All WR SIT DSM Summary Tables - BA

2024-09-24

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## BA

### Population Abundance, Growth

**Table** **:** Table BA.1. Predicted annual total winter-run spawner abundance in the Upper Sacramento River, including both natural- and hatchery-origin fish.

| Year | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | 8762 | 8762 | 8762 | 8762 | 8762 | 8762 | 8762 |
| 1981 | 9376 | 9376 | 9376 | 9376 | 9376 | 9376 | 9376 |
| 1982 | 6456 | 8235 | 8156 | 8147 | 8146 | 8177 | 8215 |
| 1983 | 2542 | 8632 | 8371 | 8367 | 8366 | 8375 | 8523 |
| 1984 | 2022 | 11570 | 11391 | 11411 | 11410 | 11339 | 11540 |
| 1985 | 3374 | 13951 | 14384 | 14403 | 14402 | 14350 | 14526 |
| 1986 | 3069 | 14195 | 14884 | 14931 | 14929 | 14915 | 15125 |
| 1987 | 1454 | 13383 | 13350 | 13454 | 13451 | 13381 | 13708 |
| 1988 | 585 | 13647 | 13113 | 13232 | 13230 | 13118 | 13558 |
| 1989 | 483 | 12730 | 12314 | 12336 | 12336 | 12284 | 12627 |
| 1990 | 427 | 9123 | 8234 | 8141 | 8140 | 8114 | 8325 |
| 1991 | 392 | 8116 | 6230 | 6201 | 6196 | 6154 | 6484 |
| 1992 | 391 | 8057 | 6089 | 6160 | 6169 | 6140 | 6504 |
| 1993 | 390 | 5103 | 4015 | 4161 | 4148 | 4155 | 4288 |
| 1994 | 389 | 3178 | 2777 | 2754 | 2021 | 2231 | 2243 |
| 1995 | 391 | 3975 | 3657 | 3338 | 1962 | 2297 | 2352 |
| 1996 | 392 | 4535 | 4052 | 3856 | 3066 | 3220 | 3295 |
| 1997 | 394 | 4119 | 3735 | 3700 | 3390 | 3421 | 3474 |
| 1998 | 403 | 4793 | 4698 | 4661 | 4395 | 4413 | 4436 |
| 1999 | 421 | 5855 | 5946 | 5941 | 5859 | 5848 | 5853 |

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**Table** **:** Table BA.2. Predicted annual natural-origin winter-run spawner abundance in the Upper Sacramento River.

| Year | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1980 | 8374 | 8374 | 8374 | 8374 | 8374 | 8374 | 8374 |
| 1981 | 8989 | 8989 | 8989 | 8989 | 8989 | 8989 | 8989 |
| 1982 | 6069 | 7847 | 7769 | 7760 | 7759 | 7790 | 7827 |
| 1983 | 2155 | 8245 | 7984 | 7980 | 7978 | 7987 | 8136 |
| 1984 | 1634 | 11183 | 11004 | 11024 | 11022 | 10951 | 11152 |
| 1985 | 2987 | 13563 | 13997 | 14016 | 14014 | 13962 | 14138 |
| 1986 | 2682 | 13808 | 14497 | 14544 | 14542 | 14528 | 14738 |
| 1987 | 1066 | 12995 | 12962 | 13066 | 13064 | 12993 | 13321 |
| 1988 | 198 | 13259 | 12726 | 12845 | 12843 | 12731 | 13171 |
| 1989 | 96 | 12343 | 11927 | 11949 | 11948 | 11897 | 12240 |
| 1990 | 40 | 8735 | 7847 | 7754 | 7752 | 7727 | 7938 |
| 1991 | 5 | 7729 | 5842 | 5814 | 5809 | 5766 | 6097 |
| 1992 | 4 | 7670 | 5702 | 5773 | 5782 | 5753 | 6117 |
| 1993 | 3 | 4716 | 3627 | 3774 | 3761 | 3768 | 3901 |
| 1994 | 2 | 2791 | 2390 | 2367 | 1634 | 1844 | 1856 |
| 1995 | 3 | 3588 | 3270 | 2951 | 1575 | 1909 | 1965 |
| 1996 | 5 | 4148 | 3665 | 3469 | 2679 | 2833 | 2908 |
| 1997 | 7 | 3732 | 3348 | 3313 | 3002 | 3033 | 3087 |
| 1998 | 16 | 4405 | 4311 | 4273 | 4008 | 4026 | 4049 |
| 1999 | 33 | 5467 | 5558 | 5554 | 5471 | 5461 | 5466 |

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**Table** **:** Table BA.3. Predicted mean lambda (Nt+1/Nt) for total winter-run spawner abundance in the Upper Sacramento River, including both natural- and hatchery-origin fish.

| WYT | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- |
| C | 0.840 | 0.848 | 0.815 | 0.812 | 0.778 | 0.787 | 0.791 |
| D | 1.010 | 1.038 | 1.042 | 1.041 | 1.041 | 1.042 | 1.042 |
| AN | 0.998 | 0.633 | 0.659 | 0.676 | 0.672 | 0.677 | 0.659 |
| W | 0.874 | 1.108 | 1.129 | 1.129 | 1.174 | 1.155 | 1.157 |
| All | 0.852 | 0.979 | 0.980 | 0.980 | 0.979 | 0.979 | 0.979 |

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**Table** **:** Table BA.4. Predicted terminal lambda (Nt=19/Nt=1) for total winter-run spawner abundance in the Upper Sacramento River, including both natural- and hatchery-origin fish, from deterministic model runs.

| EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- |
| 0.048 | 0.668 | 0.679 | 0.678 | 0.669 | 0.668 | 0.668 |

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### Demographic Parameters

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 0.002 | 0.164 | 0.166 | 0.166 | 0.159 | 0.161 | 0.162 |
| All | 10 | 0.101 | 0.181 | 0.181 | 0.178 | 0.173 | 0.175 | 0.175 |
| All | 11 | 0.200 | 0.201 | 0.200 | 0.200 | 0.200 | 0.200 | 0.200 |
| All | 12 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 |
| All | 1 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| All | 2 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| All | 3 | 0.187 | 0.186 | 0.187 | 0.187 | 0.187 | 0.187 | 0.187 |
| All | 4 | 0.165 | 0.159 | 0.162 | 0.164 | 0.164 | 0.164 | 0.165 |
| All | 5 | 0.110 | 0.154 | 0.155 | 0.158 | 0.158 | 0.158 | 0.158 |
| C | 9 | 0.001 | 0.160 | 0.157 | 0.160 | 0.130 | 0.140 | 0.140 |
| C | 10 | 0.086 | 0.180 | 0.176 | 0.179 | 0.176 | 0.180 | 0.180 |
| C | 11 | 0.200 | 0.201 | 0.199 | 0.200 | 0.199 | 0.200 | 0.200 |
| C | 12 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 |
| C | 1 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| C | 2 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| C | 3 | 0.181 | 0.178 | 0.180 | 0.180 | 0.180 | 0.180 | 0.180 |
| C | 4 | 0.151 | 0.146 | 0.153 | 0.161 | 0.162 | 0.162 | 0.163 |
| C | 5 | 0.081 | 0.156 | 0.166 | 0.168 | 0.168 | 0.168 | 0.168 |
| D | 9 | 0.001 | 0.175 | 0.174 | 0.174 | 0.174 | 0.174 | 0.174 |
| D | 10 | 0.091 | 0.174 | 0.174 | 0.173 | 0.173 | 0.174 | 0.173 |
| D | 11 | 0.199 | 0.201 | 0.201 | 0.200 | 0.200 | 0.200 | 0.200 |
| D | 12 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 |
| D | 1 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| D | 2 | 0.191 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| D | 3 | 0.190 | 0.190 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 |
| D | 4 | 0.151 | 0.143 | 0.147 | 0.148 | 0.148 | 0.148 | 0.148 |
| D | 5 | 0.028 | 0.149 | 0.144 | 0.151 | 0.152 | 0.151 | 0.150 |
| AN | 9 | 0.001 | 0.158 | 0.159 | 0.159 | 0.159 | 0.159 | 0.159 |
| AN | 10 | 0.121 | 0.182 | 0.182 | 0.153 | 0.108 | 0.115 | 0.116 |
| AN | 11 | 0.201 | 0.199 | 0.198 | 0.195 | 0.196 | 0.195 | 0.195 |
| AN | 12 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 |
| AN | 1 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| AN | 2 | 0.191 | 0.190 | 0.190 | 0.191 | 0.191 | 0.191 | 0.191 |
| AN | 3 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| AN | 4 | 0.176 | 0.170 | 0.168 | 0.168 | 0.168 | 0.168 | 0.169 |
| AN | 5 | 0.158 | 0.161 | 0.158 | 0.161 | 0.161 | 0.161 | 0.161 |
| W | 9 | 0.004 | 0.164 | 0.168 | 0.168 | 0.168 | 0.168 | 0.168 |
| W | 10 | 0.110 | 0.185 | 0.186 | 0.185 | 0.186 | 0.186 | 0.186 |
| W | 11 | 0.200 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 |
| W | 12 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 | 0.202 |
| W | 1 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| W | 2 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 | 0.190 |
| W | 3 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 |
| W | 4 | 0.176 | 0.171 | 0.172 | 0.172 | 0.172 | 0.172 | 0.172 |
| W | 5 | 0.151 | 0.154 | 0.152 | 0.155 | 0.155 | 0.155 | 0.155 |

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 0.993 | 0.996 | 0.997 | 0.998 | 0.998 | 0.997 | 0.997 |
| All | 10 | 0.997 | 0.997 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 |
| All | 11 | 0.998 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| All | 12 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| All | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 4 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| All | 5 | 0.976 | 0.983 | 0.985 | 0.985 | 0.986 | 0.985 | 0.986 |
| C | 9 | 0.989 | 0.997 | 0.997 | 0.997 | 0.997 | 0.997 | 0.997 |
| C | 10 | 0.997 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 |
| C | 11 | 0.997 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 |
| C | 12 | 0.998 | 0.999 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 |
| C | 1 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| C | 3 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| C | 4 | 0.999 | 0.998 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 5 | 0.977 | 0.988 | 0.987 | 0.990 | 0.990 | 0.990 | 0.992 |
| D | 9 | 0.990 | 0.996 | 0.996 | 0.996 | 0.996 | 0.996 | 0.996 |
| D | 10 | 0.996 | 0.997 | 0.998 | 0.998 | 0.998 | 0.998 | 0.998 |
| D | 11 | 0.998 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 12 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 1 | 1.000 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 4 | 0.999 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 5 | 0.942 | 0.978 | 0.989 | 0.988 | 0.987 | 0.986 | 0.986 |
| AN | 9 | 0.994 | 0.996 | 0.997 | 0.997 | 0.997 | 0.997 | 0.997 |
| AN | 10 | 0.997 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| AN | 11 | 0.997 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| AN | 12 | 0.999 | 1.000 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| AN | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 4 | 1.000 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| AN | 5 | 0.993 | 0.981 | 0.984 | 0.983 | 0.983 | 0.983 | 0.988 |
| W | 9 | 0.997 | 0.996 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| W | 10 | 0.998 | 0.997 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| W | 11 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| W | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 4 | 1.000 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| W | 5 | 0.987 | 0.983 | 0.983 | 0.983 | 0.983 | 0.982 | 0.982 |

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 0.997 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 10 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 11 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 4 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| All | 5 | 0.997 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 9 | 0.991 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 10 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 11 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 12 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| C | 1 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 0.999 | 0.999 |
| C | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| C | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| C | 4 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 1.000 |
| C | 5 | 0.995 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 9 | 0.996 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 10 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| D | 11 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.999 | 0.999 |
| D | 1 | 1.000 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 4 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| D | 5 | 0.993 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| AN | 9 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 10 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 11 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| AN | 5 | 0.999 | 0.998 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |
| W | 9 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 10 | 0.999 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 11 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 12 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| W | 5 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 | 0.999 |

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| All | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| C | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| D | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AN | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| W | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 0.833 | 0.840 | 0.841 | 0.841 | 0.841 | 0.841 | 0.841 |
| All | 10 | 0.837 | 0.843 | 0.843 | 0.843 | 0.843 | 0.842 | 0.843 |
| All | 11 | 0.832 | 0.843 | 0.841 | 0.841 | 0.842 | 0.842 | 0.842 |
| All | 12 | 0.848 | 0.849 | 0.846 | 0.846 | 0.846 | 0.846 | 0.846 |
| All | 1 | 0.850 | 0.850 | 0.849 | 0.850 | 0.849 | 0.849 | 0.849 |
| All | 2 | 0.856 | 0.855 | 0.855 | 0.855 | 0.855 | 0.855 | 0.855 |
| All | 3 | 0.856 | 0.855 | 0.854 | 0.854 | 0.854 | 0.854 | 0.854 |
| All | 4 | 0.849 | 0.844 | 0.844 | 0.845 | 0.846 | 0.846 | 0.847 |
| All | 5 | 0.833 | 0.837 | 0.839 | 0.840 | 0.840 | 0.839 | 0.840 |
| C | 9 | 0.818 | 0.837 | 0.831 | 0.831 | 0.830 | 0.830 | 0.830 |
| C | 10 | 0.836 | 0.844 | 0.838 | 0.838 | 0.838 | 0.837 | 0.838 |
| C | 11 | 0.815 | 0.837 | 0.830 | 0.831 | 0.832 | 0.834 | 0.833 |
| C | 12 | 0.839 | 0.842 | 0.837 | 0.837 | 0.837 | 0.836 | 0.836 |
| C | 1 | 0.837 | 0.840 | 0.840 | 0.843 | 0.839 | 0.839 | 0.839 |
| C | 2 | 0.851 | 0.850 | 0.851 | 0.851 | 0.852 | 0.851 | 0.851 |
| C | 3 | 0.851 | 0.847 | 0.848 | 0.847 | 0.848 | 0.848 | 0.848 |
| C | 4 | 0.839 | 0.832 | 0.831 | 0.835 | 0.838 | 0.837 | 0.838 |
| C | 5 | 0.818 | 0.827 | 0.827 | 0.830 | 0.830 | 0.830 | 0.832 |
| D | 9 | 0.829 | 0.839 | 0.837 | 0.837 | 0.837 | 0.836 | 0.837 |
| D | 10 | 0.832 | 0.841 | 0.842 | 0.842 | 0.842 | 0.842 | 0.842 |
| D | 11 | 0.832 | 0.843 | 0.843 | 0.842 | 0.842 | 0.843 | 0.843 |
| D | 12 | 0.845 | 0.845 | 0.843 | 0.844 | 0.844 | 0.843 | 0.843 |
| D | 1 | 0.845 | 0.844 | 0.841 | 0.841 | 0.841 | 0.841 | 0.841 |
| D | 2 | 0.853 | 0.850 | 0.848 | 0.848 | 0.848 | 0.848 | 0.847 |
| D | 3 | 0.856 | 0.855 | 0.852 | 0.852 | 0.852 | 0.852 | 0.852 |
| D | 4 | 0.845 | 0.838 | 0.840 | 0.840 | 0.840 | 0.841 | 0.843 |
| D | 5 | 0.809 | 0.827 | 0.837 | 0.837 | 0.837 | 0.836 | 0.836 |
| AN | 9 | 0.839 | 0.843 | 0.846 | 0.847 | 0.847 | 0.847 | 0.847 |
| AN | 10 | 0.838 | 0.844 | 0.847 | 0.841 | 0.841 | 0.841 | 0.841 |
| AN | 11 | 0.816 | 0.834 | 0.836 | 0.838 | 0.838 | 0.839 | 0.839 |
| AN | 12 | 0.846 | 0.851 | 0.842 | 0.842 | 0.842 | 0.842 | 0.842 |
| AN | 1 | 0.857 | 0.857 | 0.854 | 0.854 | 0.854 | 0.854 | 0.854 |
| AN | 2 | 0.860 | 0.860 | 0.859 | 0.859 | 0.859 | 0.859 | 0.859 |
| AN | 3 | 0.860 | 0.859 | 0.859 | 0.859 | 0.858 | 0.858 | 0.858 |
| AN | 4 | 0.855 | 0.851 | 0.850 | 0.850 | 0.850 | 0.850 | 0.851 |
| AN | 5 | 0.848 | 0.842 | 0.842 | 0.842 | 0.842 | 0.841 | 0.843 |
| W | 9 | 0.842 | 0.841 | 0.848 | 0.848 | 0.848 | 0.848 | 0.848 |
| W | 10 | 0.840 | 0.844 | 0.846 | 0.846 | 0.846 | 0.846 | 0.846 |
| W | 11 | 0.845 | 0.848 | 0.848 | 0.848 | 0.848 | 0.848 | 0.847 |
| W | 12 | 0.855 | 0.855 | 0.854 | 0.854 | 0.854 | 0.854 | 0.854 |
| W | 1 | 0.858 | 0.857 | 0.856 | 0.856 | 0.856 | 0.856 | 0.856 |
| W | 2 | 0.860 | 0.859 | 0.859 | 0.859 | 0.859 | 0.859 | 0.859 |
| W | 3 | 0.859 | 0.858 | 0.858 | 0.858 | 0.858 | 0.858 | 0.858 |
| W | 4 | 0.855 | 0.852 | 0.852 | 0.852 | 0.852 | 0.852 | 0.852 |
| W | 5 | 0.848 | 0.846 | 0.846 | 0.846 | 0.846 | 0.846 | 0.846 |

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

| WYT | Month | EXP1 | EXP3 | NAA | Alt2wTUCPwoVA | Alt2woTUCPwoVA | Alt2woTUCPDeltaVA | Alt2woTUCPAllVA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| All | 9 | 0.253 | 0.269 | 0.326 | 0.326 | 0.326 | 0.327 | 0.327 |
| All | 10 | 0.240 | 0.252 | 0.291 | 0.291 | 0.291 | 0.290 | 0.290 |
| All | 11 | 0.301 | 0.326 | 0.329 | 0.331 | 0.332 | 0.333 | 0.333 |
| All | 12 | 0.402 | 0.411 | 0.379 | 0.381 | 0.381 | 0.379 | 0.379 |
| All | 1 | 0.455 | 0.446 | 0.438 | 0.443 | 0.440 | 0.439 | 0.439 |
| All | 2 | 0.487 | 0.467 | 0.470 | 0.469 | 0.472 | 0.470 | 0.468 |
| All | 3 | 0.505 | 0.475 | 0.469 | 0.468 | 0.467 | 0.467 | 0.468 |
| All | 4 | 0.422 | 0.360 | 0.365 | 0.369 | 0.372 | 0.372 | 0.378 |
| All | 5 | 0.343 | 0.331 | 0.345 | 0.347 | 0.347 | 0.345 | 0.349 |
| C | 9 | 0.199 | 0.246 | 0.251 | 0.249 | 0.250 | 0.251 | 0.252 |
| C | 10 | 0.219 | 0.235 | 0.250 | 0.251 | 0.251 | 0.251 | 0.251 |
| C | 11 | 0.205 | 0.258 | 0.251 | 0.254 | 0.258 | 0.256 | 0.255 |
| C | 12 | 0.295 | 0.302 | 0.278 | 0.278 | 0.278 | 0.279 | 0.279 |
| C | 1 | 0.330 | 0.321 | 0.323 | 0.341 | 0.327 | 0.325 | 0.324 |
| C | 2 | 0.374 | 0.349 | 0.366 | 0.362 | 0.374 | 0.361 | 0.361 |
| C | 3 | 0.401 | 0.338 | 0.346 | 0.342 | 0.343 | 0.342 | 0.344 |
| C | 4 | 0.284 | 0.244 | 0.248 | 0.262 | 0.276 | 0.273 | 0.279 |
| C | 5 | 0.239 | 0.245 | 0.250 | 0.260 | 0.260 | 0.260 | 0.268 |
| D | 9 | 0.241 | 0.273 | 0.285 | 0.286 | 0.286 | 0.282 | 0.286 |
| D | 10 | 0.226 | 0.241 | 0.282 | 0.284 | 0.284 | 0.283 | 0.283 |
| D | 11 | 0.308 | 0.320 | 0.324 | 0.321 | 0.321 | 0.332 | 0.331 |
| D | 12 | 0.342 | 0.351 | 0.323 | 0.331 | 0.331 | 0.322 | 0.322 |
| D | 1 | 0.352 | 0.336 | 0.324 | 0.330 | 0.330 | 0.329 | 0.330 |
| D | 2 | 0.400 | 0.343 | 0.343 | 0.341 | 0.342 | 0.345 | 0.339 |
| D | 3 | 0.488 | 0.455 | 0.412 | 0.413 | 0.413 | 0.412 | 0.414 |
| D | 4 | 0.361 | 0.287 | 0.310 | 0.310 | 0.310 | 0.314 | 0.329 |
| D | 5 | 0.222 | 0.253 | 0.308 | 0.306 | 0.306 | 0.300 | 0.301 |
| AN | 9 | 0.238 | 0.263 | 0.365 | 0.375 | 0.374 | 0.379 | 0.376 |
| AN | 10 | 0.210 | 0.235 | 0.280 | 0.273 | 0.273 | 0.273 | 0.272 |
| AN | 11 | 0.221 | 0.246 | 0.272 | 0.290 | 0.291 | 0.292 | 0.292 |
| AN | 12 | 0.348 | 0.389 | 0.308 | 0.306 | 0.306 | 0.306 | 0.306 |
| AN | 1 | 0.536 | 0.530 | 0.492 | 0.496 | 0.496 | 0.497 | 0.497 |
| AN | 2 | 0.576 | 0.573 | 0.566 | 0.565 | 0.565 | 0.565 | 0.565 |
| AN | 3 | 0.569 | 0.564 | 0.559 | 0.558 | 0.550 | 0.552 | 0.552 |
| AN | 4 | 0.501 | 0.410 | 0.402 | 0.401 | 0.398 | 0.399 | 0.412 |
| AN | 5 | 0.403 | 0.337 | 0.342 | 0.340 | 0.340 | 0.337 | 0.351 |
| W | 9 | 0.291 | 0.282 | 0.377 | 0.376 | 0.376 | 0.377 | 0.377 |
| W | 10 | 0.265 | 0.269 | 0.320 | 0.320 | 0.320 | 0.319 | 0.319 |
| W | 11 | 0.370 | 0.384 | 0.388 | 0.388 | 0.388 | 0.386 | 0.386 |
| W | 12 | 0.500 | 0.504 | 0.477 | 0.477 | 0.477 | 0.477 | 0.477 |
| W | 1 | 0.553 | 0.546 | 0.539 | 0.539 | 0.539 | 0.539 | 0.539 |
| W | 2 | 0.569 | 0.565 | 0.564 | 0.564 | 0.564 | 0.564 | 0.564 |
| W | 3 | 0.556 | 0.540 | 0.542 | 0.542 | 0.542 | 0.542 | 0.542 |
| W | 4 | 0.507 | 0.445 | 0.446 | 0.447 | 0.447 | 0.447 | 0.447 |
| W | 5 | 0.442 | 0.412 | 0.415 | 0.416 | 0.416 | 0.415 | 0.415 |

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