4,602 | 4,823 | 3,720 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,957 | 1,088 | 1,765 | 2,074 | 1,785 | 2,383 | 4,056 | 3,577 | 1,603 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,095 | 1,326 | 1,241 | 1,402 | 1,279 | 1,676 | 2,582 | 2,389 | 1,374 | 1,134 | 1,218 | 1,254 |
| Critical (27\%) | 1,817 | 1,139 | 1,014 | 1,058 | 999 | 995 | 1,692 | 1,659 | 951 | 886 | 999 | 1,036 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,488 | 7,184 | 5,515 | 4,295 | 1,797 | 1,944 |
| 20\% | 2,335 | 1,452 | 1,469 | 2,369 | 4,963 | 6,662 | 6,052 | 4,957 | 3,168 | 2,021 | 1,664 | 1,665 |
| 30\% | 2,201 | 1,301 | 1,323 | 1,606 | 2,517 | 5,262 | 5,002 | 4,380 | 2,697 | 1,654 | 1,572 | 1,591 |
| 40\% | 2,071 | 1,199 | 1,200 | 1,485 | 1,584 | 3,567 | 4,421 | 4,045 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,960 | 1,129 | 1,125 | 1,387 | 1,370 | 2,036 | 3,637 | 3,505 | 1,763 | 1,305 | 1,333 | 1,381 |
| 60\% | 1,817 | 1,079 | 1,105 | 1,249 | 1,259 | 1,609 | 3,176 | 3,153 | 1,390 | 1,183 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,549 | 2,322 | 1,151 | 1,090 | 1,192 | 1,219 |
| 80\% | 1,547 | 932 | 971 | 1,018 | 984 | 1,076 | 2,229 | 2,070 | 1,072 | 978 | 1,075 | 1,121 |
| 90\% | 1,337 | 843 | 854 | 888 | 892 | 909 | 2,109 | 1,989 | 902 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,985 | 1,379 | 1,707 | 2,617 | 3,109 | 4,008 | 4,364 | 4,001 | 2,488 | 1,945 | 1,439 | 1,513 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,123 | 1,972 | 3,114 | 5,350 | 7,420 | 9,152 | 7,606 | 7,244 | 5,448 | 4,312 | 2,084 | 2,283 |
| Above Normal (24\%) | 2,003 | 1,234 | 1,418 | 2,751 | 3,068 | 4,602 | 4,768 | 4,127 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,949 | 1,088 | 1,765 | 2,073 | 1,785 | 2,383 | 4,018 | 3,643 | 1,589 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,078 | 1,326 | 1,241 | 1,400 | 1,277 | 1,676 | 3,006 | 2,829 | 1,365 | 1,134 | 1,218 | 1,253 |
| Critical (27\%) | 1,809 | 1,135 | 1,009 | 1,052 | 986 | 995 | 2,126 | 1,907 | 927 | 877 | 991 | 1,029 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0 | 0 | 0 | -1 | 0 | 0 | -186 | 0 | 0 | -282 | -25 | 26 |
| 20\% | 0 | -16 | 0 | 0 | 0 | -46 | -96 | 311 | 0 | 1 | -7 | 0 |
| 30\% | -8 | 0 | -7 | 0 | 0 | 0 | -5 | 228 | 0 | 0 | 0 | 0 |
| 40\% | -41 | 0 | 0 | 0 | -25 | 0 | 33 | 406 | 0 | 0 | 0 | 0 |
| 50\% | -34 | 0 | 0 | 0 | -5 | 0 | 39 | 393 | -35 | 0 | 0 | 0 |
| 60\% | -5 | 0 | 0 | -6 | 0 | 0 | 272 | 610 | 0 | -1 | 0 | 0 |
| 70\% | 0 | 0 | 0 | 0 | 0 | 0 | 304 | 109 | -12 | -21 | 0 | 0 |
| 80\% | -34 | 0 | 0 | 0 | -38 | 0 | 397 | 298 | -23 | -12 | -13 | -26 |
| 90\% | 0 | 0 | 0 | 0 | -3 | 0 | 612 | 480 | -2 | 0 | 0 | 0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -11 | -2 | -20 | 1 | -15 | -43 | 158 | 251 | -20 | -25 | -29 | -11 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | -15 | 0 | -97 | 0 | -33 | -185 | -35 | 38 | -47 | -97 | -115 | -38 |
| Above Normal (24\%) | -9 | -5 | 16 | 13 | -17 | 0 | -55 | 407 | 0 | 0 | 0 | 0 |
| Below Normal (10\%) | -7 | 0 | 0 | -1 | -1 | 0 | -38 | 66 | -14 | 0 | 0 | 0 |
| Dry (16\%) | -17 | 0 | 0 | -2 | -2 | 0 | 424 | 440 | -9 | -1 | 0 | 0 |
| Critical (27\%) | -8 | -5 | -5 | -6 | -13 | 0 | 434 | 248 | -24 | -10 | -9 | -7 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-39-4. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Confluence, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,056 | 1,892 | 2,379 | 4,517 | 8,588 | 8,333 | 7,534 | 7,093 | 6,724 | 4,063 | 1,810 | 2,005 |
| 20\% | 1,882 | 1,616 | 1,613 | 2,452 | 5,143 | 6,125 | 5,907 | 4,546 | 3,985 | 2,031 | 1,668 | 1,681 |
| 30\% | 1,754 | 1,411 | 1,461 | 1,695 | 2,701 | 4,985 | 4,748 | 4,121 | 2,812 | 1,658 | 1,570 | 1,591 |
| 40\% | 1,648 | 1,330 | 1,340 | 1,625 | 1,750 | 3,378 | 4,029 | 3,788 | 2,430 | 1,546 | 1,470 | 1,494 |
| 50\% | 1,511 | 1,256 | 1,231 | 1,483 | 1,481 | 2,117 | 3,199 | 3,223 | 1,861 | 1,317 | 1,341 | 1,397 |
| 60\% | 1,343 | 1,148 | 1,167 | 1,302 | 1,326 | 1,662 | 2,392 | 2,757 | 1,394 | 1,198 | 1,252 | 1,289 |
| 70\% | 1,248 | 1,078 | 1,139 | 1,162 | 1,201 | 1,259 | 1,796 | 2,398 | 1,173 | 1,115 | 1,203 | 1,227 |
| 80\% | 1,127 | 981 | 1,025 | 1,055 | 1,078 | 1,095 | 1,552 | 1,965 | 1,102 | 1,001 | 1,092 | 1,147 |
| 90\% | 921 | 885 | 885 | 927 | 920 | 935 | 1,311 | 1,726 | 907 | 869 | 980 | 1,023 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,565 | 1,491 | 1,828 | 2,682 | 3,172 | 3,904 | 3,933 | 3,811 | 2,860 | 1,972 | 1,458 | 1,537 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,717 | 2,086 | 3,310 | 5,411 | 7,448 | 8,783 | 7,592 | 7,012 | 6,673 | 4,374 | 2,142 | 2,360 |
| Above Normal (24\%) | 1,600 | 1,356 | 1,496 | 2,801 | 3,151 | 4,481 | 4,540 | 3,803 | 2,725 | 1,670 | 1,524 | 1,571 |
| Below Normal (10\%) | 1,505 | 1,236 | 1,913 | 2,176 | 1,858 | 2,335 | 3,560 | 3,650 | 1,750 | 1,302 | 1,299 | 1,323 |
| Dry (16\%) | 1,667 | 1,442 | 1,356 | 1,486 | 1,358 | 1,739 | 2,137 | 2,559 | 1,406 | 1,145 | 1,232 | 1,267 |
| Critical (27\%) | 1,365 | 1,222 | 1,097 | 1,107 | 1,047 | 1,018 | 1,416 | 1,852 | 953 | 903 | 998 | 1,034 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,674 | 7,184 | 5,515 | 4,577 | 1,821 | 1,918 |
| 20\% | 2,335 | 1,468 | 1,469 | 2,369 | 4,963 | 6,708 | 6,148 | 4,646 | 3,168 | 2,020 | 1,670 | 1,665 |
| 30\% | 2,208 | 1,301 | 1,329 | 1,606 | 2,516 | 5,262 | 5,007 | 4,152 | 2,696 | 1,654 | 1,571 | 1,591 |
| 40\% | 2,111 | 1,199 | 1,200 | 1,485 | 1,609 | 3,567 | 4,388 | 3,639 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,994 | 1,129 | 1,125 | 1,387 | 1,375 | 2,036 | 3,598 | 3,113 | 1,799 | 1,305 | 1,334 | 1,382 |
| 60\% | 1,822 | 1,079 | 1,105 | 1,255 | 1,259 | 1,609 | 2,904 | 2,543 | 1,390 | 1,184 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,245 | 2,213 | 1,163 | 1,112 | 1,192 | 1,219 |
| 80\% | 1,581 | 932 | 971 | 1,018 | 1,022 | 1,076 | 1,832 | 1,772 | 1,095 | 990 | 1,088 | 1,146 |
| 90\% | 1,337 | 843 | 854 | 888 | 895 | 909 | 1,496 | 1,509 | 904 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,997 | 1,381 | 1,727 | 2,616 | 3,124 | 4,051 | 4,206 | 3,750 | 2,508 | 1,970 | 1,468 | 1,523 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,138 | 1,972 | 3,211 | 5,350 | 7,453 | 9,336 | 7,641 | 7,206 | 5,495 | 4,409 | 2,200 | 2,321 |
| Above Normal (24\%) | 2,012 | 1,239 | 1,402 | 2,737 | 3,085 | 4,602 | 4,823 | 3,720 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,957 | 1,088 | 1,765 | 2,074 | 1,785 | 2,383 | 4,056 | 3,577 | 1,603 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,095 | 1,326 | 1,241 | 1,402 | 1,279 | 1,676 | 2,582 | 2,389 | 1,374 | 1,134 | 1,218 | 1,254 |
| Critical (27\%) | 1,817 | 1,139 | 1,014 | 1,058 | 999 | 995 | 1,692 | 1,659 | 951 | 886 | 999 | 1,036 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 448 | -207 | -118 | -36 | 0 | 1,106 | 141 | 91 | -1,209 | 514 | 12 | -87 |
| 20\% | 453 | -148 | -144 | -83 | -180 | 583 | 240 | 100 | -817 | -12 | 2 | -16 |
| 30\% | 454 | -110 | -132 | -88 | -184 | 277 | 259 | 31 | -116 | -4 | 2 | 1 |
| 40\% | 464 | -131 | -140 | -139 | -141 | 189 | 359 | -149 | -131 | -10 | -4 | -20 |
| 50\% | 483 | -127 | -106 | -96 | -106 | -81 | 399 | -110 | -62 | -13 | -7 | -15 |
| 60\% | 478 | -70 | -62 | -47 | -67 | -53 | 512 | -214 | -4 | -14 | -9 | -5 |
| 70\% | 422 | -78 | -106 | -54 | -68 | -61 | 449 | -185 | -10 | -3 | -10 | -8 |
| 80\% | 454 | -49 | -55 | -37 | -56 | -20 | 280 | -193 | -7 | -11 | -4 | -1 |
| 90\% | 416 | -42 | -32 | -39 | -25 | -26 | 186 | -217 | -4 | -8 | 16 | -4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 431 | -110 | -101 | -66 | -47 | 146 | 273 | -61 | -352 | -2 | 10 | -14 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 420 | -114 | -99 | -61 | 5 | 554 | 49 | 193 | -1,177 | 35 | 57 | -39 |
| Above Normal (24\%) | 413 | -116 | -94 | -63 | -66 | 121 | 283 | -83 | -243 | -9 | -1 | -7 |
| Below Normal (10\%) | 452 | -148 | -148 | -102 | -72 | 49 | 496 | -72 | -147 | -16 | -10 | -18 |
| Dry (16\%) | 428 | -115 | -115 | -85 | -79 | -63 | 446 | -170 | -32 | -11 | -13 | -13 |
| Critical (27\%) | 452 | -83 | -83 | -49 | -48 | -23 | 276 | -193 | -1 | -17 | 1 | 2 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-39-5. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Confluence, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,056 | 1,892 | 2,379 | 4,517 | 8,588 | 8,333 | 7,534 | 7,093 | 6,724 | 4,063 | 1,810 | 2,005 |
| 20\% | 1,882 | 1,616 | 1,613 | 2,452 | 5,143 | 6,125 | 5,907 | 4,546 | 3,985 | 2,031 | 1,668 | 1,681 |
| 30\% | 1,754 | 1,411 | 1,461 | 1,695 | 2,701 | 4,985 | 4,748 | 4,121 | 2,812 | 1,658 | 1,570 | 1,591 |
| 40\% | 1,648 | 1,330 | 1,340 | 1,625 | 1,750 | 3,378 | 4,029 | 3,788 | 2,430 | 1,546 | 1,470 | 1,494 |
| 50\% | 1,511 | 1,256 | 1,231 | 1,483 | 1,481 | 2,117 | 3,199 | 3,223 | 1,861 | 1,317 | 1,341 | 1,397 |
| 60\% | 1,343 | 1,148 | 1,167 | 1,302 | 1,326 | 1,662 | 2,392 | 2,757 | 1,394 | 1,198 | 1,252 | 1,289 |
| 70\% | 1,248 | 1,078 | 1,139 | 1,162 | 1,201 | 1,259 | 1,796 | 2,398 | 1,173 | 1,115 | 1,203 | 1,227 |
| 80\% | 1,127 | 981 | 1,025 | 1,055 | 1,078 | 1,095 | 1,552 | 1,965 | 1,102 | 1,001 | 1,092 | 1,147 |
| 90\% | 921 | 885 | 885 | 927 | 920 | 935 | 1,311 | 1,726 | 907 | 869 | 980 | 1,023 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,565 | 1,491 | 1,828 | 2,682 | 3,172 | 3,904 | 3,933 | 3,811 | 2,860 | 1,972 | 1,458 | 1,537 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,717 | 2,086 | 3,310 | 5,411 | 7,448 | 8,783 | 7,592 | 7,012 | 6,673 | 4,374 | 2,142 | 2,360 |
| Above Normal (24\%) | 1,600 | 1,356 | 1,496 | 2,801 | 3,151 | 4,481 | 4,540 | 3,803 | 2,725 | 1,670 | 1,524 | 1,571 |
| Below Normal (10\%) | 1,505 | 1,236 | 1,913 | 2,176 | 1,858 | 2,335 | 3,560 | 3,650 | 1,750 | 1,302 | 1,299 | 1,323 |
| Dry (16\%) | 1,667 | 1,442 | 1,356 | 1,486 | 1,358 | 1,739 | 2,137 | 2,559 | 1,406 | 1,145 | 1,232 | 1,267 |
| Critical (27\%) | 1,365 | 1,222 | 1,097 | 1,107 | 1,047 | 1,018 | 1,416 | 1,852 | 953 | 903 | 998 | 1,034 |

Alternative 3

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,042 | 1,844 | 2,484 | 5,349 | 8,588 | 8,881 | 7,550 | 6,797 | 5,625 | 4,924 | 2,340 | 2,418 |
| 20\% | 1,863 | 1,547 | 1,542 | 2,459 | 5,856 | 6,228 | 6,133 | 4,336 | 2,364 | 1,873 | 1,653 | 1,667 |
| 30\% | 1,740 | 1,374 | 1,398 | 1,640 | 2,799 | 4,941 | 5,081 | 3,850 | 1,900 | 1,614 | 1,570 | 1,561 |
| 40\% | 1,655 | 1,277 | 1,300 | 1,525 | 1,684 | 3,279 | 4,146 | 3,453 | 1,709 | 1,517 | 1,468 | 1,473 |
| 50\% | 1,495 | 1,222 | 1,211 | 1,386 | 1,347 | 2,037 | 3,450 | 2,840 | 1,416 | 1,290 | 1,339 | 1,380 |
| 60\% | 1,374 | 1,127 | 1,159 | 1,224 | 1,186 | 1,632 | 2,578 | 2,458 | 1,192 | 1,177 | 1,248 | 1,286 |
| 70\% | 1,280 | 1,087 | 1,110 | 1,059 | 1,050 | 1,199 | 2,146 | 2,040 | 1,141 | 1,069 | 1,199 | 1,224 |
| 80\% | 1,147 | 995 | 1,030 | 981 | 901 | 1,076 | 1,815 | 1,831 | 987 | 954 | 1,083 | 1,147 |
| 90\% | 959 | 880 | 891 | 812 | 811 | 903 | 1,401 | 1,397 | 899 | 855 | 1,002 | 1,021 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,576 | 1,453 | 1,837 | 2,654 | 3,344 | 3,919 | 4,109 | 3,541 | 2,322 | 2,002 | 1,502 | 1,570 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,725 | 2,063 | 3,426 | 5,417 | 8,268 | 8,920 | 7,644 | 6,816 | 5,637 | 4,649 | 2,332 | 2,515 |
| Above Normal (24\%) | 1,622 | 1,311 | 1,514 | 2,779 | 3,142 | 4,510 | 4,756 | 3,534 | 1,780 | 1,581 | 1,518 | 1,560 |
| Below Normal (10\%) | 1,486 | 1,138 | 1,815 | 2,276 | 1,992 | 2,291 | 3,734 | 3,292 | 1,391 | 1,293 | 1,296 | 1,302 |
| Dry (16\%) | 1,674 | 1,403 | 1,318 | 1,418 | 1,337 | 1,676 | 2,370 | 2,194 | 1,260 | 1,132 | 1,230 | 1,260 |
| Critical (27\%) | 1,382 | 1,199 | 1,073 | 1,023 | 952 | 980 | 1,632 | 1,604 | 917 | 872 | 1,006 | 1,046 |


|  | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -14 | -48 | 104 | 832 | 0 | 548 | 16 | -296 | -1,099 | 861 | 530 | 413 |
| 20\% | -19 | -69 | -71 | 7 | 713 | 103 | 226 | -210 | -1,621 | -158 | -15 | -14 |
| 30\% | -15 | -37 | -63 | -55 | 98 | -44 | 333 | -271 | -913 | -44 | 1 | -30 |
| 40\% | 8 | -53 | -40 | -100 | -66 | -99 | 117 | -335 | -722 | -29 | -1 | -20 |
| 50\% | -16 | -33 | -20 | -98 | -134 | -80 | 251 | -383 | -445 | -27 | -2 | -16 |
| 60\% | 31 | -21 | -8 | -78 | -140 | -30 | 185 | -298 | -202 | -21 | -4 | -4 |
| 70\% | 32 | 8 | -29 | -103 | -151 | -60 | 349 | -357 | -32 | -46 | -4 | -3 |
| 80\% | 20 | 14 | 5 | -74 | -176 | -19 | 263 | -134 | -115 | -48 | -10 | 0 |
| 90\% | 38 | -5 | 5 | -114 | -109 | -32 | 90 | -329 | -8 | -14 | 22 | -2 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 11 | -38 | 9 | -27 | 172 | 14 | 176 | -271 | -538 | 31 | 44 | 33 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 8 | -23 | 116 | 6 | 820 | 137 | 52 | -197 | -1,036 | 275 | 189 | 154 |
| Above Normal (24\%) | 22 | -45 | 18 | -21 | -9 | 29 | 216 | -270 | -945 | -89 | -5 | -11 |
| Below Normal (10\%) | -19 | -98 | -98 | 100 | 134 | -44 | 173 | -357 | -359 | -8 | -3 | -22 |
| Dry (16\%) | 7 | -38 | -38 | -68 | -21 | -62 | 233 | -365 | -146 | -14 | -2 | -7 |
| Critical (27\%) | 16 | -24 | -24 | -84 | -95 | -38 | 215 | -248 | -36 | -31 | 8 | 12 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

Table C-39-6. San Joaquin River at Vernalis - San Joaquin River d/s of Merced Contluence, Monthly Flow

Second Basis of Comparison

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,056 | 1,892 | 2,379 | 4,517 | 8,588 | 8,333 | 7,534 | 7,093 | 6,724 | 4,063 | 1,810 | 2,005 |
| 20\% | 1,882 | 1,616 | 1,613 | 2,452 | 5,143 | 6,125 | 5,907 | 4,546 | 3,985 | 2,031 | 1,668 | 1,681 |
| 30\% | 1,754 | 1,411 | 1,461 | 1,695 | 2,701 | 4,985 | 4,748 | 4,121 | 2,812 | 1,658 | 1,570 | 1,591 |
| 40\% | 1,648 | 1,330 | 1,340 | 1,625 | 1,750 | 3,378 | 4,029 | 3,788 | 2,430 | 1,546 | 1,470 | 1,494 |
| 50\% | 1,511 | 1,256 | 1,231 | 1,483 | 1,481 | 2,117 | 3,199 | 3,223 | 1,861 | 1,317 | 1,341 | 1,397 |
| 60\% | 1,343 | 1,148 | 1,167 | 1,302 | 1,326 | 1,662 | 2,392 | 2,757 | 1,394 | 1,198 | 1,252 | 1,289 |
| 70\% | 1,248 | 1,078 | 1,139 | 1,162 | 1,201 | 1,259 | 1,796 | 2,398 | 1,173 | 1,115 | 1,203 | 1,227 |
| 80\% | 1,127 | 981 | 1,025 | 1,055 | 1,078 | 1,095 | 1,552 | 1,965 | 1,102 | 1,001 | 1,092 | 1,147 |
| 90\% | 921 | 885 | 885 | 927 | 920 | 935 | 1,311 | 1,726 | 907 | 869 | 980 | 1,023 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,565 | 1,491 | 1,828 | 2,682 | 3,172 | 3,904 | 3,933 | 3,811 | 2,860 | 1,972 | 1,458 | 1,537 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 1,717 | 2,086 | 3,310 | 5,411 | 7,448 | 8,783 | 7,592 | 7,012 | 6,673 | 4,374 | 2,142 | 2,360 |
| Above Normal (24\%) | 1,600 | 1,356 | 1,496 | 2,801 | 3,151 | 4,481 | 4,540 | 3,803 | 2,725 | 1,670 | 1,524 | 1,571 |
| Below Normal (10\%) | 1,505 | 1,236 | 1,913 | 2,176 | 1,858 | 2,335 | 3,560 | 3,650 | 1,750 | 1,302 | 1,299 | 1,323 |
| Dry (16\%) | 1,667 | 1,442 | 1,356 | 1,486 | 1,358 | 1,739 | 2,137 | 2,559 | 1,406 | 1,145 | 1,232 | 1,267 |
| Critical (27\%) | 1,365 | 1,222 | 1,097 | 1,107 | 1,047 | 1,018 | 1,416 | 1,852 | 953 | 903 | 998 | 1,034 |

Alternative 5

| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 2,505 | 1,686 | 2,261 | 4,481 | 8,588 | 9,439 | 7,488 | 7,184 | 5,515 | 4,295 | 1,797 | 1,944 |
| 20\% | 2,335 | 1,452 | 1,469 | 2,369 | 4,963 | 6,662 | 6,052 | 4,957 | 3,168 | 2,021 | 1,664 | 1,665 |
| 30\% | 2,201 | 1,301 | 1,323 | 1,606 | 2,517 | 5,262 | 5,002 | 4,380 | 2,697 | 1,654 | 1,572 | 1,591 |
| 40\% | 2,071 | 1,199 | 1,200 | 1,485 | 1,584 | 3,567 | 4,421 | 4,045 | 2,299 | 1,537 | 1,466 | 1,473 |
| 50\% | 1,960 | 1,129 | 1,125 | 1,387 | 1,370 | 2,036 | 3,637 | 3,505 | 1,763 | 1,305 | 1,333 | 1,381 |
| 60\% | 1,817 | 1,079 | 1,105 | 1,249 | 1,259 | 1,609 | 3,176 | 3,153 | 1,390 | 1,183 | 1,243 | 1,284 |
| 70\% | 1,671 | 1,000 | 1,033 | 1,108 | 1,134 | 1,199 | 2,549 | 2,322 | 1,151 | 1,090 | 1,192 | 1,219 |
| 80\% | 1,547 | 932 | 971 | 1,018 | 984 | 1,076 | 2,229 | 2,070 | 1,072 | 978 | 1,075 | 1,121 |
| 90\% | 1,337 | 843 | 854 | 888 | 892 | 909 | 2,109 | 1,989 | 902 | 860 | 996 | 1,019 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1,985 | 1,379 | 1,707 | 2,617 | 3,109 | 4,008 | 4,364 | 4,001 | 2,488 | 1,945 | 1,439 | 1,513 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 2,123 | 1,972 | 3,114 | 5,350 | 7,420 | 9,152 | 7,606 | 7,244 | 5,448 | 4,312 | 2,084 | 2,283 |
| Above Normal (24\%) | 2,003 | 1,234 | 1,418 | 2,751 | 3,068 | 4,602 | 4,768 | 4,127 | 2,482 | 1,662 | 1,522 | 1,564 |
| Below Normal (10\%) | 1,949 | 1,088 | 1,765 | 2,073 | 1,785 | 2,383 | 4,018 | 3,643 | 1,589 | 1,286 | 1,289 | 1,305 |
| Dry (16\%) | 2,078 | 1,326 | 1,241 | 1,400 | 1,277 | 1,676 | 3,006 | 2,829 | 1,365 | 1,134 | 1,218 | 1,253 |
| Critical (27\%) | 1,809 | 1,135 | 1,009 | 1,052 | 986 | 995 | 2,126 | 1,907 | 927 | 877 | 991 | 1,029 |


| Statistic | Monthly Flow (cfs) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 448 | -207 | -118 | -36 | 0 | 1,106 | -45 | 91 | -1,209 | 232 | -13 | -62 |
| 20\% | 453 | -164 | -144 | -83 | -180 | 537 | 145 | 411 | -816 | -11 | -5 | -16 |
| 30\% | 446 | -110 | -139 | -88 | -184 | 277 | 254 | 259 | -116 | -4 | 2 | 0 |
| 40\% | 423 | -131 | -140 | -139 | -166 | 189 | 392 | 257 | -131 | -10 | -4 | -21 |
| 50\% | 448 | -127 | -106 | -96 | -111 | -81 | 438 | 282 | -97 | -12 | -8 | -15 |
| 60\% | 474 | -70 | -62 | -53 | -67 | -53 | 784 | 396 | -4 | -15 | -9 | -5 |
| 70\% | 422 | -78 | -106 | -54 | -68 | -61 | 753 | -76 | -21 | -25 | -11 | -8 |
| 80\% | 420 | -49 | -55 | -37 | -93 | -20 | 677 | 105 | -29 | -24 | -17 | -26 |
| 90\% | 416 | -42 | -32 | -39 | -28 | -26 | 798 | 264 | -6 | -8 | 16 | -4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 420 | -112 | -121 | -65 | -63 | 104 | 432 | 189 | -372 | -27 | -19 | -25 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (23\%) | 406 | -114 | -196 | -62 | -28 | 369 | 14 | 231 | -1,225 | -61 | -58 | -77 |
| Above Normal (24\%) | 403 | -121 | -79 | -50 | -83 | 121 | 228 | 324 | -243 | -9 | -2 | -7 |
| Below Normal (10\%) | 445 | -148 | -148 | -102 | -73 | 49 | 458 | -6 | -161 | -16 | -10 | -19 |
| Dry (16\%) | 411 | -115 | -115 | -86 | -81 | -63 | 869 | 270 | -41 | -12 | -14 | -13 |
| Critical (27\%) | 443 | -88 | -88 | -55 | -61 | -23 | 710 | 55 | -26 | -26 | -8 | -5 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in text. 3) Model results for Alternative 2 and № Action Alternative are the same,
therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in text.

## C.40. Steamboat Slough downstream of Sutter Slough Water Surface Elevation

Figure C-40-1-1. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-2. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-3. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-4. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-5. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-6. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-7. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-8. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-9. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-10. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-11. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-1-12. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-1-1. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.4 | 4.2 | 4.3 |
| 30\% | 3.8 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.1 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 3.9 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.0 | 4.1 | 4.3 | 4.1 | 4.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.1 | 5.8 | 6.1 | 5.4 | 4.6 | 4.5 | 4.3 | 4.4 | 4.2 | 4.4 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.5 | 5.1 | 5.6 | 4.8 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.1 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.1 | 4.5 | 3.7 | 3.6 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 4.9 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.9 | 4.3 | 5.0 | 5.6 | 4.8 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.2 | 4.2 | 3.8 | 4.0 | 4.1 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.2 | 5.5 | 4.6 | 4.5 | 4.3 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.9 | 4.2 | 4.3 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |


| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.4 |
| 20\% | 0.0 | -0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 |
| 30\% | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| 40\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | -0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.4 |
| Above Normal (16\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-40-1-2. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.4 | 4.2 | 4.3 |
| 30\% | 3.8 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.1 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 3.9 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.0 | 4.1 | 4.3 | 4.1 | 4.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.1 | 5.8 | 6.1 | 5.4 | 4.6 | 4.5 | 4.3 | 4.4 | 4.2 | 4.4 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.5 | 5.1 | 5.6 | 4.8 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.1 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.1 | 4.5 | 3.7 | 3.6 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 5.0 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.3 | 5.0 | 5.6 | 4.7 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.5 | 5.2 | 4.2 | 3.8 | 4.0 | 4.2 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.2 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.1 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.1 | 5.5 | 4.6 | 4.5 | 4.4 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.8 | 4.1 | 4.4 | 4.2 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 3.9 | 3.7 |


| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.4 |
| 20\% | -0.1 | -0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 |
| 30\% | 0.0 | -0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 |
| 40\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 |
| 50\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 60\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | -0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.4 |
| Above Normal (16\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-1-3. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.4 | 4.2 | 4.3 |
| 30\% | 3.8 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.1 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 3.9 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.0 | 4.1 | 4.3 | 4.1 | 4.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.1 | 5.8 | 6.1 | 5.4 | 4.6 | 4.5 | 4.3 | 4.4 | 4.2 | 4.4 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.5 | 5.1 | 5.6 | 4.8 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.1 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.1 | 4.5 | 3.7 | 3.6 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.3 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.5 | 4.2 | 4.3 |
| 30\% | 3.7 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.0 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.7 | 3.9 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.6 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.3 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |



Alternative 5 minus No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-1-4. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 4.9 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.9 | 4.3 | 5.0 | 5.6 | 4.8 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.2 | 4.2 | 3.8 | 4.0 | 4.1 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.2 | 5.5 | 4.6 | 4.5 | 4.3 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.9 | 4.2 | 4.3 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.4 | 4.2 | 4.3 |
| 30\% | 3.8 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.1 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 3.9 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.0 | 4.1 | 4.3 | 4.1 | 4.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.1 | 5.8 | 6.1 | 5.4 | 4.6 | 4.5 | 4.3 | 4.4 | 4.2 | 4.4 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.5 | 5.1 | 5.6 | 4.8 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.1 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.1 | 4.5 | 3.7 | 3.6 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 |
| 20\% | 0.0 | 0.1 | -0.2 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.3 |
| 30\% | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| 40\% | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Above Normal (16\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All atternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N$ No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-1-5. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 4.9 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.9 | 4.3 | 5.0 | 5.6 | 4.8 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.2 | 4.2 | 3.8 | 4.0 | 4.1 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.2 | 5.5 | 4.6 | 4.5 | 4.3 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.9 | 4.2 | 4.3 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.4 | 4.5 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 5.0 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.3 | 5.0 | 5.6 | 4.7 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.5 | 5.2 | 4.2 | 3.8 | 4.0 | 4.2 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.2 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.1 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.1 | 5.5 | 4.6 | 4.5 | 4.4 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.8 | 4.1 | 4.4 | 4.2 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 3.9 | 3.7 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-1-6. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.3 | 5.9 | 6.8 | 7.2 | 6.5 | 5.3 | 4.7 | 4.5 | 4.4 | 4.2 | 4.1 |
| 20\% | 3.8 | 4.0 | 4.9 | 6.0 | 6.4 | 5.4 | 4.4 | 4.3 | 4.3 | 4.4 | 4.2 | 4.0 |
| 30\% | 3.7 | 3.9 | 4.3 | 5.0 | 5.6 | 4.8 | 3.9 | 4.1 | 4.2 | 4.4 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.2 | 4.2 | 3.8 | 4.0 | 4.1 | 4.3 | 4.1 | 3.9 |
| 50\% | 3.7 | 3.7 | 4.0 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.1 | 4.3 | 4.0 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.8 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 4.1 | 5.2 | 5.9 | 6.2 | 5.5 | 4.6 | 4.5 | 4.3 | 4.4 | 4.1 | 4.0 |
| Above Normal (16\%) | 3.6 | 3.9 | 4.4 | 5.1 | 5.7 | 4.9 | 4.0 | 4.1 | 4.1 | 4.4 | 4.1 | 3.9 |
| Below Normal (13\%) | 3.7 | 3.8 | 4.0 | 4.1 | 4.6 | 3.7 | 3.6 | 3.9 | 4.2 | 4.3 | 4.1 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 5.6 | 6.8 | 7.1 | 6.4 | 5.3 | 4.7 | 4.4 | 4.5 | 4.3 | 4.5 |
| 20\% | 3.8 | 4.2 | 4.8 | 5.7 | 6.4 | 5.4 | 4.4 | 4.3 | 4.2 | 4.5 | 4.2 | 4.3 |
| 30\% | 3.7 | 4.0 | 4.3 | 5.0 | 5.6 | 4.5 | 3.9 | 4.0 | 4.1 | 4.4 | 4.2 | 4.2 |
| 40\% | 3.7 | 3.9 | 4.1 | 4.4 | 5.0 | 4.2 | 3.8 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.5 | 4.0 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 4.0 |
| 60\% | 3.6 | 3.8 | 4.0 | 4.1 | 4.2 | 3.8 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.7 | 3.9 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.6 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.8 | 3.5 | 3.3 | 3.6 | 3.8 | 4.1 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.4 | 4.8 | 5.0 | 4.5 | 4.0 | 4.0 | 4.1 | 4.3 | 4.1 | 4.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.1 | 5.8 | 6.1 | 5.4 | 4.6 | 4.5 | 4.3 | 4.4 | 4.2 | 4.4 |
| Above Normal (16\%) | 3.7 | 4.0 | 4.5 | 5.1 | 5.6 | 4.8 | 4.0 | 4.0 | 4.1 | 4.4 | 4.1 | 4.1 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.1 | 4.5 | 3.7 | 3.6 | 3.8 | 4.0 | 4.4 | 4.2 | 3.9 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.7 | 3.9 | 4.0 | 3.9 | 3.6 | 3.5 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.4 |
| 20\% | 0.0 | 0.1 | -0.2 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.3 |
| 30\% | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| 40\% | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 |
| 50\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Above Normal (16\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4, and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-1. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-2. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-3. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-4. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-5. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-6. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-7. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-8. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-9. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-10. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-11. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-40-2-12. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-1. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.3 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.3 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.1 | -0.1 | 0.2 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.6 | 0.5 | 1.4 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 | 0.5 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.1 | 0.1 | 0.4 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 0.2 | 0.2 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.3 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 1.9 | 4.1 | 4.8 | 3.6 | 1.8 | 1.2 | 0.4 | 0.6 | 0.4 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.6 | 0.8 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.2 | 0.2 | 0.5 | 0.3 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.1 | 0.2 | 0.6 | 0.6 | 0.0 | 0.0 | 0.1 | 0.3 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.5 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.3 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | -0.1 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -1.0 |
| 20\% | -0.1 | -0.3 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | -0.1 | 0.0 | -1.0 |
| 30\% | -0.1 | -0.3 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.5 |
| 40\% | -0.1 | -0.2 | -0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.3 |
| 50\% | 0.0 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | 0.0 |
| 70\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.9 |
| Above Normal (16\%) | 0.0 | -0.2 | -0.1 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | -0.3 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | -0.1 | -0.1 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-2. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.3 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.3 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.1 | -0.1 | 0.2 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.6 | 0.5 | 1.4 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 | 0.5 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.1 | 0.1 | 0.4 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 0.2 | 0.2 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.2 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 2.0 | 4.0 | 4.8 | 3.6 | 1.8 | 1.1 | 0.4 | 0.7 | 0.5 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.3 | 0.8 | 0.5 | 0.3 | 0.7 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.6 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.7 | 1.7 | 1.1 | 0.2 | 0.2 | 0.2 | 0.5 | 0.4 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.3 | 0.7 | 0.6 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.0 | 0.3 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |


| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.5 | 0.3 | 0.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.4 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.2 | 0.7 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.0 |
| 20\% | -0.1 | -0.3 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -1.0 |
| 30\% | -0.1 | -0.3 | 0.0 | 0.3 | 0.1 | 0.3 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.5 |
| 40\% | -0.1 | -0.3 | -0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 |
| 50\% | 0.0 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -1.0 |
| Above Normal (16\%) | 0.0 | -0.2 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 |
| Below Normal (13\%) | -0.1 | -0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-3. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.3 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.3 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.1 | -0.1 | 0.2 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.6 | 0.5 | 1.4 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 | 0.5 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.1 | 0.1 | 0.4 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 0.2 | 0.2 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.2 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.2 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.0 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | -0.1 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.2 | -0.1 | 0.2 | 0.1 | 0.1 |


| Long Term <br> Full Simulation Period ${ }^{\text {b }}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.7 | 0.5 | 1.4 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 | 0.5 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.0 | 0.1 | 0.4 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | -0.1 | -0.1 | 0.0 | 0.2 | 0.2 | 0.2 |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-4. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.3 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 1.9 | 4.1 | 4.8 | 3.6 | 1.8 | 1.2 | 0.4 | 0.6 | 0.4 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.6 | 0.8 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.2 | 0.2 | 0.5 | 0.3 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.1 | 0.2 | 0.6 | 0.6 | 0.0 | 0.0 | 0.1 | 0.3 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.5 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.3 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |

No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.3 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.3 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.1 | -0.1 | 0.2 | 0.1 | 0.1 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Long Term <br> Full Simulation Period |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\mathbf{b}}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 | 0.4 | 0.7 |
| Water Year Types $^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.6 | 0.5 | 1.4 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 | 0.5 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.1 | 0.1 | 0.4 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 0.2 | 0.2 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.1 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 |
| 20\% | 0.1 | 0.3 | -0.3 | -0.4 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | 0.1 | 0.0 | 1.0 |
| 30\% | 0.1 | 0.3 | 0.0 | -0.3 | -0.1 | -0.5 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.5 |
| 40\% | 0.1 | 0.2 | 0.1 | 0.0 | -0.3 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.3 |
| 50\% | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.2 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.9 |
| Above Normal (16\%) | 0.0 | 0.2 | 0.1 | -0.1 | -0.1 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.3 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N$ No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-5. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.3 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 1.9 | 4.1 | 4.8 | 3.6 | 1.8 | 1.2 | 0.4 | 0.6 | 0.4 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.6 | 0.8 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.2 | 0.2 | 0.5 | 0.3 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.1 | 0.2 | 0.6 | 0.6 | 0.0 | 0.0 | 0.1 | 0.3 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.5 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.3 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.2 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 2.0 | 4.0 | 4.8 | 3.6 | 1.8 | 1.1 | 0.4 | 0.7 | 0.5 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.3 | 0.8 | 0.5 | 0.3 | 0.7 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.6 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.7 | 1.7 | 1.1 | 0.2 | 0.2 | 0.2 | 0.5 | 0.4 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.3 | 0.7 | 0.6 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.0 | 0.3 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.5 | 0.3 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.4 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.2 | 0.7 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-40-2-6. Steamboat SI d/s of Sutter SI, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.8 | 3.9 | 5.1 | 5.9 | 5.0 | 3.3 | 2.1 | 0.6 | 0.7 | 0.5 | 0.6 |
| 20\% | 0.2 | 0.3 | 1.9 | 4.1 | 4.8 | 3.6 | 1.8 | 1.2 | 0.4 | 0.6 | 0.4 | 0.5 |
| 30\% | 0.2 | 0.2 | 0.8 | 2.5 | 3.6 | 2.6 | 0.8 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| 40\% | 0.1 | 0.1 | 0.4 | 1.2 | 3.0 | 1.5 | 0.5 | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 |
| 50\% | 0.1 | 0.0 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.2 | 0.2 | 0.5 | 0.3 | 0.3 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.7 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.3 |
| 70\% | 0.0 | -0.1 | 0.1 | 0.2 | 0.6 | 0.6 | 0.0 | 0.0 | 0.1 | 0.3 | 0.3 | 0.2 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.2 | 1.0 | 1.8 | 2.5 | 1.8 | 0.9 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.6 | 2.4 | 3.7 | 4.3 | 3.4 | 2.0 | 1.5 | 0.8 | 0.6 | 0.4 | 0.5 |
| Above Normal (16\%) | 0.1 | 0.4 | 1.1 | 2.5 | 3.4 | 2.7 | 1.0 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.2 | 0.3 | 0.6 | 1.8 | 0.6 | 0.2 | 0.2 | 0.3 | 0.6 | 0.4 | 0.4 |
| Dry (24\%) | 0.1 | 0.0 | 0.1 | 0.4 | 1.0 | 0.8 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.2 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.4 | 0.9 | 3.4 | 5.0 | 5.9 | 5.0 | 3.3 | 2.2 | 0.6 | 0.8 | 0.5 | 1.5 |
| 20\% | 0.3 | 0.6 | 1.6 | 3.7 | 4.8 | 3.6 | 1.8 | 1.0 | 0.3 | 0.7 | 0.5 | 1.4 |
| 30\% | 0.2 | 0.5 | 0.8 | 2.3 | 3.5 | 2.0 | 0.9 | 0.4 | 0.2 | 0.7 | 0.4 | 0.9 |
| 40\% | 0.2 | 0.4 | 0.5 | 1.2 | 2.7 | 1.4 | 0.5 | 0.2 | 0.2 | 0.6 | 0.4 | 0.7 |
| 50\% | 0.1 | 0.2 | 0.3 | 0.8 | 1.7 | 1.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.5 |
| 60\% | 0.1 | 0.1 | 0.2 | 0.5 | 1.0 | 0.7 | 0.1 | 0.0 | 0.1 | 0.5 | 0.3 | 0.3 |
| 70\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.3 | 0.3 |
| 80\% | 0.0 | -0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.0 | -0.1 | 0.0 | 0.3 | 0.2 | 0.2 |
| 90\% | -0.1 | -0.2 | -0.1 | 0.1 | 0.3 | 0.0 | -0.1 | -0.2 | -0.1 | 0.2 | 0.1 | 0.1 |


|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Long Term |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period $^{\text {b }}$ | 0.2 | 0.4 | 1.0 | 1.8 | 2.4 | 1.8 | 0.9 | 0.6 | 0.3 | 0.5 |
| Water Year Types $^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.3 | 0.8 | 2.2 | 3.6 | 4.3 | 3.4 | 2.1 | 1.5 | 0.7 | 0.7 |
| Above Normal (16\%) | 0.1 | 0.5 | 1.1 | 2.4 | 3.3 | 2.6 | 1.0 | 0.5 | 0.2 | 0.7 |
| Below Normal (13\%) | 0.2 | 0.3 | 0.4 | 0.6 | 1.7 | 0.5 | 0.2 | 0.1 | 0.1 | 0.6 |
| Dry (24\%) | 0.1 | 0.1 | 0.1 | 0.5 | 1.0 | 0.8 | 0.2 | 0.0 | 0.1 | 0.4 |
| Critical (15\%) | 0.0 | -0.1 | 0.1 | 0.3 | 0.4 | 0.2 | -0.1 | -0.1 | 0.2 | 0.2 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.1 | -0.4 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 |
| 20\% | 0.1 | 0.3 | -0.3 | -0.4 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | 0.1 | 0.0 | 0.9 |
| 30\% | 0.0 | 0.3 | 0.0 | -0.3 | -0.1 | -0.5 | 0.0 | 0.0 | -0.1 | 0.1 | 0.1 | 0.5 |
| 40\% | 0.1 | 0.2 | 0.1 | 0.0 | -0.3 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.3 |
| 50\% | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.2 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.9 |
| Above Normal (16\%) | 0.0 | 0.2 | 0.1 | -0.1 | -0.1 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.3 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-1. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-2. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-3. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-4. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-5. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-6. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-7. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-8. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-9. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-10. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-11. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-1-12. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-1. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.6 | 3.6 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.9 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.5 | 3.5 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.4 | 3.4 | 3.2 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.3 | 3.3 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.2 | 3.2 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.1 | 3.1 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.0 | 3.0 | 2.9 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.8 | 3.5 | 3.6 | 3.5 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.7 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.5 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.3 | 3.3 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.2 | 3.0 | 3.1 | 3.1 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.7 | 4.2 | 4.7 | 4.5 | 4.2 | 4.1 | 4.2 | 3.5 | 3.3 | 3.1 |
| 20\% | 2.8 | 2.9 | 3.4 | 3.8 | 4.2 | 3.9 | 3.3 | 3.3 | 3.5 | 3.2 | 3.1 | 3.0 |
| 30\% | 2.8 | 2.8 | 3.2 | 3.4 | 3.8 | 3.5 | 3.1 | 3.1 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.1 | 3.2 | 3.5 | 3.2 | 2.9 | 3.0 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.0 | 3.1 | 3.3 | 3.1 | 2.9 | 2.9 | 3.1 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 2.9 | 3.0 | 3.1 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.5 | 2.5 | 2.9 | 2.9 | 3.0 | 2.9 | 2.7 | 2.7 | 2.9 | 2.7 | 2.8 | 2.7 |
| 80\% | 2.5 | 2.5 | 2.8 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.8 | 2.7 | 2.7 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.7 | 2.8 | 2.6 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.2 | 3.4 | 3.6 | 3.4 | 3.1 | 3.1 | 3.3 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.5 | 4.2 | 4.3 | 4.2 | 3.7 | 3.5 | 3.9 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.1 | 3.4 | 3.7 | 3.3 | 2.9 | 2.9 | 3.1 | 2.9 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.0 | 3.0 | 3.4 | 2.9 | 2.8 | 2.7 | 2.9 | 2.6 | 2.9 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 3.0 | 2.8 |
| Critical (15\%) | 2.8 | 2.8 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |

Alternative 1 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | -0.1 | -0.2 | 0.2 | 0.1 | -0.1 | -0.3 | 0.3 | 0.0 | 0.0 | -0.1 |
| 20\% | -0.1 | -0.1 | -0.1 | -0.3 | 0.0 | 0.1 | -0.6 | -0.5 | 0.0 | 0.0 | 0.0 | -0.1 |
| 30\% | -0.1 | -0.1 | -0.1 | -0.3 | -0.1 | 0.0 | -0.5 | -0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | -0.1 | -0.1 | -0.1 | -0.3 | -0.3 | -0.1 | -0.6 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 |
| 50\% | -0.1 | -0.1 | -0.1 | -0.3 | -0.2 | -0.1 | -0.5 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | -0.1 | -0.1 | -0.1 | -0.3 | -0.3 | -0.1 | -0.5 | -0.5 | -0.1 | 0.1 | 0.0 | 0.0 |
| 70\% | -0.2 | -0.1 | -0.1 | -0.3 | -0.3 | -0.1 | -0.5 | -0.5 | -0.2 | 0.1 | 0.0 | 0.0 |
| 80\% | -0.2 | -0.1 | 0.0 | -0.3 | -0.3 | -0.2 | -0.5 | -0.5 | -0.2 | 0.1 | 0.0 | 0.0 |
| 90\% | -0.2 | -0.1 | 0.0 | -0.2 | -0.3 | -0.2 | -0.4 | -0.5 | -0.2 | 0.1 | 0.1 | -0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.1 | -0.1 | -0.2 | -0.2 | -0.1 | -0.4 | -0.5 | 0.0 | 0.1 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.1 | -0.1 | -0.2 | -0.1 | 0.0 | -0.4 | -0.5 | 0.1 | 0.0 | 0.0 | -0.1 |
| Above Normal (16\%) | -0.1 | -0.1 | -0.1 | -0.4 | -0.2 | 0.0 | -0.7 | -0.7 | -0.1 | 0.0 | 0.1 | -0.1 |
| Below Normal (13\%) | -0.2 | -0.2 | 0.0 | -0.3 | -0.1 | -0.1 | -0.5 | -0.6 | -0.2 | 0.0 | 0.1 | 0.0 |
| Dry (24\%) | -0.1 | -0.1 | 0.0 | -0.2 | -0.3 | -0.2 | -0.4 | -0.4 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | -0.1 | -0.1 | -0.1 | -0.2 | -0.1 | -0.2 | -0.2 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-2. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.6 | 3.6 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.9 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.5 | 3.5 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.4 | 3.4 | 3.2 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.3 | 3.3 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.2 | 3.2 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.1 | 3.1 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.0 | 3.0 | 2.9 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.8 | 3.5 | 3.6 | 3.5 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.7 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.5 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.3 | 3.3 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.2 | 3.0 | 3.1 | 3.1 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.8 | 4.4 | 4.7 | 4.6 | 4.2 | 4.0 | 3.8 | 3.6 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.8 | 3.5 | 4.2 | 4.2 | 3.8 | 3.6 | 3.4 | 3.4 | 3.2 | 3.2 | 3.1 |
| 30\% | 2.8 | 2.8 | 3.3 | 3.7 | 3.9 | 3.5 | 3.3 | 3.2 | 3.2 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.2 | 3.5 | 3.7 | 3.4 | 3.2 | 3.2 | 3.1 | 2.9 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.1 | 3.4 | 3.5 | 3.2 | 3.1 | 3.1 | 3.0 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 3.0 | 3.3 | 3.4 | 3.1 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.6 | 2.5 | 2.9 | 3.2 | 3.2 | 3.0 | 3.0 | 3.0 | 2.8 | 2.7 | 2.7 | 2.7 |
| 80\% | 2.4 | 2.4 | 2.9 | 3.1 | 3.1 | 2.9 | 2.9 | 2.9 | 2.8 | 2.6 | 2.6 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.8 | 3.0 | 2.9 | 2.7 | 2.8 | 2.8 | 2.7 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.3 | 3.7 | 3.7 | 3.4 | 3.3 | 3.2 | 3.2 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.6 | 4.4 | 4.4 | 4.1 | 3.8 | 3.6 | 3.6 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.2 | 3.8 | 3.9 | 3.3 | 3.2 | 3.1 | 3.0 | 2.8 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.1 | 3.3 | 3.5 | 2.9 | 3.1 | 3.0 | 2.9 | 2.6 | 2.7 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 3.0 | 3.2 | 3.3 | 3.1 | 3.0 | 3.0 | 2.9 | 2.7 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.8 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.0 | 3.1 | 3.1 | 3.1 |

Alternative 3 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.2 | 0.1 | -0.1 | -0.3 | 0.0 | 0.1 | 0.0 | 0.0 |
| 20\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | -0.4 | -0.2 | 0.0 | 0.0 | 0.0 |
| 30\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| 40\% | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.3 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| 50\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.3 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| 60\% | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.3 | -0.3 | -0.2 | 0.1 | 0.0 | 0.0 |
| 70\% | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 80\% | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 90\% | -0.2 | -0.1 | 0.1 | 0.0 | -0.1 | -0.1 | -0.2 | -0.3 | -0.3 | 0.0 | 0.0 | -0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | -0.4 | -0.1 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.4 | -0.5 | -0.2 | 0.0 | 0.0 | -0.1 |
| Below Normal (13\%) | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.3 | -0.3 | -0.2 | 0.0 | 0.0 | -0.1 |
| Dry (24\%) | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-3. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.6 | 3.6 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.9 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.5 | 3.5 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.4 | 3.4 | 3.2 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.3 | 3.3 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.2 | 3.2 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.1 | 3.1 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.0 | 3.0 | 2.9 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.8 | 3.5 | 3.6 | 3.5 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.7 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.5 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.3 | 3.3 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.2 | 3.0 | 3.1 | 3.1 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.2 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.7 | 3.7 | 3.3 | 3.1 | 3.0 | 3.0 |
| 40\% | 2.8 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.6 | 3.6 | 3.2 | 2.9 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.5 | 3.5 | 3.1 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.4 | 3.5 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.3 | 3.4 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.3 | 3.4 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.2 | 3.3 | 2.9 | 2.4 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.7 | 3.5 | 3.6 | 3.7 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.8 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.6 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.4 | 3.5 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.4 | 3.5 | 3.0 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.3 | 3.4 | 3.1 | 3.0 | 3.1 | 3.0 |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.0 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | -0.1 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-4. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.7 | 4.2 | 4.7 | 4.5 | 4.2 | 4.1 | 4.2 | 3.5 | 3.3 | 3.1 |
| 20\% | 2.8 | 2.9 | 3.4 | 3.8 | 4.2 | 3.9 | 3.3 | 3.3 | 3.5 | 3.2 | 3.1 | 3.0 |
| 30\% | 2.8 | 2.8 | 3.2 | 3.4 | 3.8 | 3.5 | 3.1 | 3.1 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.1 | 3.2 | 3.5 | 3.2 | 2.9 | 3.0 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.0 | 3.1 | 3.3 | 3.1 | 2.9 | 2.9 | 3.1 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 2.9 | 3.0 | 3.1 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.5 | 2.5 | 2.9 | 2.9 | 3.0 | 2.9 | 2.7 | 2.7 | 2.9 | 2.7 | 2.8 | 2.7 |
| 80\% | 2.5 | 2.5 | 2.8 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.8 | 2.7 | 2.7 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.7 | 2.8 | 2.6 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.2 | 3.4 | 3.6 | 3.4 | 3.1 | 3.1 | 3.3 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.5 | 4.2 | 4.3 | 4.2 | 3.7 | 3.5 | 3.9 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.1 | 3.4 | 3.7 | 3.3 | 2.9 | 2.9 | 3.1 | 2.9 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.0 | 3.0 | 3.4 | 2.9 | 2.8 | 2.7 | 2.9 | 2.6 | 2.9 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 3.0 | 2.8 |
| Critical (15\%) | 2.8 | 2.8 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.6 | 3.6 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.9 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.5 | 3.5 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.4 | 3.4 | 3.2 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.3 | 3.3 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.2 | 3.2 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.1 | 3.1 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.0 | 3.0 | 2.9 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.8 | 3.5 | 3.6 | 3.5 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.7 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.5 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.3 | 3.3 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.2 | 3.0 | 3.1 | 3.1 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.1 | 0.1 | 0.2 | -0.2 | -0.1 | 0.1 | 0.3 | -0.3 | 0.0 | 0.0 | 0.1 |
| 20\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.0 | -0.1 | 0.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.1 |
| 30\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.0 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.6 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.1 | 0.5 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.5 | 0.5 | 0.1 | -0.1 | 0.0 | 0.0 |
| 70\% | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.5 | 0.5 | 0.2 | -0.1 | 0.0 | 0.0 |
| 80\% | 0.2 | 0.1 | 0.0 | 0.3 | 0.3 | 0.2 | 0.5 | 0.5 | 0.2 | -0.1 | 0.0 | 0.0 |
| 90\% | 0.2 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.4 | 0.5 | 0.2 | -0.1 | -0.1 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.4 | 0.5 | 0.0 | -0.1 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.4 | 0.5 | -0.1 | 0.0 | 0.0 | 0.1 |
| Above Normal (16\%) | 0.1 | 0.1 | 0.1 | 0.4 | 0.2 | 0.0 | 0.7 | 0.7 | 0.1 | 0.0 | -0.1 | 0.1 |
| Below Normal (13\%) | 0.2 | 0.2 | 0.0 | 0.3 | 0.1 | 0.1 | 0.5 | 0.6 | 0.2 | 0.0 | -0.1 | 0.0 |
| Dry (24\%) | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.4 | 0.4 | 0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-5. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.7 | 4.2 | 4.7 | 4.5 | 4.2 | 4.1 | 4.2 | 3.5 | 3.3 | 3.1 |
| 20\% | 2.8 | 2.9 | 3.4 | 3.8 | 4.2 | 3.9 | 3.3 | 3.3 | 3.5 | 3.2 | 3.1 | 3.0 |
| 30\% | 2.8 | 2.8 | 3.2 | 3.4 | 3.8 | 3.5 | 3.1 | 3.1 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.1 | 3.2 | 3.5 | 3.2 | 2.9 | 3.0 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.0 | 3.1 | 3.3 | 3.1 | 2.9 | 2.9 | 3.1 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 2.9 | 3.0 | 3.1 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.5 | 2.5 | 2.9 | 2.9 | 3.0 | 2.9 | 2.7 | 2.7 | 2.9 | 2.7 | 2.8 | 2.7 |
| 80\% | 2.5 | 2.5 | 2.8 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.8 | 2.7 | 2.7 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.7 | 2.8 | 2.6 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.2 | 3.4 | 3.6 | 3.4 | 3.1 | 3.1 | 3.3 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.5 | 4.2 | 4.3 | 4.2 | 3.7 | 3.5 | 3.9 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.1 | 3.4 | 3.7 | 3.3 | 2.9 | 2.9 | 3.1 | 2.9 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.0 | 3.0 | 3.4 | 2.9 | 2.8 | 2.7 | 2.9 | 2.6 | 2.9 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 3.0 | 2.8 |
| Critical (15\%) | 2.8 | 2.8 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.8 | 4.4 | 4.7 | 4.6 | 4.2 | 4.0 | 3.8 | 3.6 | 3.3 | 3.2 |
| 20\% | 2.9 | 2.8 | 3.5 | 4.2 | 4.2 | 3.8 | 3.6 | 3.4 | 3.4 | 3.2 | 3.2 | 3.1 |
| 30\% | 2.8 | 2.8 | 3.3 | 3.7 | 3.9 | 3.5 | 3.3 | 3.2 | 3.2 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.2 | 3.5 | 3.7 | 3.4 | 3.2 | 3.2 | 3.1 | 2.9 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.1 | 3.4 | 3.5 | 3.2 | 3.1 | 3.1 | 3.0 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 3.0 | 3.3 | 3.4 | 3.1 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.6 | 2.5 | 2.9 | 3.2 | 3.2 | 3.0 | 3.0 | 3.0 | 2.8 | 2.7 | 2.7 | 2.7 |
| 80\% | 2.4 | 2.4 | 2.9 | 3.1 | 3.1 | 2.9 | 2.9 | 2.9 | 2.8 | 2.6 | 2.6 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.8 | 3.0 | 2.9 | 2.7 | 2.8 | 2.8 | 2.7 | 2.5 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.3 | 3.7 | 3.7 | 3.4 | 3.3 | 3.2 | 3.2 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.6 | 4.4 | 4.4 | 4.1 | 3.8 | 3.6 | 3.6 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.2 | 3.8 | 3.9 | 3.3 | 3.2 | 3.1 | 3.0 | 2.8 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.1 | 3.3 | 3.5 | 2.9 | 3.1 | 3.0 | 2.9 | 2.6 | 2.7 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 3.0 | 3.2 | 3.3 | 3.1 | 3.0 | 3.0 | 2.9 | 2.7 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.8 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.0 | 3.1 | 3.1 | 3.1 |

Alternative 3 minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.3 | 0.1 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.1 | 0.4 | 0.0 | -0.1 | 0.3 | 0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.1 | 0.0 | 0.2 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.1 | 0.3 | 0.1 | -0.1 | -0.1 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.2 | 0.0 | 0.2 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.1 | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 0.1 | 0.3 | 0.3 | -0.1 | 0.0 | -0.1 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.1 | 0.2 | 0.3 | -0.1 | -0.1 | -0.1 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | -0.3 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.1 | 0.4 | 0.2 | 0.0 | 0.3 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.1 | 0.3 | 0.3 | 0.0 | 0.0 | -0.1 | -0.1 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | -0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3 ) Model results for Alternative 2 and $N$ No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-1-6. Old River at Tracy Blvd, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 3.0 | 3.7 | 4.2 | 4.7 | 4.5 | 4.2 | 4.1 | 4.2 | 3.5 | 3.3 | 3.1 |
| 20\% | 2.8 | 2.9 | 3.4 | 3.8 | 4.2 | 3.9 | 3.3 | 3.3 | 3.5 | 3.2 | 3.1 | 3.0 |
| 30\% | 2.8 | 2.8 | 3.2 | 3.4 | 3.8 | 3.5 | 3.1 | 3.1 | 3.3 | 3.1 | 3.1 | 3.0 |
| 40\% | 2.7 | 2.7 | 3.1 | 3.2 | 3.5 | 3.2 | 2.9 | 3.0 | 3.2 | 3.0 | 3.0 | 2.9 |
| 50\% | 2.7 | 2.6 | 3.0 | 3.1 | 3.3 | 3.1 | 2.9 | 2.9 | 3.1 | 2.9 | 2.9 | 2.8 |
| 60\% | 2.6 | 2.6 | 2.9 | 3.0 | 3.1 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 2.8 | 2.8 |
| 70\% | 2.5 | 2.5 | 2.9 | 2.9 | 3.0 | 2.9 | 2.7 | 2.7 | 2.9 | 2.7 | 2.8 | 2.7 |
| 80\% | 2.5 | 2.5 | 2.8 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.8 | 2.7 | 2.7 | 2.6 |
| 90\% | 2.4 | 2.4 | 2.7 | 2.8 | 2.6 | 2.6 | 2.6 | 2.5 | 2.7 | 2.6 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.7 | 2.7 | 3.2 | 3.4 | 3.6 | 3.4 | 3.1 | 3.1 | 3.3 | 3.0 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 2.8 | 3.5 | 4.2 | 4.3 | 4.2 | 3.7 | 3.5 | 3.9 | 3.3 | 3.0 | 2.9 |
| Above Normal (16\%) | 2.7 | 2.7 | 3.1 | 3.4 | 3.7 | 3.3 | 2.9 | 2.9 | 3.1 | 2.9 | 2.7 | 2.6 |
| Below Normal (13\%) | 2.6 | 2.6 | 3.0 | 3.0 | 3.4 | 2.9 | 2.8 | 2.7 | 2.9 | 2.6 | 2.9 | 2.8 |
| Dry (24\%) | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 | 3.0 | 2.8 | 3.0 | 2.8 |
| Critical (15\%) | 2.8 | 2.8 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 3.1 | 3.9 | 4.4 | 4.5 | 4.4 | 4.4 | 4.4 | 3.9 | 3.5 | 3.2 | 3.2 |
| 20\% | 2.9 | 2.9 | 3.5 | 4.1 | 4.2 | 3.8 | 3.9 | 3.8 | 3.5 | 3.2 | 3.1 | 3.1 |
| 30\% | 2.9 | 2.9 | 3.4 | 3.7 | 3.9 | 3.5 | 3.7 | 3.7 | 3.3 | 3.1 | 3.0 | 3.0 |
| 40\% | 2.8 | 2.8 | 3.3 | 3.5 | 3.7 | 3.3 | 3.6 | 3.6 | 3.2 | 2.9 | 3.0 | 2.9 |
| 50\% | 2.8 | 2.7 | 3.1 | 3.4 | 3.5 | 3.2 | 3.5 | 3.5 | 3.1 | 2.8 | 2.9 | 2.8 |
| 60\% | 2.8 | 2.7 | 3.1 | 3.3 | 3.4 | 3.1 | 3.4 | 3.5 | 3.1 | 2.7 | 2.8 | 2.8 |
| 70\% | 2.7 | 2.6 | 3.0 | 3.2 | 3.3 | 3.0 | 3.3 | 3.4 | 3.1 | 2.6 | 2.7 | 2.7 |
| 80\% | 2.7 | 2.5 | 2.8 | 3.1 | 3.2 | 2.9 | 3.3 | 3.4 | 3.0 | 2.6 | 2.7 | 2.7 |
| 90\% | 2.6 | 2.5 | 2.7 | 3.0 | 2.9 | 2.8 | 3.2 | 3.3 | 2.9 | 2.4 | 2.6 | 2.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.8 | 2.8 | 3.3 | 3.7 | 3.7 | 3.5 | 3.6 | 3.7 | 3.3 | 2.9 | 2.9 | 2.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.9 | 2.9 | 3.6 | 4.4 | 4.4 | 4.1 | 4.1 | 4.0 | 3.7 | 3.3 | 2.9 | 3.0 |
| Above Normal (16\%) | 2.8 | 2.8 | 3.2 | 3.8 | 3.9 | 3.4 | 3.6 | 3.6 | 3.2 | 2.9 | 2.7 | 2.7 |
| Below Normal (13\%) | 2.8 | 2.7 | 3.1 | 3.3 | 3.5 | 3.0 | 3.4 | 3.5 | 3.1 | 2.6 | 2.8 | 2.8 |
| Dry (24\%) | 2.7 | 2.7 | 3.0 | 3.2 | 3.3 | 3.2 | 3.4 | 3.5 | 3.0 | 2.6 | 3.0 | 2.8 |
| Critical (15\%) | 2.9 | 2.9 | 3.2 | 3.2 | 3.3 | 3.1 | 3.3 | 3.4 | 3.1 | 3.0 | 3.1 | 3.0 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.1 | 0.1 | 0.2 | -0.2 | -0.1 | 0.1 | 0.2 | -0.3 | 0.0 | -0.1 | 0.0 |
| 20\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.0 | -0.1 | 0.6 | 0.5 | -0.1 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.0 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.6 | 0.6 | 0.1 | -0.1 | 0.0 | 0.1 |
| 50\% | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.1 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.6 | 0.7 | 0.1 | -0.1 | -0.1 | 0.0 |
| 70\% | 0.2 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.6 | 0.7 | 0.2 | -0.1 | -0.1 | 0.0 |
| 80\% | 0.2 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.6 | 0.8 | 0.2 | -0.1 | 0.0 | 0.0 |
| 90\% | 0.2 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.6 | 0.8 | 0.2 | -0.2 | -0.1 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.5 | 0.6 | 0.0 | -0.1 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.4 | 0.5 | -0.1 | 0.0 | -0.1 | 0.1 |
| Above Normal (16\%) | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 | 0.7 | 0.8 | 0.1 | 0.0 | 0.0 | 0.1 |
| Below Normal (13\%) | 0.2 | 0.2 | 0.0 | 0.3 | 0.1 | 0.1 | 0.6 | 0.8 | 0.3 | 0.0 | -0.1 | 0.0 |
| Dry (24\%) | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.6 | 0.6 | 0.1 | -0.2 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.5 | 0.1 | -0.2 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-1. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-2. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-3. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-4. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-5. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-6. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-7. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-8. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-9. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-10. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-11. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-41-2-12. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-1. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.7 | 1.6 | 0.1 | 0.7 | 1.2 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.8 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| 50\% | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.0 | 0.2 | 1.5 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 | 1.3 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.6 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.6 | 0.7 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.7 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.6 | 1.4 | 2.3 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.6 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.7 | 0.6 | 1.9 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.7 | 1.6 | -0.2 | 0.0 | 0.3 | 0.0 | 0.3 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.6 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.5 | 1.2 | 2.0 | 2.2 | 1.6 | 1.4 | 3.1 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.6 | 1.6 | 0.0 | 0.6 | 1.3 | 1.1 | 0.5 | 0.5 | 2.2 | 1.7 | 1.8 | 1.7 |
| 30\% | 1.5 | 1.5 | 0.0 | 0.1 | 0.7 | 0.6 | 0.1 | 0.2 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.2 | -0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 1.8 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.2 | 0.1 | -0.1 | 0.0 | 1.6 | 1.5 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.0 | 0.0 | -0.2 | -0.1 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.1 | -0.1 | -0.3 | -0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.3 | -0.1 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.5 | -0.4 | -0.3 | -0.3 | -0.4 | -0.2 | 1.2 | 1.2 | 1.4 | 1.5 |


| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.3 | 0.7 | 0.6 | 0.3 | 0.4 | 1.8 | 1.6 | 1.6 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.4 | 1.2 | 1.7 | 1.7 | 1.2 | 1.1 | 2.5 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.5 | 1.5 | -0.1 | 0.2 | 0.8 | 0.5 | 0.0 | 0.1 | 1.9 | 1.6 | 1.6 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.2 | -0.1 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.3 | -0.1 | 0.0 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | -0.1 | -0.2 | -0.3 | 0.0 | 1.4 | 1.4 | 1.5 | 1.6 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{a}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.2 | 0.0 | -0.1 | 0.1 | 0.2 | 0.2 | -0.2 | -0.2 | 0.3 | 0.0 | 0.0 | 0.0 |
| 20\% | -0.2 | 0.0 | -0.1 | -0.2 | 0.0 | 0.1 | -0.7 | -0.5 | 0.1 | 0.1 | 0.0 | 0.0 |
| 30\% | -0.1 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | -0.7 | -0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | -0.1 | 0.0 | -0.1 | -0.2 | -0.2 | 0.0 | -0.6 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | -0.2 | 0.0 | -0.1 | -0.2 | -0.1 | -0.1 | -0.5 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | -0.1 | 0.0 | -0.1 | -0.2 | -0.2 | -0.1 | -0.5 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | -0.1 | 0.0 | 0.0 | -0.2 | -0.2 | -0.1 | -0.3 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | -0.1 | 0.0 | 0.0 | -0.1 | -0.2 | -0.1 | -0.2 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | -0.2 | -0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | 0.0 | 0.0 | -0.2 | -0.1 | -0.1 | -0.4 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.4 | -0.4 | 0.2 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | -0.1 | 0.0 | 0.0 | -0.2 | -0.1 | -0.1 | -0.6 | -0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | -0.2 | -0.1 | 0.0 | -0.2 | -0.1 | -0.1 | -0.5 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | -0.1 | 0.0 | 0.0 | -0.1 | -0.2 | -0.1 | -0.3 | -0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-2. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.7 | 1.6 | 0.1 | 0.7 | 1.2 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.8 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| 50\% | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.0 | 0.2 | 1.5 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 | 1.3 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.6 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.6 | 0.7 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.7 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.6 | 1.4 | 2.3 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.6 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.7 | 0.6 | 1.9 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.7 | 1.6 | -0.2 | 0.0 | 0.3 | 0.0 | 0.3 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.6 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.6 | 1.4 | 2.5 | 2.2 | 1.7 | 1.4 | 2.8 | 2.3 | 2.0 | 1.9 |
| 20\% | 1.6 | 1.6 | 0.1 | 0.7 | 1.3 | 1.0 | 0.9 | 0.7 | 1.9 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.6 | 1.5 | 0.0 | 0.3 | 0.8 | 0.5 | 0.4 | 0.4 | 1.7 | 1.5 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.3 | 0.2 | 1.6 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.2 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 | 1.5 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 1.4 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.3 | -0.1 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.2 | -0.1 | -0.2 | -0.2 | 0.0 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.4 | -0.2 | -0.2 | -0.2 | -0.3 | 0.0 | 1.2 | 1.2 | 1.4 | 1.5 |


| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.5 | 0.5 | 1.7 | 1.6 | 1.6 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.4 | 1.2 | 2.2 | 2.0 | 1.9 | 1.9 |
| Above Normal (16\%) | 1.5 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.4 | 0.4 | 1.7 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | 0.0 | 0.4 | 0.0 | 0.1 | 0.2 | 1.5 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 1.4 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.2 | 0.1 | 1.3 | 1.4 | 1.5 | 1.6 |

Alternative 3 minus No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.2 | 0.0 | 0.0 | 0.2 | 0.6 | 0.3 | -0.1 | -0.3 | 0.0 | 0.0 | 0.2 | 0.1 |
| 20\% | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.3 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| 30\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.4 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| 40\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 50\% | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.2 | -0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 60\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 70\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | -0.2 | -0.3 | -0.1 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.3 | -0.3 | -0.2 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-3. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.7 | 1.6 | 0.1 | 0.7 | 1.2 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.8 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| 50\% | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.0 | 0.2 | 1.5 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 | 1.3 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.6 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.6 | 0.7 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.7 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.6 | 1.4 | 2.3 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.6 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.7 | 0.6 | 1.9 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.7 | 1.6 | -0.2 | 0.0 | 0.3 | 0.0 | 0.3 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.6 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |

Alternative 5

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.8 | 1.8 |
| 20\% | 1.7 | 1.6 | 0.1 | 0.7 | 1.3 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.7 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| 50\% | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.4 | 1.7 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 1.4 | 1.3 | 1.4 | 1.5 |
| 90\% | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.1 | 0.1 | 1.3 | 1.1 | 1.4 | 1.5 |


| Long Term |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Full Simulation Period |  |  |  |  |  |  |  |  |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-4. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.5 | 1.2 | 2.0 | 2.2 | 1.6 | 1.4 | 3.1 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.6 | 1.6 | 0.0 | 0.6 | 1.3 | 1.1 | 0.5 | 0.5 | 2.2 | 1.7 | 1.8 | 1.7 |
| 30\% | 1.5 | 1.5 | 0.0 | 0.1 | 0.7 | 0.6 | 0.1 | 0.2 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.2 | -0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 1.8 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.2 | 0.1 | -0.1 | 0.0 | 1.6 | 1.5 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.0 | 0.0 | -0.2 | -0.1 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.1 | -0.1 | -0.3 | -0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.3 | -0.1 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.5 | -0.4 | -0.3 | -0.3 | -0.4 | -0.2 | 1.2 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.3 | 0.7 | 0.6 | 0.3 | 0.4 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.4 | 1.2 | 1.7 | 1.7 | 1.2 | 1.1 | 2.5 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.5 | 1.5 | -0.1 | 0.2 | 0.8 | 0.5 | 0.0 | 0.1 | 1.9 | 1.6 | 1.6 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.2 | -0.1 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.3 | -0.1 | 0.0 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | -0.1 | -0.2 | -0.3 | 0.0 | 1.4 | 1.4 | 1.5 | 1.6 |

No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug |
| Probability of Exceedance | a |  |  |  |  |  |  |  |  |  |  |  |
| $10 \%$ | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.9 | 1.8 |
| $20 \%$ | 1.7 | 1.6 | 0.1 | 0.7 | 1.2 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| $30 \%$ | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.8 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| $40 \%$ | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| $50 \%$ | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| $60 \%$ | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 1.5 | 1.4 | 1.5 | 1.6 |
| $70 \%$ | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.0 | 0.2 | 1.5 | 1.3 | 1.5 | 1.6 |
| $80 \%$ | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| $90 \%$ | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 | 1.3 | 1.2 | 1.4 | 1.5 |


| Full Simulation Period ${ }^{\text {b }}$ | 1.6 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.6 | 0.7 | 1.8 | 1.6 | 1.6 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.7 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.6 | 1.4 | 2.3 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.6 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.7 | 0.6 | 1.9 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.7 | 1.6 | -0.2 | 0.0 | 0.3 | 0.0 | 0.3 | 0.3 | 1.6 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.6 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |

No Action Alternative minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.2 | 0.0 | 0.1 | -0.1 | -0.2 | -0.2 | 0.2 | 0.2 | -0.3 | 0.0 | 0.0 | 0.0 |
| 20\% | 0.2 | 0.0 | 0.1 | 0.2 | 0.0 | -0.1 | 0.7 | 0.5 | -0.1 | -0.1 | 0.0 | 0.0 |
| 30\% | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.2 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.5 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.3 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.4 | 0.4 | -0.2 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.2 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 0.0 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-5. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.5 | 1.2 | 2.0 | 2.2 | 1.6 | 1.4 | 3.1 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.6 | 1.6 | 0.0 | 0.6 | 1.3 | 1.1 | 0.5 | 0.5 | 2.2 | 1.7 | 1.8 | 1.7 |
| 30\% | 1.5 | 1.5 | 0.0 | 0.1 | 0.7 | 0.6 | 0.1 | 0.2 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.2 | -0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 1.8 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.2 | 0.1 | -0.1 | 0.0 | 1.6 | 1.5 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.0 | 0.0 | -0.2 | -0.1 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.1 | -0.1 | -0.3 | -0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.3 | -0.1 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.5 | -0.4 | -0.3 | -0.3 | -0.4 | -0.2 | 1.2 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.3 | 0.7 | 0.6 | 0.3 | 0.4 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.4 | 1.2 | 1.7 | 1.7 | 1.2 | 1.1 | 2.5 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.5 | 1.5 | -0.1 | 0.2 | 0.8 | 0.5 | 0.0 | 0.1 | 1.9 | 1.6 | 1.6 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.2 | -0.1 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.3 | -0.1 | 0.0 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | -0.1 | -0.2 | -0.3 | 0.0 | 1.4 | 1.4 | 1.5 | 1.6 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.6 | 1.4 | 2.5 | 2.2 | 1.7 | 1.4 | 2.8 | 2.3 | 2.0 | 1.9 |
| 20\% | 1.6 | 1.6 | 0.1 | 0.7 | 1.3 | 1.0 | 0.9 | 0.7 | 1.9 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.6 | 1.5 | 0.0 | 0.3 | 0.8 | 0.5 | 0.4 | 0.4 | 1.7 | 1.5 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.3 | 0.2 | 1.6 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.2 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 | 1.5 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 1.4 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.3 | -0.1 | 0.0 | -0.1 | -0.1 | 0.1 | 1.4 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.2 | -0.1 | -0.2 | -0.2 | 0.0 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.4 | -0.2 | -0.2 | -0.2 | -0.3 | 0.0 | 1.2 | 1.2 | 1.4 | 1.5 |


| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.5 | 0.5 | 1.7 | 1.6 | 1.6 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.4 | 1.2 | 2.2 | 2.0 | 1.9 | 1.9 |
| Above Normal (16\%) | 1.5 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.4 | 0.4 | 1.7 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | 0.0 | 0.4 | 0.0 | 0.1 | 0.2 | 1.5 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 1.4 | 1.3 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | -0.2 | 0.1 | 1.3 | 1.4 | 1.5 | 1.6 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.0 | 0.1 | -0.1 | -0.3 | 0.0 | 0.1 | 0.1 |
| 20\% | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | -0.2 | 0.4 | 0.2 | -0.3 | -0.1 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.3 | 0.2 | -0.2 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.0 | 0.3 | 0.1 | -0.2 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 | 0.2 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | -0.3 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 | 0.3 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.3 | 0.2 | 0.0 | 0.0 | -0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-41-2-6. Old River at Tracy Blvd, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.6 | 1.6 | 0.5 | 1.2 | 2.0 | 2.2 | 1.6 | 1.4 | 3.1 | 2.3 | 1.9 | 1.8 |
| 20\% | 1.6 | 1.6 | 0.0 | 0.6 | 1.3 | 1.1 | 0.5 | 0.5 | 2.2 | 1.7 | 1.8 | 1.7 |
| 30\% | 1.5 | 1.5 | 0.0 | 0.1 | 0.7 | 0.6 | 0.1 | 0.2 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.5 | 1.5 | -0.2 | -0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 1.8 | 1.5 | 1.6 | 1.6 |
| 50\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.2 | 0.1 | -0.1 | 0.0 | 1.6 | 1.5 | 1.5 | 1.6 |
| 60\% | 1.5 | 1.5 | -0.3 | -0.2 | 0.0 | 0.0 | -0.2 | -0.1 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.1 | -0.1 | -0.3 | -0.1 | 1.4 | 1.3 | 1.5 | 1.5 |
| 80\% | 1.4 | 1.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.3 | -0.1 | 1.3 | 1.3 | 1.5 | 1.5 |
| 90\% | 1.4 | 1.4 | -0.5 | -0.4 | -0.3 | -0.3 | -0.4 | -0.2 | 1.2 | 1.2 | 1.4 | 1.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 1.5 | 1.6 | 0.0 | 0.3 | 0.7 | 0.6 | 0.3 | 0.4 | 1.8 | 1.6 | 1.6 | 1.7 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.6 | 1.7 | 0.4 | 1.2 | 1.7 | 1.7 | 1.2 | 1.1 | 2.5 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.5 | 1.5 | -0.1 | 0.2 | 0.8 | 0.5 | 0.0 | 0.1 | 1.9 | 1.6 | 1.6 | 1.6 |
| Below Normal (13\%) | 1.5 | 1.5 | -0.2 | -0.2 | 0.2 | -0.1 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Dry (24\%) | 1.5 | 1.5 | -0.3 | -0.3 | -0.1 | 0.0 | -0.2 | 0.0 | 1.5 | 1.4 | 1.6 | 1.6 |
| Critical (15\%) | 1.5 | 1.5 | -0.2 | -0.2 | -0.1 | -0.2 | -0.3 | 0.0 | 1.4 | 1.4 | 1.5 | 1.6 |

Alternative 5

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.8 | 1.7 | 0.6 | 1.1 | 1.8 | 1.9 | 1.8 | 1.6 | 2.8 | 2.3 | 1.8 | 1.8 |
| 20\% | 1.7 | 1.6 | 0.1 | 0.7 | 1.3 | 1.0 | 1.2 | 1.0 | 2.0 | 1.7 | 1.8 | 1.8 |
| 30\% | 1.7 | 1.6 | 0.0 | 0.3 | 0.8 | 0.6 | 0.7 | 0.7 | 1.9 | 1.6 | 1.7 | 1.7 |
| 40\% | 1.7 | 1.5 | -0.1 | 0.1 | 0.6 | 0.3 | 0.5 | 0.5 | 1.7 | 1.5 | 1.6 | 1.7 |
| 50\% | 1.6 | 1.5 | -0.2 | 0.0 | 0.3 | 0.2 | 0.4 | 0.4 | 1.7 | 1.4 | 1.5 | 1.6 |
| 60\% | 1.6 | 1.5 | -0.2 | -0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 1.5 | 1.4 | 1.5 | 1.6 |
| 70\% | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | -0.1 | 0.1 | 0.3 | 1.5 | 1.3 | 1.5 | 1.6 |
| 80\% | 1.5 | 1.4 | -0.4 | -0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 1.4 | 1.3 | 1.4 | 1.5 |
| 90\% | 1.5 | 1.4 | -0.5 | -0.2 | -0.2 | -0.2 | -0.1 | 0.1 | 1.3 | 1.1 | 1.4 | 1.5 |


| Full Simulation Period ${ }^{\text {b }}$ | 1.6 | 1.6 | 0.0 | 0.5 | 0.8 | 0.6 | 0.7 | 0.7 | 1.8 | 1.6 | 1.6 | 1.7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 1.7 | 1.7 | 0.5 | 1.4 | 1.8 | 1.7 | 1.6 | 1.5 | 2.3 | 2.0 | 1.8 | 1.8 |
| Above Normal (16\%) | 1.6 | 1.5 | 0.0 | 0.4 | 0.9 | 0.5 | 0.7 | 0.7 | 1.9 | 1.5 | 1.5 | 1.6 |
| Below Normal (13\%) | 1.7 | 1.6 | -0.2 | 0.0 | 0.3 | 0.0 | 0.3 | 0.4 | 1.6 | 1.4 | 1.5 | 1.6 |
| Dry (24\%) | 1.6 | 1.5 | -0.3 | -0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 1.5 | 1.3 | 1.5 | 1.6 |
| Critical (15\%) | 1.6 | 1.5 | -0.2 | -0.2 | 0.0 | -0.1 | 0.0 | 0.2 | 1.4 | 1.3 | 1.5 | 1.6 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.2 | 0.0 | 0.1 | -0.1 | -0.2 | -0.2 | 0.2 | 0.2 | -0.3 | 0.0 | -0.1 | 0.0 |
| 20\% | 0.2 | 0.1 | 0.1 | 0.2 | 0.0 | -0.1 | 0.7 | 0.5 | -0.1 | -0.1 | 0.0 | 0.0 |
| 30\% | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.2 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.6 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.3 | 0.4 | 0.1 | -0.1 | 0.0 | 0.0 |
| 90\% | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.0 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.4 | 0.4 | -0.2 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.2 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.4 | 0.3 | 0.0 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

## 1 C.42. Mokelumne River at Terminous Water Surface Elevation

Figure C-42-1-1. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-2. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-3. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-4. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-5. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-6. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-7. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-8. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-9. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-10. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-11. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-1-12. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-1. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.2 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |


| Long Term |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Full Simulation Period |  |  |  |  |  |  |  |  |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-2. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.2 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.2 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.8 | 4.0 | 4.1 | 3.9 | 3.8 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.1 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.7 |
| Below Normal (13\%) | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-3. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.7 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-4. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.2 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.8 | 4.0 | 4.1 | 3.9 | 3.8 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.7 |
| Below Normal (13\%) | 3.5 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 .
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-5. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.2 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.8 | 4.0 | 4.1 | 3.9 | 3.8 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.7 |
| Below Normal (13\%) | 3.5 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.2 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.2 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 4.0 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.8 | 4.0 | 4.1 | 3.9 | 3.8 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.1 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.7 |
| Below Normal (13\%) | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-1-6. Mokelumne River at Terminous, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.8 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.2 | 4.2 | 4.1 | 3.9 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.5 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.4 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.8 | 4.0 | 4.1 | 3.9 | 3.8 |
| Above Normal (16\%) | 3.6 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.0 | 3.9 | 3.7 |
| Below Normal (13\%) | 3.5 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.7 | 3.9 | 4.3 | 4.6 | 4.6 | 4.2 | 3.9 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.7 | 3.8 | 4.1 | 4.3 | 4.3 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 4.0 | 3.9 |
| 30\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.9 |
| 40\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 50\% | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 60\% | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| 70\% | 3.5 | 3.5 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.6 | 3.8 | 4.0 | 3.8 | 3.7 |
| 80\% | 3.4 | 3.5 | 3.6 | 3.6 | 3.5 | 3.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.8 | 3.6 |
| 90\% | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.2 | 3.2 | 3.4 | 3.7 | 3.9 | 3.8 | 3.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.6 | 3.7 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 3.9 | 4.0 | 4.1 | 3.9 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.7 | 3.8 | 4.0 | 4.2 | 3.7 | 3.5 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.6 | 3.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.8 |
| Dry (24\%) | 3.5 | 3.5 | 3.6 | 3.7 | 3.6 | 3.5 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Critical (15\%) | 3.6 | 3.6 | 3.7 | 3.7 | 3.6 | 3.4 | 3.4 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-1. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-2. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-3. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-4. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-5. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-6. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-7. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-8. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-9. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-10. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-11. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-42-2-12. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-1. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.5 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.6 | 0.1 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.2 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.2 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.6 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |


| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Full Simulation Period ${ }^{\mathbf{b}}$ | -0.3 | -0.5 | -0.4 | -0.2 | 0.0 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\mathbf{c}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.2 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{a}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 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 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-2. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.5 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.5 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.2 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.4 | -0.3 | -0.1 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.4 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.5 | -0.4 | -0.1 | 0.1 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | 0.0 | 0.3 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.4 | -0.4 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |


|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); ;rojected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-3. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.5 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.4 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-4. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.6 | 0.1 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.2 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.2 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.6 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.5 | -0.4 | -0.2 | 0.0 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.2 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.5 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 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 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-5. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.6 | 0.1 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.2 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.2 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.6 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.5 | -0.4 | -0.2 | 0.0 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.2 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.5 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.2 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.4 | -0.3 | -0.1 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.4 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.5 | -0.4 | -0.1 | 0.1 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | 0.0 | 0.3 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.4 | -0.4 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 3 minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.1 | 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 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-42-2-6. Mokelumne River at Terminous, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.1 | 0.5 | 0.9 | 0.6 | 0.1 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 |
| 20\% | -0.2 | -0.4 | -0.1 | 0.2 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 |
| 30\% | -0.3 | -0.4 | -0.3 | -0.2 | 0.2 | -0.1 | -0.3 | -0.3 | -0.3 | -0.2 | -0.1 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 | -0.1 |
| 50\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| 70\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.4 | -0.5 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.7 | -0.7 | -0.6 | -0.6 | -0.6 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.5 | -0.4 | -0.2 | 0.0 | -0.1 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.1 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.2 | -0.1 | -0.3 | -0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.5 | -0.5 | -0.6 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.3 | 0.2 | 0.5 | 0.9 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| 20\% | -0.2 | -0.3 | -0.1 | 0.3 | 0.4 | 0.1 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 |
| 30\% | -0.2 | -0.4 | -0.3 | -0.1 | 0.2 | -0.1 | -0.2 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 |
| 40\% | -0.3 | -0.4 | -0.4 | -0.3 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| 50\% | -0.3 | -0.4 | -0.4 | -0.3 | -0.1 | -0.2 | -0.4 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 |
| 60\% | -0.4 | -0.5 | -0.5 | -0.4 | -0.2 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 70\% | -0.4 | -0.5 | -0.6 | -0.5 | -0.3 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 |
| 80\% | -0.4 | -0.6 | -0.6 | -0.5 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 90\% | -0.5 | -0.6 | -0.7 | -0.6 | -0.5 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.3 | -0.4 | -0.4 | -0.1 | 0.1 | -0.1 | -0.3 | -0.4 | -0.3 | -0.3 | -0.2 | -0.1 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.3 | -0.4 | -0.1 | 0.3 | 0.5 | 0.3 | 0.0 | -0.2 | -0.2 | -0.2 | -0.2 | 0.0 |
| Above Normal (16\%) | -0.3 | -0.4 | -0.4 | -0.1 | 0.3 | -0.1 | -0.3 | -0.3 | -0.4 | -0.3 | -0.2 | -0.2 |
| Below Normal (13\%) | -0.3 | -0.5 | -0.5 | -0.4 | -0.2 | -0.4 | -0.4 | -0.5 | -0.4 | -0.3 | -0.2 | -0.1 |
| Dry (24\%) | -0.3 | -0.5 | -0.6 | -0.5 | -0.3 | -0.3 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |
| Critical (15\%) | -0.3 | -0.5 | -0.5 | -0.5 | -0.3 | -0.5 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 | -0.2 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); ;rojected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 C.43. Sacramento River at Freeport Water Surface Elevation

Figure C-43-1-1. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-2. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-3. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-4. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-5. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-6. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-7. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-8. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-9. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-10. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-11. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-1-12. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-1-1. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.7 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.2 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.7 | 6.1 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.7 | 10.5 | 7.5 | 5.4 | 4.6 | 4.7 | 5.8 | 4.9 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.2 | 6.4 | 4.6 | 4.5 | 4.6 | 5.5 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.4 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.3 | 4.7 | 4.4 |
| 70\% | 4.0 | 4.1 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.1 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 4.0 | 4.1 | 4.3 | 4.9 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.2 | 4.6 | 4.2 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.0 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.8 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.8 | 5.0 | 7.3 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.5 | 4.6 | 6.0 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.3 | 4.6 | 5.2 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.1 | 13.0 | 15.2 | 16.2 | 14.8 | 11.3 | 9.6 | 5.9 | 6.2 | 5.1 | 4.9 |
| 20\% | 4.4 | 4.7 | 8.8 | 13.4 | 14.6 | 12.3 | 8.3 | 7.2 | 5.4 | 5.9 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.6 | 6.1 | 10.2 | 12.4 | 10.3 | 6.0 | 5.2 | 5.2 | 5.7 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.4 | 5.3 | 7.1 | 11.1 | 7.6 | 5.4 | 4.7 | 5.0 | 5.6 | 4.8 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.2 | 8.4 | 6.5 | 4.7 | 4.6 | 4.9 | 5.4 | 4.7 | 4.5 |
| 60\% | 4.1 | 4.2 | 4.7 | 5.3 | 6.5 | 5.6 | 4.3 | 4.5 | 4.7 | 5.2 | 4.6 | 4.3 |
| 70\% | 4.0 | 4.1 | 4.5 | 4.8 | 5.6 | 5.2 | 4.2 | 4.3 | 4.6 | 4.8 | 4.4 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.6 | 4.4 | 4.1 |
| 90\% | 3.8 | 3.8 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.0 |


| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.3 | 4.7 | 4.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.6 | 8.8 | 7.8 | 6.0 | 5.6 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.0 | 6.7 | 9.8 | 11.5 | 10.4 | 6.5 | 5.4 | 5.1 | 5.9 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.3 | 4.6 | 5.0 | 5.6 | 8.2 | 5.4 | 4.5 | 4.7 | 5.2 | 5.8 | 4.8 | 4.5 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.9 | 4.6 | 4.4 | 4.8 | 4.9 | 4.4 | 4.3 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

Alternative 1 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | -0.1 | 1.1 | 0.3 | 0.0 | 0.3 | 0.0 | 0.0 | 0.2 | -0.3 | -0.1 | -2.6 |
| 20\% | -0.1 | -0.8 | 0.5 | 0.8 | 0.1 | 0.1 | 0.0 | 0.5 | 0.4 | -0.5 | -0.1 | -2.6 |
| 30\% | -0.1 | -0.7 | 0.1 | 0.6 | 0.4 | 1.0 | 0.0 | 0.1 | 0.5 | -0.4 | -0.1 | -1.6 |
| 40\% | -0.1 | -0.5 | 0.1 | 0.4 | 0.6 | 0.2 | 0.0 | 0.1 | 0.4 | -0.2 | -0.1 | -1.1 |
| 50\% | 0.0 | -0.3 | 0.0 | 0.3 | 0.1 | 0.0 | 0.0 | 0.1 | 0.3 | -0.1 | -0.2 | -0.2 |
| 60\% | 0.0 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | -0.1 | -0.1 | -0.1 |
| 70\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | -0.4 | -0.1 | -0.1 |
| 80\% | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.3 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | -0.2 | -0.1 | -1.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.3 | 0.5 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | -0.2 | -0.1 | -2.5 |
| Above Normal (16\%) | 0.0 | -0.3 | -0.1 | 0.2 | 0.2 | 0.4 | 0.0 | 0.2 | 0.4 | -0.2 | -0.1 | -1.1 |
| Below Normal (13\%) | -0.1 | -0.3 | 0.0 | 0.1 | 0.3 | 0.2 | 0.0 | 0.3 | 0.6 | -0.3 | -0.2 | 0.0 |
| Dry (24\%) | 0.0 | -0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | -0.3 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-1-2. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.7 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.2 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.7 | 6.1 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.7 | 10.5 | 7.5 | 5.4 | 4.6 | 4.7 | 5.8 | 4.9 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.2 | 6.4 | 4.6 | 4.5 | 4.6 | 5.5 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.4 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.3 | 4.7 | 4.4 |
| 70\% | 4.0 | 4.1 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.1 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 4.0 | 4.1 | 4.3 | 4.9 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.2 | 4.6 | 4.2 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.0 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.8 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.8 | 5.0 | 7.3 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.5 | 4.6 | 6.0 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.3 | 4.6 | 5.2 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.5 | 6.1 | 13.0 | 15.1 | 16.2 | 14.8 | 11.3 | 9.6 | 5.7 | 6.4 | 5.1 | 4.8 |
| 20\% | 4.4 | 4.8 | 8.9 | 13.3 | 14.6 | 12.3 | 8.3 | 6.9 | 5.3 | 6.3 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.5 | 6.1 | 10.2 | 12.4 | 9.7 | 6.0 | 5.2 | 5.1 | 6.1 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.3 | 5.3 | 7.0 | 11.0 | 7.6 | 5.4 | 4.7 | 5.0 | 5.8 | 4.9 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.1 | 8.4 | 6.5 | 4.7 | 4.6 | 4.8 | 5.6 | 4.7 | 4.5 |
| 60\% | 4.0 | 4.2 | 4.7 | 5.3 | 6.5 | 5.7 | 4.3 | 4.4 | 4.8 | 5.3 | 4.6 | 4.4 |
| 70\% | 3.9 | 4.1 | 4.5 | 4.8 | 5.7 | 5.2 | 4.2 | 4.3 | 4.7 | 5.0 | 4.5 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.7 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.8 | 4.2 | 4.3 | 4.6 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.5 | 4.7 | 4.5 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.5 | 8.8 | 7.9 | 6.1 | 5.7 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.1 | 6.7 | 9.7 | 11.5 | 10.3 | 6.5 | 5.4 | 5.0 | 6.1 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.2 | 4.6 | 5.0 | 5.7 | 8.2 | 5.4 | 4.5 | 4.6 | 4.9 | 6.1 | 5.0 | 4.6 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.8 | 4.6 | 4.4 | 4.8 | 5.1 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 5.0 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

Alternative 3 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | 0.0 | 1.0 | 0.2 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -2.7 |
| 20\% | -0.1 | -0.7 | 0.7 | 0.7 | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | -0.1 | 0.0 | -2.6 |
| 30\% | -0.1 | -0.7 | 0.2 | 0.6 | 0.4 | 0.5 | 0.0 | 0.2 | 0.4 | 0.0 | -0.1 | -1.6 |
| 40\% | -0.1 | -0.6 | 0.1 | 0.4 | 0.5 | 0.2 | 0.0 | 0.1 | 0.3 | 0.0 | -0.1 | -1.1 |
| 50\% | 0.0 | -0.4 | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | -0.1 | -0.2 |
| 60\% | 0.0 | -0.2 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.3 | 0.0 | -0.1 | -0.1 |
| 70\% | 0.0 | -0.1 | -0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | -0.2 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | -1.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.3 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | -0.1 | -0.1 | -2.5 |
| Above Normal (16\%) | -0.1 | -0.3 | -0.1 | 0.1 | 0.2 | 0.3 | 0.0 | 0.2 | 0.3 | -0.1 | -0.1 | -1.1 |
| Below Normal (13\%) | -0.1 | -0.3 | 0.0 | 0.2 | 0.3 | 0.2 | 0.0 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 |
| Dry (24\%) | 0.0 | -0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030,
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-1-3. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.7 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.2 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.7 | 6.1 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.7 | 10.5 | 7.5 | 5.4 | 4.6 | 4.7 | 5.8 | 4.9 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.2 | 6.4 | 4.6 | 4.5 | 4.6 | 5.5 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.4 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.3 | 4.7 | 4.4 |
| 70\% | 4.0 | 4.1 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.1 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 4.0 | 4.1 | 4.3 | 4.9 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.2 | 4.6 | 4.2 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.0 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.8 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.8 | 5.0 | 7.3 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.5 | 4.6 | 6.0 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.3 | 4.6 | 5.2 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.6 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.3 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.8 | 6.2 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.6 | 10.5 | 7.5 | 5.4 | 4.5 | 4.7 | 5.8 | 5.0 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.3 | 6.4 | 4.6 | 4.4 | 4.6 | 5.6 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.3 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.4 | 4.8 | 4.5 |
| 70\% | 4.0 | 4.2 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.2 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 3.9 | 4.1 | 4.3 | 5.1 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 3.9 | 4.2 | 4.6 | 4.3 | 4.0 |


| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.1 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.9 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.9 | 5.0 | 7.2 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.4 | 4.6 | 6.1 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.2 | 4.6 | 5.3 | 4.5 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 3.9 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-1-4. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.1 | 13.0 | 15.2 | 16.2 | 14.8 | 11.3 | 9.6 | 5.9 | 6.2 | 5.1 | 4.9 |
| 20\% | 4.4 | 4.7 | 8.8 | 13.4 | 14.6 | 12.3 | 8.3 | 7.2 | 5.4 | 5.9 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.6 | 6.1 | 10.2 | 12.4 | 10.3 | 6.0 | 5.2 | 5.2 | 5.7 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.4 | 5.3 | 7.1 | 11.1 | 7.6 | 5.4 | 4.7 | 5.0 | 5.6 | 4.8 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.2 | 8.4 | 6.5 | 4.7 | 4.6 | 4.9 | 5.4 | 4.7 | 4.5 |
| 60\% | 4.1 | 4.2 | 4.7 | 5.3 | 6.5 | 5.6 | 4.3 | 4.5 | 4.7 | 5.2 | 4.6 | 4.3 |
| 70\% | 4.0 | 4.1 | 4.5 | 4.8 | 5.6 | 5.2 | 4.2 | 4.3 | 4.6 | 4.8 | 4.4 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.6 | 4.4 | 4.1 |
| 90\% | 3.8 | 3.8 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.3 | 4.7 | 4.5 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.6 | 8.8 | 7.8 | 6.0 | 5.6 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.0 | 6.7 | 9.8 | 11.5 | 10.4 | 6.5 | 5.4 | 5.1 | 5.9 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.3 | 4.6 | 5.0 | 5.6 | 8.2 | 5.4 | 4.5 | 4.7 | 5.2 | 5.8 | 4.8 | 4.5 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.9 | 4.6 | 4.4 | 4.8 | 4.9 | 4.4 | 4.3 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

No Action Alternative

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.7 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.2 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.7 | 6.1 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.7 | 10.5 | 7.5 | 5.4 | 4.6 | 4.7 | 5.8 | 4.9 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.2 | 6.4 | 4.6 | 4.5 | 4.6 | 5.5 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.4 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.3 | 4.7 | 4.4 |
| 70\% | 4.0 | 4.1 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.1 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 4.0 | 4.1 | 4.3 | 4.9 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.2 | 4.6 | 4.2 | 4.0 |


| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.0 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.8 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.8 | 5.0 | 7.3 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.5 | 4.6 | 6.0 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.3 | 4.6 | 5.2 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.1 | -1.1 | -0.3 | 0.0 | -0.3 | 0.0 | 0.0 | -0.2 | 0.3 | 0.1 | 2.6 |
| 20\% | 0.1 | 0.8 | -0.5 | -0.8 | -0.1 | -0.1 | 0.0 | -0.5 | -0.4 | 0.5 | 0.1 | 2.6 |
| 30\% | 0.1 | 0.7 | -0.1 | -0.6 | -0.4 | -1.0 | 0.0 | -0.1 | -0.5 | 0.4 | 0.1 | 1.6 |
| 40\% | 0.1 | 0.5 | -0.1 | -0.4 | -0.6 | -0.2 | 0.0 | -0.1 | -0.4 | 0.2 | 0.1 | 1.1 |
| 50\% | 0.0 | 0.3 | 0.0 | -0.3 | -0.1 | 0.0 | 0.0 | -0.1 | -0.3 | 0.1 | 0.2 | 0.2 |
| 60\% | 0.0 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | 0.1 | 0.1 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.0 | -0.2 | 0.0 | 0.0 | -0.1 | -0.1 | 0.4 | 0.1 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.3 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.3 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.1 | -0.2 | 0.2 | 0.1 | 1.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.3 | -0.5 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 | 0.2 | 0.1 | 2.5 |
| Above Normal (16\%) | 0.0 | 0.3 | 0.1 | -0.2 | -0.2 | -0.4 | 0.0 | -0.2 | -0.4 | 0.2 | 0.1 | 1.1 |
| Below Normal (13\%) | 0.1 | 0.3 | 0.0 | -0.1 | -0.3 | -0.2 | 0.0 | -0.3 | -0.6 | 0.3 | 0.2 | 0.0 |
| Dry (24\%) | 0.0 | 0.3 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.2 | 0.3 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-1-5. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.1 | 13.0 | 15.2 | 16.2 | 14.8 | 11.3 | 9.6 | 5.9 | 6.2 | 5.1 | 4.9 |
| 20\% | 4.4 | 4.7 | 8.8 | 13.4 | 14.6 | 12.3 | 8.3 | 7.2 | 5.4 | 5.9 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.6 | 6.1 | 10.2 | 12.4 | 10.3 | 6.0 | 5.2 | 5.2 | 5.7 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.4 | 5.3 | 7.1 | 11.1 | 7.6 | 5.4 | 4.7 | 5.0 | 5.6 | 4.8 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.2 | 8.4 | 6.5 | 4.7 | 4.6 | 4.9 | 5.4 | 4.7 | 4.5 |
| 60\% | 4.1 | 4.2 | 4.7 | 5.3 | 6.5 | 5.6 | 4.3 | 4.5 | 4.7 | 5.2 | 4.6 | 4.3 |
| 70\% | 4.0 | 4.1 | 4.5 | 4.8 | 5.6 | 5.2 | 4.2 | 4.3 | 4.6 | 4.8 | 4.4 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.6 | 4.4 | 4.1 |
| 90\% | 3.8 | 3.8 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.3 | 4.7 | 4.5 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.6 | 8.8 | 7.8 | 6.0 | 5.6 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.0 | 6.7 | 9.8 | 11.5 | 10.4 | 6.5 | 5.4 | 5.1 | 5.9 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.3 | 4.6 | 5.0 | 5.6 | 8.2 | 5.4 | 4.5 | 4.7 | 5.2 | 5.8 | 4.8 | 4.5 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.9 | 4.6 | 4.4 | 4.8 | 4.9 | 4.4 | 4.3 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.5 | 6.1 | 13.0 | 15.1 | 16.2 | 14.8 | 11.3 | 9.6 | 5.7 | 6.4 | 5.1 | 4.8 |
| 20\% | 4.4 | 4.8 | 8.9 | 13.3 | 14.6 | 12.3 | 8.3 | 6.9 | 5.3 | 6.3 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.5 | 6.1 | 10.2 | 12.4 | 9.7 | 6.0 | 5.2 | 5.1 | 6.1 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.3 | 5.3 | 7.0 | 11.0 | 7.6 | 5.4 | 4.7 | 5.0 | 5.8 | 4.9 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.1 | 8.4 | 6.5 | 4.7 | 4.6 | 4.8 | 5.6 | 4.7 | 4.5 |
| 60\% | 4.0 | 4.2 | 4.7 | 5.3 | 6.5 | 5.7 | 4.3 | 4.4 | 4.8 | 5.3 | 4.6 | 4.4 |
| 70\% | 3.9 | 4.1 | 4.5 | 4.8 | 5.7 | 5.2 | 4.2 | 4.3 | 4.7 | 5.0 | 4.5 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.7 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.8 | 4.2 | 4.3 | 4.6 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.1 |


| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.5 | 4.7 | 4.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.5 | 8.8 | 7.9 | 6.1 | 5.7 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.1 | 6.7 | 9.7 | 11.5 | 10.3 | 6.5 | 5.4 | 5.0 | 6.1 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.2 | 4.6 | 5.0 | 5.7 | 8.2 | 5.4 | 4.5 | 4.6 | 4.9 | 6.1 | 5.0 | 4.6 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.8 | 4.6 | 4.4 | 4.8 | 5.1 | 4.4 | 4.2 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 5.0 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.1 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.2 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 | -0.3 | -0.1 | 0.4 | 0.1 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.5 | 0.0 | 0.0 | -0.1 | 0.4 | 0.1 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.2 | 0.1 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.2 | 0.1 | 0.0 |
| 60\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 90\% | 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 |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.2 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.4 | 0.4 | 0.3 | 0.1 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-43-1-6. Sacramento River at Freeport, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.1 | 13.0 | 15.2 | 16.2 | 14.8 | 11.3 | 9.6 | 5.9 | 6.2 | 5.1 | 4.9 |
| 20\% | 4.4 | 4.7 | 8.8 | 13.4 | 14.6 | 12.3 | 8.3 | 7.2 | 5.4 | 5.9 | 5.0 | 4.7 |
| 30\% | 4.3 | 4.6 | 6.1 | 10.2 | 12.4 | 10.3 | 6.0 | 5.2 | 5.2 | 5.7 | 4.9 | 4.6 |
| 40\% | 4.2 | 4.4 | 5.3 | 7.1 | 11.1 | 7.6 | 5.4 | 4.7 | 5.0 | 5.6 | 4.8 | 4.6 |
| 50\% | 4.1 | 4.2 | 4.9 | 6.2 | 8.4 | 6.5 | 4.7 | 4.6 | 4.9 | 5.4 | 4.7 | 4.5 |
| 60\% | 4.1 | 4.2 | 4.7 | 5.3 | 6.5 | 5.6 | 4.3 | 4.5 | 4.7 | 5.2 | 4.6 | 4.3 |
| 70\% | 4.0 | 4.1 | 4.5 | 4.8 | 5.6 | 5.2 | 4.2 | 4.3 | 4.6 | 4.8 | 4.4 | 4.2 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.5 | 4.0 | 4.2 | 4.5 | 4.6 | 4.4 | 4.1 |
| 90\% | 3.8 | 3.8 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 4.0 | 4.3 | 4.5 | 4.3 | 4.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 4.8 | 6.6 | 8.1 | 9.4 | 8.1 | 6.1 | 5.6 | 5.2 | 5.3 | 4.7 | 4.5 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.4 | 5.5 | 9.6 | 12.1 | 13.4 | 11.6 | 8.8 | 7.8 | 6.0 | 5.6 | 4.9 | 4.8 |
| Above Normal (16\%) | 4.1 | 5.0 | 6.7 | 9.8 | 11.5 | 10.4 | 6.5 | 5.4 | 5.1 | 5.9 | 5.0 | 4.6 |
| Below Normal (13\%) | 4.3 | 4.6 | 5.0 | 5.6 | 8.2 | 5.4 | 4.5 | 4.7 | 5.2 | 5.8 | 4.8 | 4.5 |
| Dry (24\%) | 4.0 | 4.2 | 4.6 | 5.2 | 6.4 | 5.9 | 4.6 | 4.4 | 4.8 | 4.9 | 4.4 | 4.3 |
| Critical (15\%) | 4.0 | 4.0 | 4.5 | 4.8 | 4.9 | 4.3 | 4.0 | 4.0 | 4.4 | 4.5 | 4.3 | 4.1 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.6 | 6.2 | 12.0 | 14.9 | 16.2 | 14.5 | 11.3 | 9.6 | 5.7 | 6.5 | 5.2 | 7.5 |
| 20\% | 4.5 | 5.5 | 8.3 | 12.6 | 14.5 | 12.2 | 8.3 | 6.7 | 5.0 | 6.4 | 5.1 | 7.3 |
| 30\% | 4.4 | 5.3 | 5.9 | 9.6 | 12.0 | 9.2 | 6.0 | 5.0 | 4.8 | 6.2 | 5.0 | 6.2 |
| 40\% | 4.3 | 4.9 | 5.2 | 6.6 | 10.5 | 7.5 | 5.4 | 4.5 | 4.7 | 5.8 | 5.0 | 5.7 |
| 50\% | 4.1 | 4.6 | 4.9 | 5.9 | 8.3 | 6.4 | 4.6 | 4.4 | 4.6 | 5.6 | 4.9 | 4.7 |
| 60\% | 4.0 | 4.3 | 4.8 | 5.3 | 6.4 | 5.6 | 4.3 | 4.3 | 4.5 | 5.4 | 4.8 | 4.5 |
| 70\% | 4.0 | 4.2 | 4.6 | 4.8 | 5.4 | 5.2 | 4.1 | 4.2 | 4.5 | 5.2 | 4.5 | 4.3 |
| 80\% | 3.9 | 4.0 | 4.3 | 4.5 | 4.8 | 4.4 | 3.9 | 4.1 | 4.3 | 5.1 | 4.4 | 4.2 |
| 90\% | 3.7 | 3.9 | 4.2 | 4.3 | 4.5 | 4.0 | 3.8 | 3.9 | 4.2 | 4.6 | 4.3 | 4.0 |


| Full Simulation Period ${ }^{\text {b }}$ | 4.2 | 5.1 | 6.5 | 8.0 | 9.3 | 8.0 | 6.1 | 5.5 | 5.0 | 5.6 | 4.8 | 5.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 4.5 | 5.9 | 9.2 | 11.9 | 13.3 | 11.5 | 8.8 | 7.8 | 5.9 | 5.9 | 5.0 | 7.2 |
| Above Normal (16\%) | 4.1 | 5.4 | 6.8 | 9.6 | 11.3 | 10.0 | 6.5 | 5.2 | 4.7 | 6.2 | 5.1 | 5.7 |
| Below Normal (13\%) | 4.3 | 4.9 | 5.0 | 5.5 | 7.8 | 5.2 | 4.5 | 4.4 | 4.6 | 6.1 | 5.0 | 4.5 |
| Dry (24\%) | 4.1 | 4.4 | 4.7 | 5.3 | 6.4 | 5.8 | 4.6 | 4.2 | 4.6 | 5.3 | 4.5 | 4.2 |
| Critical (15\%) | 4.0 | 4.1 | 4.5 | 4.8 | 4.9 | 4.3 | 3.9 | 4.0 | 4.3 | 4.6 | 4.3 | 4.1 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.1 | -1.1 | -0.3 | 0.0 | -0.3 | 0.0 | 0.0 | -0.2 | 0.3 | 0.1 | 2.6 |
| 20\% | 0.1 | 0.8 | -0.5 | -0.8 | -0.1 | -0.1 | 0.0 | -0.5 | -0.5 | 0.5 | 0.1 | 2.6 |
| 30\% | 0.1 | 0.7 | -0.1 | -0.6 | -0.4 | -1.0 | 0.0 | -0.1 | -0.5 | 0.5 | 0.1 | 1.6 |
| 40\% | 0.1 | 0.5 | -0.1 | -0.4 | -0.6 | -0.2 | 0.0 | -0.1 | -0.4 | 0.2 | 0.2 | 1.1 |
| 50\% | 0.0 | 0.3 | 0.0 | -0.3 | -0.1 | -0.1 | 0.0 | -0.2 | -0.3 | 0.2 | 0.2 | 0.2 |
| 60\% | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | -0.2 | -0.2 | 0.2 | 0.2 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.0 | -0.2 | 0.0 | 0.0 | -0.1 | -0.1 | 0.4 | 0.1 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.2 | 0.4 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.3 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.1 | -0.2 | 0.3 | 0.1 | 1.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.3 | -0.5 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 | 0.3 | 0.1 | 2.5 |
| Above Normal (16\%) | 0.0 | 0.3 | 0.1 | -0.2 | -0.2 | -0.4 | 0.0 | -0.2 | -0.4 | 0.2 | 0.1 | 1.1 |
| Below Normal (13\%) | 0.0 | 0.3 | 0.0 | -0.1 | -0.3 | -0.2 | 0.0 | -0.3 | -0.7 | 0.3 | 0.2 | 0.0 |
| Dry (24\%) | 0.0 | 0.3 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.2 | -0.2 | 0.4 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-1. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-2. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-3. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-4. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-5. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-6. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-7. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-8. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-9. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-10. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-11. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-43-2-12. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-1. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.3 | 5.4 | 3.7 | 6.8 |
| 20\% | 3.0 | 4.1 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.4 | 5.2 | 3.6 | 6.7 |
| 30\% | 2.8 | 4.0 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 4.9 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 4.0 | 5.7 | 10.0 | 6.8 | 4.4 | 2.9 | 2.7 | 4.5 | 3.4 | 4.7 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.6 | 2.7 | 4.0 | 3.2 | 3.1 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.7 | 2.4 | 2.6 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.3 | 2.3 | 2.5 | 3.6 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.2 | 2.1 | 2.2 | 3.1 | 2.0 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.9 | 2.4 | 3.0 | 2.3 | 1.9 | 1.8 | 1.9 | 2.4 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 4.0 | 3.1 | 4.1 | 2.9 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.5 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.4 | 3.4 | 6.5 |
| Above Normal (16\%) | 2.1 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.7 | 2.6 | 4.8 | 3.3 | 2.6 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.5 | 2.6 | 3.6 | 2.3 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.1 | 1.7 | 1.9 | 2.3 | 1.9 | 1.7 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 5.0 | 12.6 | 14.8 | 15.9 | 14.4 | 10.9 | 9.0 | 4.6 | 5.0 | 3.6 | 3.2 |
| 20\% | 2.8 | 3.2 | 8.0 | 13.0 | 14.2 | 12.0 | 7.6 | 6.4 | 4.0 | 4.6 | 3.4 | 3.1 |
| 30\% | 2.6 | 2.9 | 4.9 | 9.7 | 12.0 | 9.8 | 5.2 | 3.8 | 3.8 | 4.4 | 3.3 | 3.1 |
| 40\% | 2.3 | 2.7 | 3.9 | 6.1 | 10.7 | 7.0 | 4.4 | 3.2 | 3.5 | 4.1 | 3.1 | 3.0 |
| 50\% | 2.2 | 2.4 | 3.3 | 5.1 | 7.8 | 5.7 | 3.4 | 2.9 | 3.2 | 3.9 | 2.9 | 2.9 |
| 60\% | 2.0 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.7 | 3.0 | 3.6 | 2.6 | 2.6 |
| 70\% | 1.8 | 2.0 | 2.5 | 3.2 | 4.4 | 4.2 | 2.4 | 2.5 | 2.6 | 3.1 | 2.3 | 2.1 |
| 80\% | 1.7 | 1.7 | 2.1 | 2.8 | 3.6 | 3.2 | 2.3 | 2.2 | 2.5 | 2.7 | 2.1 | 2.0 |
| 90\% | 1.5 | 1.4 | 1.9 | 2.4 | 3.1 | 2.4 | 2.0 | 1.8 | 2.3 | 2.2 | 1.9 | 1.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.6 | 3.7 | 2.8 | 2.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.1 | 8.0 | 6.9 | 4.6 | 4.1 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.3 | 5.3 | 9.1 | 10.9 | 9.9 | 5.5 | 4.0 | 3.4 | 4.7 | 3.4 | 3.0 |
| Below Normal (13\%) | 2.5 | 3.0 | 3.3 | 4.3 | 7.2 | 4.3 | 3.1 | 3.1 | 3.7 | 4.4 | 3.0 | 2.6 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.8 | 5.4 | 4.8 | 3.2 | 2.6 | 3.0 | 3.1 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.7 | 2.4 | 3.1 | 3.4 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{a}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.2 | 1.1 | 0.3 | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | -0.4 | -0.1 | -3.6 |
| 20\% | -0.1 | -1.0 | 0.5 | 0.7 | 0.1 | 0.1 | 0.0 | 0.5 | 0.6 | -0.6 | -0.1 | -3.5 |
| 30\% | -0.2 | -1.2 | 0.1 | 0.7 | 0.5 | 1.1 | 0.0 | 0.2 | 0.9 | -0.5 | -0.2 | -1.9 |
| 40\% | -0.2 | -0.9 | 0.0 | 0.4 | 0.6 | 0.2 | 0.0 | 0.3 | 0.7 | -0.4 | -0.3 | -1.7 |
| 50\% | 0.0 | -0.7 | -0.1 | 0.4 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 | -0.1 | -0.3 | -0.2 |
| 60\% | 0.1 | -0.5 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.3 | 0.5 | -0.2 | -0.4 | 0.0 |
| 70\% | 0.1 | 0.0 | -0.4 | 0.0 | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | -0.6 | 0.0 | 0.0 |
| 80\% | 0.1 | 0.0 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | -0.5 | 0.1 | 0.0 |
| 90\% | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.4 | -0.2 | 0.1 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.4 | -0.4 | -0.1 | -1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | -0.3 | -0.2 | -3.3 |
| Above Normal (16\%) | 0.0 | -0.5 | -0.2 | 0.3 | 0.3 | 0.4 | 0.1 | 0.3 | 0.6 | -0.3 | -0.2 | -1.6 |
| Below Normal (13\%) | 0.0 | -0.4 | -0.1 | 0.2 | 0.4 | 0.2 | 0.1 | 0.5 | 1.1 | -0.4 | -0.3 | 0.0 |
| Dry (24\%) | 0.0 | -0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.4 | -0.5 | 0.0 | 0.0 |
| Critical (15\%) | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.1 | 0.0 | 0.2 | -0.3 | 0.1 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-2. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.3 | 5.4 | 3.7 | 6.8 |
| 20\% | 3.0 | 4.1 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.4 | 5.2 | 3.6 | 6.7 |
| 30\% | 2.8 | 4.0 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 4.9 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 4.0 | 5.7 | 10.0 | 6.8 | 4.4 | 2.9 | 2.7 | 4.5 | 3.4 | 4.7 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.6 | 2.7 | 4.0 | 3.2 | 3.1 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.7 | 2.4 | 2.6 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.3 | 2.3 | 2.5 | 3.6 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.2 | 2.1 | 2.2 | 3.1 | 2.0 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.9 | 2.4 | 3.0 | 2.3 | 1.9 | 1.8 | 1.9 | 2.4 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 4.0 | 3.1 | 4.1 | 2.9 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.5 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.4 | 3.4 | 6.5 |
| Above Normal (16\%) | 2.1 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.7 | 2.6 | 4.8 | 3.3 | 2.6 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.5 | 2.6 | 3.6 | 2.3 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.1 | 1.7 | 1.9 | 2.3 | 1.9 | 1.7 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 5.0 | 12.6 | 14.7 | 15.9 | 14.5 | 10.9 | 9.0 | 4.3 | 5.3 | 3.7 | 3.3 |
| 20\% | 2.8 | 3.2 | 8.2 | 12.9 | 14.2 | 12.0 | 7.6 | 6.1 | 3.9 | 5.1 | 3.5 | 3.2 |
| 30\% | 2.6 | 2.9 | 5.0 | 9.7 | 12.0 | 9.3 | 5.2 | 3.8 | 3.5 | 5.0 | 3.3 | 3.0 |
| 40\% | 2.4 | 2.7 | 4.0 | 6.1 | 10.6 | 7.0 | 4.4 | 3.2 | 3.3 | 4.5 | 3.2 | 2.9 |
| 50\% | 2.2 | 2.4 | 3.2 | 4.9 | 7.7 | 5.7 | 3.4 | 2.9 | 3.1 | 4.2 | 3.1 | 2.8 |
| 60\% | 1.9 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.6 | 3.0 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.7 | 3.1 | 4.6 | 4.2 | 2.4 | 2.4 | 2.8 | 3.2 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.7 | 2.2 | 2.8 | 3.5 | 3.2 | 2.3 | 2.3 | 2.6 | 2.8 | 2.1 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.8 | 2.3 | 3.1 | 2.3 | 2.0 | 1.8 | 2.3 | 2.2 | 1.8 | 1.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.5 | 4.0 | 2.9 | 2.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.0 | 8.0 | 6.9 | 4.7 | 4.3 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.4 | 5.3 | 9.0 | 10.9 | 9.8 | 5.5 | 4.0 | 3.3 | 4.9 | 3.5 | 3.0 |
| Below Normal (13\%) | 2.4 | 2.9 | 3.4 | 4.3 | 7.2 | 4.3 | 3.1 | 3.0 | 3.2 | 4.9 | 3.4 | 2.8 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.7 | 5.4 | 4.8 | 3.2 | 2.6 | 3.1 | 3.5 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.6 | 2.3 | 3.0 | 3.5 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | 1.1 | 0.2 | 0.0 | 0.3 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -3.5 |
| 20\% | -0.1 | -1.0 | 0.6 | 0.6 | 0.1 | 0.1 | 0.0 | 0.2 | 0.5 | -0.1 | -0.1 | -3.5 |
| 30\% | -0.2 | -1.1 | 0.2 | 0.7 | 0.5 | 0.6 | 0.0 | 0.2 | 0.6 | 0.1 | -0.1 | -1.9 |
| 40\% | -0.2 | -0.9 | 0.0 | 0.4 | 0.5 | 0.2 | 0.0 | 0.3 | 0.6 | 0.0 | -0.1 | -1.7 |
| 50\% | -0.1 | -0.7 | -0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 | 0.2 | -0.1 | -0.2 |
| 60\% | 0.0 | -0.5 | -0.2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.2 | 0.5 | 0.0 | -0.1 | 0.0 |
| 70\% | 0.0 | 0.0 | -0.1 | -0.1 | 0.3 | 0.1 | 0.1 | 0.2 | 0.3 | -0.4 | 0.1 | 0.0 |
| 80\% | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 | -0.4 | 0.1 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | -0.2 | 0.0 | -0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.4 | -0.1 | -0.1 | -1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | -0.1 | -0.2 | -3.4 |
| Above Normal (16\%) | -0.1 | -0.5 | -0.2 | 0.1 | 0.2 | 0.3 | 0.0 | 0.3 | 0.5 | -0.1 | -0.1 | -1.6 |
| Below Normal (13\%) | -0.1 | -0.5 | -0.1 | 0.2 | 0.4 | 0.2 | 0.1 | 0.3 | 0.5 | 0.1 | 0.1 | 0.2 |
| Dry (24\%) | 0.0 | -0.5 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.4 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | -0.2 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-3. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.3 | 5.4 | 3.7 | 6.8 |
| 20\% | 3.0 | 4.1 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.4 | 5.2 | 3.6 | 6.7 |
| 30\% | 2.8 | 4.0 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 4.9 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 4.0 | 5.7 | 10.0 | 6.8 | 4.4 | 2.9 | 2.7 | 4.5 | 3.4 | 4.7 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.6 | 2.7 | 4.0 | 3.2 | 3.1 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.7 | 2.4 | 2.6 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.3 | 2.3 | 2.5 | 3.6 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.2 | 2.1 | 2.2 | 3.1 | 2.0 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.9 | 2.4 | 3.0 | 2.3 | 1.9 | 1.8 | 1.9 | 2.4 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 4.0 | 3.1 | 4.1 | 2.9 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.5 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.4 | 3.4 | 6.5 |
| Above Normal (16\%) | 2.1 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.7 | 2.6 | 4.8 | 3.3 | 2.6 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.5 | 2.6 | 3.6 | 2.3 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.1 | 1.7 | 1.9 | 2.3 | 1.9 | 1.7 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.4 | 5.4 | 3.7 | 6.8 |
| 20\% | 2.9 | 4.2 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.3 | 5.2 | 3.6 | 6.6 |
| 30\% | 2.8 | 4.1 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 5.0 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 3.9 | 5.7 | 10.0 | 6.8 | 4.4 | 2.7 | 2.7 | 4.6 | 3.4 | 4.6 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.5 | 2.7 | 4.2 | 3.3 | 3.2 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.6 | 2.3 | 2.6 | 3.9 | 3.1 | 2.8 |
| 70\% | 1.7 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.4 | 2.1 | 2.5 | 3.7 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.1 | 1.9 | 2.1 | 3.4 | 2.1 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.8 | 2.4 | 3.0 | 2.3 | 1.9 | 1.6 | 1.9 | 2.5 | 2.0 | 1.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 3.9 | 3.1 | 4.1 | 3.0 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.6 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.5 | 3.5 | 6.5 |
| Above Normal (16\%) | 2.2 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.6 | 2.6 | 4.8 | 3.4 | 2.7 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.3 | 2.6 | 3.7 | 2.4 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.0 | 1.6 | 2.0 | 2.4 | 2.0 | 1.7 |

Alternative 5 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.2 | 0.1 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.1 | 0.1 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | 0.2 | 0.1 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.2 | 0.0 | 0.1 | 0.1 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.1 | 0.1 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-4. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 5.0 | 12.6 | 14.8 | 15.9 | 14.4 | 10.9 | 9.0 | 4.6 | 5.0 | 3.6 | 3.2 |
| 20\% | 2.8 | 3.2 | 8.0 | 13.0 | 14.2 | 12.0 | 7.6 | 6.4 | 4.0 | 4.6 | 3.4 | 3.1 |
| 30\% | 2.6 | 2.9 | 4.9 | 9.7 | 12.0 | 9.8 | 5.2 | 3.8 | 3.8 | 4.4 | 3.3 | 3.1 |
| 40\% | 2.3 | 2.7 | 3.9 | 6.1 | 10.7 | 7.0 | 4.4 | 3.2 | 3.5 | 4.1 | 3.1 | 3.0 |
| 50\% | 2.2 | 2.4 | 3.3 | 5.1 | 7.8 | 5.7 | 3.4 | 2.9 | 3.2 | 3.9 | 2.9 | 2.9 |
| 60\% | 2.0 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.7 | 3.0 | 3.6 | 2.6 | 2.6 |
| 70\% | 1.8 | 2.0 | 2.5 | 3.2 | 4.4 | 4.2 | 2.4 | 2.5 | 2.6 | 3.1 | 2.3 | 2.1 |
| 80\% | 1.7 | 1.7 | 2.1 | 2.8 | 3.6 | 3.2 | 2.3 | 2.2 | 2.5 | 2.7 | 2.1 | 2.0 |
| 90\% | 1.5 | 1.4 | 1.9 | 2.4 | 3.1 | 2.4 | 2.0 | 1.8 | 2.3 | 2.2 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.6 | 3.7 | 2.8 | 2.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.1 | 8.0 | 6.9 | 4.6 | 4.1 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.3 | 5.3 | 9.1 | 10.9 | 9.9 | 5.5 | 4.0 | 3.4 | 4.7 | 3.4 | 3.0 |
| Below Normal (13\%) | 2.5 | 3.0 | 3.3 | 4.3 | 7.2 | 4.3 | 3.1 | 3.1 | 3.7 | 4.4 | 3.0 | 2.6 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.8 | 5.4 | 4.8 | 3.2 | 2.6 | 3.0 | 3.1 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.7 | 2.4 | 3.1 | 3.4 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.3 | 5.4 | 3.7 | 6.8 |
| 20\% | 3.0 | 4.1 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.4 | 5.2 | 3.6 | 6.7 |
| 30\% | 2.8 | 4.0 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 4.9 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 4.0 | 5.7 | 10.0 | 6.8 | 4.4 | 2.9 | 2.7 | 4.5 | 3.4 | 4.7 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.6 | 2.7 | 4.0 | 3.2 | 3.1 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.7 | 2.4 | 2.6 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.3 | 2.3 | 2.5 | 3.6 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.2 | 2.1 | 2.2 | 3.1 | 2.0 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.9 | 2.4 | 3.0 | 2.3 | 1.9 | 1.8 | 1.9 | 2.4 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 4.0 | 3.1 | 4.1 | 2.9 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.5 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.4 | 3.4 | 6.5 |
| Above Normal (16\%) | 2.1 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.7 | 2.6 | 4.8 | 3.3 | 2.6 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.5 | 2.6 | 3.6 | 2.3 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.1 | 1.7 | 1.9 | 2.3 | 1.9 | 1.7 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.2 | -1.1 | -0.3 | 0.0 | -0.2 | 0.0 | 0.0 | -0.2 | 0.4 | 0.1 | 3.6 |
| 20\% | 0.1 | 1.0 | -0.5 | -0.7 | -0.1 | -0.1 | 0.0 | -0.5 | -0.6 | 0.6 | 0.1 | 3.5 |
| 30\% | 0.2 | 1.2 | -0.1 | -0.7 | -0.5 | -1.1 | 0.0 | -0.2 | -0.9 | 0.5 | 0.2 | 1.9 |
| 40\% | 0.2 | 0.9 | 0.0 | -0.4 | -0.6 | -0.2 | 0.0 | -0.3 | -0.7 | 0.4 | 0.3 | 1.7 |
| 50\% | 0.0 | 0.7 | 0.1 | -0.4 | -0.2 | -0.1 | -0.1 | -0.2 | -0.5 | 0.1 | 0.3 | 0.2 |
| 60\% | -0.1 | 0.5 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | -0.3 | -0.5 | 0.2 | 0.4 | 0.0 |
| 70\% | -0.1 | 0.0 | 0.4 | 0.0 | -0.1 | -0.1 | 0.0 | -0.2 | -0.2 | 0.6 | 0.0 | 0.0 |
| 80\% | -0.1 | 0.0 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | -0.1 | -0.3 | 0.5 | -0.1 | 0.0 |
| 90\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.4 | 0.2 | -0.1 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.4 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.2 | -0.4 | 0.4 | 0.1 | 1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.5 | -0.5 | -0.3 | -0.1 | -0.1 | 0.0 | 0.0 | -0.2 | 0.3 | 0.2 | 3.3 |
| Above Normal (16\%) | 0.0 | 0.5 | 0.2 | -0.3 | -0.3 | -0.4 | -0.1 | -0.3 | -0.6 | 0.3 | 0.2 | 1.6 |
| Below Normal (13\%) | 0.0 | 0.4 | 0.1 | -0.2 | -0.4 | -0.2 | -0.1 | -0.5 | -1.1 | 0.4 | 0.3 | 0.0 |
| Dry (24\%) | 0.0 | 0.4 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.2 | -0.4 | 0.5 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | -0.1 | 0.0 | -0.2 | 0.3 | -0.1 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030,
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N$ No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-5. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 5.0 | 12.6 | 14.8 | 15.9 | 14.4 | 10.9 | 9.0 | 4.6 | 5.0 | 3.6 | 3.2 |
| 20\% | 2.8 | 3.2 | 8.0 | 13.0 | 14.2 | 12.0 | 7.6 | 6.4 | 4.0 | 4.6 | 3.4 | 3.1 |
| 30\% | 2.6 | 2.9 | 4.9 | 9.7 | 12.0 | 9.8 | 5.2 | 3.8 | 3.8 | 4.4 | 3.3 | 3.1 |
| 40\% | 2.3 | 2.7 | 3.9 | 6.1 | 10.7 | 7.0 | 4.4 | 3.2 | 3.5 | 4.1 | 3.1 | 3.0 |
| 50\% | 2.2 | 2.4 | 3.3 | 5.1 | 7.8 | 5.7 | 3.4 | 2.9 | 3.2 | 3.9 | 2.9 | 2.9 |
| 60\% | 2.0 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.7 | 3.0 | 3.6 | 2.6 | 2.6 |
| 70\% | 1.8 | 2.0 | 2.5 | 3.2 | 4.4 | 4.2 | 2.4 | 2.5 | 2.6 | 3.1 | 2.3 | 2.1 |
| 80\% | 1.7 | 1.7 | 2.1 | 2.8 | 3.6 | 3.2 | 2.3 | 2.2 | 2.5 | 2.7 | 2.1 | 2.0 |
| 90\% | 1.5 | 1.4 | 1.9 | 2.4 | 3.1 | 2.4 | 2.0 | 1.8 | 2.3 | 2.2 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.6 | 3.7 | 2.8 | 2.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.1 | 8.0 | 6.9 | 4.6 | 4.1 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.3 | 5.3 | 9.1 | 10.9 | 9.9 | 5.5 | 4.0 | 3.4 | 4.7 | 3.4 | 3.0 |
| Below Normal (13\%) | 2.5 | 3.0 | 3.3 | 4.3 | 7.2 | 4.3 | 3.1 | 3.1 | 3.7 | 4.4 | 3.0 | 2.6 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.8 | 5.4 | 4.8 | 3.2 | 2.6 | 3.0 | 3.1 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.7 | 2.4 | 3.1 | 3.4 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.1 | 5.0 | 12.6 | 14.7 | 15.9 | 14.5 | 10.9 | 9.0 | 4.3 | 5.3 | 3.7 | 3.3 |
| 20\% | 2.8 | 3.2 | 8.2 | 12.9 | 14.2 | 12.0 | 7.6 | 6.1 | 3.9 | 5.1 | 3.5 | 3.2 |
| 30\% | 2.6 | 2.9 | 5.0 | 9.7 | 12.0 | 9.3 | 5.2 | 3.8 | 3.5 | 5.0 | 3.3 | 3.0 |
| 40\% | 2.4 | 2.7 | 4.0 | 6.1 | 10.6 | 7.0 | 4.4 | 3.2 | 3.3 | 4.5 | 3.2 | 2.9 |
| 50\% | 2.2 | 2.4 | 3.2 | 4.9 | 7.7 | 5.7 | 3.4 | 2.9 | 3.1 | 4.2 | 3.1 | 2.8 |
| 60\% | 1.9 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.6 | 3.0 | 3.8 | 2.9 | 2.7 |
| 70\% | 1.8 | 2.0 | 2.7 | 3.1 | 4.6 | 4.2 | 2.4 | 2.4 | 2.8 | 3.2 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.7 | 2.2 | 2.8 | 3.5 | 3.2 | 2.3 | 2.3 | 2.6 | 2.8 | 2.1 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.8 | 2.3 | 3.1 | 2.3 | 2.0 | 1.8 | 2.3 | 2.2 | 1.8 | 1.6 |


| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.5 | 4.0 | 2.9 | 2.6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.0 | 8.0 | 6.9 | 4.7 | 4.3 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.4 | 5.3 | 9.0 | 10.9 | 9.8 | 5.5 | 4.0 | 3.3 | 4.9 | 3.5 | 3.0 |
| Below Normal (13\%) | 2.4 | 2.9 | 3.4 | 4.3 | 7.2 | 4.3 | 3.1 | 3.0 | 3.2 | 4.9 | 3.4 | 2.8 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.7 | 5.4 | 4.8 | 3.2 | 2.6 | 3.1 | 3.5 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.6 | 2.3 | 3.0 | 3.5 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.1 | 0.0 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 | -0.3 | 0.3 | 0.1 | 0.1 |
| 20\% | 0.0 | 0.0 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 | -0.3 | -0.1 | 0.5 | 0.1 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.5 | 0.0 | 0.0 | -0.3 | 0.6 | 0.1 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.4 | 0.1 | 0.0 |
| 50\% | 0.0 | 0.0 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.0 |
| 60\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.2 | 0.3 | 0.1 |
| 70\% | -0.1 | -0.1 | 0.2 | -0.1 | 0.1 | 0.0 | 0.0 | -0.1 | 0.2 | 0.2 | 0.1 | 0.0 |
| 80\% | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| 90\% | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.2 | 0.1 | 0.0 |
| Below Normal (13\%) | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.6 | 0.5 | 0.5 | 0.2 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.0 | 0.0 |
| Critical (15\%) | -0.1 | -0.1 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-43-2-6. Sacramento River at Freeport, Monthly Averaged Daily Minimum Elevation

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.0 | 5.0 | 12.6 | 14.8 | 15.9 | 14.4 | 10.9 | 9.0 | 4.6 | 5.0 | 3.6 | 3.2 |
| 20\% | 2.8 | 3.2 | 8.0 | 13.0 | 14.2 | 12.0 | 7.6 | 6.4 | 4.0 | 4.6 | 3.4 | 3.1 |
| 30\% | 2.6 | 2.9 | 4.9 | 9.7 | 12.0 | 9.8 | 5.2 | 3.8 | 3.8 | 4.4 | 3.3 | 3.1 |
| 40\% | 2.3 | 2.7 | 3.9 | 6.1 | 10.7 | 7.0 | 4.4 | 3.2 | 3.5 | 4.1 | 3.1 | 3.0 |
| 50\% | 2.2 | 2.4 | 3.3 | 5.1 | 7.8 | 5.7 | 3.4 | 2.9 | 3.2 | 3.9 | 2.9 | 2.9 |
| 60\% | 2.0 | 2.2 | 3.0 | 3.9 | 5.6 | 4.7 | 2.7 | 2.7 | 3.0 | 3.6 | 2.6 | 2.6 |
| 70\% | 1.8 | 2.0 | 2.5 | 3.2 | 4.4 | 4.2 | 2.4 | 2.5 | 2.6 | 3.1 | 2.3 | 2.1 |
| 80\% | 1.7 | 1.7 | 2.1 | 2.8 | 3.6 | 3.2 | 2.3 | 2.2 | 2.5 | 2.7 | 2.1 | 2.0 |
| 90\% | 1.5 | 1.4 | 1.9 | 2.4 | 3.1 | 2.4 | 2.0 | 1.8 | 2.3 | 2.2 | 1.9 | 1.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.0 | 5.1 | 7.0 | 8.6 | 7.2 | 4.9 | 4.1 | 3.6 | 3.7 | 2.8 | 2.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.7 | 4.0 | 8.8 | 11.5 | 13.0 | 11.1 | 8.0 | 6.9 | 4.6 | 4.1 | 3.2 | 3.2 |
| Above Normal (16\%) | 2.1 | 3.3 | 5.3 | 9.1 | 10.9 | 9.9 | 5.5 | 4.0 | 3.4 | 4.7 | 3.4 | 3.0 |
| Below Normal (13\%) | 2.5 | 3.0 | 3.3 | 4.3 | 7.2 | 4.3 | 3.1 | 3.1 | 3.7 | 4.4 | 3.0 | 2.6 |
| Dry (24\%) | 2.1 | 2.2 | 2.8 | 3.8 | 5.4 | 4.8 | 3.2 | 2.6 | 3.0 | 3.1 | 2.3 | 2.2 |
| Critical (15\%) | 1.8 | 1.7 | 2.4 | 3.1 | 3.4 | 2.7 | 2.1 | 1.7 | 2.2 | 2.1 | 1.9 | 1.7 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.2 | 5.1 | 11.4 | 14.5 | 15.8 | 14.2 | 10.9 | 9.0 | 4.4 | 5.4 | 3.7 | 6.8 |
| 20\% | 2.9 | 4.2 | 7.6 | 12.3 | 14.1 | 11.9 | 7.7 | 5.9 | 3.3 | 5.2 | 3.6 | 6.6 |
| 30\% | 2.8 | 4.1 | 4.8 | 9.0 | 11.5 | 8.7 | 5.2 | 3.6 | 2.9 | 5.0 | 3.5 | 5.0 |
| 40\% | 2.5 | 3.6 | 3.9 | 5.7 | 10.0 | 6.8 | 4.4 | 2.7 | 2.7 | 4.6 | 3.4 | 4.6 |
| 50\% | 2.3 | 3.1 | 3.4 | 4.8 | 7.6 | 5.6 | 3.3 | 2.5 | 2.7 | 4.2 | 3.3 | 3.2 |
| 60\% | 1.9 | 2.7 | 3.1 | 4.0 | 5.6 | 4.6 | 2.6 | 2.3 | 2.6 | 3.9 | 3.1 | 2.8 |
| 70\% | 1.7 | 2.0 | 2.8 | 3.2 | 4.3 | 4.1 | 2.4 | 2.1 | 2.5 | 3.7 | 2.4 | 2.2 |
| 80\% | 1.6 | 1.8 | 2.2 | 2.9 | 3.5 | 3.1 | 2.1 | 1.9 | 2.1 | 3.4 | 2.1 | 1.9 |
| 90\% | 1.4 | 1.4 | 1.8 | 2.4 | 3.0 | 2.3 | 1.9 | 1.6 | 1.9 | 2.5 | 2.0 | 1.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 2.3 | 3.4 | 5.0 | 6.9 | 8.5 | 7.1 | 4.9 | 3.9 | 3.1 | 4.1 | 3.0 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 2.8 | 4.6 | 8.3 | 11.2 | 12.9 | 11.0 | 8.0 | 6.9 | 4.4 | 4.5 | 3.5 | 6.5 |
| Above Normal (16\%) | 2.2 | 3.8 | 5.5 | 8.9 | 10.7 | 9.4 | 5.4 | 3.7 | 2.8 | 5.0 | 3.6 | 4.6 |
| Below Normal (13\%) | 2.5 | 3.4 | 3.4 | 4.1 | 6.9 | 4.1 | 3.0 | 2.6 | 2.6 | 4.8 | 3.4 | 2.7 |
| Dry (24\%) | 2.1 | 2.6 | 2.9 | 3.8 | 5.3 | 4.8 | 3.2 | 2.3 | 2.6 | 3.7 | 2.4 | 2.2 |
| Critical (15\%) | 1.7 | 1.7 | 2.4 | 3.1 | 3.5 | 2.7 | 2.0 | 1.6 | 2.0 | 2.4 | 2.0 | 1.7 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.2 | -1.1 | -0.3 | 0.0 | -0.2 | 0.0 | 0.0 | -0.2 | 0.4 | 0.1 | 3.6 |
| 20\% | 0.1 | 1.0 | -0.5 | -0.7 | -0.1 | -0.1 | 0.0 | -0.6 | -0.6 | 0.6 | 0.1 | 3.5 |
| 30\% | 0.1 | 1.2 | -0.1 | -0.7 | -0.4 | -1.1 | 0.0 | -0.2 | -0.9 | 0.6 | 0.2 | 1.9 |
| 40\% | 0.2 | 0.9 | 0.0 | -0.4 | -0.6 | -0.2 | 0.0 | -0.4 | -0.7 | 0.4 | 0.3 | 1.7 |
| 50\% | 0.1 | 0.7 | 0.1 | -0.3 | -0.1 | -0.1 | -0.1 | -0.4 | -0.5 | 0.2 | 0.4 | 0.3 |
| 60\% | -0.1 | 0.5 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | -0.4 | -0.5 | 0.3 | 0.5 | 0.2 |
| 70\% | -0.1 | 0.0 | 0.4 | 0.0 | -0.1 | -0.1 | 0.0 | -0.4 | -0.2 | 0.7 | 0.1 | 0.0 |
| 80\% | -0.1 | 0.0 | 0.1 | 0.0 | -0.1 | -0.1 | -0.2 | -0.4 | -0.4 | 0.7 | 0.0 | 0.0 |
| 90\% | -0.1 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | -0.2 | -0.4 | 0.3 | 0.0 | 0.1 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.4 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.2 | -0.4 | 0.4 | 0.2 | 1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.6 | -0.5 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 | -0.2 | 0.4 | 0.2 | 3.3 |
| Above Normal (16\%) | 0.1 | 0.5 | 0.2 | -0.3 | -0.3 | -0.4 | -0.1 | -0.3 | -0.7 | 0.3 | 0.2 | 1.6 |
| Below Normal (13\%) | 0.0 | 0.4 | 0.1 | -0.2 | -0.4 | -0.2 | -0.1 | -0.6 | -1.1 | 0.4 | 0.4 | 0.1 |
| Dry (24\%) | 0.0 | 0.4 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.4 | -0.4 | 0.6 | 0.1 | 0.0 |
| Critical (15\%) | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | -0.1 | -0.1 | -0.2 | 0.3 | 0.1 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 C.44. Sacramento River downstream of Delta Cross Channel Water Surface Elevation

Figure C-44-1-1. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-2. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-3. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-4. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-5. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-6. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-7. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-8. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-9. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-10. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-11. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-1-12. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-1. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.2 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.2 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.6 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.6 | 4.5 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.6 | 4.4 | 4.5 | 4.2 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.7 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.1 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.3 | 4.1 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.3 | 4.3 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.5 | 4.4 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.7 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 1 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | 0.0 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | -0.6 |
| 20\% | -0.1 | -0.1 | 0.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | -0.1 | -0.6 |
| 30\% | -0.1 | -0.2 | 0.0 | 0.2 | 0.1 | 0.5 | 0.0 | 0.1 | 0.1 | -0.1 | -0.1 | -0.3 |
| 40\% | 0.0 | -0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| 50\% | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | -0.1 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | -0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 |
| Above Normal (16\%) | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.2 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | -0.1 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All atternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-2. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.2 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.2 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.6 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.4 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.1 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.7 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.3 | 4.1 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.2 | 4.3 | 4.4 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.6 | 4.5 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 3.9 | 4.2 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.1 | -0.1 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.6 |
| 20\% | -0.1 | -0.1 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.6 |
| 30\% | -0.1 | -0.3 | 0.0 | 0.2 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.4 |
| 40\% | 0.0 | -0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| 50\% | 0.0 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| 70\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.1 | -0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.6 |
| Above Normal (16\%) | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.2 |
| Below Normal (13\%) | -0.1 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030,
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-3. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.2 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.2 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.6 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.1 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.1 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.1 | 4.4 | 4.1 | 4.0 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.7 | 3.9 | 4.3 | 4.1 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.5 | 3.8 | 4.2 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.5 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All atternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-4. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.6 | 4.5 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.6 | 4.4 | 4.5 | 4.2 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.7 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.1 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.3 | 4.1 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.3 | 4.3 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.5 | 4.4 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.7 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.2 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.2 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.6 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.0 | 4.4 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.8 | 4.0 | 4.3 | 4.0 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.7 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.8 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.0 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.6 |
| 20\% | 0.1 | 0.1 | -0.2 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.6 |
| 30\% | 0.1 | 0.2 | 0.0 | -0.2 | -0.1 | -0.5 | 0.0 | -0.1 | -0.1 | 0.1 | 0.1 | 0.3 |
| 40\% | 0.0 | 0.2 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| 50\% | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.1 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| Above Normal (16\%) | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | -0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.2 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.1 | -0.2 | 0.0 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-5. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.6 | 4.5 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.6 | 4.4 | 4.5 | 4.2 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.7 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.1 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.3 | 4.1 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.3 | 4.3 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.5 | 4.4 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.7 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.4 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.1 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.7 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.3 | 4.1 | 3.7 | 3.9 | 4.1 | 4.3 | 4.1 | 3.9 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.2 | 4.3 | 4.4 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.6 | 4.5 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.6 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 3.9 | 4.2 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 3 minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030 .
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-1-6. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Maximum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.4 | 7.1 | 8.2 | 8.8 | 7.9 | 6.3 | 5.4 | 4.6 | 4.5 | 4.3 | 4.2 |
| 20\% | 3.8 | 4.1 | 5.4 | 7.3 | 7.9 | 6.6 | 5.0 | 4.6 | 4.4 | 4.5 | 4.2 | 4.1 |
| 30\% | 3.8 | 3.9 | 4.5 | 5.7 | 6.7 | 5.7 | 4.2 | 4.2 | 4.3 | 4.5 | 4.2 | 4.1 |
| 40\% | 3.7 | 3.8 | 4.2 | 4.7 | 6.1 | 4.6 | 4.0 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| 50\% | 3.7 | 3.8 | 4.1 | 4.4 | 5.1 | 4.3 | 3.8 | 4.0 | 4.2 | 4.4 | 4.1 | 3.9 |
| 60\% | 3.6 | 3.7 | 4.0 | 4.2 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.3 | 4.1 | 3.8 |
| 70\% | 3.6 | 3.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.7 | 3.8 | 4.1 | 4.2 | 4.0 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 3.8 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.8 |
| 90\% | 3.4 | 3.4 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 3.9 | 4.7 | 5.3 | 5.8 | 5.1 | 4.3 | 4.3 | 4.3 | 4.3 | 4.1 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.8 | 4.2 | 5.8 | 6.9 | 7.4 | 6.5 | 5.3 | 5.0 | 4.5 | 4.4 | 4.2 | 4.1 |
| Above Normal (16\%) | 3.7 | 4.0 | 4.7 | 5.8 | 6.6 | 5.8 | 4.4 | 4.2 | 4.2 | 4.5 | 4.2 | 4.0 |
| Below Normal (13\%) | 3.7 | 3.9 | 4.1 | 4.3 | 5.2 | 3.9 | 3.7 | 4.0 | 4.2 | 4.4 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.7 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.9 | 4.1 | 4.2 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.6 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 4.0 | 4.5 | 6.6 | 8.1 | 8.7 | 7.9 | 6.3 | 5.4 | 4.5 | 4.6 | 4.3 | 4.8 |
| 20\% | 3.9 | 4.3 | 5.2 | 6.9 | 7.8 | 6.6 | 5.0 | 4.5 | 4.3 | 4.5 | 4.3 | 4.7 |
| 30\% | 3.8 | 4.2 | 4.5 | 5.6 | 6.6 | 5.2 | 4.2 | 4.1 | 4.2 | 4.5 | 4.3 | 4.4 |
| 40\% | 3.7 | 4.0 | 4.3 | 4.7 | 5.9 | 4.6 | 4.0 | 4.0 | 4.1 | 4.4 | 4.2 | 4.2 |
| 50\% | 3.7 | 3.9 | 4.1 | 4.5 | 5.1 | 4.3 | 3.8 | 3.9 | 4.1 | 4.4 | 4.1 | 4.1 |
| 60\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.4 | 4.1 | 3.7 | 3.8 | 4.1 | 4.4 | 4.1 | 4.0 |
| 70\% | 3.6 | 3.7 | 3.9 | 4.1 | 4.2 | 3.9 | 3.6 | 3.7 | 3.9 | 4.3 | 4.1 | 3.9 |
| 80\% | 3.5 | 3.6 | 3.8 | 4.0 | 4.1 | 3.7 | 3.5 | 3.6 | 3.9 | 4.2 | 3.9 | 3.8 |
| 90\% | 3.4 | 3.5 | 3.7 | 3.8 | 3.9 | 3.6 | 3.4 | 3.5 | 3.8 | 4.2 | 3.9 | 3.6 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.7 | 4.0 | 4.6 | 5.3 | 5.7 | 5.0 | 4.3 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.9 | 4.4 | 5.7 | 6.8 | 7.3 | 6.5 | 5.3 | 5.0 | 4.5 | 4.5 | 4.2 | 4.7 |
| Above Normal (16\%) | 3.7 | 4.1 | 4.8 | 5.8 | 6.5 | 5.7 | 4.4 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 |
| Below Normal (13\%) | 3.7 | 4.0 | 4.2 | 4.3 | 5.0 | 3.9 | 3.7 | 3.8 | 4.1 | 4.5 | 4.2 | 4.0 |
| Dry (24\%) | 3.6 | 3.8 | 3.9 | 4.2 | 4.4 | 4.2 | 3.7 | 3.8 | 4.0 | 4.3 | 4.0 | 3.8 |
| Critical (15\%) | 3.6 | 3.6 | 3.9 | 4.0 | 4.1 | 3.7 | 3.5 | 3.5 | 3.9 | 4.1 | 3.9 | 3.7 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.1 | 0.0 | -0.5 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.1 | 0.6 |
| 20\% | 0.1 | 0.2 | -0.2 | -0.4 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.1 | 0.6 |
| 30\% | 0.1 | 0.2 | 0.0 | -0.2 | -0.1 | -0.5 | 0.0 | -0.1 | -0.1 | 0.1 | 0.1 | 0.3 |
| 40\% | 0.0 | 0.2 | 0.0 | 0.0 | -0.2 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.2 |
| 50\% | 0.0 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.1 |
| 60\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.1 |
| 70\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.1 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.2 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.1 | 0.1 | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| Above Normal (16\%) | 0.0 | 0.1 | 0.1 | 0.0 | -0.1 | -0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.2 |
| Below Normal (13\%) | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | -0.2 | -0.2 | 0.0 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-1. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-2. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-3. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-4. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-5. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-6. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-7. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-8. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-9. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-10. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-11. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-44-2-12. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-2-1. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 0.9 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.7 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.4 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.8 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.0 | 0.8 | 1.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.7 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.8 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.3 | 1.3 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.3 | 6.1 | 6.8 | 5.5 | 3.2 | 2.5 | 1.0 | 1.2 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.4 | 4.2 | 2.0 | 1.4 | 0.9 | 1.2 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.7 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.9 | 1.2 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 0.9 | 0.7 | 0.7 |
| 70\% | 0.4 | 0.5 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.6 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 |
| 90\% | 0.3 | 0.2 | 0.5 | 0.7 | 1.1 | 0.7 | 0.6 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\mathbf{b}}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types $^{\mathbf{c}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet $^{(32 \%)}$ ) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.2 | 3.5 | 2.9 | 1.6 | 1.1 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 4.0 | 5.1 | 4.4 | 2.2 | 1.5 | 0.9 | 1.2 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.8 | 1.0 | 1.5 | 3.1 | 1.6 | 1.1 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.2 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.7 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 1.0 | 1.3 | 1.0 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

Alternative 1 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{a}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.2 | -0.5 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -1.8 |
| 20\% | -0.2 | -0.7 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.3 | 0.1 | -0.1 | 0.0 | -1.8 |
| 30\% | -0.2 | -0.6 | -0.3 | 0.3 | 0.2 | 0.6 | 0.0 | 0.1 | 0.2 | -0.1 | -0.1 | -0.6 |
| 40\% | -0.1 | -0.5 | -0.3 | 0.1 | 0.3 | 0.1 | 0.0 | 0.1 | 0.2 | -0.1 | -0.1 | -0.4 |
| 50\% | -0.1 | -0.4 | -0.3 | -0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | -0.1 | -0.1 | -0.1 |
| 60\% | 0.0 | -0.2 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | -0.1 | 0.0 |
| 70\% | 0.0 | -0.1 | -0.1 | -0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | -0.1 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.2 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | -0.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | -1.7 |
| Above Normal (16\%) | -0.1 | -0.4 | -0.2 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | 0.2 | -0.1 | 0.0 | -0.4 |
| Below Normal (13\%) | -0.1 | -0.3 | -0.1 | -0.1 | 0.2 | 0.1 | 0.0 | 0.2 | 0.3 | -0.1 | -0.1 | 0.0 |
| Dry (24\%) | 0.0 | -0.3 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-2-2. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 0.9 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.7 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.4 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.8 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.0 | 0.8 | 1.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.7 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.7 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.2 | 1.4 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.4 | 6.0 | 6.8 | 5.5 | 3.2 | 2.3 | 1.0 | 1.3 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.5 | 3.9 | 2.0 | 1.5 | 0.9 | 1.3 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.6 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.8 | 1.2 | 0.9 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.1 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.8 | 1.3 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.3 | 0.3 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.7 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.2 | 0.4 | 0.7 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\mathbf{b}}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types $^{\mathbf{c}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet $^{(32 \%)}$ ) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.1 | 3.5 | 2.9 | 1.6 | 1.2 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 3.9 | 5.1 | 4.3 | 2.2 | 1.5 | 0.8 | 1.3 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.7 | 1.1 | 1.5 | 3.1 | 1.6 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.3 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.8 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 0.9 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.2 | -0.4 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.8 |
| 20\% | -0.2 | -0.7 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -1.8 |
| 30\% | -0.2 | -0.6 | -0.3 | 0.3 | 0.2 | 0.3 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | -0.6 |
| 40\% | -0.1 | -0.5 | -0.2 | 0.1 | 0.3 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.4 |
| 50\% | -0.1 | -0.4 | -0.3 | -0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 |
| 60\% | 0.0 | -0.2 | -0.1 | -0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | -0.1 | -0.1 | -0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | -0.1 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | -0.1 | 0.1 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.1 | -0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -0.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.2 | -0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | -1.7 |
| Above Normal (16\%) | -0.1 | -0.4 | -0.2 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | -0.4 |
| Below Normal (13\%) | -0.2 | -0.4 | -0.1 | 0.0 | 0.2 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | -0.3 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | -0.1 | -0.1 | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-2-3. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 0.9 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.7 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.4 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.8 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.0 | 0.8 | 1.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.7 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 1.0 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.8 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.3 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.9 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.8 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.5 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.1 | 0.8 | 1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All atternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N \mathrm{No}$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-2-4. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.8 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.3 | 1.3 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.3 | 6.1 | 6.8 | 5.5 | 3.2 | 2.5 | 1.0 | 1.2 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.4 | 4.2 | 2.0 | 1.4 | 0.9 | 1.2 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.7 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.9 | 1.2 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 0.9 | 0.7 | 0.7 |
| 70\% | 0.4 | 0.5 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.6 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 |
| 90\% | 0.3 | 0.2 | 0.5 | 0.7 | 1.1 | 0.7 | 0.6 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.2 | 3.5 | 2.9 | 1.6 | 1.1 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 4.0 | 5.1 | 4.4 | 2.2 | 1.5 | 0.9 | 1.2 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.8 | 1.0 | 1.5 | 3.1 | 1.6 | 1.1 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.2 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.7 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 1.0 | 1.3 | 1.0 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 0.9 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.7 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.4 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.8 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.0 | 0.8 | 1.4 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.7 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.2 | 0.5 | -0.6 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.8 |
| 20\% | 0.2 | 0.7 | -0.3 | -0.4 | 0.0 | 0.0 | 0.0 | -0.3 | -0.1 | 0.1 | 0.0 | 1.8 |
| 30\% | 0.2 | 0.6 | 0.3 | -0.3 | -0.2 | -0.6 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.6 |
| 40\% | 0.1 | 0.5 | 0.3 | -0.1 | -0.3 | -0.1 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.4 |
| 50\% | 0.1 | 0.4 | 0.3 | 0.2 | -0.1 | 0.0 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.1 |
| 60\% | 0.0 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.1 | 0.0 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.2 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.2 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.3 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.3 | -0.2 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.7 |
| Above Normal (16\%) | 0.1 | 0.4 | 0.2 | -0.1 | -0.1 | -0.2 | 0.0 | -0.1 | -0.2 | 0.1 | 0.0 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.3 | 0.1 | 0.1 | -0.2 | -0.1 | 0.0 | -0.2 | -0.3 | 0.1 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.3 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); ;rojected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N$ A Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-44-2-5. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.8 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.3 | 1.3 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.3 | 6.1 | 6.8 | 5.5 | 3.2 | 2.5 | 1.0 | 1.2 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.4 | 4.2 | 2.0 | 1.4 | 0.9 | 1.2 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.7 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.9 | 1.2 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 0.9 | 0.7 | 0.7 |
| 70\% | 0.4 | 0.5 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.6 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 |
| 90\% | 0.3 | 0.2 | 0.5 | 0.7 | 1.1 | 0.7 | 0.6 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.2 | 3.5 | 2.9 | 1.6 | 1.1 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 4.0 | 5.1 | 4.4 | 2.2 | 1.5 | 0.9 | 1.2 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.8 | 1.0 | 1.5 | 3.1 | 1.6 | 1.1 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.2 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.7 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 1.0 | 1.3 | 1.0 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.7 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.2 | 1.4 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.4 | 6.0 | 6.8 | 5.5 | 3.2 | 2.3 | 1.0 | 1.3 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.5 | 3.9 | 2.0 | 1.5 | 0.9 | 1.3 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.6 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.8 | 1.2 | 0.9 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.1 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.8 | 1.3 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 1.0 | 0.8 | 0.7 |
| 70\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.3 | 0.3 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.7 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.2 | 0.4 | 0.7 | 1.1 | 0.7 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |


| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Full Simulation Period ${ }^{\mathrm{b}}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types $^{\mathbf{c}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.1 | 3.5 | 2.9 | 1.6 | 1.2 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 3.9 | 5.1 | 4.3 | 2.2 | 1.5 | 0.8 | 1.3 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.7 | 1.1 | 1.5 | 3.1 | 1.6 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.3 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.8 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 0.9 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

Alternative 3 minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 20\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| 40\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 60\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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 |
| 80\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 90\% | 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 |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | 0.1 | 0.1 | 0.1 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the tex.

Table C-44-2-6. Sacramento River d/s of Delta Cross Channel, Monthly Averaged Daily Minimum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.8 | 1.5 | 5.8 | 7.1 | 7.9 | 7.0 | 5.0 | 3.8 | 1.3 | 1.3 | 1.0 | 1.0 |
| 20\% | 0.7 | 0.9 | 3.3 | 6.1 | 6.8 | 5.5 | 3.2 | 2.5 | 1.0 | 1.2 | 0.9 | 0.9 |
| 30\% | 0.6 | 0.8 | 1.6 | 4.2 | 5.4 | 4.2 | 2.0 | 1.4 | 0.9 | 1.2 | 0.9 | 0.9 |
| 40\% | 0.6 | 0.7 | 1.2 | 2.5 | 4.7 | 2.9 | 1.6 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| 50\% | 0.5 | 0.6 | 0.9 | 1.7 | 3.2 | 2.2 | 1.1 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 |
| 60\% | 0.5 | 0.5 | 0.9 | 1.2 | 2.2 | 1.8 | 0.9 | 0.9 | 0.7 | 0.9 | 0.7 | 0.7 |
| 70\% | 0.4 | 0.5 | 0.7 | 1.0 | 1.7 | 1.5 | 0.8 | 0.8 | 0.6 | 0.8 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.6 | 0.9 | 1.3 | 1.2 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 |
| 90\% | 0.3 | 0.2 | 0.5 | 0.7 | 1.1 | 0.7 | 0.6 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.6 | 0.9 | 1.9 | 3.0 | 3.9 | 3.1 | 2.0 | 1.6 | 1.0 | 1.0 | 0.8 | 0.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.7 | 1.3 | 3.8 | 5.4 | 6.2 | 5.2 | 3.5 | 2.9 | 1.6 | 1.1 | 0.9 | 0.9 |
| Above Normal (16\%) | 0.5 | 1.0 | 2.0 | 4.0 | 5.1 | 4.4 | 2.2 | 1.5 | 0.9 | 1.2 | 0.9 | 0.8 |
| Below Normal (13\%) | 0.6 | 0.8 | 1.0 | 1.5 | 3.1 | 1.6 | 1.1 | 1.1 | 0.9 | 1.1 | 0.8 | 0.8 |
| Dry (24\%) | 0.5 | 0.5 | 0.8 | 1.2 | 2.1 | 1.9 | 1.1 | 0.9 | 0.7 | 0.7 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.6 | 1.0 | 1.3 | 1.0 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 1.1 | 2.0 | 5.2 | 7.0 | 7.9 | 6.9 | 5.0 | 3.8 | 1.3 | 1.4 | 1.0 | 2.8 |
| 20\% | 0.9 | 1.5 | 3.0 | 5.6 | 6.8 | 5.5 | 3.3 | 2.3 | 0.9 | 1.3 | 1.0 | 2.7 |
| 30\% | 0.8 | 1.4 | 1.9 | 3.8 | 5.3 | 3.7 | 2.0 | 1.3 | 0.8 | 1.3 | 0.9 | 1.5 |
| 40\% | 0.7 | 1.2 | 1.4 | 2.3 | 4.4 | 2.8 | 1.6 | 1.0 | 0.7 | 1.2 | 0.9 | 1.2 |
| 50\% | 0.6 | 0.9 | 1.2 | 1.9 | 3.1 | 2.2 | 1.1 | 0.9 | 0.6 | 1.1 | 0.9 | 0.9 |
| 60\% | 0.5 | 0.7 | 1.0 | 1.4 | 2.1 | 1.8 | 0.9 | 0.8 | 0.6 | 1.0 | 0.8 | 0.8 |
| 70\% | 0.4 | 0.6 | 0.8 | 1.1 | 1.6 | 1.5 | 0.8 | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| 80\% | 0.4 | 0.4 | 0.7 | 1.0 | 1.3 | 1.2 | 0.7 | 0.6 | 0.5 | 0.8 | 0.6 | 0.6 |
| 90\% | 0.3 | 0.3 | 0.5 | 0.8 | 1.1 | 0.7 | 0.5 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.7 | 1.2 | 2.0 | 3.0 | 3.8 | 3.1 | 2.0 | 1.5 | 0.9 | 1.1 | 0.8 | 1.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.9 | 1.7 | 3.6 | 5.3 | 6.1 | 5.1 | 3.5 | 2.9 | 1.5 | 1.2 | 0.9 | 2.6 |
| Above Normal (16\%) | 0.6 | 1.4 | 2.2 | 3.9 | 5.0 | 4.2 | 2.2 | 1.4 | 0.7 | 1.3 | 1.0 | 1.2 |
| Below Normal (13\%) | 0.7 | 1.1 | 1.2 | 1.6 | 2.9 | 1.5 | 1.0 | 0.9 | 0.6 | 1.2 | 0.9 | 0.8 |
| Dry (24\%) | 0.5 | 0.8 | 0.9 | 1.4 | 2.1 | 1.9 | 1.1 | 0.8 | 0.6 | 0.9 | 0.6 | 0.6 |
| Critical (15\%) | 0.4 | 0.4 | 0.7 | 1.1 | 1.3 | 0.9 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.2 | 0.5 | -0.6 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.8 |
| 20\% | 0.2 | 0.7 | -0.3 | -0.4 | -0.1 | 0.0 | 0.0 | -0.3 | -0.2 | 0.1 | 0.0 | 1.8 |
| 30\% | 0.2 | 0.7 | 0.3 | -0.3 | -0.1 | -0.6 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.6 |
| 40\% | 0.1 | 0.5 | 0.3 | -0.1 | -0.3 | -0.1 | 0.0 | -0.1 | -0.2 | 0.1 | 0.1 | 0.4 |
| 50\% | 0.1 | 0.4 | 0.3 | 0.2 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | 0.1 | 0.1 | 0.1 |
| 60\% | 0.0 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.2 | -0.1 | 0.1 | 0.1 | 0.0 |
| 70\% | 0.0 | 0.1 | 0.1 | 0.2 | -0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| 80\% | 0.0 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | 0.2 | 0.0 | 0.0 |
| 90\% | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.1 | 0.3 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 | 0.1 | 0.0 | 0.6 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.2 | 0.4 | -0.2 | -0.1 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 1.6 |
| Above Normal (16\%) | 0.1 | 0.4 | 0.2 | -0.1 | -0.1 | -0.2 | 0.0 | -0.1 | -0.2 | 0.1 | 0.0 | 0.4 |
| Below Normal (13\%) | 0.1 | 0.3 | 0.1 | 0.1 | -0.2 | -0.1 | 0.0 | -0.2 | -0.3 | 0.1 | 0.1 | 0.0 |
| Dry (24\%) | 0.0 | 0.3 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.2 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030,
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

1 C.45. Sacramento River at Rio Vista Water Surface Elevation

Figure C-45-1-1. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-2. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-3. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-4. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-5. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-6. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-7. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-8. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-9. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-10. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-11. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-1-12. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-1-1. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 1

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.0 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.4 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.2 | 4.0 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.9 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |


| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 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 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 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 Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-45-1-2. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.5 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Long Term |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period $^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 |
| Water Year Types $^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.5 | 4.4 | 4.0 | 3.8 | 3.9 | 4.1 | 4.2 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.0 |


| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 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 Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-1-3. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.2 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-1-4. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.0 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.4 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.2 | 4.0 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.9 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

No Action Alternative

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |


|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\mathbf{b}}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| Water Year Types $^{\mathbf{c}}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet $^{(32 \%)}$ ) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 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 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 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 Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All atternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2 ) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-1-5. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.0 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.4 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.2 | 4.0 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.9 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 3

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.5 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.5 | 4.4 | 4.0 | 3.8 | 3.9 | 4.1 | 4.2 | 4.0 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-1-6. Sacramento River at Rio Vista, Monthly Averaged Daily Maximum Elevation

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.2 | 4.1 | 4.0 |
| 20\% | 3.8 | 3.9 | 4.4 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9 |
| 30\% | 3.7 | 3.8 | 4.0 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 3.9 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.0 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| 60\% | 3.6 | 3.7 | 3.8 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.7 | 3.7 | 3.7 | 3.4 | 3.3 | 3.7 | 3.9 | 4.1 | 3.9 | 3.7 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 | 3.7 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.7 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.0 | 3.8 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.8 | 4.3 | 4.4 | 4.4 | 4.1 | 3.8 | 3.9 | 4.1 | 4.2 | 4.0 | 3.9 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.9 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 5

|  | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 3.9 | 4.0 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | 4.1 | 4.2 | 4.3 | 4.2 | 4.1 |
| 20\% | 3.8 | 3.9 | 4.3 | 4.5 | 4.5 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.1 | 4.0 |
| 30\% | 3.7 | 3.8 | 4.1 | 4.2 | 4.3 | 3.9 | 3.7 | 3.9 | 4.1 | 4.2 | 4.1 | 4.0 |
| 40\% | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 3.8 | 3.6 | 3.8 | 4.1 | 4.2 | 4.0 | 3.9 |
| 50\% | 3.6 | 3.7 | 3.9 | 4.0 | 4.0 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| 60\% | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| 70\% | 3.5 | 3.6 | 3.8 | 3.8 | 3.8 | 3.5 | 3.4 | 3.7 | 3.9 | 4.1 | 3.9 | 3.8 |
| 80\% | 3.5 | 3.6 | 3.8 | 3.7 | 3.7 | 3.4 | 3.4 | 3.6 | 3.9 | 4.1 | 3.9 | 3.8 |
| 90\% | 3.5 | 3.5 | 3.6 | 3.7 | 3.5 | 3.3 | 3.3 | 3.6 | 3.8 | 4.0 | 3.9 | 3.7 |


| Full Simulation Period ${ }^{\text {b }}$ | 3.6 | 3.8 | 4.0 | 4.1 | 4.1 | 3.7 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 3.7 | 3.9 | 4.3 | 4.4 | 4.4 | 4.0 | 3.8 | 4.0 | 4.1 | 4.2 | 4.0 | 4.1 |
| Above Normal (16\%) | 3.6 | 3.8 | 4.0 | 4.2 | 4.3 | 3.8 | 3.6 | 3.8 | 4.0 | 4.2 | 4.0 | 3.8 |
| Below Normal (13\%) | 3.6 | 3.7 | 3.9 | 3.9 | 3.9 | 3.5 | 3.5 | 3.7 | 4.0 | 4.2 | 4.0 | 3.9 |
| Dry (24\%) | 3.6 | 3.6 | 3.8 | 3.8 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |
| Critical (15\%) | 3.7 | 3.7 | 3.9 | 3.8 | 3.8 | 3.5 | 3.5 | 3.7 | 4.0 | 4.1 | 4.0 | 3.8 |

Alternative 5 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Maximum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 30\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 50\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 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 |
| 70\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 90\% | 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 |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 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 Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-1. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, October


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-2. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, November


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-3. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, December


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-4. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, January


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-5. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, February


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-6. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, March


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-7. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, April


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-8. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, May


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-9. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, June


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-10. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, July


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-11. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, August


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Figure C-45-2-12. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation, September


Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternatives 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-2-1. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 1

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.3 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | 0.0 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.7 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.7 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 |


| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.7 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |


| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 30\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Second Basis of Comparison and Alternative 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-2-2. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.4 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |


| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.7 | -0.6 | -0.6 | -0.2 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 3 minus No Action Alternative

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 30\% | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, herefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-2-3. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 5 minus No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same,
therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3 ) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-2-4. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.3 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | 0.0 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.7 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.7 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.7 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

No Action Alternative

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

No Action Alternative minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 30\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period.
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text

Table C-45-2-5. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.3 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | 0.0 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.7 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.7 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.7 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 3

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.4 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |


| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.7 | -0.6 | -0.6 | -0.2 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 3 minus Second Basis of Comparison

| Statistic | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 |
| 20\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year
b Based on the 82 -year simulation period
c As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1, 4, and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and No Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

Table C-45-2-6. Sacramento River at Rio Vista, Monthly Averaged Daily Minimum Elevation

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.3 | 0.8 | 1.4 | 0.7 | 0.0 | -0.2 | -0.4 | -0.3 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| 30\% | -0.5 | -0.6 | -0.5 | -0.2 | 0.3 | 0.0 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.3 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.6 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.7 | -0.7 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.8 | -0.7 | -0.7 | -0.5 | -0.5 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.9 | -0.9 | -0.8 | -0.7 | -0.7 | -0.9 | -0.8 | -0.7 | -0.6 | -0.5 | -0.5 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.1 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.4 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.1 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | 0.0 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.7 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 5

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | -0.3 | -0.4 | 0.2 | 0.8 | 1.3 | 0.7 | 0.1 | -0.2 | -0.4 | -0.2 | -0.2 | -0.1 |
| 20\% | -0.4 | -0.5 | -0.2 | 0.3 | 0.5 | 0.1 | -0.2 | -0.4 | -0.5 | -0.3 | -0.3 | -0.1 |
| 30\% | -0.4 | -0.5 | -0.5 | -0.2 | 0.3 | -0.1 | -0.4 | -0.5 | -0.5 | -0.4 | -0.3 | -0.2 |
| 40\% | -0.5 | -0.6 | -0.6 | -0.4 | 0.1 | -0.3 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| 50\% | -0.5 | -0.6 | -0.6 | -0.5 | -0.3 | -0.4 | -0.6 | -0.7 | -0.6 | -0.4 | -0.4 | -0.3 |
| 60\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 70\% | -0.6 | -0.7 | -0.7 | -0.6 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.3 |
| 80\% | -0.6 | -0.8 | -0.8 | -0.7 | -0.6 | -0.7 | -0.8 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |
| 90\% | -0.7 | -0.8 | -0.9 | -0.8 | -0.7 | -0.7 | -0.8 | -0.8 | -0.7 | -0.6 | -0.5 | -0.4 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | -0.5 | -0.6 | -0.5 | -0.2 | 0.0 | -0.2 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | -0.4 | -0.5 | -0.2 | 0.4 | 0.7 | 0.4 | -0.2 | -0.4 | -0.4 | -0.3 | -0.3 | -0.1 |
| Above Normal (16\%) | -0.5 | -0.6 | -0.5 | -0.1 | 0.3 | -0.1 | -0.5 | -0.6 | -0.6 | -0.4 | -0.3 | -0.3 |
| Below Normal (13\%) | -0.5 | -0.6 | -0.6 | -0.6 | -0.3 | -0.6 | -0.7 | -0.7 | -0.6 | -0.4 | -0.3 | -0.3 |
| Dry (24\%) | -0.5 | -0.7 | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 | -0.7 | -0.6 | -0.5 | -0.4 | -0.4 |
| Critical (15\%) | -0.5 | -0.7 | -0.7 | -0.7 | -0.5 | -0.6 | -0.7 | -0.8 | -0.7 | -0.5 | -0.4 | -0.4 |

Alternative 5 minus Second Basis of Comparison

|  | Monthly Averaged Daily Minimum Elevation (Feet) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Statistic | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
| Probability of Exceedance ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 10\% | 0.0 | 0.0 | -0.1 | 0.0 | -0.1 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 30\% | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 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 |
| 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 |
| 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 |
| 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 |
| 80\% | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Long Term |  |  |  |  |  |  |  |  |  |  |  |  |
| Full Simulation Period ${ }^{\text {b }}$ | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water Year Types ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Wet (32\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Above Normal (16\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Below Normal (13\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dry (24\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Critical (15\%) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

a Exceedance probability is defined as the probability a given value will be exceeded in any one year.
b Based on the 82 -year simulation period.
C As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999); projected to Year 2030.
Notes: 1) All alternatives are simulated with projected hydrology and sea level at Year 2030 conditions. 2) Model results for Alternatives 1,4 , and Second Basis of Comparison are the same, therefore Alternative 1 and 4 results are not presented. Qualitative differences, if applicable, are discussed in the text. 3) Model results for Alternative 2 and $N o$ Action Alternative are the same, therefore Alternative 2 results are not presented. Qualitative differences, if applicable, are discussed in the text.

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