All SR SIT DSM Summary Tables - EIS

2023-11-20

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## EIS

### Population Abundance, Growth

**Table** **:** Table EIS.1. Predicted annual total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish.

| Year | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | 14888 | 14882 | 14889 | 14889 | 14888 | 14888 | 14890 | 14889 |
| 1981 | 13045 | 13048 | 13046 | 13046 | 13046 | 13046 | 13043 | 13046 |
| 1982 | 13095 | 13118 | 13097 | 13097 | 13108 | 13134 | 13114 | 13099 |
| 1983 | 15807 | 15867 | 15817 | 15817 | 15836 | 15884 | 15888 | 15822 |
| 1984 | 15748 | 15788 | 15758 | 15758 | 15764 | 15776 | 15823 | 15760 |
| 1985 | 14598 | 14609 | 14601 | 14601 | 14600 | 14593 | 14660 | 14603 |
| 1986 | 12859 | 12860 | 12857 | 12857 | 12852 | 12861 | 12917 | 12856 |
| 1987 | 14295 | 14325 | 14318 | 14317 | 14312 | 14354 | 14434 | 14320 |
| 1988 | 19578 | 19605 | 19638 | 19638 | 19640 | 19712 | 19850 | 19639 |
| 1989 | 18233 | 18176 | 18275 | 18276 | 18283 | 18353 | 18452 | 18274 |
| 1990 | 13540 | 13512 | 13556 | 13557 | 13579 | 13604 | 13631 | 13575 |
| 1991 | 13973 | 14029 | 14025 | 14027 | 14070 | 14082 | 14210 | 14072 |
| 1992 | 15275 | 15379 | 15427 | 15477 | 15465 | 15530 | 15731 | 15432 |
| 1993 | 16087 | 16256 | 16272 | 16413 | 16301 | 16376 | 16459 | 16232 |
| 1994 | 18042 | 18148 | 18126 | 18220 | 18101 | 18142 | 18209 | 18108 |
| 1995 | 16889 | 16874 | 16890 | 16859 | 16827 | 16859 | 16995 | 16892 |
| 1996 | 14759 | 14726 | 14764 | 14726 | 14728 | 14760 | 14871 | 14759 |
| 1997 | 18116 | 18135 | 18119 | 18123 | 18115 | 18127 | 18249 | 18117 |
| 1998 | 19405 | 19435 | 19397 | 19400 | 19399 | 19397 | 19547 | 19397 |
| 1999 | 17937 | 17934 | 17937 | 17937 | 17940 | 17939 | 18048 | 17937 |

**Table** **:** Table EIS.1b. Predicted percent difference in annual total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish, relative to NAA.

| Year | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | -0.040 | 0.007 | 0.007 | 0.000 | 0.000 | 0.013 | 0.007 |
| 1981 | 0.023 | 0.008 | 0.008 | 0.008 | 0.008 | -0.015 | 0.008 |
| 1982 | 0.176 | 0.015 | 0.015 | 0.099 | 0.298 | 0.145 | 0.031 |
| 1983 | 0.380 | 0.063 | 0.063 | 0.183 | 0.487 | 0.512 | 0.095 |
| 1984 | 0.254 | 0.064 | 0.064 | 0.102 | 0.178 | 0.476 | 0.076 |
| 1985 | 0.075 | 0.021 | 0.021 | 0.014 | -0.034 | 0.425 | 0.034 |
| 1986 | 0.008 | -0.016 | -0.016 | -0.054 | 0.016 | 0.451 | -0.023 |
| 1987 | 0.210 | 0.161 | 0.154 | 0.119 | 0.413 | 0.972 | 0.175 |
| 1988 | 0.138 | 0.306 | 0.306 | 0.317 | 0.684 | 1.389 | 0.312 |
| 1989 | -0.313 | 0.230 | 0.236 | 0.274 | 0.658 | 1.201 | 0.225 |
| 1990 | -0.207 | 0.118 | 0.126 | 0.288 | 0.473 | 0.672 | 0.258 |
| 1991 | 0.401 | 0.372 | 0.386 | 0.694 | 0.780 | 1.696 | 0.709 |
| 1992 | 0.681 | 0.995 | 1.322 | 1.244 | 1.669 | 2.985 | 1.028 |
| 1993 | 1.051 | 1.150 | 2.026 | 1.330 | 1.796 | 2.312 | 0.901 |
| 1994 | 0.588 | 0.466 | 0.987 | 0.327 | 0.554 | 0.926 | 0.366 |
| 1995 | -0.089 | 0.006 | -0.178 | -0.367 | -0.178 | 0.628 | 0.018 |
| 1996 | -0.224 | 0.034 | -0.224 | -0.210 | 0.007 | 0.759 | 0.000 |
| 1997 | 0.105 | 0.017 | 0.039 | -0.006 | 0.061 | 0.734 | 0.006 |
| 1998 | 0.155 | -0.041 | -0.026 | -0.031 | -0.041 | 0.732 | -0.041 |
| 1999 | -0.017 | 0.000 | 0.000 | 0.017 | 0.011 | 0.619 | 0.000 |

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**Table** **:** Table EIS.2. Predicted annual natural-origin spring-run spawner abundance in the Central Valley.

| Year | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | 9562 | 9557 | 9566 | 9566 | 9562 | 9563 | 9566 | 9566 |
| 1981 | 7713 | 7714 | 7713 | 7713 | 7714 | 7713 | 7711 | 7713 |
| 1982 | 7773 | 7796 | 7776 | 7776 | 7786 | 7810 | 7792 | 7778 |
| 1983 | 10483 | 10544 | 10495 | 10494 | 10515 | 10563 | 10564 | 10501 |
| 1984 | 10424 | 10465 | 10433 | 10433 | 10438 | 10451 | 10498 | 10435 |
| 1985 | 9263 | 9275 | 9268 | 9268 | 9265 | 9260 | 9329 | 9269 |
| 1986 | 7536 | 7539 | 7532 | 7533 | 7529 | 7538 | 7595 | 7532 |
| 1987 | 8961 | 8991 | 8985 | 8985 | 8978 | 9020 | 9102 | 8985 |
| 1988 | 14247 | 14272 | 14305 | 14305 | 14306 | 14379 | 14517 | 14307 |
| 1989 | 12898 | 12843 | 12941 | 12942 | 12949 | 13018 | 13119 | 12940 |
| 1990 | 8210 | 8182 | 8226 | 8226 | 8249 | 8276 | 8301 | 8244 |
| 1991 | 8639 | 8695 | 8693 | 8695 | 8735 | 8748 | 8874 | 8739 |
| 1992 | 9941 | 10047 | 10096 | 10144 | 10133 | 10195 | 10399 | 10100 |
| 1993 | 10764 | 10930 | 10948 | 11090 | 10977 | 11053 | 11134 | 10906 |
| 1994 | 12707 | 12816 | 12792 | 12887 | 12769 | 12808 | 12876 | 12775 |
| 1995 | 11564 | 11550 | 11565 | 11534 | 11504 | 11537 | 11673 | 11566 |
| 1996 | 9436 | 9405 | 9442 | 9403 | 9407 | 9439 | 9548 | 9439 |
| 1997 | 12791 | 12811 | 12795 | 12796 | 12791 | 12803 | 12924 | 12792 |
| 1998 | 14081 | 14110 | 14076 | 14078 | 14076 | 14075 | 14222 | 14077 |
| 1999 | 12613 | 12611 | 12613 | 12615 | 12615 | 12614 | 12724 | 12615 |

**Table** **:** Table EIS.2b. Predicted percent difference in annual natural-origin spring-run spawner abundance in the Central Valley, relative to NAA.

| Year | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | -0.052 | 0.042 | 0.042 | 0.000 | 0.010 | 0.042 | 0.042 |
| 1981 | 0.013 | 0.000 | 0.000 | 0.013 | 0.000 | -0.026 | 0.000 |
| 1982 | 0.296 | 0.039 | 0.039 | 0.167 | 0.476 | 0.244 | 0.064 |
| 1983 | 0.582 | 0.114 | 0.105 | 0.305 | 0.763 | 0.773 | 0.172 |
| 1984 | 0.393 | 0.086 | 0.086 | 0.134 | 0.259 | 0.710 | 0.106 |
| 1985 | 0.130 | 0.054 | 0.054 | 0.022 | -0.032 | 0.713 | 0.065 |
| 1986 | 0.040 | -0.053 | -0.040 | -0.093 | 0.027 | 0.783 | -0.053 |
| 1987 | 0.335 | 0.268 | 0.268 | 0.190 | 0.658 | 1.573 | 0.268 |
| 1988 | 0.175 | 0.407 | 0.407 | 0.414 | 0.927 | 1.895 | 0.421 |
| 1989 | -0.426 | 0.333 | 0.341 | 0.395 | 0.930 | 1.713 | 0.326 |
| 1990 | -0.341 | 0.195 | 0.195 | 0.475 | 0.804 | 1.108 | 0.414 |
| 1991 | 0.648 | 0.625 | 0.648 | 1.111 | 1.262 | 2.720 | 1.158 |
| 1992 | 1.066 | 1.559 | 2.042 | 1.931 | 2.555 | 4.607 | 1.599 |
| 1993 | 1.542 | 1.709 | 3.029 | 1.979 | 2.685 | 3.437 | 1.319 |
| 1994 | 0.858 | 0.669 | 1.417 | 0.488 | 0.795 | 1.330 | 0.535 |
| 1995 | -0.121 | 0.009 | -0.259 | -0.519 | -0.233 | 0.943 | 0.017 |
| 1996 | -0.329 | 0.064 | -0.350 | -0.307 | 0.032 | 1.187 | 0.032 |
| 1997 | 0.156 | 0.031 | 0.039 | 0.000 | 0.094 | 1.040 | 0.008 |
| 1998 | 0.206 | -0.036 | -0.021 | -0.036 | -0.043 | 1.001 | -0.028 |
| 1999 | -0.016 | 0.000 | 0.016 | 0.016 | 0.008 | 0.880 | 0.016 |

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**Table** **:** Table EIS.3. Predicted mean lambda (Nt+1/Nt) for total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish.

| WYT | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| C | 1.072 | 1.072 | 1.072 | 1.072 | 1.072 | 1.072 | 1.074 | 1.073 |
| D | 0.962 | 0.961 | 0.962 | 0.962 | 0.962 | 0.962 | 0.962 | 0.962 |
| AN | 1.053 | 1.057 | 1.055 | 1.060 | 1.054 | 1.054 | 1.047 | 1.052 |
| W | 1.013 | 1.013 | 1.013 | 1.013 | 1.013 | 1.013 | 1.014 | 1.013 |
| All | 1.010 | 1.010 | 1.010 | 1.010 | 1.010 | 1.010 | 1.010 | 1.010 |

**Table** **:** Table EIS.3b. Predicted percent difference in mean lambda (Nt+1/Nt) for total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish, relative to NAA.

| WYT | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| C | 0.068 | 0.047 | 0.045 | 0.034 | 0.029 | 0.191 | 0.076 |
| D | -0.087 | 0.026 | 0.026 | 0.017 | 0.054 | 0.091 | 0.021 |
| AN | 0.395 | 0.187 | 0.702 | 0.086 | 0.131 | -0.611 | -0.090 |
| W | -0.027 | -0.045 | -0.087 | -0.020 | -0.029 | 0.030 | -0.032 |
| All | -0.001 | 0.000 | 0.001 | 0.001 | 0.000 | 0.033 | 0.000 |

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**Table** **:** Table EIS.4. Predicted end lambda (Nt=19/Nt=1) for total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish.

| NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1.205 | 1.205 | 1.205 | 1.205 | 1.205 | 1.205 | 1.212 | 1.205 |

**Table** **:** Table EIS.4b. Predicted percent difference in end lambda (Nt=19/Nt=1) for total spring-run spawner abundance in the Central Valley, including both natural- and hatchery-origin fish.

| Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- |
| -0.011 | -0.003 | 0.01 | 0.012 | 0.007 | 0.63 | 0.006 |

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### Demographic Parameters

**Table** **:** Table EIS.5. Predicted small juvenile rearing survival for spring-run Chinook salmon in the Upper Sacramento River.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02196314 |
| All | 12 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02204145 |
| All | 1 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02210598 |
| All | 2 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.021 | 0.02049247 |
| All | 3 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02036714 |
| All | 4 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.020 | 0.01938940 |
| All | 5 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.01888791 |
| C | 11 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02195815 |
| C | 12 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02201181 |
| C | 1 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02209629 |
| C | 2 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02048491 |
| C | 3 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02013713 |
| C | 4 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.020 | 0.01939900 |
| C | 5 | 0.019 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.01950990 |
| D | 11 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02195282 |
| D | 12 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02201630 |
| D | 1 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02209826 |
| D | 2 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02048076 |
| D | 3 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02042692 |
| D | 4 | 0.018 | 0.019 | 0.018 | 0.018 | 0.018 | 0.018 | 0.019 | 0.01855513 |
| D | 5 | 0.018 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.01811183 |
| AN | 11 | 0.022 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | 0.02170121 |
| AN | 12 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02206649 |
| AN | 1 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02211504 |
| AN | 2 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | 0.02050377 |
| AN | 3 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02048467 |
| AN | 4 | 0.019 | 0.020 | 0.019 | 0.019 | 0.019 | 0.019 | 0.020 | 0.01946006 |
| AN | 5 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.01912513 |
| W | 11 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02202870 |
| W | 12 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02206354 |
| W | 1 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.02211278 |
| W | 2 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.021 | 0.02049936 |
| W | 3 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.02044224 |
| W | 4 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.01973914 |
| W | 5 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.01883458 |

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**Table** **:** Table EIS.6. Predicted smolt migratory survival for spring-run Chinook salmon in the Upper-mid Sacramento River.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997489 |
| All | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996052 |
| All | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996260 |
| All | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997469 |
| All | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998512 |
| All | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997685 |
| All | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996510 |
| C | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996419 |
| C | 12 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.9994050 |
| C | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995681 |
| C | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997315 |
| C | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997765 |
| C | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996777 |
| C | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995789 |
| D | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997388 |
| D | 12 | 0.999 | 0.999 | 1.000 | 1.000 | 0.999 | 0.999 | 0.999 | 0.9994956 |
| D | 1 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.9993758 |
| D | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996643 |
| D | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998343 |
| D | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997785 |
| D | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997145 |
| AN | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998012 |
| AN | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995984 |
| AN | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997084 |
| AN | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997834 |
| AN | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9999435 |
| AN | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997523 |
| AN | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995582 |
| W | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998012 |
| W | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997668 |
| W | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997512 |
| W | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997841 |
| W | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998796 |
| W | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998180 |
| W | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996833 |

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**Table** **:** Table EIS.7. Predicted smolt migratory survival for spring-run Chinook salmon in the Lower-mid Sacramento River.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998235 |
| All | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996743 |
| All | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996564 |
| All | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997820 |
| All | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998771 |
| All | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998349 |
| All | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998529 |
| C | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997443 |
| C | 12 | 0.999 | 1.000 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 0.9995097 |
| C | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995803 |
| C | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997495 |
| C | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997946 |
| C | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997465 |
| C | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997851 |
| D | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998275 |
| D | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9995817 |
| D | 1 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.9994266 |
| D | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996890 |
| D | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998532 |
| D | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998485 |
| D | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998938 |
| AN | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998653 |
| AN | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9996744 |
| AN | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997335 |
| AN | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998214 |
| AN | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9999547 |
| AN | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998292 |
| AN | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998116 |
| W | 11 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998564 |
| W | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998069 |
| W | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9997836 |
| W | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998327 |
| W | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9999163 |
| W | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998792 |
| W | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.9998815 |

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**Table** **:** Table EIS.8. Predicted smolt migratory survival for spring-run Chinook salmon in the Lower Sacramento River.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998392 |
| All | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997053 |
| All | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997257 |
| All | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998229 |
| All | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998940 |
| All | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998447 |
| All | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998941 |
| C | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997658 |
| C | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9995180 |
| C | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9996142 |
| C | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997469 |
| C | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997958 |
| C | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997598 |
| C | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998402 |
| D | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998511 |
| D | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9996910 |
| D | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9995831 |
| D | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997249 |
| D | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998594 |
| D | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998652 |
| D | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9999264 |
| AN | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998720 |
| AN | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9996943 |
| AN | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9997515 |
| AN | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9999000 |
| AN | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9999738 |
| AN | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998381 |
| AN | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998634 |
| W | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998675 |
| W | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998182 |
| W | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998453 |
| W | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998915 |
| W | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9999461 |
| W | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9998843 |
| W | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.9999166 |

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**Table** **:** Table EIS.9. Predicted smolt migratory survival for spring-run Chinook salmon in the North Delta.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 0.919 | 0.919 | 0.920 | 0.920 | 0.920 | 0.920 | 0.919 | 0.9195957 |
| All | 12 | 0.920 | 0.921 | 0.920 | 0.920 | 0.920 | 0.920 | 0.921 | 0.9203788 |
| All | 1 | 0.923 | 0.923 | 0.923 | 0.923 | 0.923 | 0.923 | 0.923 | 0.9230910 |
| All | 2 | 0.930 | 0.930 | 0.929 | 0.930 | 0.930 | 0.929 | 0.930 | 0.9294926 |
| All | 3 | 0.930 | 0.930 | 0.930 | 0.930 | 0.930 | 0.930 | 0.930 | 0.9298662 |
| All | 4 | 0.922 | 0.924 | 0.923 | 0.924 | 0.924 | 0.924 | 0.924 | 0.9231247 |
| All | 5 | 0.919 | 0.919 | 0.919 | 0.919 | 0.919 | 0.920 | 0.920 | 0.9194369 |
| C | 11 | 0.911 | 0.912 | 0.912 | 0.913 | 0.914 | 0.913 | 0.910 | 0.9111727 |
| C | 12 | 0.912 | 0.915 | 0.912 | 0.912 | 0.911 | 0.912 | 0.913 | 0.9125542 |
| C | 1 | 0.916 | 0.915 | 0.918 | 0.915 | 0.914 | 0.914 | 0.917 | 0.9168465 |
| C | 2 | 0.926 | 0.926 | 0.926 | 0.926 | 0.926 | 0.926 | 0.926 | 0.9256469 |
| C | 3 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.925 | 0.9241756 |
| C | 4 | 0.912 | 0.917 | 0.915 | 0.917 | 0.917 | 0.918 | 0.916 | 0.9150501 |
| C | 5 | 0.910 | 0.911 | 0.912 | 0.912 | 0.912 | 0.913 | 0.911 | 0.9120561 |
| D | 11 | 0.921 | 0.919 | 0.920 | 0.920 | 0.921 | 0.921 | 0.921 | 0.9201125 |
| D | 12 | 0.917 | 0.917 | 0.918 | 0.918 | 0.917 | 0.917 | 0.918 | 0.9177403 |
| D | 1 | 0.914 | 0.915 | 0.915 | 0.915 | 0.915 | 0.915 | 0.915 | 0.9141082 |
| D | 2 | 0.923 | 0.923 | 0.923 | 0.923 | 0.923 | 0.923 | 0.924 | 0.9232335 |
| D | 3 | 0.928 | 0.927 | 0.928 | 0.928 | 0.928 | 0.928 | 0.928 | 0.9275464 |
| D | 4 | 0.919 | 0.919 | 0.919 | 0.919 | 0.920 | 0.921 | 0.921 | 0.9193965 |
| D | 5 | 0.917 | 0.918 | 0.917 | 0.917 | 0.917 | 0.917 | 0.912 | 0.9171959 |
| AN | 11 | 0.916 | 0.912 | 0.917 | 0.918 | 0.918 | 0.918 | 0.914 | 0.9176911 |
| AN | 12 | 0.917 | 0.921 | 0.917 | 0.917 | 0.917 | 0.917 | 0.919 | 0.9172768 |
| AN | 1 | 0.928 | 0.928 | 0.928 | 0.928 | 0.928 | 0.928 | 0.929 | 0.9283090 |
| AN | 2 | 0.934 | 0.934 | 0.934 | 0.934 | 0.934 | 0.934 | 0.934 | 0.9338299 |
| AN | 3 | 0.934 | 0.934 | 0.934 | 0.934 | 0.934 | 0.934 | 0.935 | 0.9342920 |
| AN | 4 | 0.927 | 0.926 | 0.927 | 0.927 | 0.927 | 0.927 | 0.929 | 0.9267881 |
| AN | 5 | 0.921 | 0.922 | 0.921 | 0.921 | 0.921 | 0.922 | 0.926 | 0.9208893 |
| W | 11 | 0.925 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.9244687 |
| W | 12 | 0.927 | 0.927 | 0.927 | 0.927 | 0.927 | 0.927 | 0.927 | 0.9265877 |
| W | 1 | 0.929 | 0.930 | 0.929 | 0.929 | 0.929 | 0.929 | 0.930 | 0.9293929 |
| W | 2 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.9334470 |
| W | 3 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.933 | 0.9330752 |
| W | 4 | 0.928 | 0.928 | 0.928 | 0.928 | 0.928 | 0.928 | 0.930 | 0.9284535 |
| W | 5 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.926 | 0.9242107 |

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**Table** **:** Table EIS.10. Predicted smolt migratory survival for spring-run Chinook salmon in the South Delta.

| WYT | Month | NAA | Alt1 | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA | Alt3 | Alt4 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 11 | 0.329 | 0.323 | 0.331 | 0.332 | 0.333 | 0.333 | 0.326 | 0.3309140 |
| All | 12 | 0.379 | 0.387 | 0.381 | 0.381 | 0.379 | 0.379 | 0.389 | 0.3811386 |
| All | 1 | 0.438 | 0.439 | 0.443 | 0.440 | 0.439 | 0.439 | 0.445 | 0.4391724 |
| All | 2 | 0.470 | 0.468 | 0.469 | 0.472 | 0.470 | 0.468 | 0.469 | 0.4699240 |
| All | 3 | 0.469 | 0.466 | 0.468 | 0.467 | 0.467 | 0.468 | 0.473 | 0.4681038 |
| All | 4 | 0.365 | 0.370 | 0.369 | 0.372 | 0.372 | 0.378 | 0.387 | 0.3688648 |
| All | 5 | 0.345 | 0.348 | 0.347 | 0.347 | 0.345 | 0.349 | 0.359 | 0.3472413 |
| C | 11 | 0.251 | 0.247 | 0.254 | 0.258 | 0.256 | 0.255 | 0.244 | 0.2517211 |
| C | 12 | 0.278 | 0.290 | 0.278 | 0.278 | 0.279 | 0.279 | 0.288 | 0.2808605 |
| C | 1 | 0.323 | 0.317 | 0.341 | 0.327 | 0.325 | 0.324 | 0.334 | 0.3305642 |
| C | 2 | 0.366 | 0.357 | 0.362 | 0.374 | 0.361 | 0.361 | 0.357 | 0.3634842 |
| C | 3 | 0.346 | 0.342 | 0.342 | 0.343 | 0.342 | 0.344 | 0.349 | 0.3438255 |
| C | 4 | 0.248 | 0.277 | 0.262 | 0.276 | 0.273 | 0.279 | 0.265 | 0.2613258 |
| C | 5 | 0.250 | 0.257 | 0.260 | 0.260 | 0.260 | 0.268 | 0.257 | 0.2599626 |
| D | 11 | 0.324 | 0.315 | 0.321 | 0.321 | 0.332 | 0.331 | 0.327 | 0.3214207 |
| D | 12 | 0.323 | 0.322 | 0.331 | 0.331 | 0.322 | 0.322 | 0.329 | 0.3274803 |
| D | 1 | 0.324 | 0.327 | 0.330 | 0.330 | 0.329 | 0.330 | 0.330 | 0.3228077 |
| D | 2 | 0.343 | 0.343 | 0.341 | 0.342 | 0.345 | 0.339 | 0.351 | 0.3437518 |
| D | 3 | 0.412 | 0.413 | 0.413 | 0.413 | 0.412 | 0.414 | 0.429 | 0.4125346 |
| D | 4 | 0.310 | 0.309 | 0.310 | 0.310 | 0.314 | 0.329 | 0.327 | 0.3114379 |
| D | 5 | 0.308 | 0.308 | 0.306 | 0.306 | 0.300 | 0.301 | 0.272 | 0.3057441 |
| AN | 11 | 0.272 | 0.259 | 0.290 | 0.291 | 0.292 | 0.292 | 0.264 | 0.2914525 |
| AN | 12 | 0.308 | 0.343 | 0.306 | 0.306 | 0.306 | 0.306 | 0.331 | 0.3071517 |
| AN | 1 | 0.492 | 0.500 | 0.496 | 0.496 | 0.497 | 0.497 | 0.505 | 0.4960650 |
| AN | 2 | 0.566 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 | 0.5652435 |
| AN | 3 | 0.559 | 0.555 | 0.558 | 0.550 | 0.552 | 0.552 | 0.563 | 0.5579879 |
| AN | 4 | 0.402 | 0.392 | 0.401 | 0.398 | 0.399 | 0.412 | 0.452 | 0.4010867 |
| AN | 5 | 0.342 | 0.348 | 0.340 | 0.340 | 0.337 | 0.351 | 0.413 | 0.3405267 |
| W | 11 | 0.388 | 0.382 | 0.388 | 0.388 | 0.386 | 0.386 | 0.385 | 0.3878985 |
| W | 12 | 0.477 | 0.479 | 0.477 | 0.477 | 0.477 | 0.477 | 0.485 | 0.4771382 |
| W | 1 | 0.539 | 0.542 | 0.539 | 0.539 | 0.539 | 0.539 | 0.544 | 0.5385852 |
| W | 2 | 0.564 | 0.564 | 0.564 | 0.564 | 0.564 | 0.564 | 0.563 | 0.5639516 |
| W | 3 | 0.542 | 0.539 | 0.542 | 0.542 | 0.542 | 0.542 | 0.542 | 0.5418704 |
| W | 4 | 0.446 | 0.445 | 0.447 | 0.447 | 0.447 | 0.447 | 0.468 | 0.4469713 |
| W | 5 | 0.415 | 0.416 | 0.416 | 0.416 | 0.415 | 0.415 | 0.443 | 0.4156648 |

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