

**Attachment 3: Flow Results (CalSim 3)**

---

## Appendix 4L

# Attachment 3: Flow Results (CalSim 3)

---

The following results of the CalSim 3 model are included for river flow conditions for the following scenarios:

- Baseline Conditions (082624)
- Proposed Project ITP Spring Outflow (091224)

| <b>Title</b>                             | <b>Model Parameter</b> | <b>Table Numbers</b>     | <b>Figure Numbers</b> |
|--|------------------------|--------------------------|-----------------------|
| Sacramento River Flow at Freeport        | C_SAC048               | 4L-3-1-1a to 4L-3-1-1c   | 4L-3-1a to 4L-3-1r    |
| Georgiana Slough Flow                    | C_SAC029B              | 4L-3-2-1a to 4L-3-2-1c   | 4L-3-2a to 4L-3-2r    |
| Yolo Bypass Flow                         | C_YBP020               | 4L-3-3-1a to 4L-3-3-1c   | 4L-3-3a to 4L-3-3r    |
| Sacramento River Flow at Rio Vista       | C_SAC007               | 4L-3-4-1a to 4L-3-4-1c   | 4L-3-4a to 4L-3-4r    |
| San Joaquin River at Vernalis            | C_SJR070               | 4L-3-5-1a to 4L-3-5-1c   | 4L-3-5a to 4L-3-5r    |
| San Joaquin River at Vernalis (60-20-20) | C_SJR070               | 4L-3-6-1a to 4L-3-6-1c   | 4L-3-6a to 4L-3-6f    |
| Mokelumne River below Cosumnes           | C_MOK019               | 4L-3-7-1a to 4L-3-7-1c   | 4L-3-7a to 4L-3-7r    |
| Old and Middle River Flow                | C_OMR014               | 4L-3-8-1a to 4L-3-8-1c   | 4L-3-8a to 4L-3-8r    |
| Qwest                                    | C_SJR013               | 4L-3-9-1a to 4L-3-9-1c   | 4L-3-9a to 4L-3-9r    |
| Delta Outflow                            | NDOI                   | 4L-3-10-1a to 4L-3-10-1c | 4L-3-10a to 4L-3-10r  |

Report formats:

- Monthly tables comparing two scenarios (exceedance values, long-term average, and average by water year type).
- Monthly pattern charts (long-term average and average by water year type) including all scenarios.
- Monthly exceedance charts (all months) including all scenarios.

**Table 4L-3-1-1a. Sacramento River Flow at Freeport, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 15,590 | 19,596 | 47,575 | 66,116 | 69,548 | 69,127 | 57,031 | 45,980 | 29,555 | 23,381 | 18,592 | 20,448 |
| 20% Exceedance                              | 14,631 | 14,595 | 32,648 | 53,437 | 62,477 | 56,765 | 37,146 | 34,880 | 22,685 | 22,215 | 18,249 | 19,160 |
| 30% Exceedance                              | 13,468 | 13,826 | 22,740 | 35,691 | 49,756 | 46,224 | 24,889 | 22,587 | 17,080 | 20,814 | 17,641 | 17,393 |
| 40% Exceedance                              | 12,846 | 13,231 | 16,978 | 27,913 | 38,005 | 35,570 | 19,393 | 16,922 | 14,165 | 19,498 | 17,207 | 16,108 |
| 50% Exceedance                              | 10,690 | 12,539 | 15,335 | 22,245 | 28,144 | 26,215 | 16,914 | 13,771 | 13,568 | 18,767 | 16,260 | 13,219 |
| 60% Exceedance                              | 9,373  | 11,112 | 14,044 | 17,765 | 24,258 | 22,683 | 12,320 | 12,571 | 13,243 | 17,753 | 13,549 | 10,826 |
| 70% Exceedance                              | 8,396  | 10,024 | 11,051 | 14,221 | 18,511 | 19,957 | 11,210 | 11,287 | 12,372 | 16,262 | 10,871 | 9,952  |
| 80% Exceedance                              | 8,044  | 8,545  | 10,204 | 12,127 | 15,981 | 14,898 | 10,423 | 10,592 | 11,515 | 13,157 | 9,036  | 9,058  |
| 90% Exceedance                              | 6,187  | 7,229  | 8,873  | 10,574 | 13,366 | 11,595 | 9,263  | 7,768  | 9,686  | 9,978  | 7,935  | 8,224  |
| Full Simulation Period Average <sup>a</sup> | 11,308 | 13,023 | 21,597 | 30,639 | 37,011 | 34,526 | 23,773 | 20,917 | 17,647 | 17,910 | 14,281 | 14,057 |
| Wet Water Years (32%)                       | 13,245 | 16,201 | 34,067 | 52,284 | 60,733 | 56,175 | 43,114 | 36,030 | 27,074 | 20,095 | 17,683 | 19,512 |
| Above Normal Water Years (9%)               | 11,006 | 12,935 | 20,839 | 41,115 | 43,249 | 44,036 | 24,747 | 23,721 | 19,219 | 21,318 | 18,298 | 17,693 |
| Below Normal Water Years (20%)              | 11,460 | 12,330 | 16,072 | 22,837 | 30,324 | 29,268 | 17,217 | 16,738 | 13,661 | 21,214 | 16,365 | 13,312 |
| Dry Water Years (21%)                       | 10,780 | 12,430 | 16,510 | 15,725 | 22,893 | 20,669 | 12,247 | 11,638 | 13,384 | 16,583 | 11,056 | 10,077 |
| Critical Water Years (18%)                  | 8,464  | 8,880  | 11,881 | 12,986 | 15,621 | 13,294 | 9,633  | 8,114  | 9,504  | 10,201 | 7,673  | 8,013  |

**Table 4L-3-1-1b. Sacramento River Flow at Freeport, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 15,492 | 19,766 | 47,298 | 66,120 | 69,503 | 69,116 | 56,950 | 46,004 | 29,554 | 23,153 | 18,790 | 21,898 |
| 20% Exceedance                              | 14,627 | 14,595 | 32,589 | 53,460 | 62,450 | 56,764 | 37,151 | 34,874 | 22,689 | 22,032 | 18,307 | 20,646 |
| 30% Exceedance                              | 13,344 | 13,691 | 22,743 | 35,684 | 49,615 | 45,697 | 25,079 | 22,586 | 16,713 | 20,654 | 17,951 | 18,950 |
| 40% Exceedance                              | 12,814 | 13,233 | 17,263 | 28,007 | 37,935 | 35,627 | 19,379 | 16,605 | 13,668 | 19,451 | 17,263 | 17,143 |
| 50% Exceedance                              | 10,430 | 12,528 | 15,420 | 22,046 | 27,546 | 26,371 | 16,915 | 13,689 | 13,060 | 18,684 | 16,471 | 13,223 |
| 60% Exceedance                              | 9,346  | 11,119 | 14,044 | 17,524 | 23,981 | 22,679 | 12,235 | 12,579 | 12,684 | 17,527 | 13,794 | 10,864 |
| 70% Exceedance                              | 8,384  | 9,914  | 11,026 | 14,111 | 18,969 | 19,954 | 11,188 | 11,227 | 12,123 | 16,301 | 10,393 | 9,916  |
| 80% Exceedance                              | 8,041  | 8,553  | 10,204 | 12,355 | 15,978 | 14,570 | 10,466 | 10,550 | 10,993 | 13,008 | 9,143  | 9,111  |
| 90% Exceedance                              | 6,228  | 7,635  | 8,954  | 10,483 | 13,374 | 11,594 | 9,252  | 7,759  | 9,698  | 10,041 | 7,896  | 8,219  |
| Full Simulation Period Average <sup>a</sup> | 11,280 | 13,019 | 21,625 | 30,618 | 36,930 | 34,484 | 23,767 | 20,860 | 17,422 | 17,814 | 14,339 | 14,657 |
| Wet Water Years (32%)                       | 13,162 | 16,207 | 34,114 | 52,294 | 60,652 | 56,139 | 43,105 | 36,027 | 27,005 | 20,073 | 17,771 | 20,737 |
| Above Normal Water Years (9%)               | 10,978 | 12,783 | 20,876 | 41,090 | 43,170 | 43,800 | 24,708 | 23,716 | 18,950 | 21,214 | 18,182 | 20,000 |
| Below Normal Water Years (20%)              | 11,343 | 12,308 | 16,175 | 22,738 | 30,250 | 29,324 | 17,227 | 16,476 | 13,277 | 20,805 | 16,872 | 13,309 |
| Dry Water Years (21%)                       | 10,860 | 12,468 | 16,398 | 15,730 | 22,712 | 20,615 | 12,253 | 11,611 | 12,876 | 16,607 | 10,832 | 10,091 |
| Critical Water Years (18%)                  | 8,504  | 8,902  | 11,949 | 12,971 | 15,647 | 13,239 | 9,615  | 8,130  | 9,528  | 10,183 | 7,593  | 8,001  |

**Table 4L-3-1-1c. Sacramento River Flow at Freeport, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct  | Nov  | Dec  | Jan  | Feb  | Mar  | Apr | May  | Jun  | Jul  | Aug  | Sep   |
|---|------|------|------|------|------|------|-----|------|------|------|------|-------|
| 10% Exceedance                              | -98  | 170  | -277 | 4    | -44  | -11  | -81 | 24   | -1   | -228 | 198  | 1,450 |
| 20% Exceedance                              | -4   | 0    | -59  | 22   | -27  | -2   | 4   | -6   | 5    | -183 | 59   | 1,486 |
| 30% Exceedance                              | -124 | -134 | 2    | -7   | -141 | -526 | 189 | 0    | -366 | -160 | 310  | 1,558 |
| 40% Exceedance                              | -33  | 1    | 284  | 94   | -70  | 57   | -14 | -317 | -497 | -48  | 55   | 1,034 |
| 50% Exceedance                              | -260 | -11  | 86   | -198 | -598 | 156  | 1   | -82  | -509 | -83  | 211  | 3     |
| 60% Exceedance                              | -28  | 7    | 0    | -242 | -277 | -4   | -85 | 7    | -558 | -226 | 245  | 39    |
| 70% Exceedance                              | -12  | -110 | -25  | -111 | 458  | -2   | -22 | -60  | -249 | 39   | -478 | -36   |
| 80% Exceedance                              | -3   | 8    | 0    | 228  | -2   | -328 | 43  | -42  | -522 | -149 | 108  | 53    |
| 90% Exceedance                              | 41   | 405  | 81   | -91  | 7    | -1   | -11 | -9   | 12   | 63   | -40  | -6    |
| Full Simulation Period Average <sup>a</sup> | -29  | -4   | 28   | -21  | -81  | -43  | -6  | -56  | -225 | -96  | 58   | 600   |
| Wet Water Years (32%)                       | -84  | 6    | 47   | 10   | -81  | -36  | -9  | -3   | -69  | -22  | 88   | 1,225 |
| Above Normal Water Years (9%)               | -27  | -152 | 37   | -25  | -79  | -236 | -39 | -5   | -269 | -104 | -116 | 2,307 |
| Below Normal Water Years (20%)              | -117 | -22  | 103  | -100 | -74  | 56   | 10  | -262 | -384 | -409 | 507  | -3    |
| Dry Water Years (21%)                       | 80   | 37   | -111 | 5    | -181 | -54  | 6   | -27  | -508 | 24   | -223 | 14    |
| Critical Water Years (18%)                  | 40   | 22   | 68   | -15  | 26   | -55  | -18 | 17   | 24   | -19  | -80  | -12   |

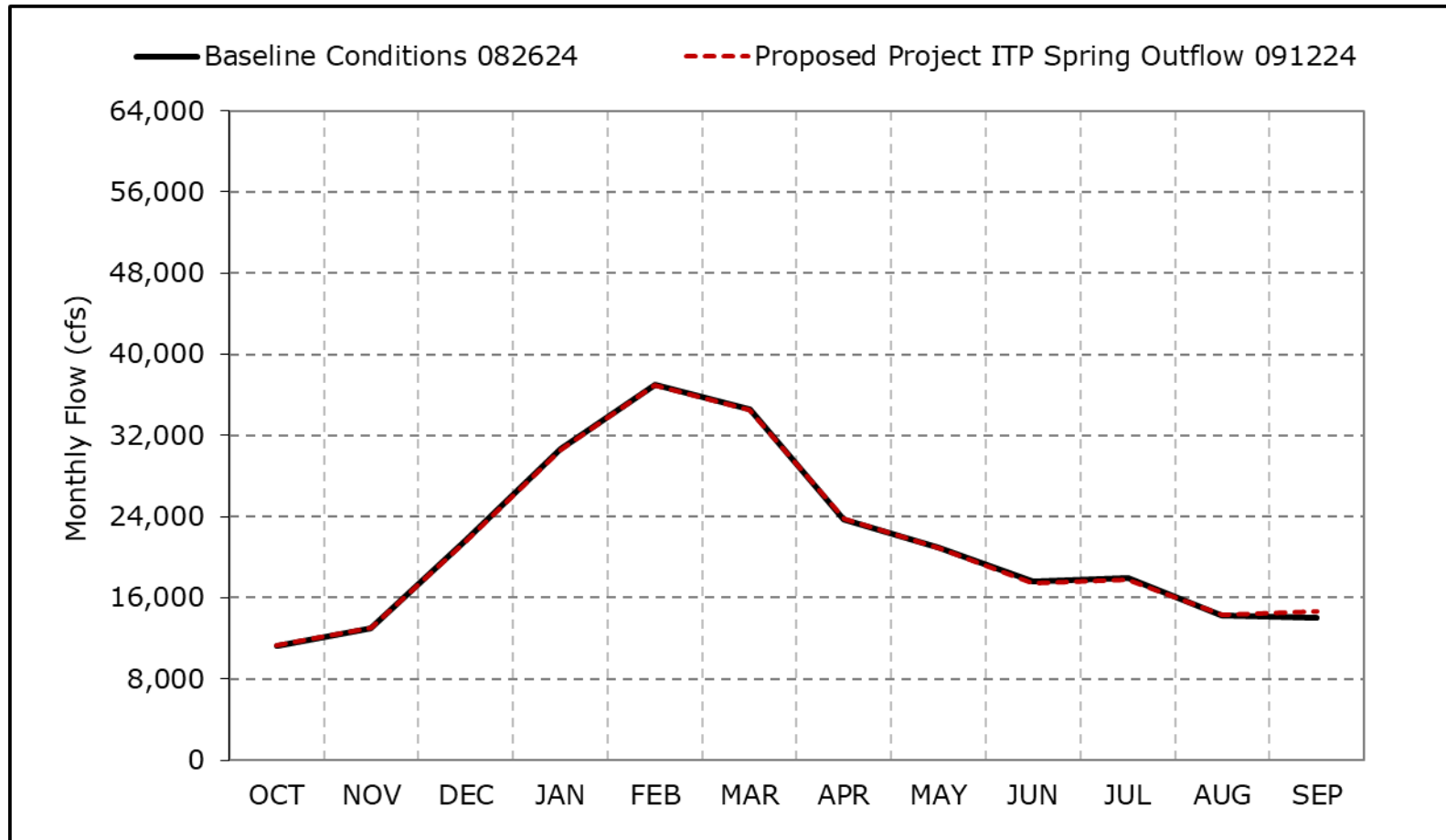
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-1a. Sacramento River Flow at Freeport, Long-Term Average Flow**

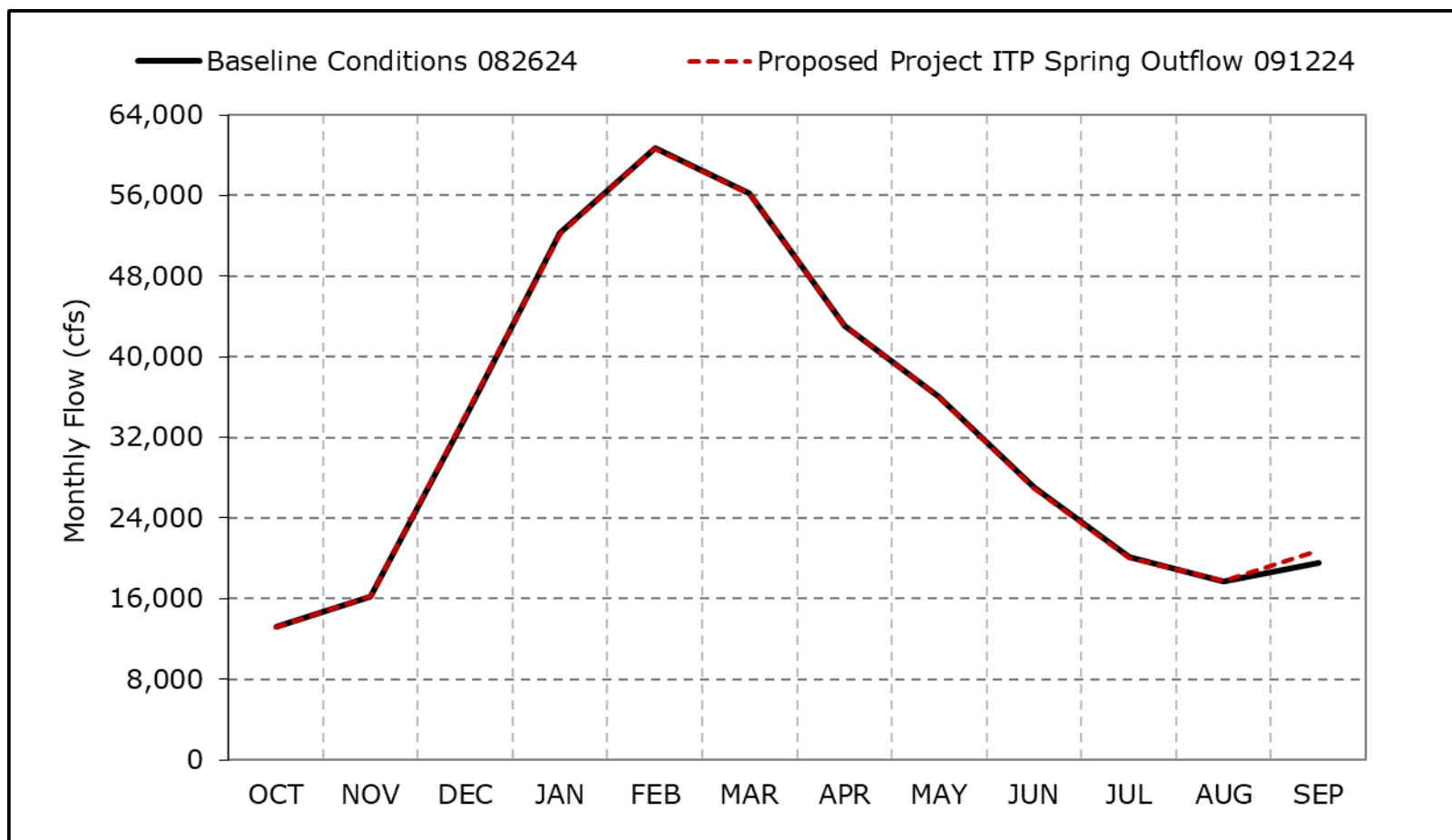


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1b. Sacramento River Flow at Freeport, Wet Year Average Flow**

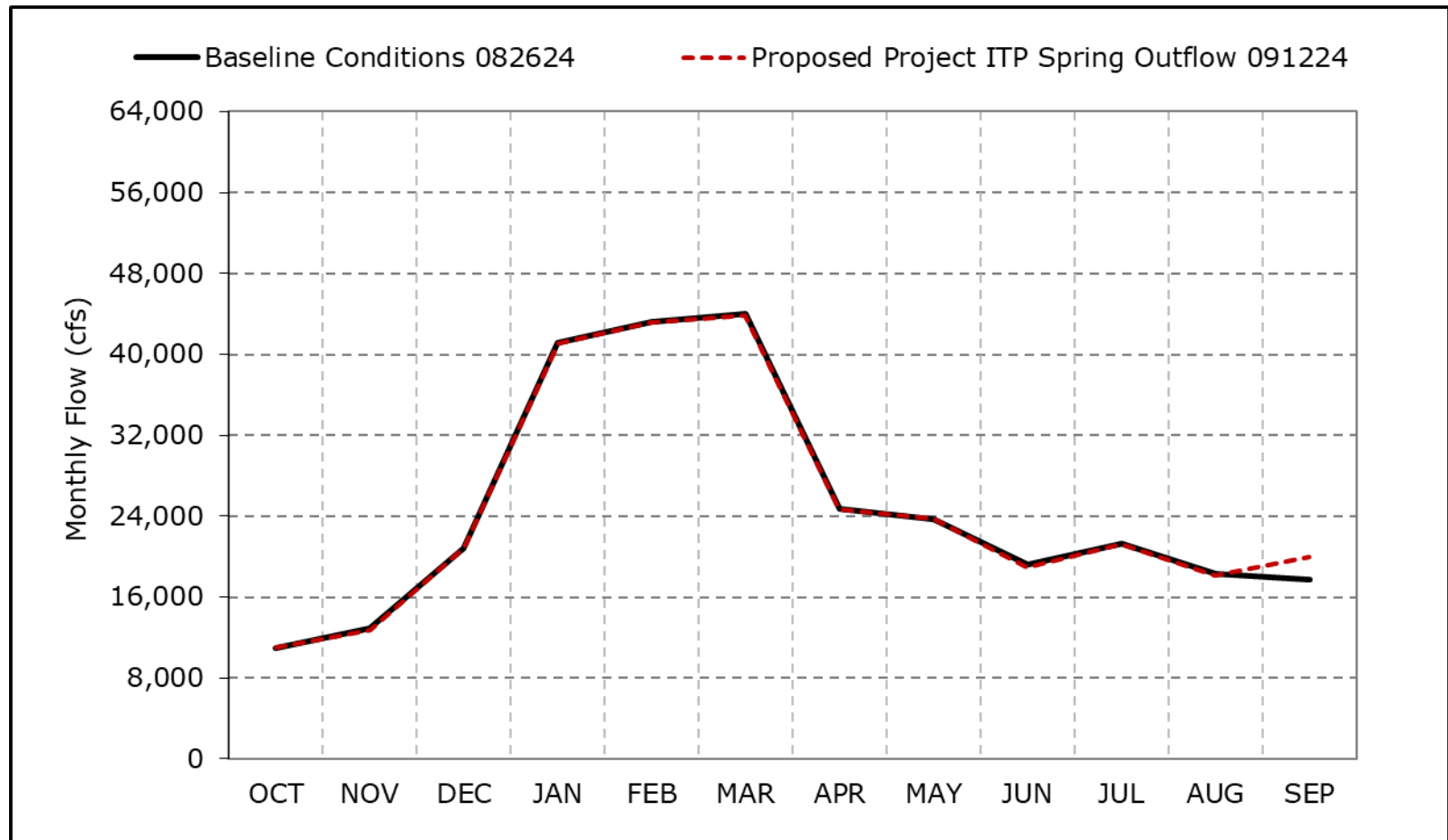


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1c. Sacramento River Flow at Freeport, Above Normal Year Average Flow**

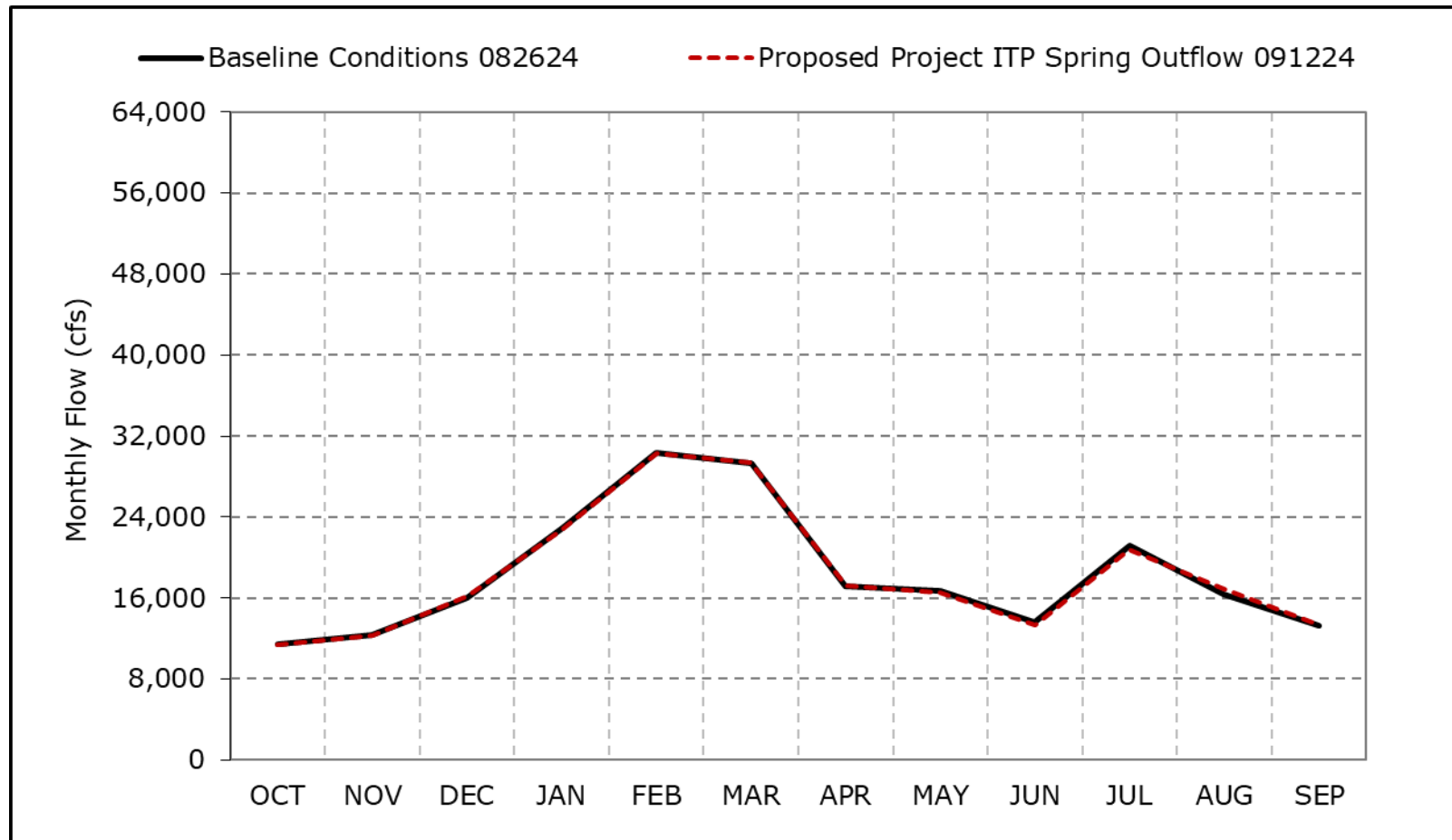


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1d. Sacramento River Flow at Freeport, Below Normal Year Average Flow**

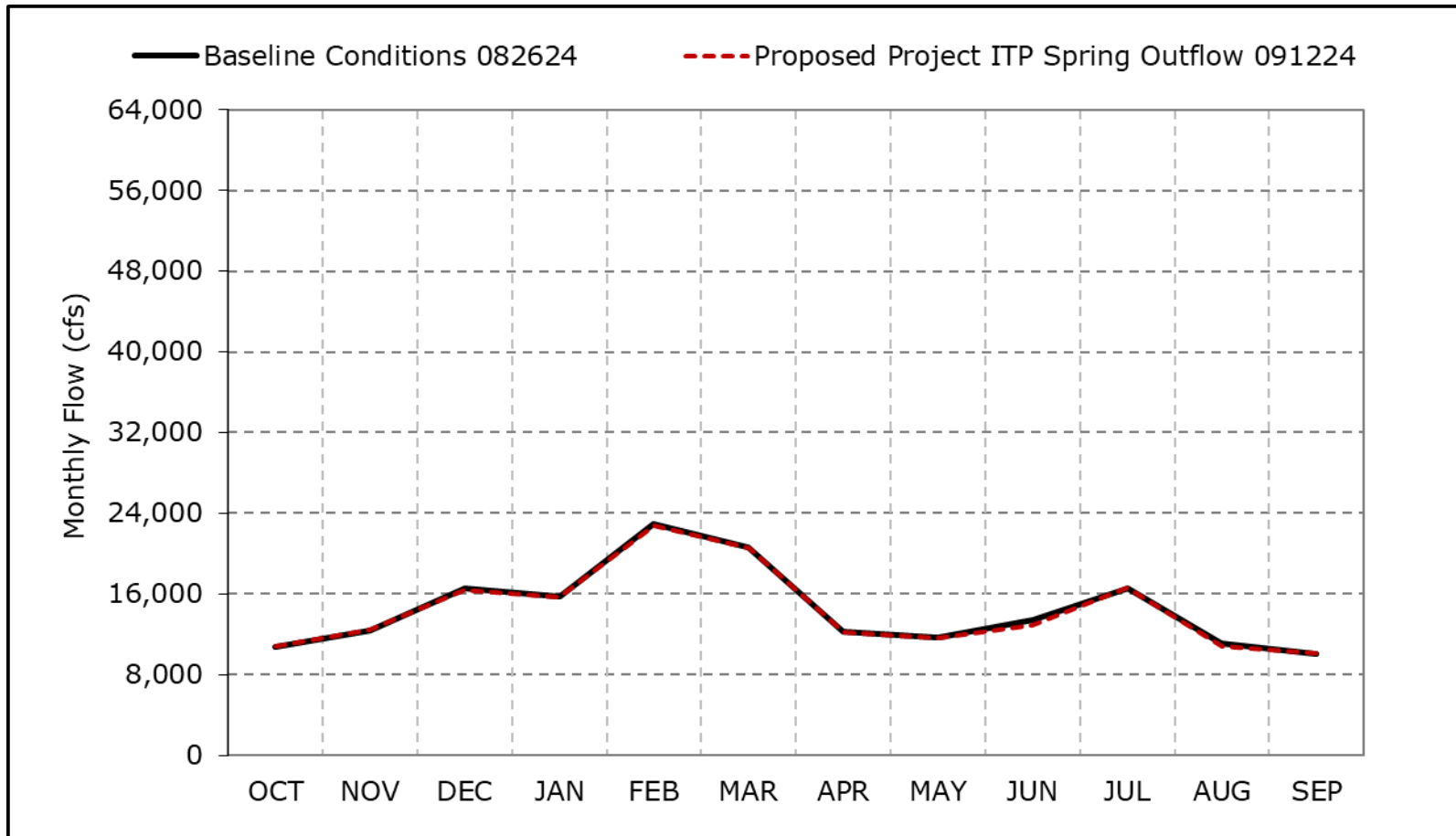


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1e. Sacramento River Flow at Freeport, Dry Year Average Flow**



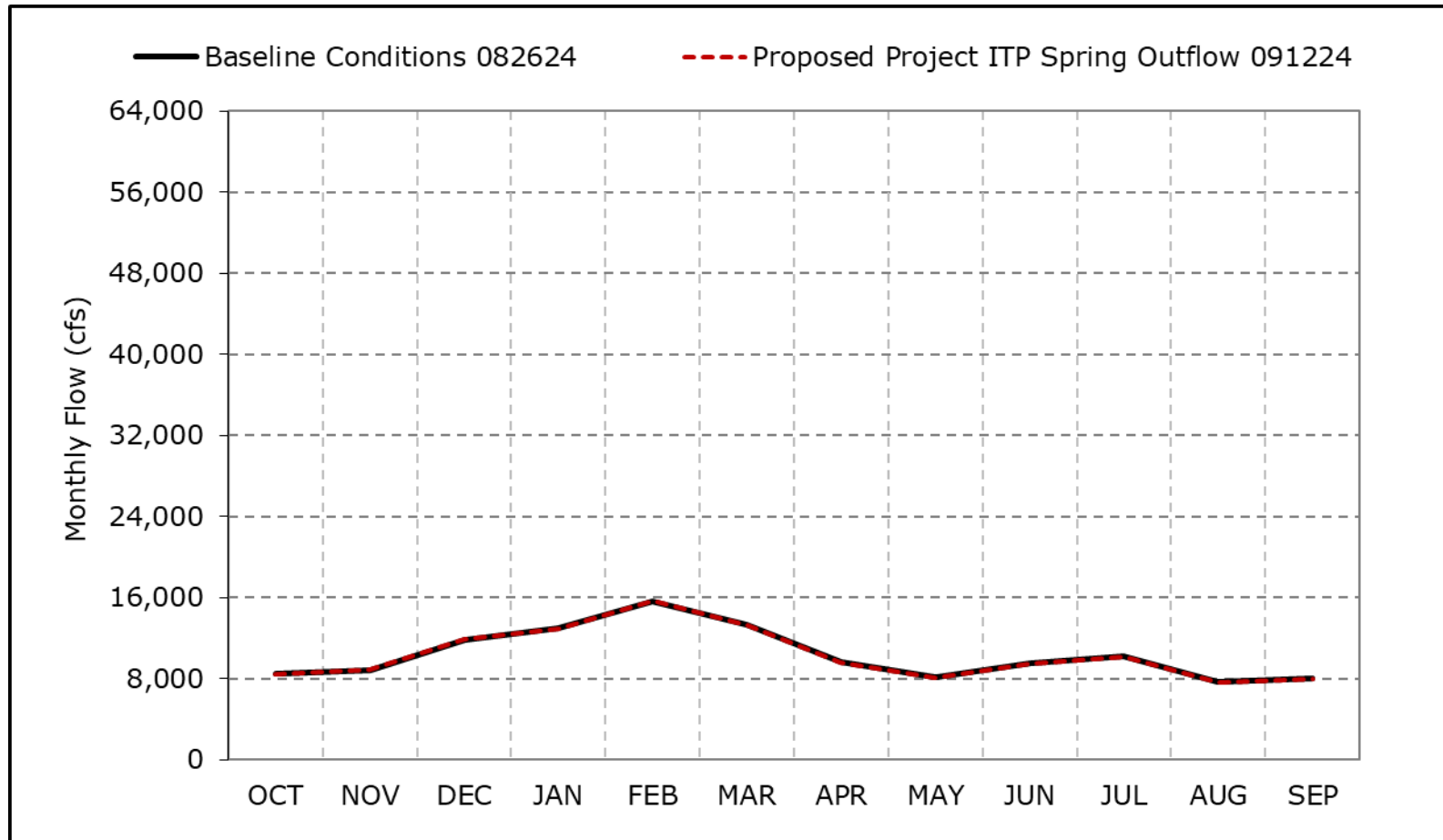
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-1f. Sacramento River Flow at Freeport, Critical Year Average Flow**

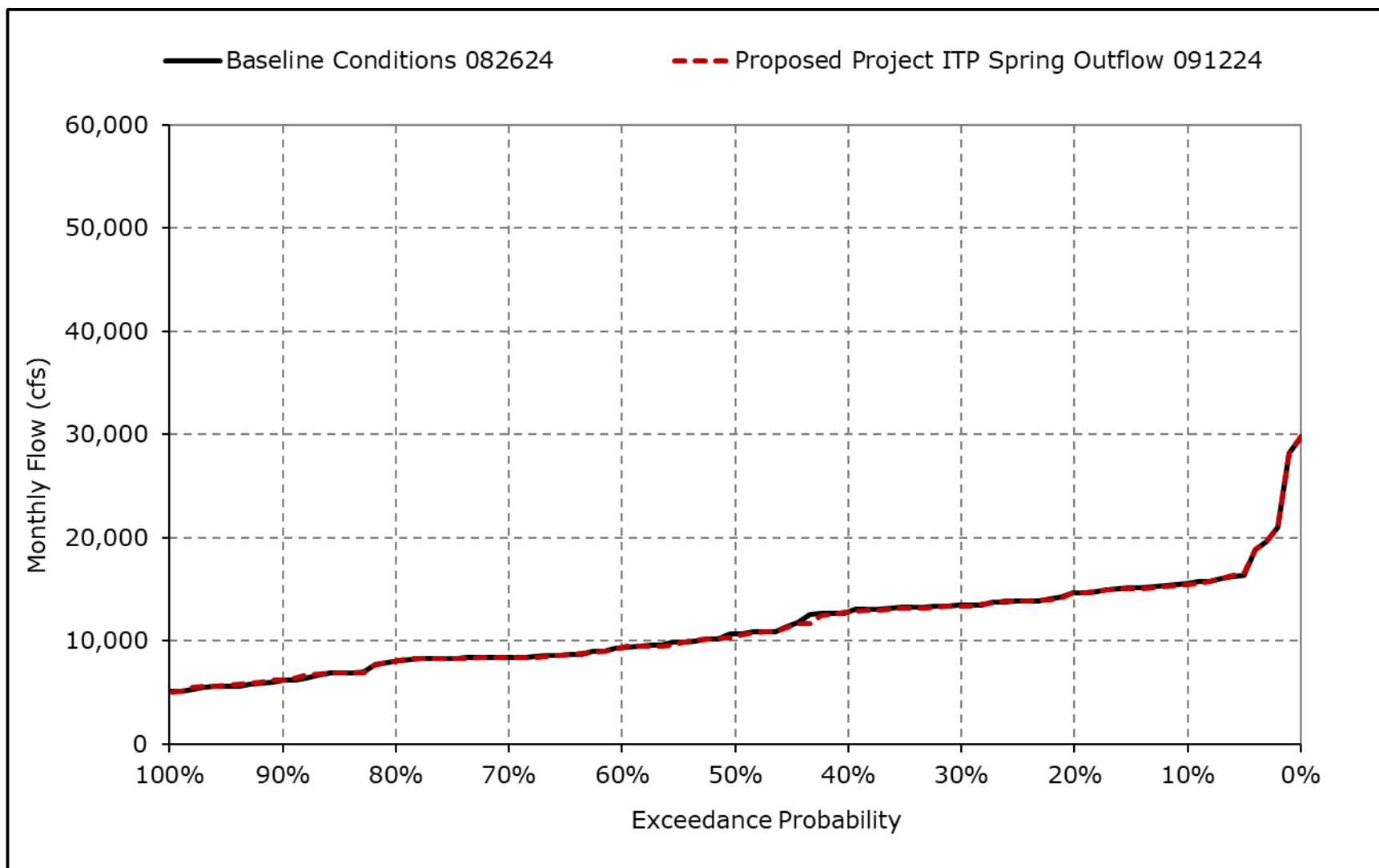


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

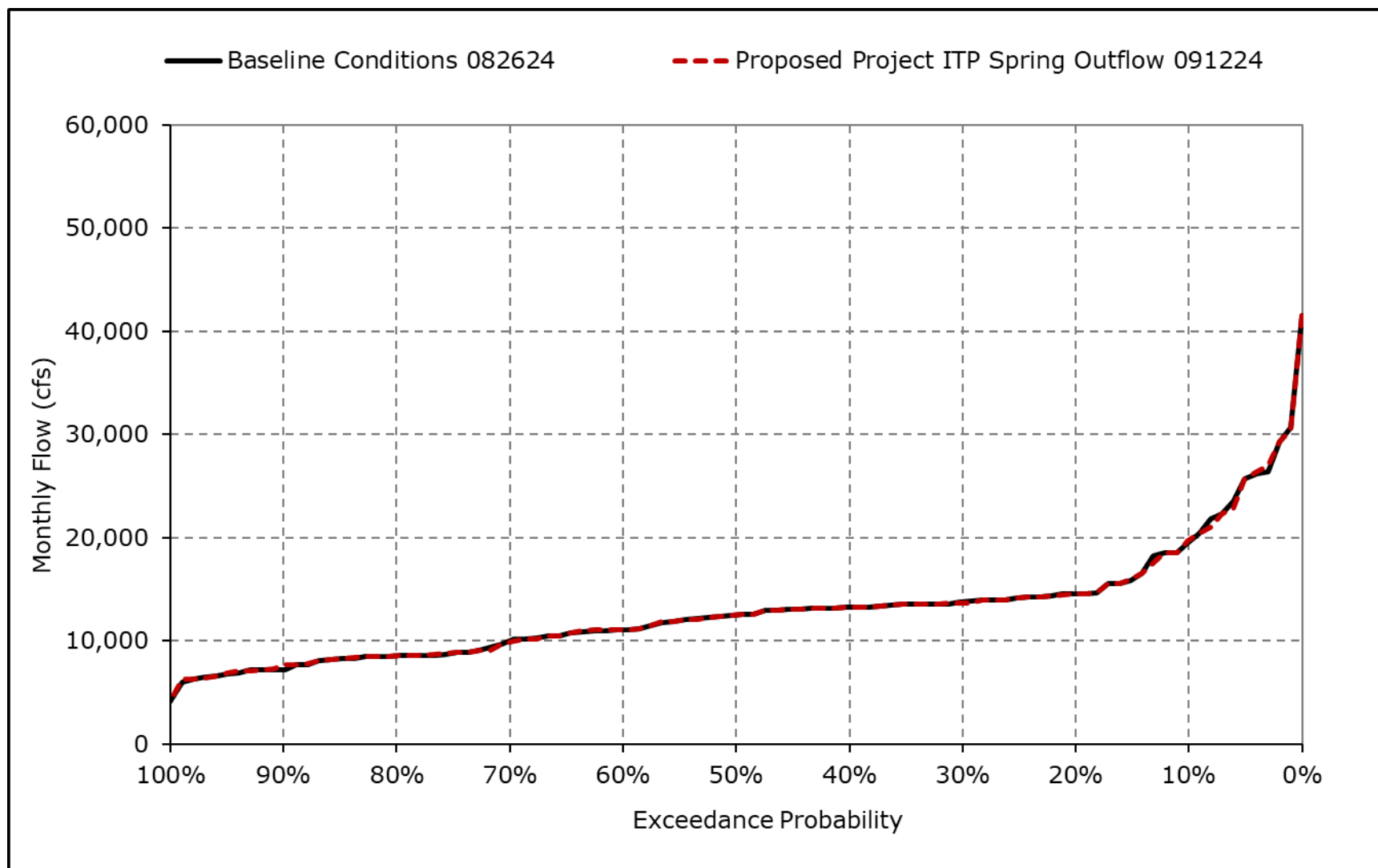
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1g. Sacramento River Flow at Freeport, October**



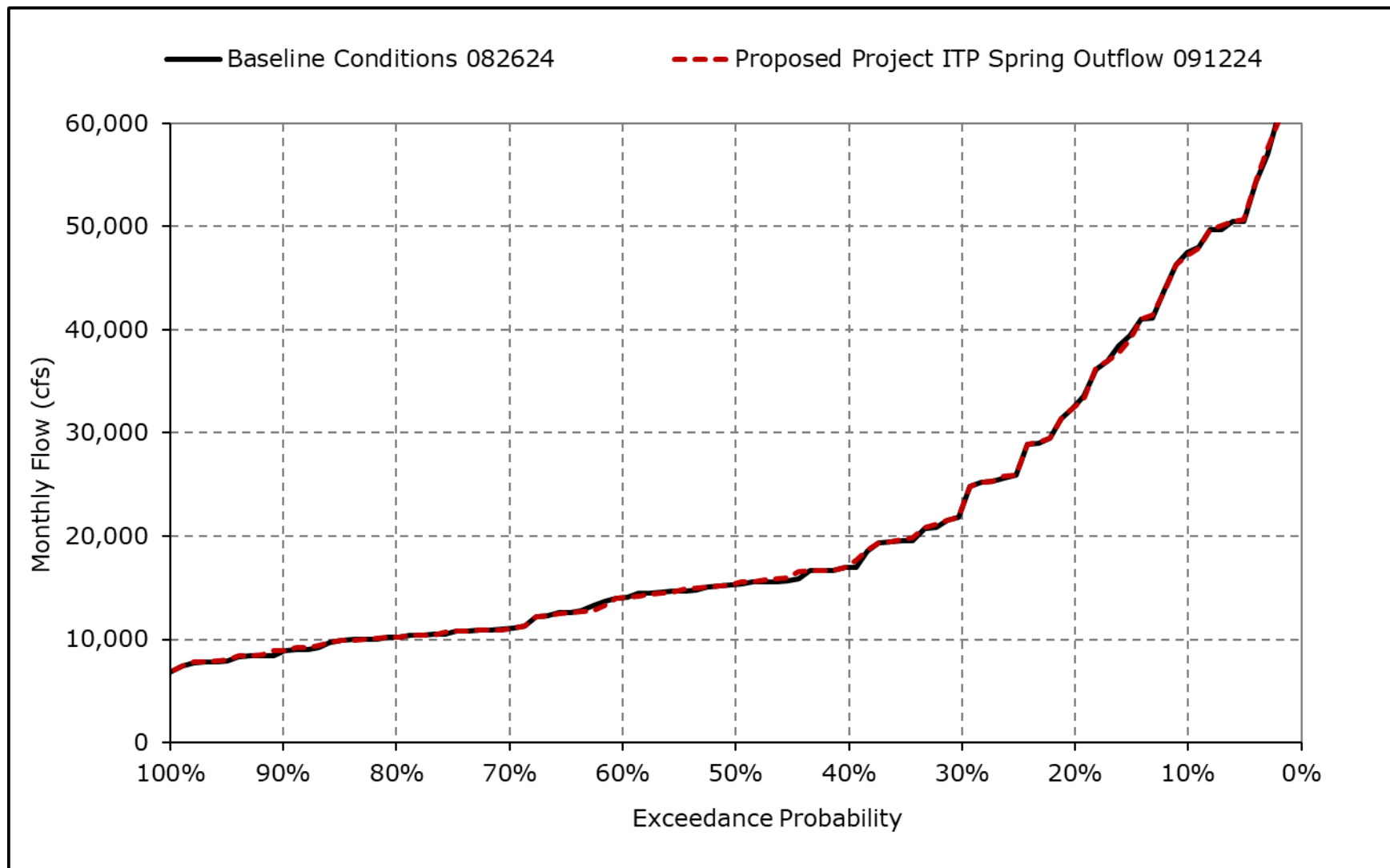
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1h. Sacramento River Flow at Freeport, November**



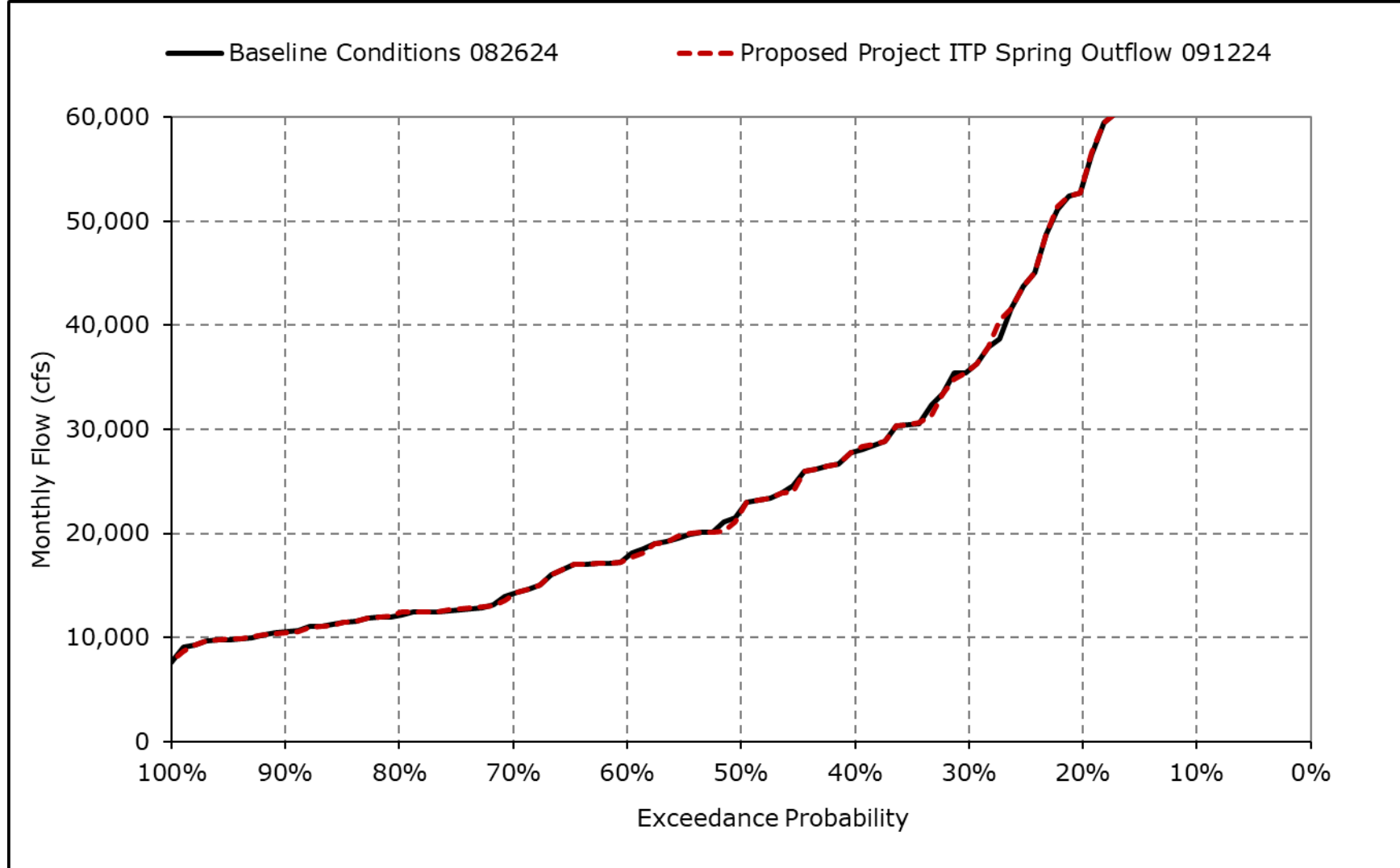
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1i. Sacramento River Flow at Freeport, December**



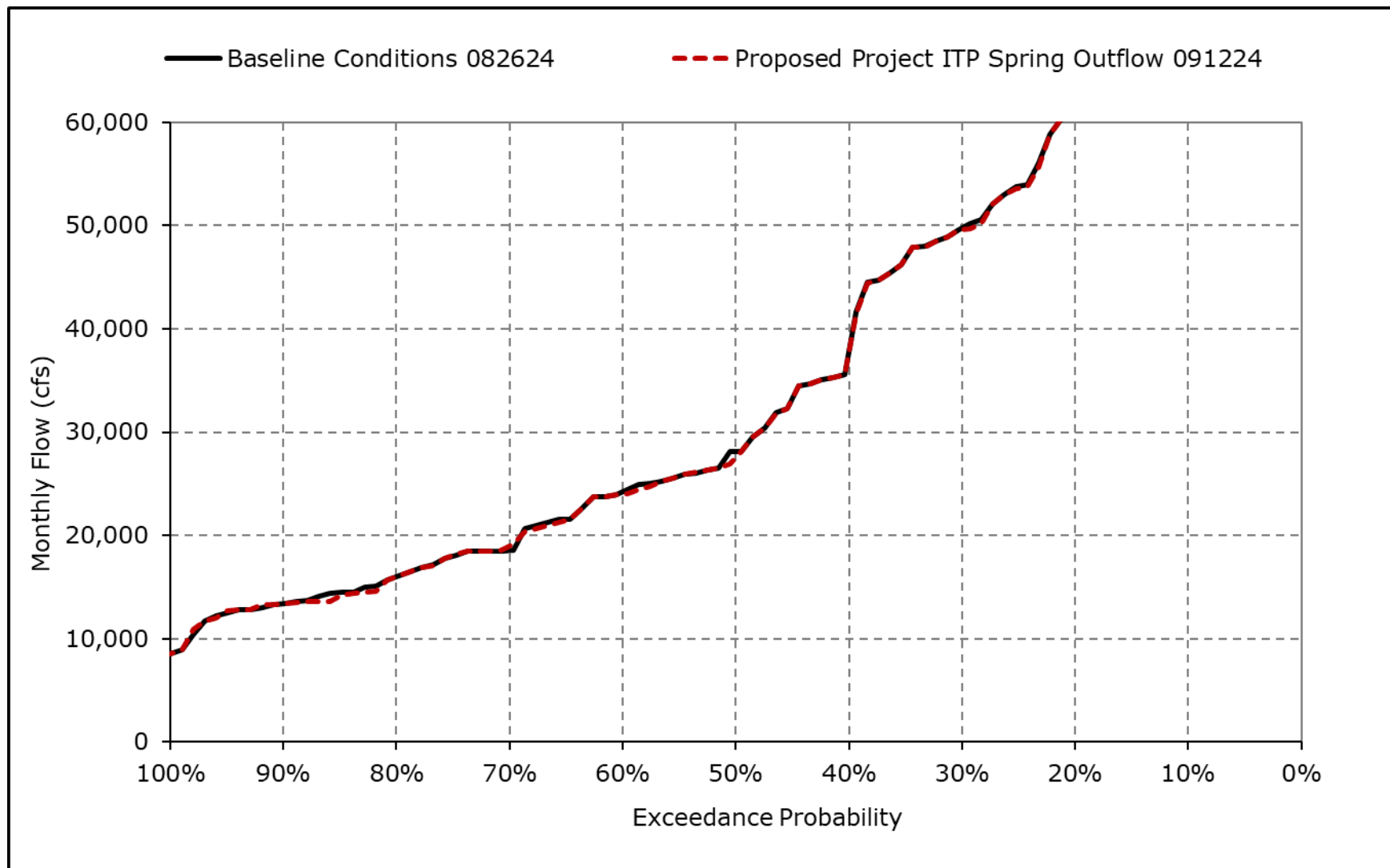
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1j. Sacramento River Flow at Freeport, January**



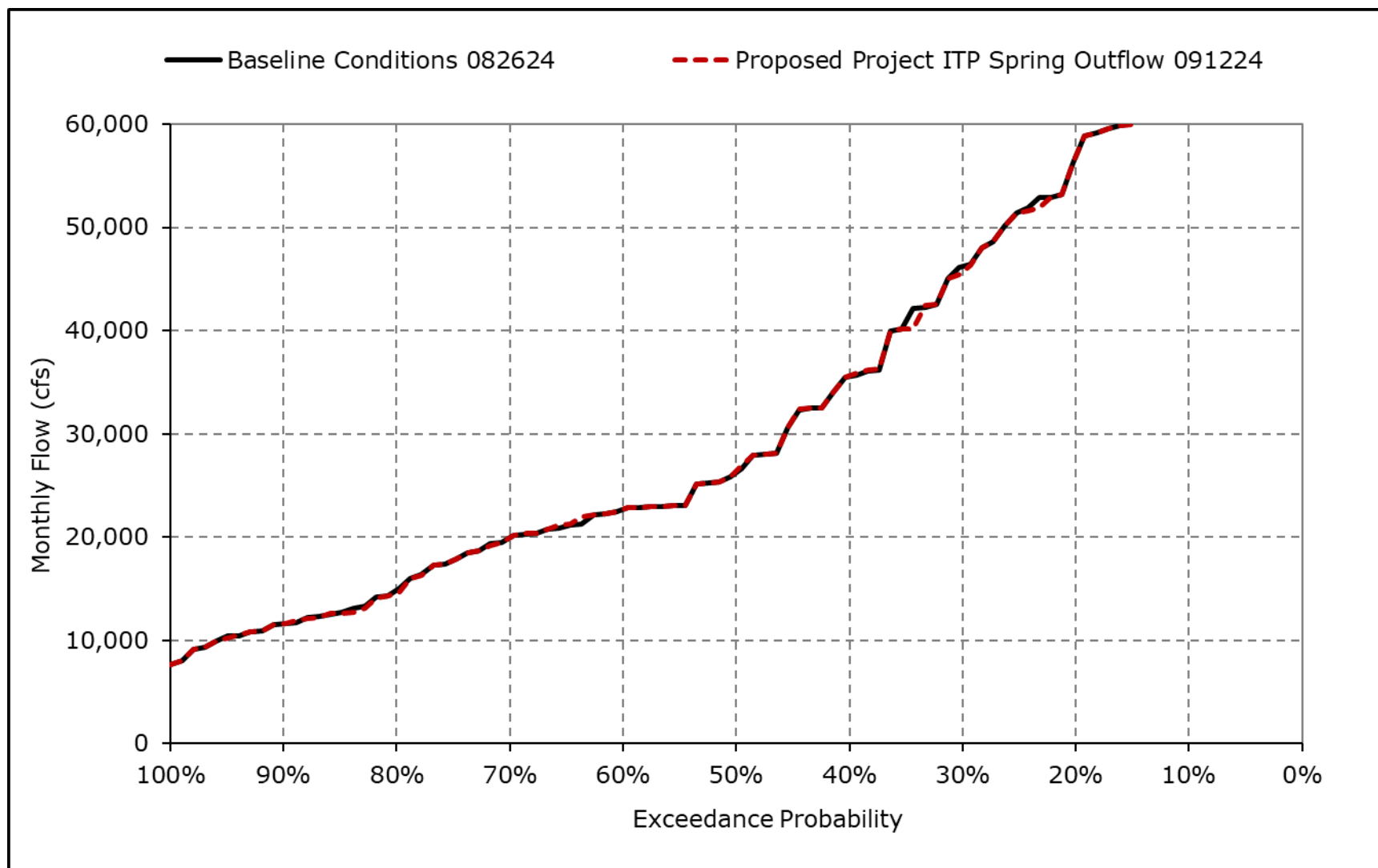
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1k. Sacramento River Flow at Freeport, February**



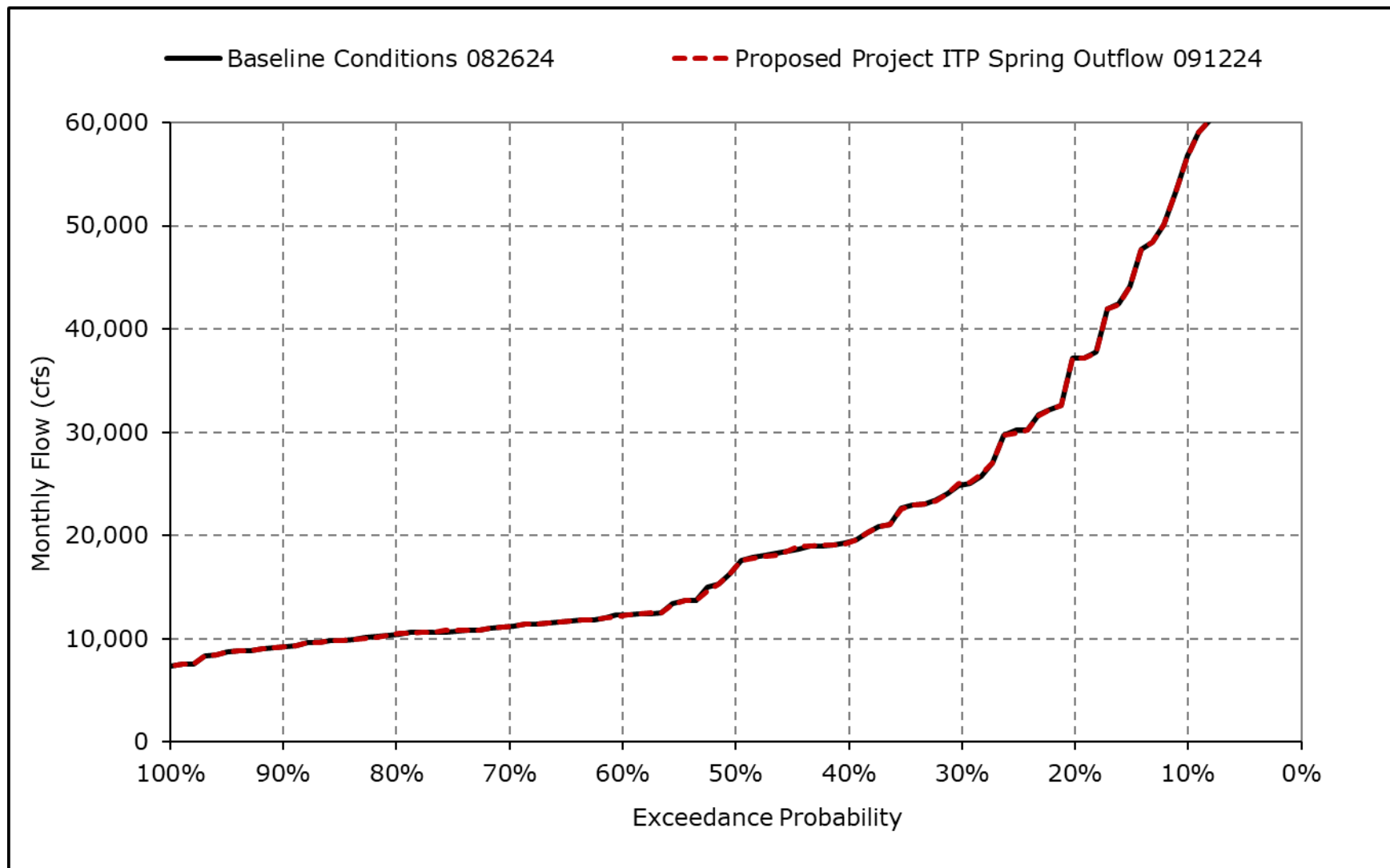
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1I. Sacramento River Flow at Freeport, March**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

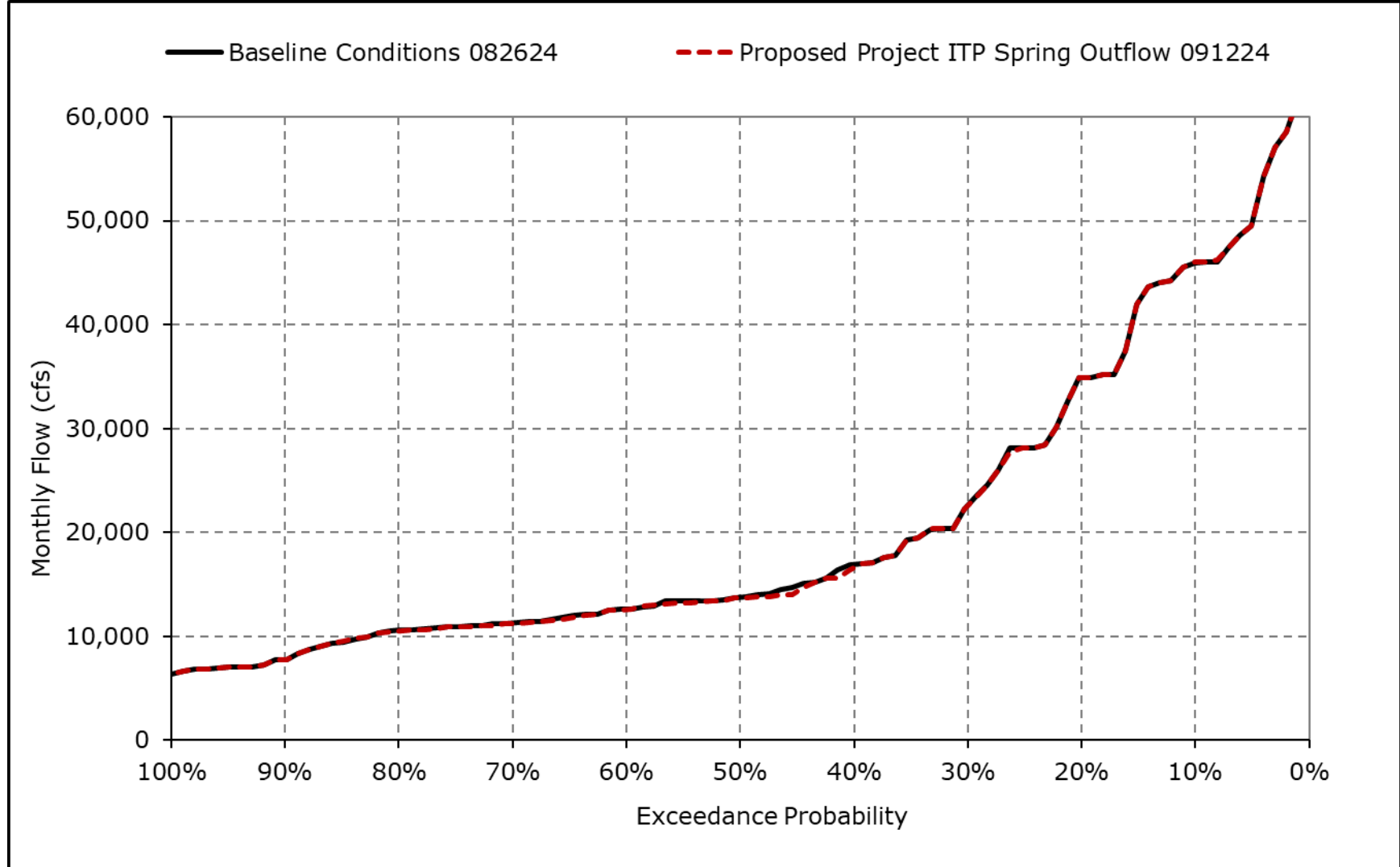
**Figure 4L-3-1m. Sacramento River Flow at Freeport, April**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

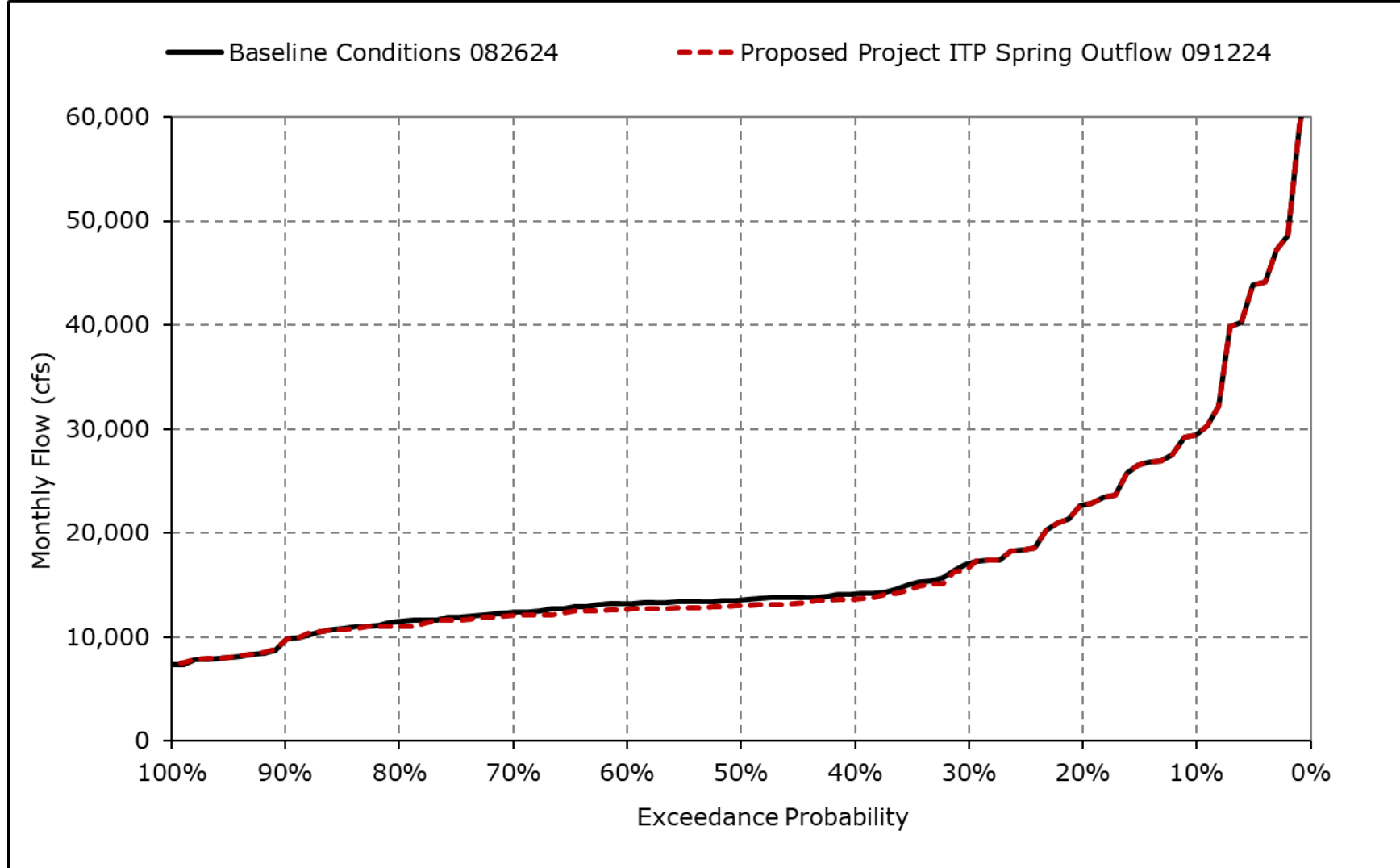


**Figure 4L-3-1n. Sacramento River Flow at Freeport, May**



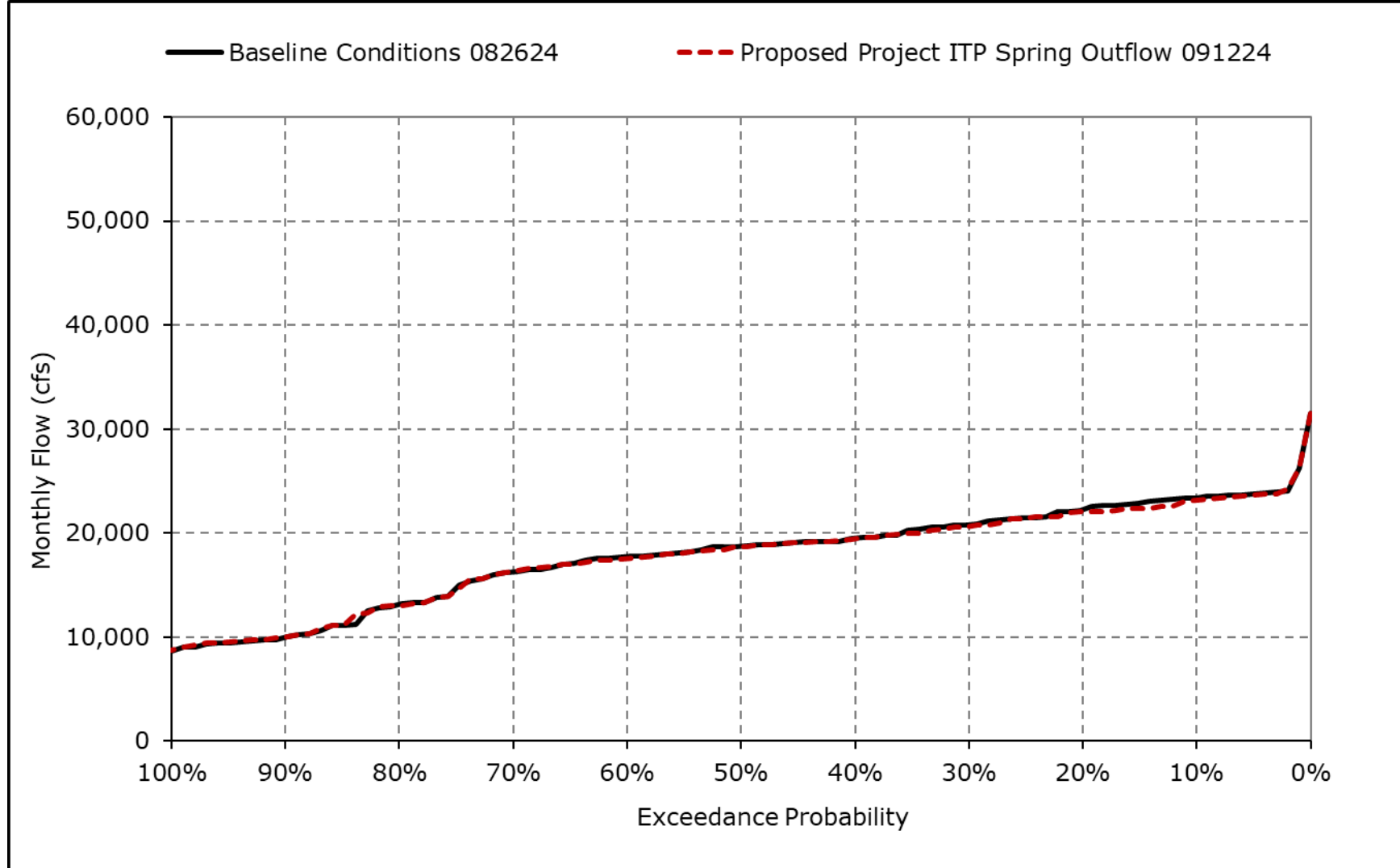
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1o. Sacramento River Flow at Freeport, June**



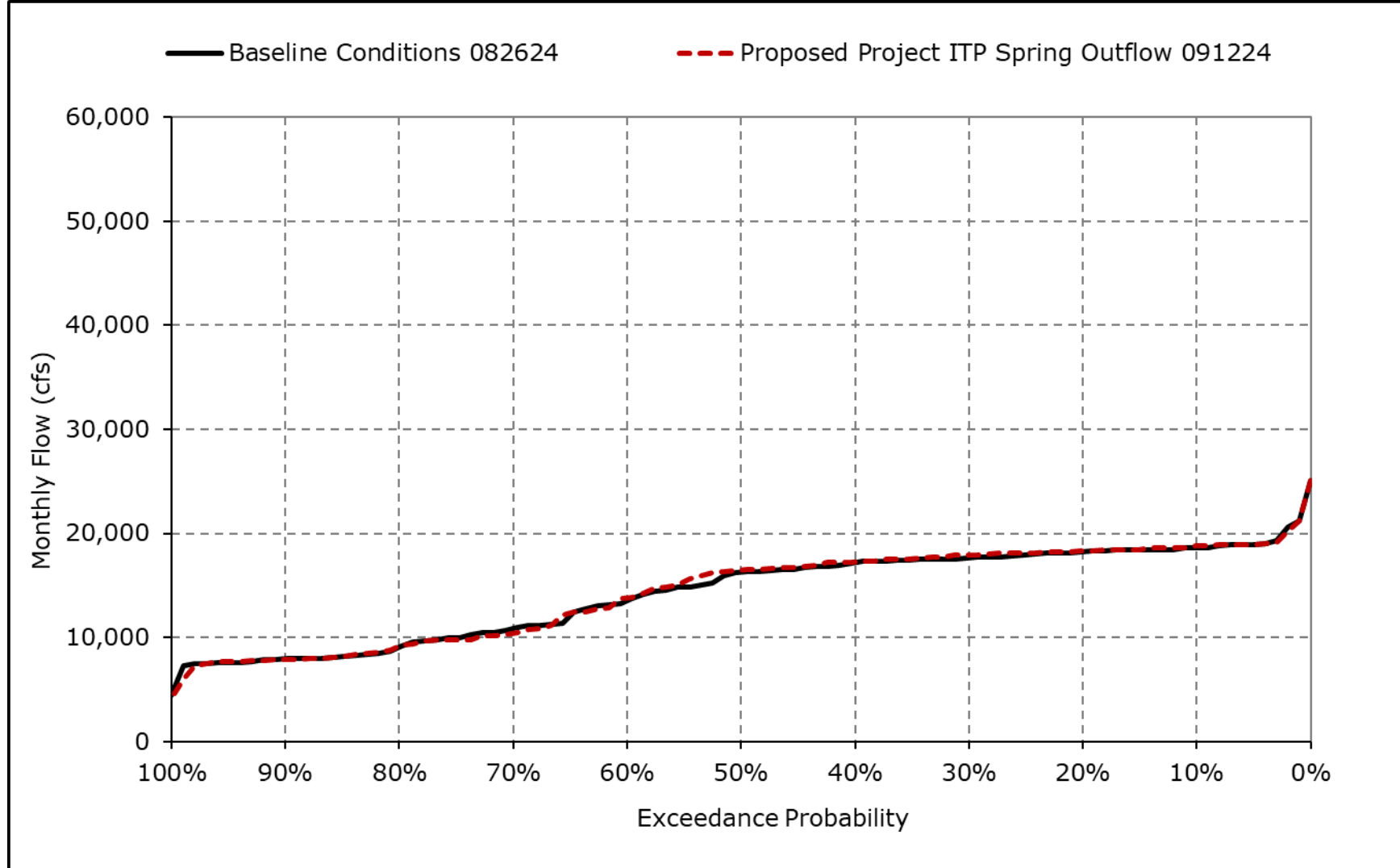
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1p. Sacramento River Flow at Freeport, July**



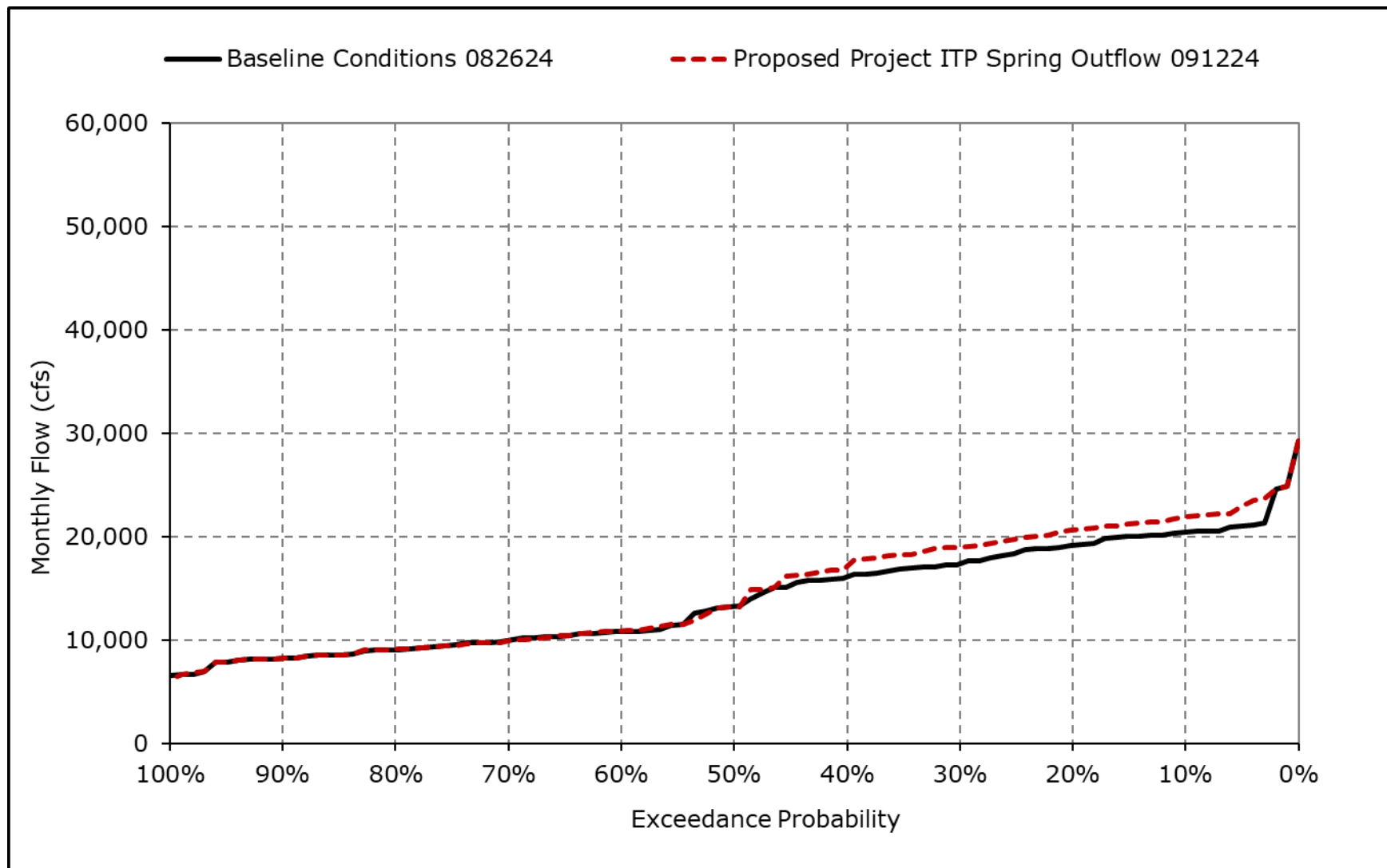
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1q. Sacramento River Flow at Freeport, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-1r. Sacramento River Flow at Freeport, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-2-1a. Georgiana Slough Flow, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan    | Feb    | Mar    | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|---|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 10% Exceedance                              | 3,174 | 3,740 | 7,716 | 10,338 | 10,825 | 10,764 | 9,038 | 7,471 | 5,144 | 4,269 | 3,595 | 3,860 |
| 20% Exceedance                              | 3,039 | 3,027 | 5,606 | 8,552  | 9,829  | 9,011  | 6,230 | 5,903 | 4,170 | 4,105 | 3,545 | 3,677 |
| 30% Exceedance                              | 2,874 | 2,915 | 4,187 | 6,028  | 8,019  | 7,516  | 4,493 | 4,161 | 3,379 | 3,906 | 3,459 | 3,427 |
| 40% Exceedance                              | 2,786 | 2,830 | 3,372 | 4,926  | 6,357  | 6,015  | 3,712 | 3,358 | 2,966 | 3,721 | 3,399 | 3,245 |
| 50% Exceedance                              | 2,484 | 2,738 | 3,137 | 4,117  | 4,967  | 4,686  | 3,360 | 2,912 | 2,880 | 3,616 | 3,264 | 2,838 |
| 60% Exceedance                              | 2,298 | 2,536 | 2,959 | 3,481  | 4,417  | 4,182  | 2,708 | 2,742 | 2,834 | 3,473 | 2,879 | 2,498 |
| 70% Exceedance                              | 2,158 | 2,381 | 2,535 | 2,977  | 3,601  | 3,798  | 2,556 | 2,561 | 2,711 | 3,263 | 2,501 | 2,374 |
| 80% Exceedance                              | 2,108 | 2,169 | 2,406 | 2,676  | 3,237  | 3,081  | 2,442 | 2,463 | 2,591 | 2,822 | 2,241 | 2,247 |
| 90% Exceedance                              | 1,844 | 1,978 | 2,222 | 2,456  | 2,868  | 2,615  | 2,279 | 2,064 | 2,331 | 2,372 | 2,087 | 2,129 |
| Full Simulation Period Average <sup>a</sup> | 2,569 | 2,805 | 4,025 | 5,307  | 6,221  | 5,862  | 4,333 | 3,924 | 3,458 | 3,495 | 2,984 | 2,955 |
| Wet Water Years (32%)                       | 2,844 | 3,257 | 5,794 | 8,376  | 9,580  | 8,928  | 7,071 | 6,063 | 4,793 | 3,804 | 3,466 | 3,727 |
| Above Normal Water Years (9%)               | 2,526 | 2,793 | 3,920 | 6,795  | 7,106  | 7,209  | 4,470 | 4,321 | 3,681 | 3,977 | 3,553 | 3,470 |
| Below Normal Water Years (20%)              | 2,591 | 2,706 | 3,240 | 4,201  | 5,274  | 5,118  | 3,405 | 3,333 | 2,894 | 3,963 | 3,279 | 2,850 |
| Dry Water Years (21%)                       | 2,494 | 2,720 | 3,303 | 3,192  | 4,221  | 3,900  | 2,701 | 2,611 | 2,855 | 3,307 | 2,528 | 2,392 |
| Critical Water Years (18%)                  | 2,166 | 2,215 | 2,647 | 2,803  | 3,191  | 2,856  | 2,330 | 2,112 | 2,306 | 2,404 | 2,049 | 2,099 |

**Table 4L-3-2-1b. Georgiana Slough Flow, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan    | Feb    | Mar    | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|---|-------|-------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 10% Exceedance                              | 3,162 | 3,764 | 7,677 | 10,339 | 10,819 | 10,763 | 9,027 | 7,474 | 5,144 | 4,237 | 3,621 | 4,065 |
| 20% Exceedance                              | 3,038 | 3,027 | 5,598 | 8,555  | 9,825  | 9,010  | 6,230 | 5,901 | 4,171 | 4,077 | 3,554 | 3,887 |
| 30% Exceedance                              | 2,857 | 2,898 | 4,187 | 6,030  | 8,001  | 7,442  | 4,520 | 4,161 | 3,326 | 3,884 | 3,503 | 3,647 |
| 40% Exceedance                              | 2,781 | 2,831 | 3,414 | 4,939  | 6,347  | 6,023  | 3,710 | 3,312 | 2,894 | 3,714 | 3,406 | 3,391 |
| 50% Exceedance                              | 2,446 | 2,736 | 3,146 | 4,089  | 4,882  | 4,708  | 3,360 | 2,901 | 2,808 | 3,605 | 3,294 | 2,839 |
| 60% Exceedance                              | 2,291 | 2,537 | 2,959 | 3,442  | 4,374  | 4,181  | 2,696 | 2,743 | 2,756 | 3,441 | 2,916 | 2,503 |
| 70% Exceedance                              | 2,154 | 2,359 | 2,535 | 2,961  | 3,662  | 3,798  | 2,553 | 2,554 | 2,676 | 3,268 | 2,434 | 2,369 |
| 80% Exceedance                              | 2,107 | 2,169 | 2,406 | 2,709  | 3,237  | 3,034  | 2,448 | 2,456 | 2,517 | 2,802 | 2,256 | 2,255 |
| 90% Exceedance                              | 1,850 | 2,041 | 2,234 | 2,453  | 2,868  | 2,615  | 2,278 | 2,063 | 2,333 | 2,381 | 2,079 | 2,128 |
| Full Simulation Period Average <sup>a</sup> | 2,565 | 2,804 | 4,029 | 5,304  | 6,209  | 5,856  | 4,332 | 3,916 | 3,426 | 3,482 | 2,992 | 3,040 |
| Wet Water Years (32%)                       | 2,832 | 3,258 | 5,800 | 8,377  | 9,569  | 8,923  | 7,070 | 6,062 | 4,783 | 3,801 | 3,478 | 3,900 |
| Above Normal Water Years (9%)               | 2,522 | 2,771 | 3,925 | 6,791  | 7,094  | 7,175  | 4,465 | 4,320 | 3,643 | 3,962 | 3,537 | 3,796 |
| Below Normal Water Years (20%)              | 2,574 | 2,702 | 3,255 | 4,187  | 5,264  | 5,126  | 3,406 | 3,296 | 2,840 | 3,905 | 3,351 | 2,849 |
| Dry Water Years (21%)                       | 2,505 | 2,725 | 3,288 | 3,192  | 4,195  | 3,893  | 2,702 | 2,607 | 2,783 | 3,311 | 2,496 | 2,394 |
| Critical Water Years (18%)                  | 2,172 | 2,218 | 2,657 | 2,800  | 3,194  | 2,848  | 2,327 | 2,115 | 2,310 | 2,402 | 2,038 | 2,098 |

**Table 4L-3-2-1c. Georgiana Slough Flow, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10% Exceedance                              | -12 | 24  | -39 | 2   | -6  | -2  | -11 | 3   | 0   | -32 | 26  | 205 |
| 20% Exceedance                              | -1  | 0   | -8  | 3   | -4  | 0   | 0   | -2  | 1   | -27 | 9   | 210 |
| 30% Exceedance                              | -16 | -17 | 0   | 2   | -19 | -74 | 26  | 0   | -53 | -22 | 44  | 220 |
| 40% Exceedance                              | -5  | 0   | 42  | 13  | -10 | 8   | -2  | -46 | -71 | -6  | 7   | 146 |
| 50% Exceedance                              | -38 | -2  | 9   | -28 | -85 | 22  | 0   | -11 | -72 | -10 | 30  | 0   |
| 60% Exceedance                              | -6  | 1   | 0   | -38 | -43 | -1  | -12 | 1   | -78 | -32 | 36  | 5   |
| 70% Exceedance                              | -4  | -22 | 0   | -16 | 60  | 0   | -3  | -7  | -35 | 5   | -67 | -5  |
| 80% Exceedance                              | 0   | 1   | 0   | 33  | 0   | -46 | 6   | -7  | -74 | -21 | 15  | 8   |
| 90% Exceedance                              | 5   | 62  | 12  | -3  | 0   | 0   | -2  | -1  | 2   | 9   | -8  | -1  |
| Full Simulation Period Average <sup>a</sup> | -4  | -1  | 4   | -3  | -11 | -6  | -1  | -8  | -32 | -14 | 8   | 85  |
| Wet Water Years (32%)                       | -12 | 1   | 7   | 1   | -11 | -5  | -1  | 0   | -10 | -3  | 12  | 173 |
| Above Normal Water Years (9%)               | -4  | -21 | 5   | -4  | -11 | -33 | -6  | -1  | -38 | -15 | -16 | 326 |
| Below Normal Water Years (20%)              | -17 | -3  | 15  | -14 | -10 | 8   | 1   | -37 | -54 | -58 | 72  | 0   |
| Dry Water Years (21%)                       | 11  | 5   | -16 | 1   | -26 | -8  | 1   | -4  | -72 | 3   | -32 | 2   |
| Critical Water Years (18%)                  | 6   | 3   | 10  | -2  | 4   | -8  | -3  | 2   | 3   | -3  | -11 | -2  |

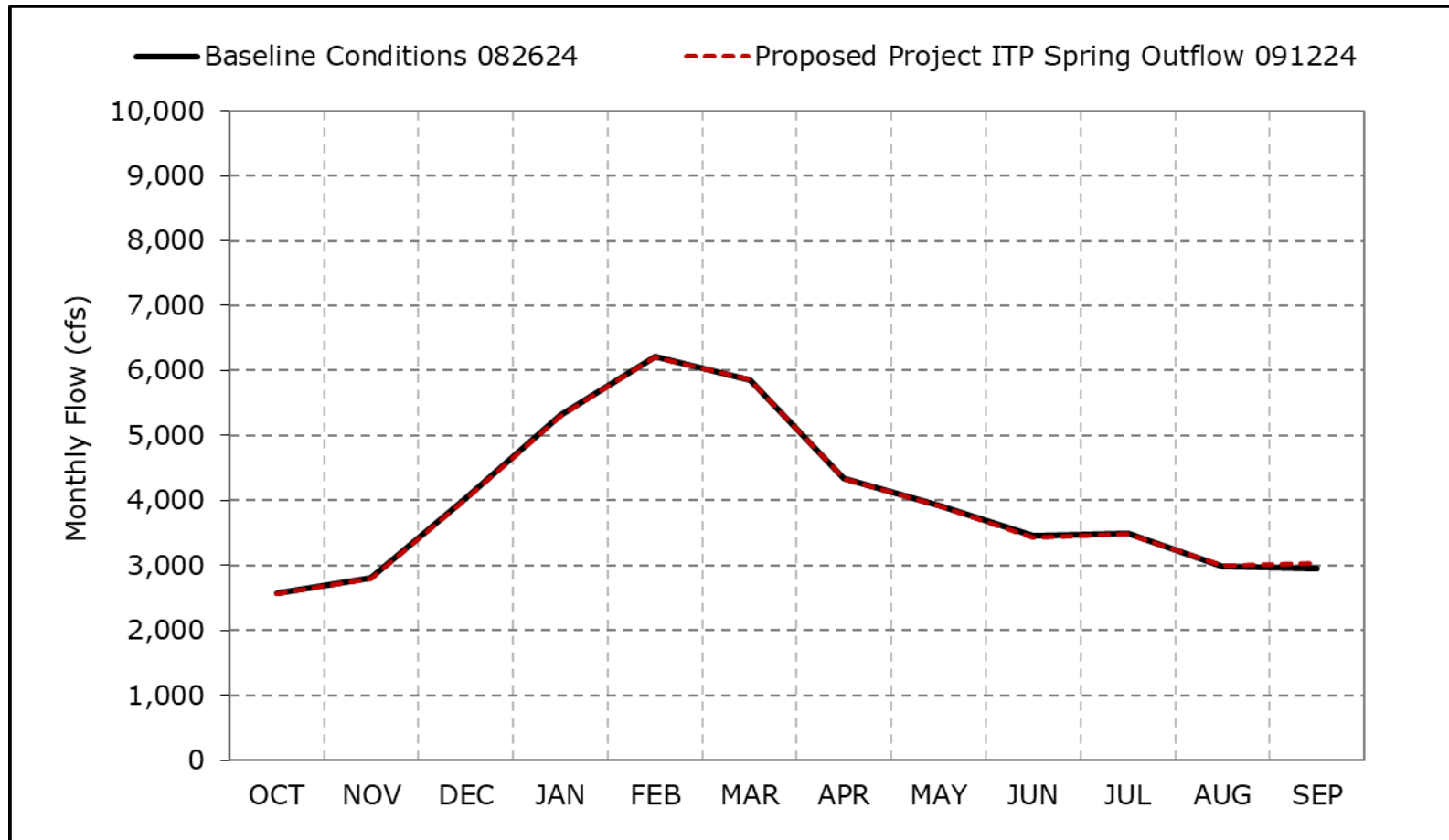
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-2a. Georgiana Slough Flow, Long-Term Average Flow**

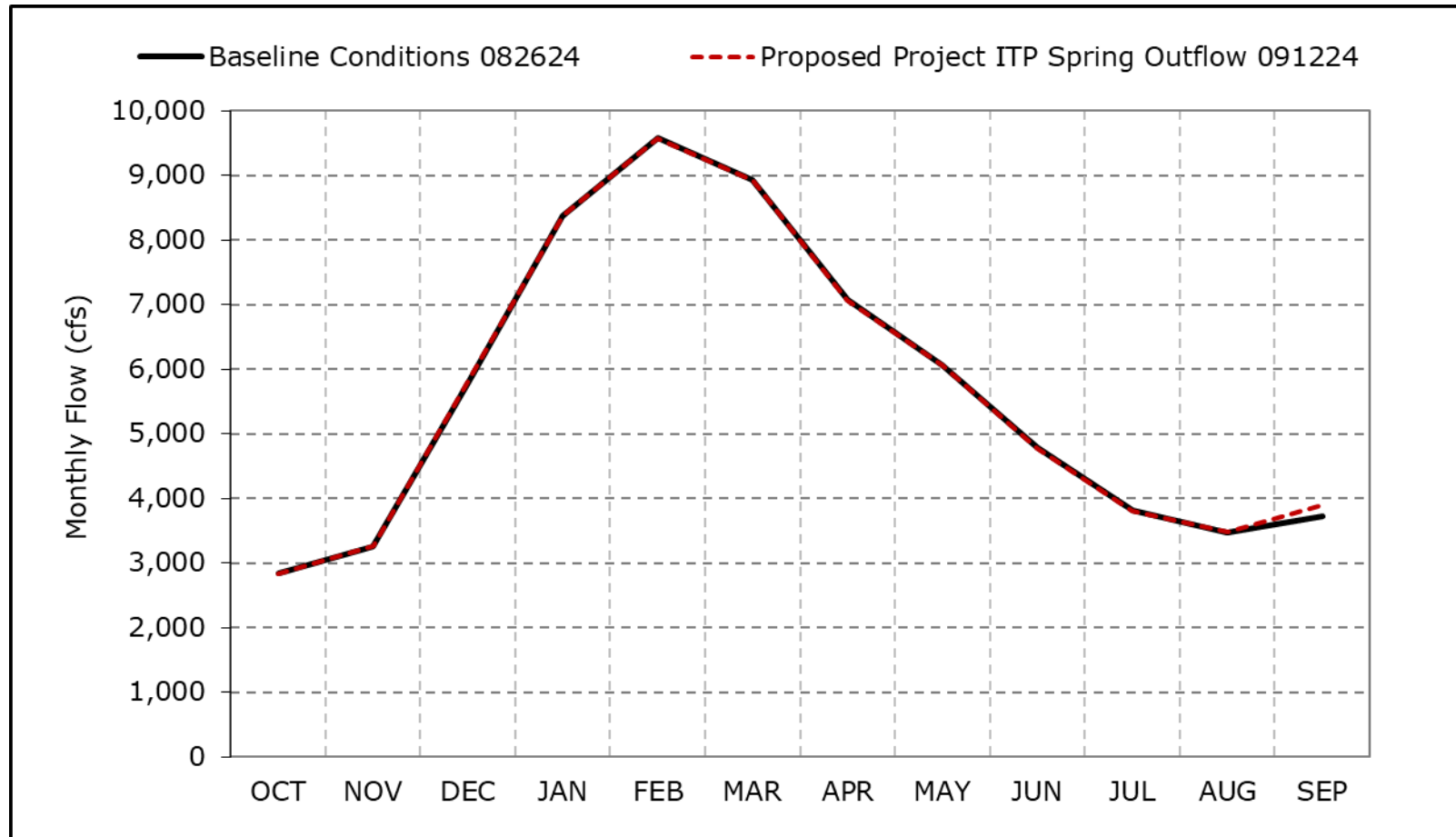


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2b. Georgiana Slough Flow, Wet Year Average Flow**



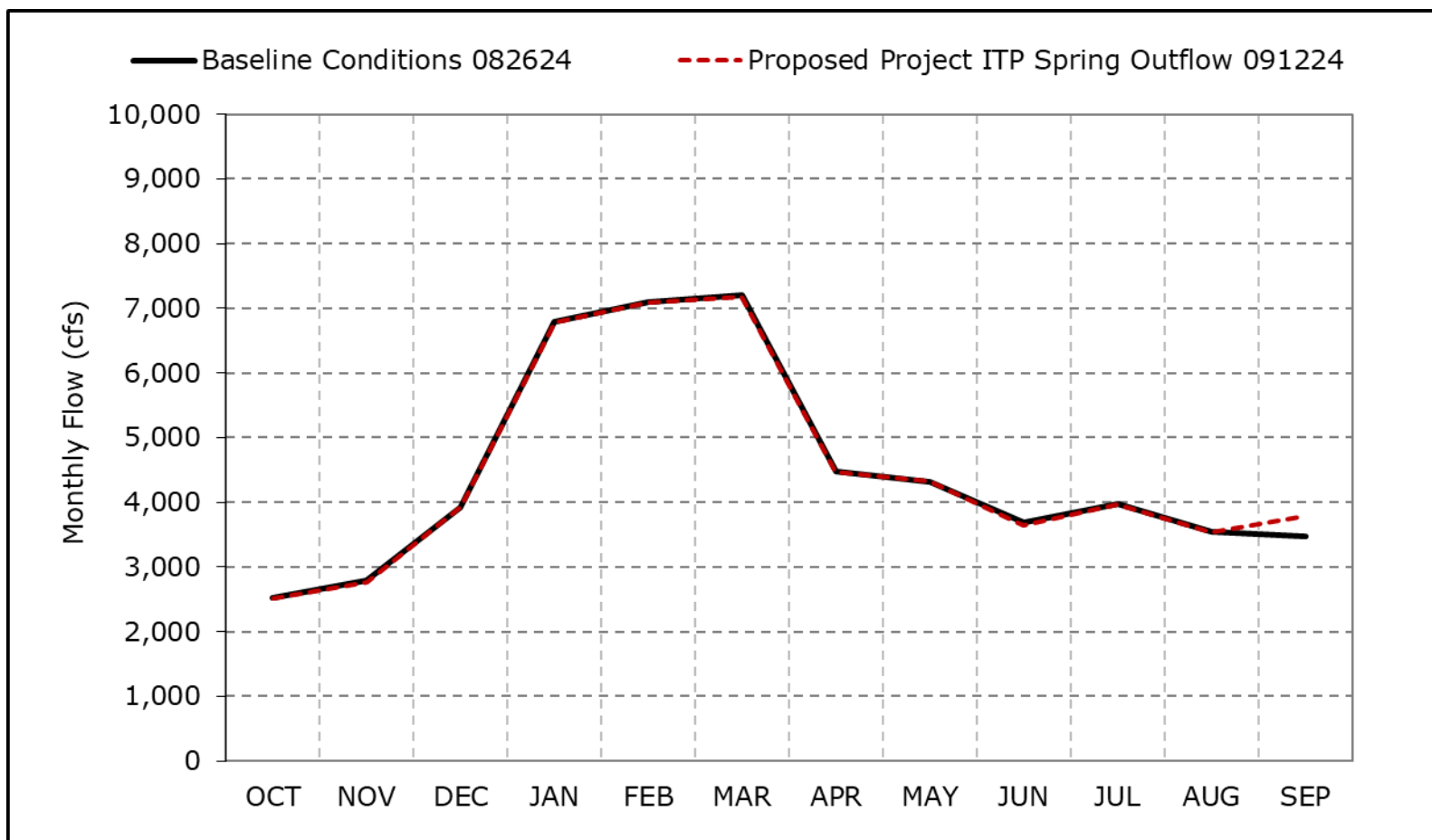
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-2c. Georgiana Slough Flow, Above Normal Year Average Flow**

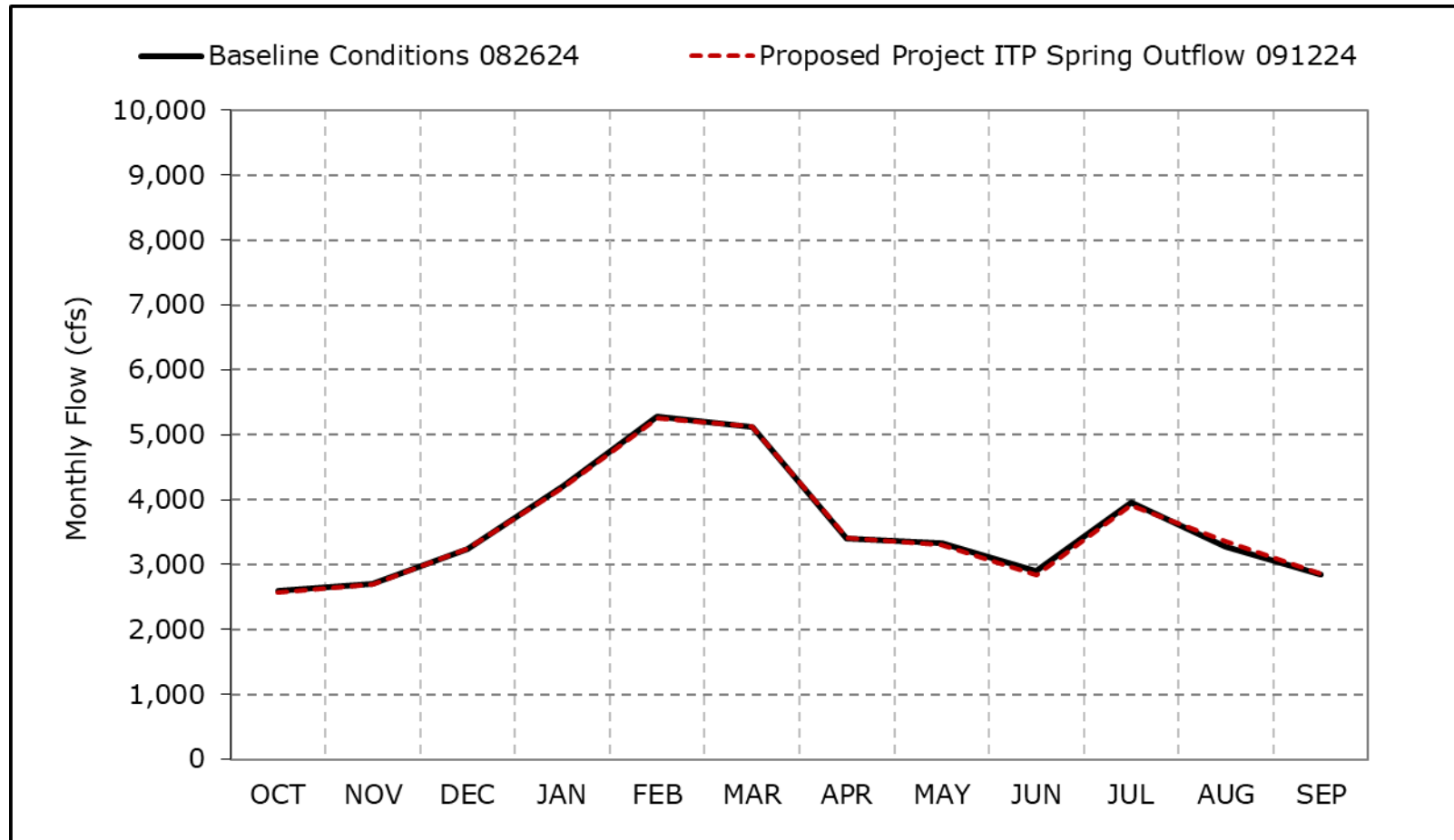


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2d. Georgiana Slough Flow, Below Normal Year Average Flow**

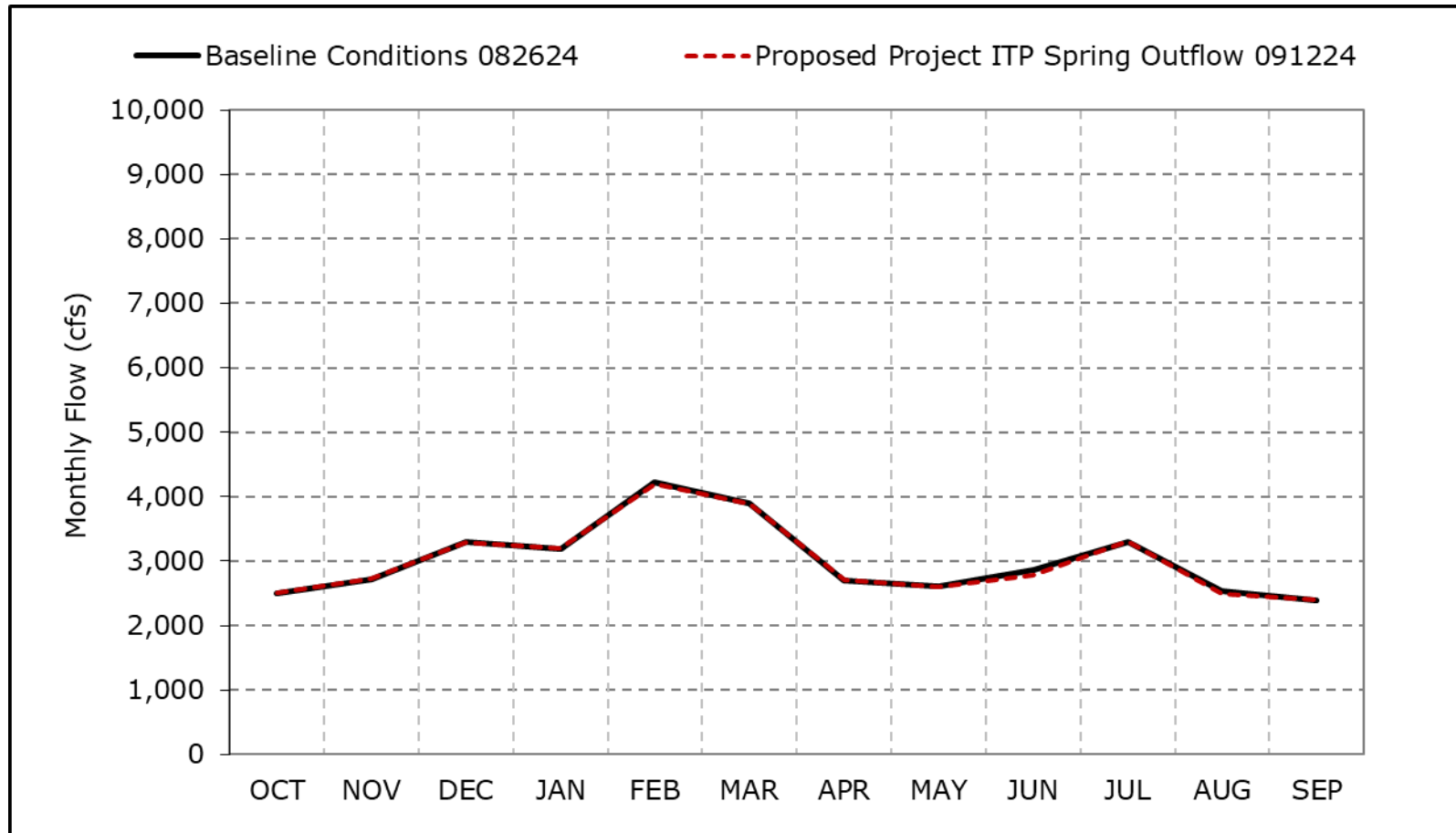


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2e. Georgiana Slough Flow, Dry Year Average Flow**

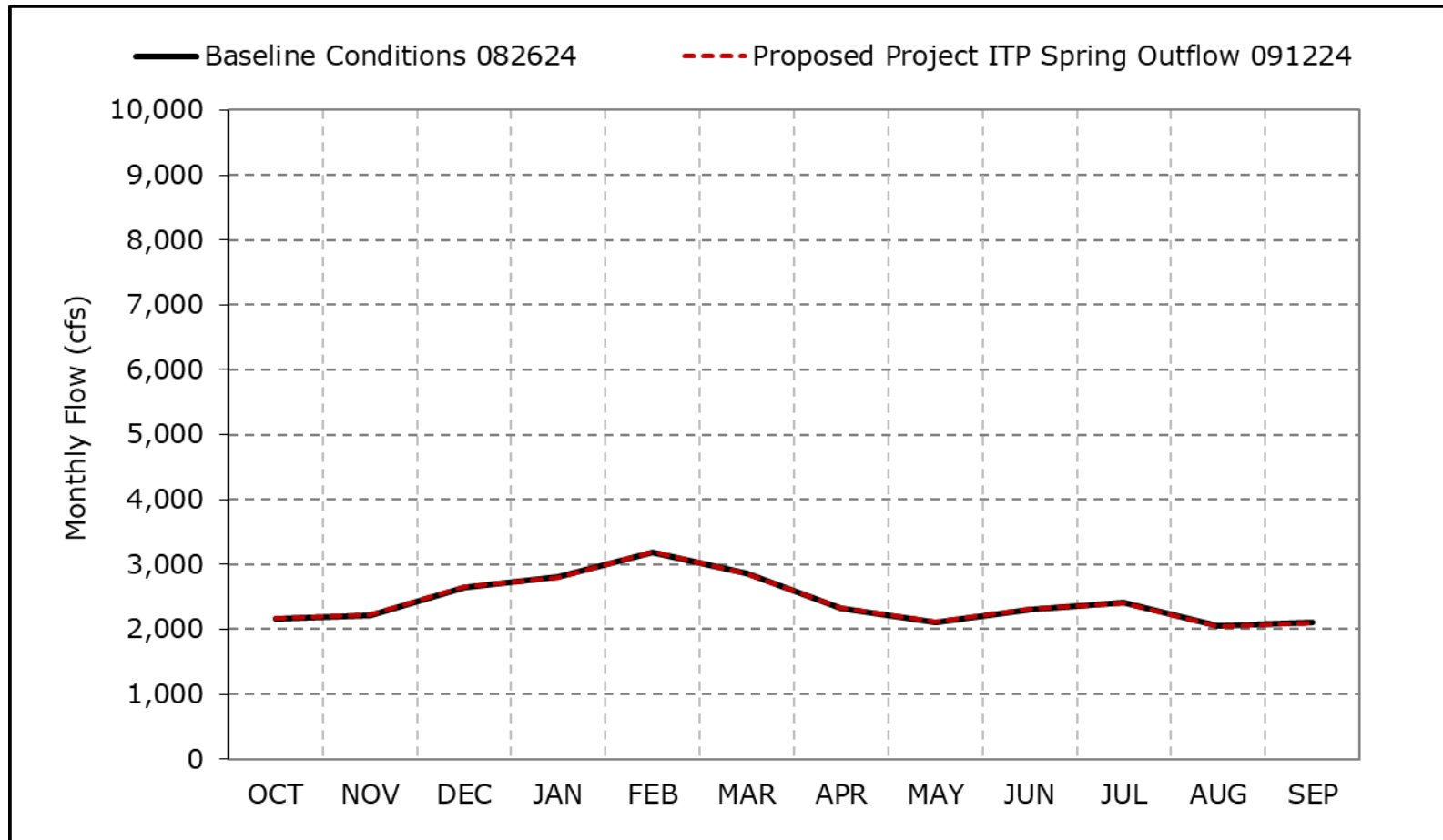


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2f. Georgiana Slough Flow, Critical Year Average Flow**

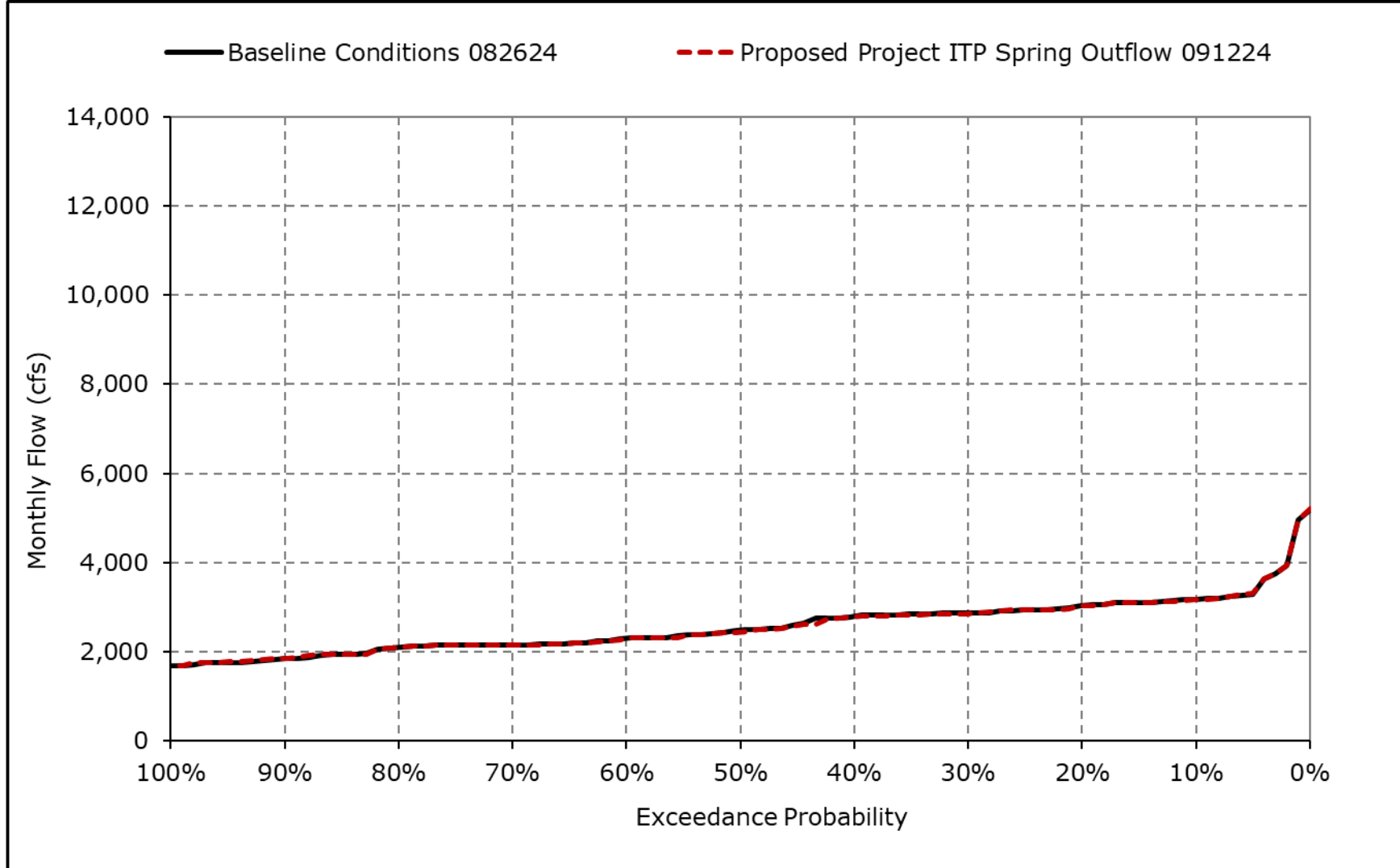


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

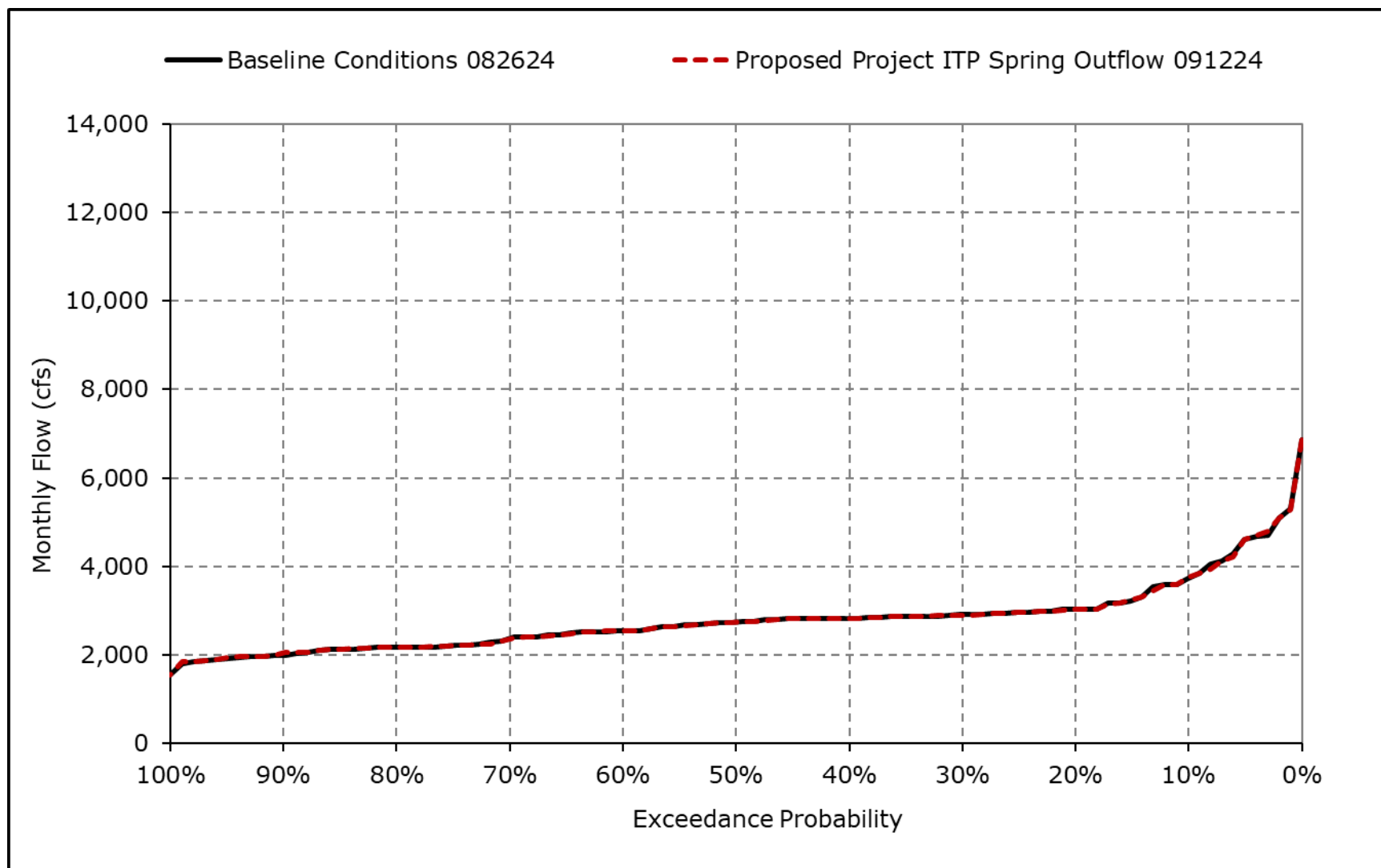
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2g. Georgiana Slough Flow, October**



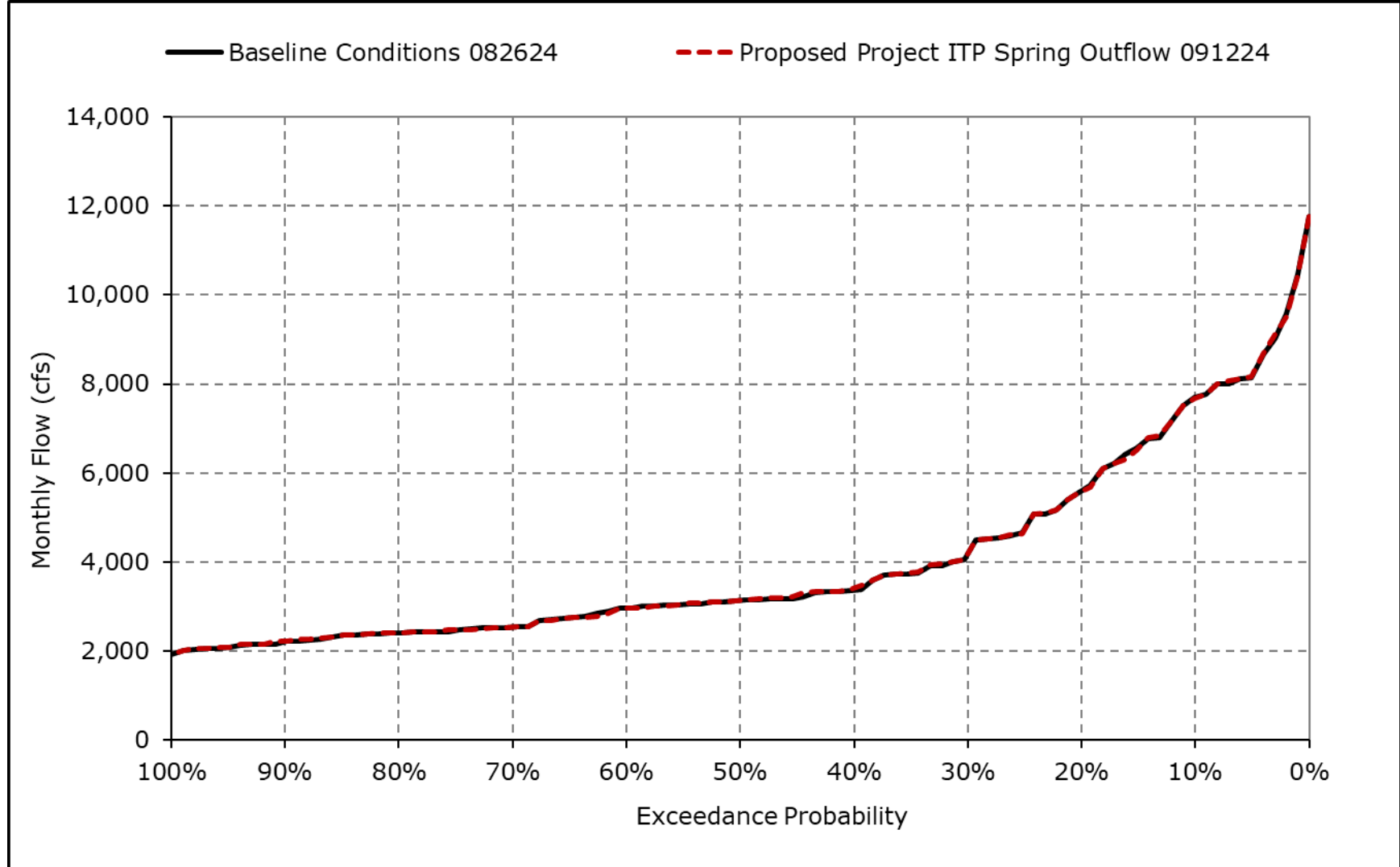
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2h. Georgiana Slough Flow, November**



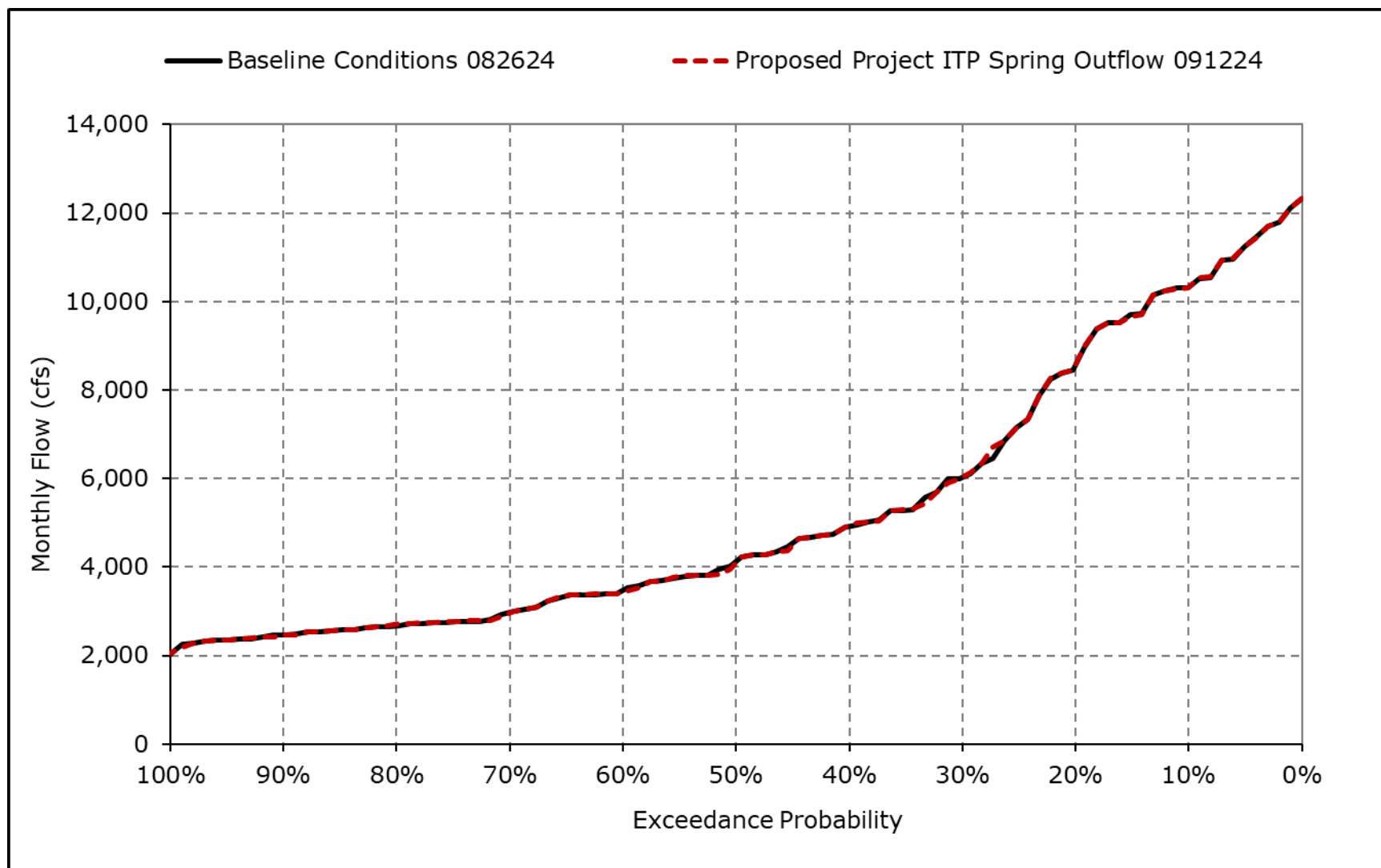
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2i. Georgiana Slough Flow, December**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

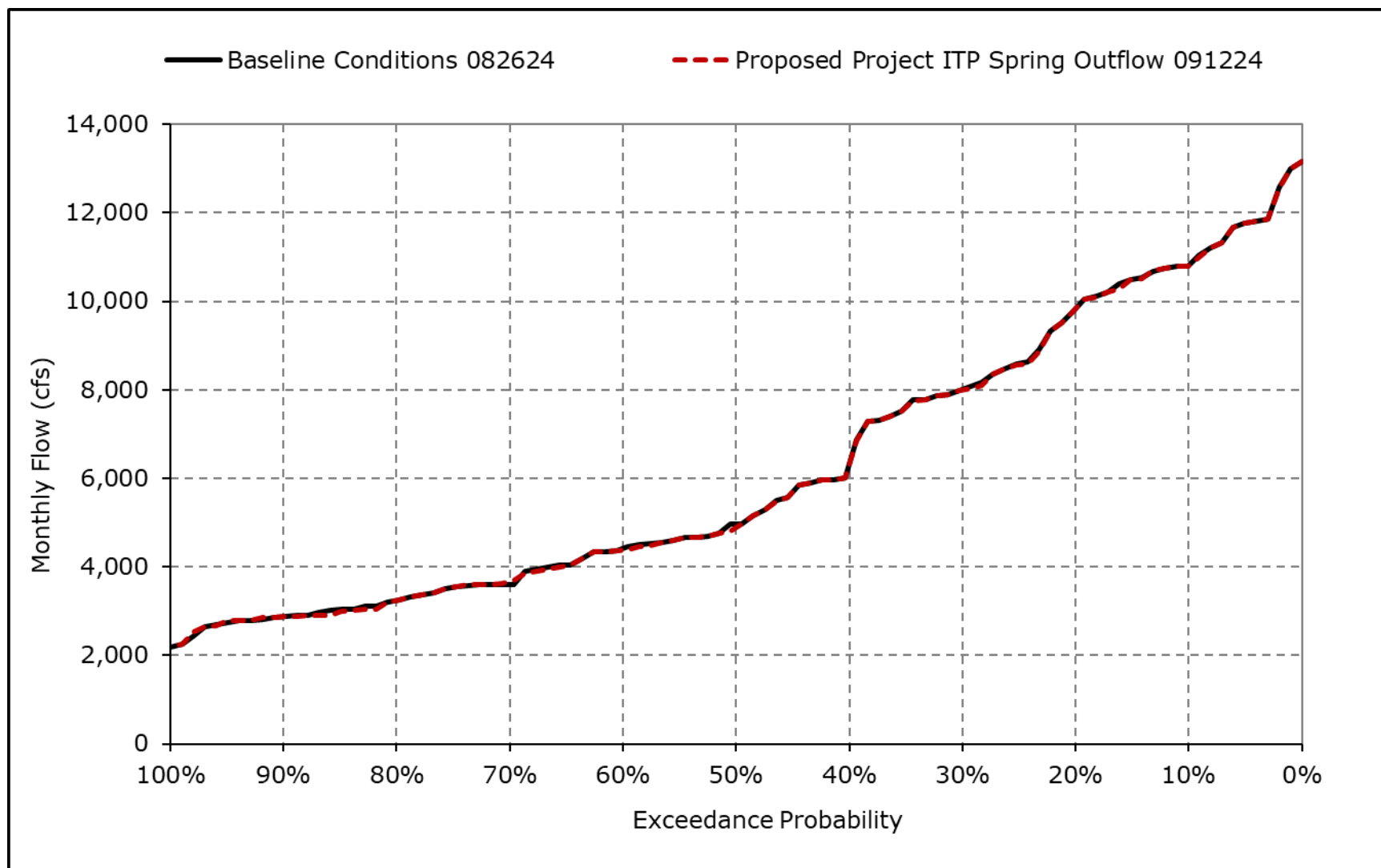
**Figure 4L-3-2j. Georgiana Slough Flow, January**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

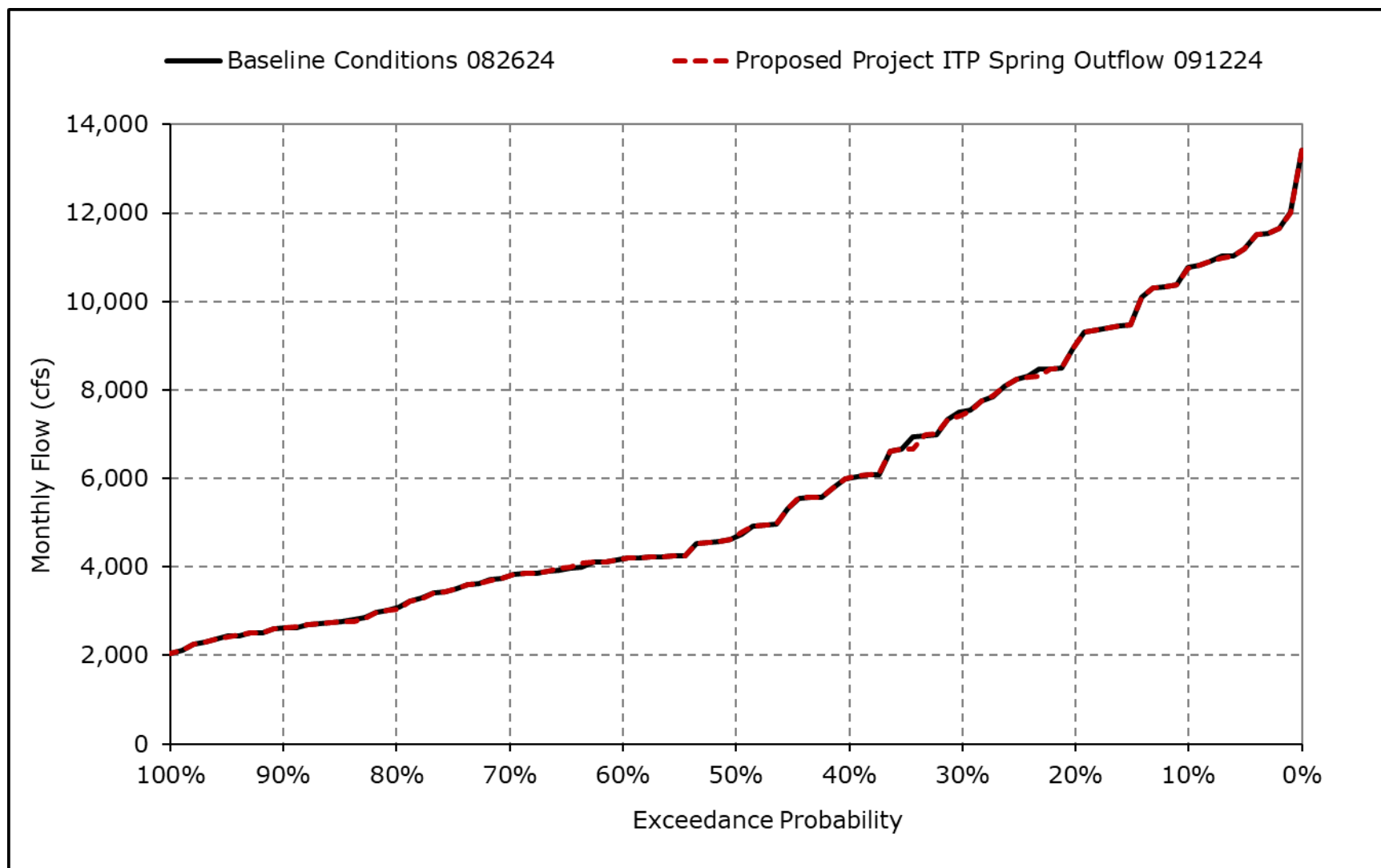


**Figure 4L-3-2k. Georgiana Slough Flow, February**



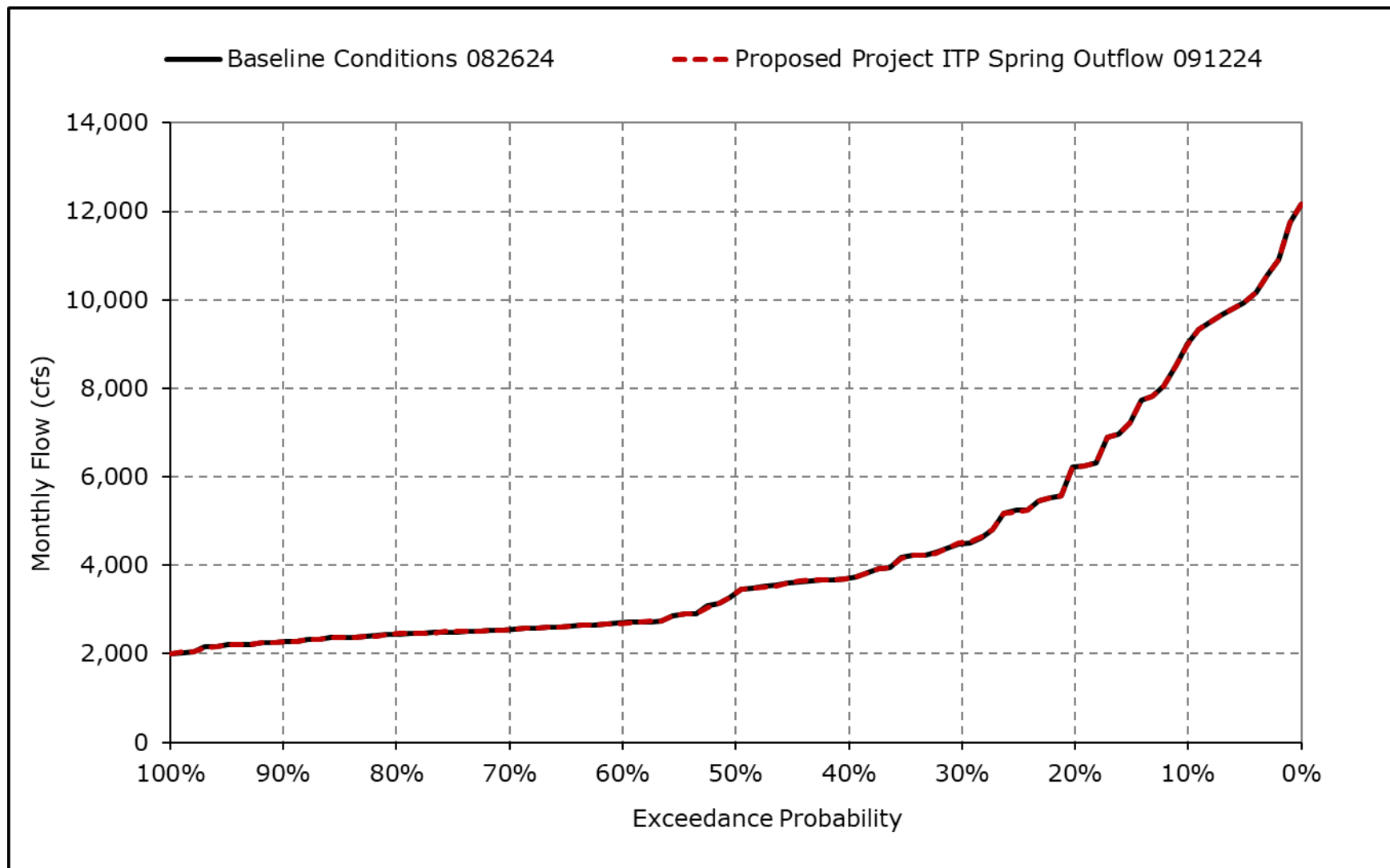
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2I. Georgiana Slough Flow, March**



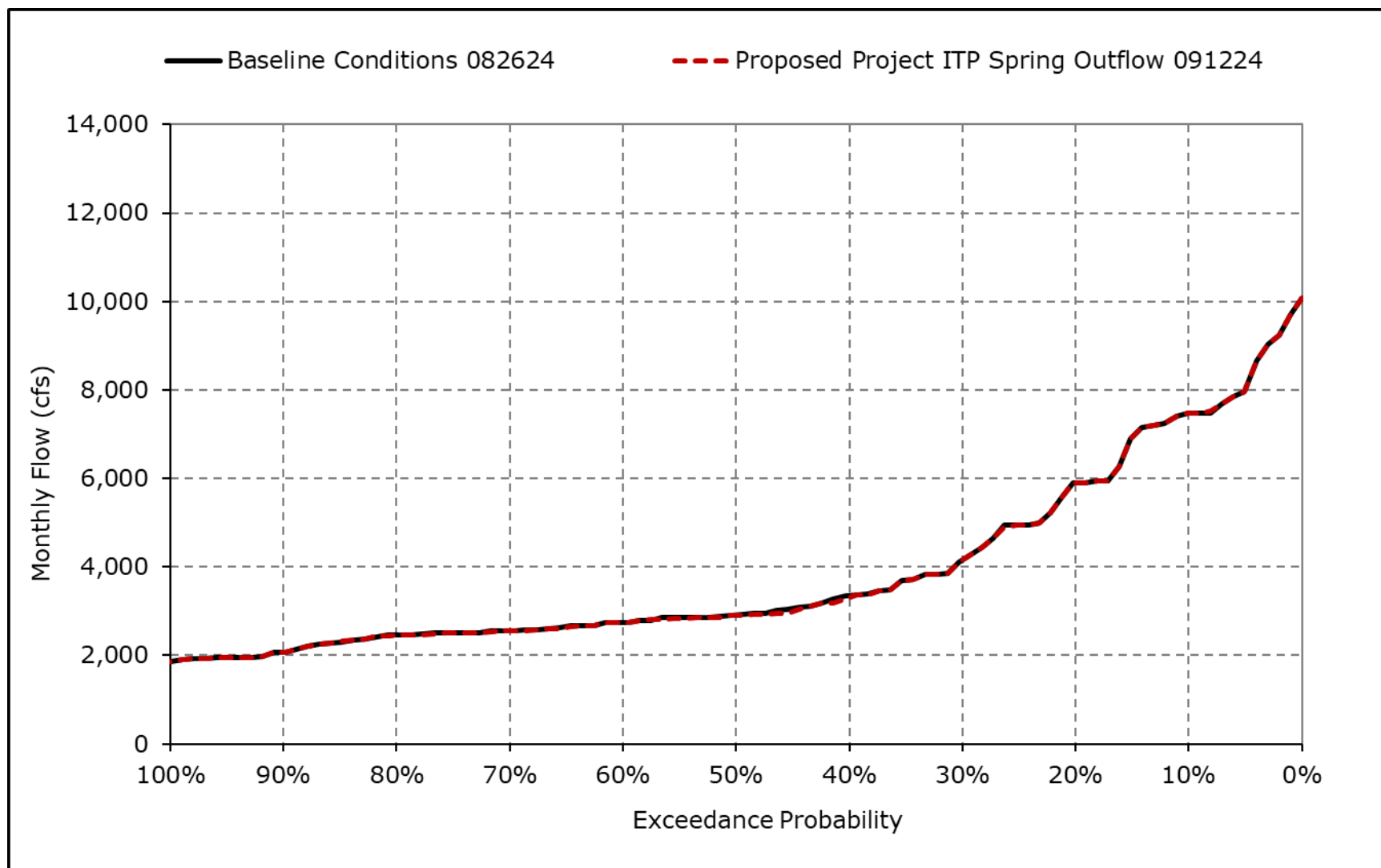
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2m. Georgiana Slough Flow, April**



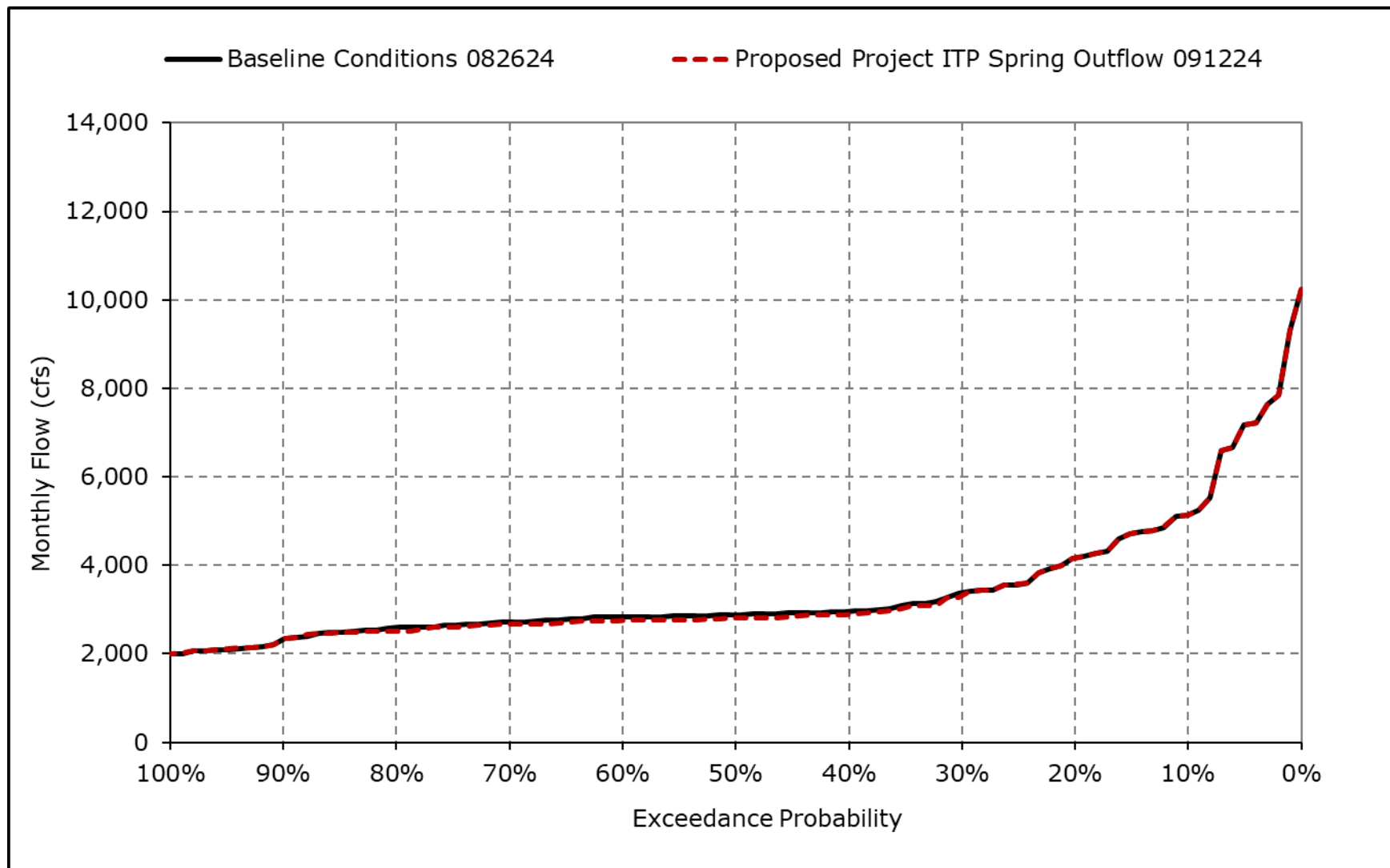
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2n. Georgiana Slough Flow, May**



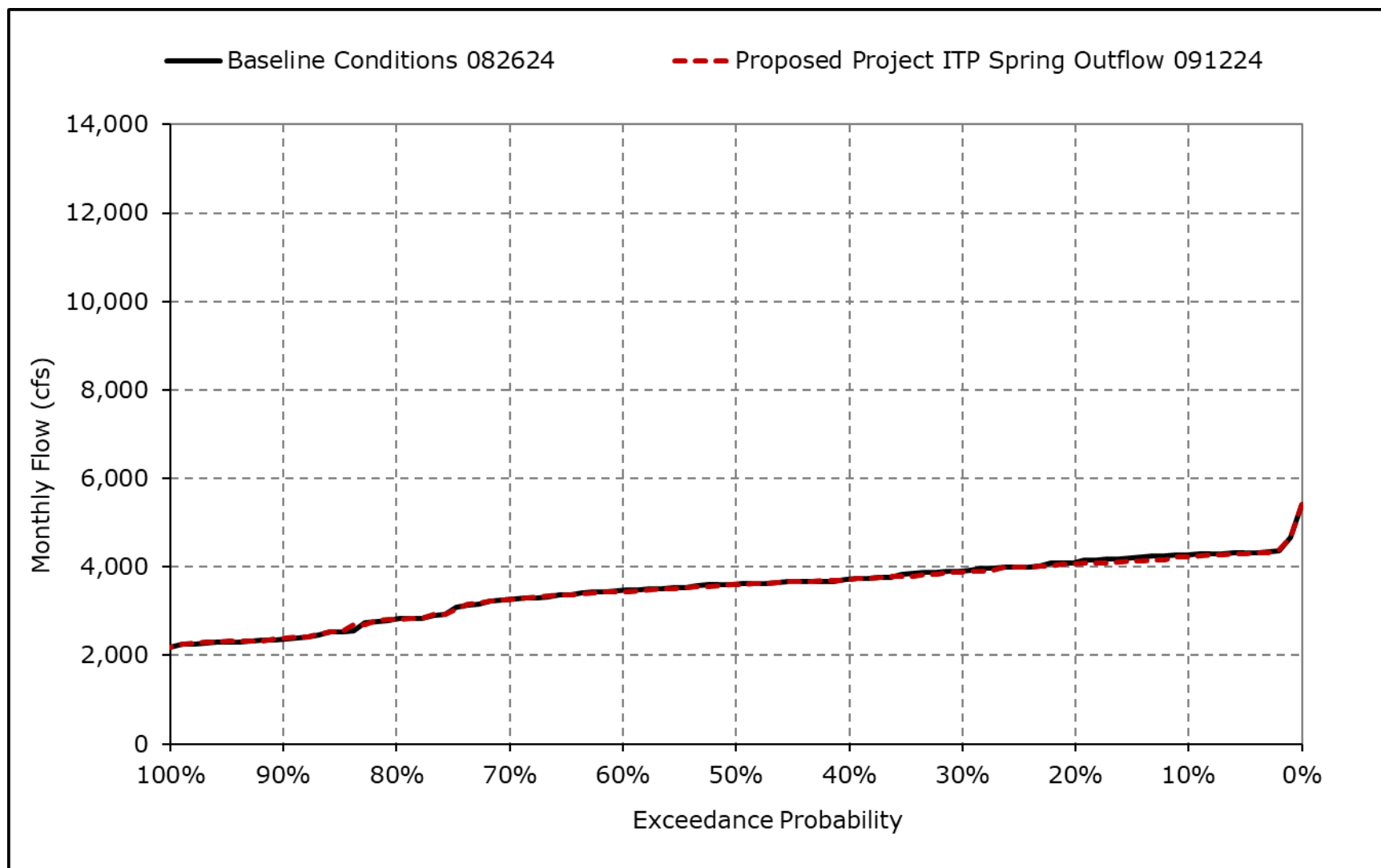
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2o. Georgiana Slough Flow, June**



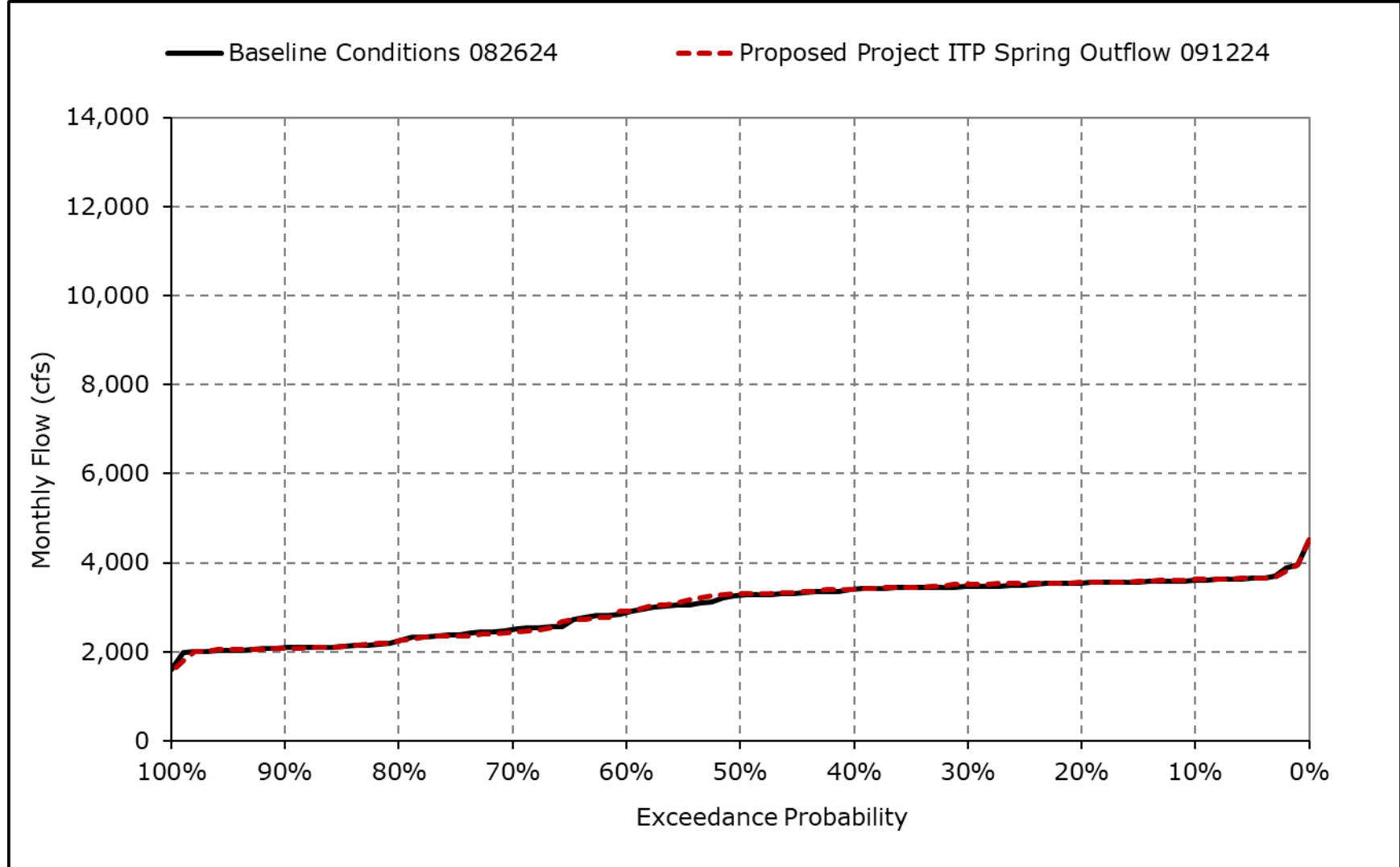
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2p. Georgiana Slough Flow, July**



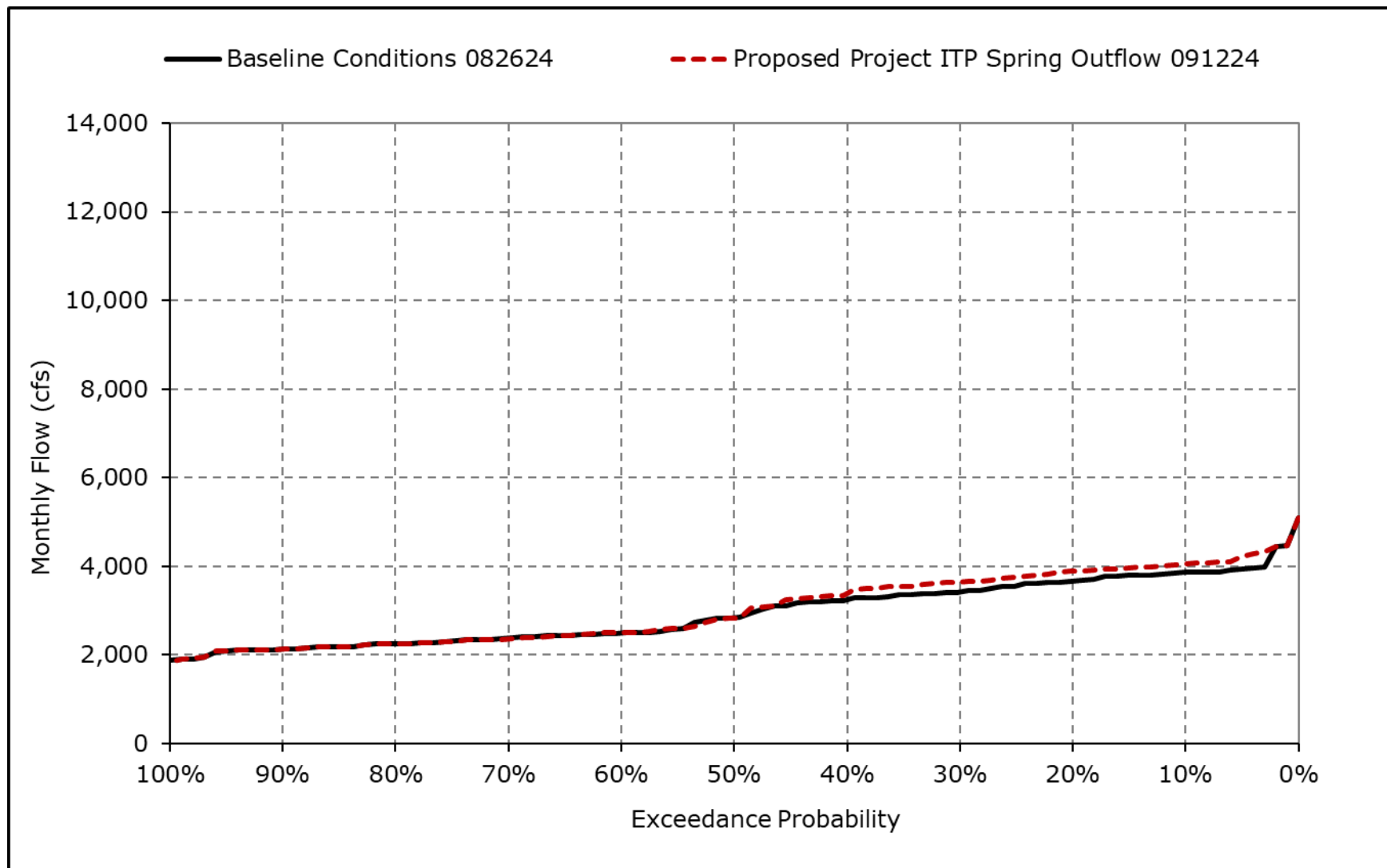
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2q. Georgiana Slough Flow, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-2r. Georgiana Slough Flow, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Table 4L-3-3-1a. Yolo Bypass Flow, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec    | Jan    | Feb    | Mar    | Apr   | May   | Jun | Jul | Aug | Sep |
|---|-----|-----|--------|--------|--------|--------|-------|-------|-----|-----|-----|-----|
| 10% Exceedance                              | 184 | 832 | 11,149 | 40,630 | 49,303 | 36,013 | 3,604 | 1,523 | 542 | 325 | 276 | 309 |
| 20% Exceedance                              | 123 | 372 | 6,523  | 13,858 | 17,563 | 9,299  | 1,728 | 769   | 380 | 259 | 202 | 279 |
| 30% Exceedance                              | 112 | 256 | 1,656  | 5,514  | 10,585 | 5,574  | 860   | 533   | 306 | 251 | 192 | 265 |
| 40% Exceedance                              | 90  | 172 | 843    | 2,846  | 6,462  | 2,811  | 606   | 394   | 244 | 247 | 188 | 254 |
| 50% Exceedance                              | 79  | 139 | 451    | 1,466  | 3,062  | 1,617  | 335   | 292   | 235 | 243 | 183 | 243 |
| 60% Exceedance                              | 67  | 124 | 275    | 784    | 1,927  | 879    | 294   | 261   | 226 | 235 | 179 | 234 |
| 70% Exceedance                              | 54  | 102 | 168    | 383    | 735    | 478    | 271   | 245   | 221 | 233 | 175 | 217 |
| 80% Exceedance                              | 49  | 83  | 109    | 222    | 349    | 287    | 242   | 223   | 210 | 224 | 170 | 210 |
| 90% Exceedance                              | 44  | 74  | 88     | 127    | 190    | 105    | 220   | 201   | 202 | 207 | 159 | 184 |
| Full Simulation Period Average <sup>a</sup> | 130 | 452 | 3,775  | 11,914 | 15,183 | 10,535 | 2,727 | 733   | 354 | 254 | 242 | 249 |
| Wet Water Years (32%)                       | 211 | 911 | 8,982  | 31,397 | 38,609 | 28,315 | 7,523 | 1,454 | 615 | 313 | 239 | 292 |
| Above Normal Water Years (9%)               | 79  | 341 | 2,790  | 13,051 | 11,372 | 8,517  | 956   | 655   | 277 | 240 | 177 | 245 |
| Below Normal Water Years (20%)              | 118 | 195 | 1,346  | 2,098  | 5,776  | 2,234  | 595   | 546   | 242 | 204 | 174 | 232 |
| Dry Water Years (21%)                       | 97  | 317 | 1,206  | 776    | 2,333  | 968    | 338   | 297   | 225 | 243 | 181 | 236 |
| Critical Water Years (18%)                  | 64  | 135 | 703    | 608    | 888    | 322    | 242   | 208   | 201 | 225 | 426 | 210 |

**Table 4L-3-3-1b. Yolo Bypass Flow, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec    | Jan    | Feb    | Mar    | Apr   | May   | Jun | Jul | Aug | Sep |
|---|-----|-----|--------|--------|--------|--------|-------|-------|-----|-----|-----|-----|
| 10% Exceedance                              | 185 | 832 | 11,217 | 40,608 | 48,356 | 36,011 | 3,606 | 1,609 | 543 | 325 | 274 | 307 |
| 20% Exceedance                              | 124 | 373 | 6,530  | 13,987 | 17,566 | 9,301  | 1,728 | 875   | 380 | 259 | 202 | 279 |
| 30% Exceedance                              | 111 | 256 | 1,656  | 5,514  | 10,584 | 5,567  | 861   | 536   | 313 | 251 | 192 | 265 |
| 40% Exceedance                              | 91  | 176 | 847    | 2,844  | 6,459  | 2,898  | 605   | 405   | 245 | 247 | 188 | 254 |
| 50% Exceedance                              | 79  | 138 | 451    | 1,465  | 3,025  | 1,619  | 332   | 302   | 235 | 243 | 183 | 243 |
| 60% Exceedance                              | 67  | 124 | 275    | 784    | 1,914  | 879    | 294   | 263   | 226 | 235 | 180 | 234 |
| 70% Exceedance                              | 55  | 102 | 165    | 377    | 734    | 478    | 271   | 245   | 221 | 233 | 176 | 220 |
| 80% Exceedance                              | 49  | 86  | 110    | 222    | 348    | 294    | 242   | 227   | 209 | 224 | 171 | 209 |
| 90% Exceedance                              | 43  | 74  | 88     | 127    | 188    | 105    | 220   | 201   | 202 | 207 | 162 | 187 |
| Full Simulation Period Average <sup>a</sup> | 131 | 440 | 3,760  | 11,904 | 15,108 | 10,485 | 2,719 | 748   | 354 | 254 | 261 | 250 |
| Wet Water Years (32%)                       | 212 | 909 | 8,941  | 31,372 | 38,468 | 28,223 | 7,500 | 1,452 | 614 | 312 | 239 | 289 |
| Above Normal Water Years (9%)               | 79  | 349 | 2,762  | 13,048 | 11,203 | 8,372  | 955   | 656   | 277 | 240 | 177 | 235 |
| Below Normal Water Years (20%)              | 119 | 194 | 1,359  | 2,093  | 5,712  | 2,232  | 595   | 620   | 247 | 204 | 181 | 234 |
| Dry Water Years (21%)                       | 97  | 260 | 1,199  | 775    | 2,320  | 933    | 338   | 298   | 225 | 243 | 182 | 240 |
| Critical Water Years (18%)                  | 64  | 136 | 704    | 608    | 888    | 322    | 241   | 208   | 201 | 225 | 522 | 214 |

**Table 4L-3-3-1c. Yolo Bypass Flow, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec | Jan | Feb  | Mar  | Apr | May | Jun | Jul | Aug | Sep |
|---|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----|
| 10% Exceedance                              | 2   | 0   | 68  | -22 | -948 | -1   | 1   | 85  | 0   | 0   | -2  | -2  |
| 20% Exceedance                              | 0   | 0   | 7   | 129 | 3    | 3    | 0   | 105 | 1   | 0   | 0   | 0   |
| 30% Exceedance                              | -1  | 0   | 0   | 0   | 0    | -7   | 0   | 4   | 7   | 0   | 0   | 1   |
| 40% Exceedance                              | 1   | 4   | 5   | -2  | -3   | 87   | -1  | 11  | 1   | 0   | 0   | 0   |
| 50% Exceedance                              | 0   | -1  | 0   | -1  | -37  | 2    | -4  | 10  | 0   | 0   | 1   | 0   |
| 60% Exceedance                              | 0   | 0   | 0   | 0   | -13  | -1   | 0   | 2   | 0   | 0   | 1   | 0   |
| 70% Exceedance                              | 1   | 0   | -3  | -6  | 0    | 0    | 0   | 0   | 0   | 0   | 1   | 2   |
| 80% Exceedance                              | 0   | 3   | 0   | 0   | -1   | 7    | 0   | 4   | 0   | 0   | 1   | -1  |
| 90% Exceedance                              | -2  | 0   | 0   | 0   | -2   | 0    | 0   | 0   | 0   | 0   | 2   | 3   |
| Full Simulation Period Average <sup>a</sup> | 0   | -12 | -14 | -10 | -76  | -50  | -8  | 14  | 1   | 0   | 19  | 0   |
| Wet Water Years (32%)                       | 1   | -2  | -41 | -25 | -140 | -92  | -23 | -2  | -1  | 0   | 0   | -2  |
| Above Normal Water Years (9%)               | 0   | 8   | -28 | -3  | -170 | -145 | -1  | 0   | 0   | 0   | 0   | -10 |
| Below Normal Water Years (20%)              | 0   | -1  | 13  | -5  | -64  | -2   | 0   | 74  | 5   | 0   | 7   | 2   |
| Dry Water Years (21%)                       | 0   | -57 | -7  | -1  | -13  | -35  | 0   | 1   | 0   | 0   | 0   | 4   |
| Critical Water Years (18%)                  | 0   | 1   | 1   | 0   | 0    | 0    | 0   | 0   | 0   | 0   | 96  | 4   |

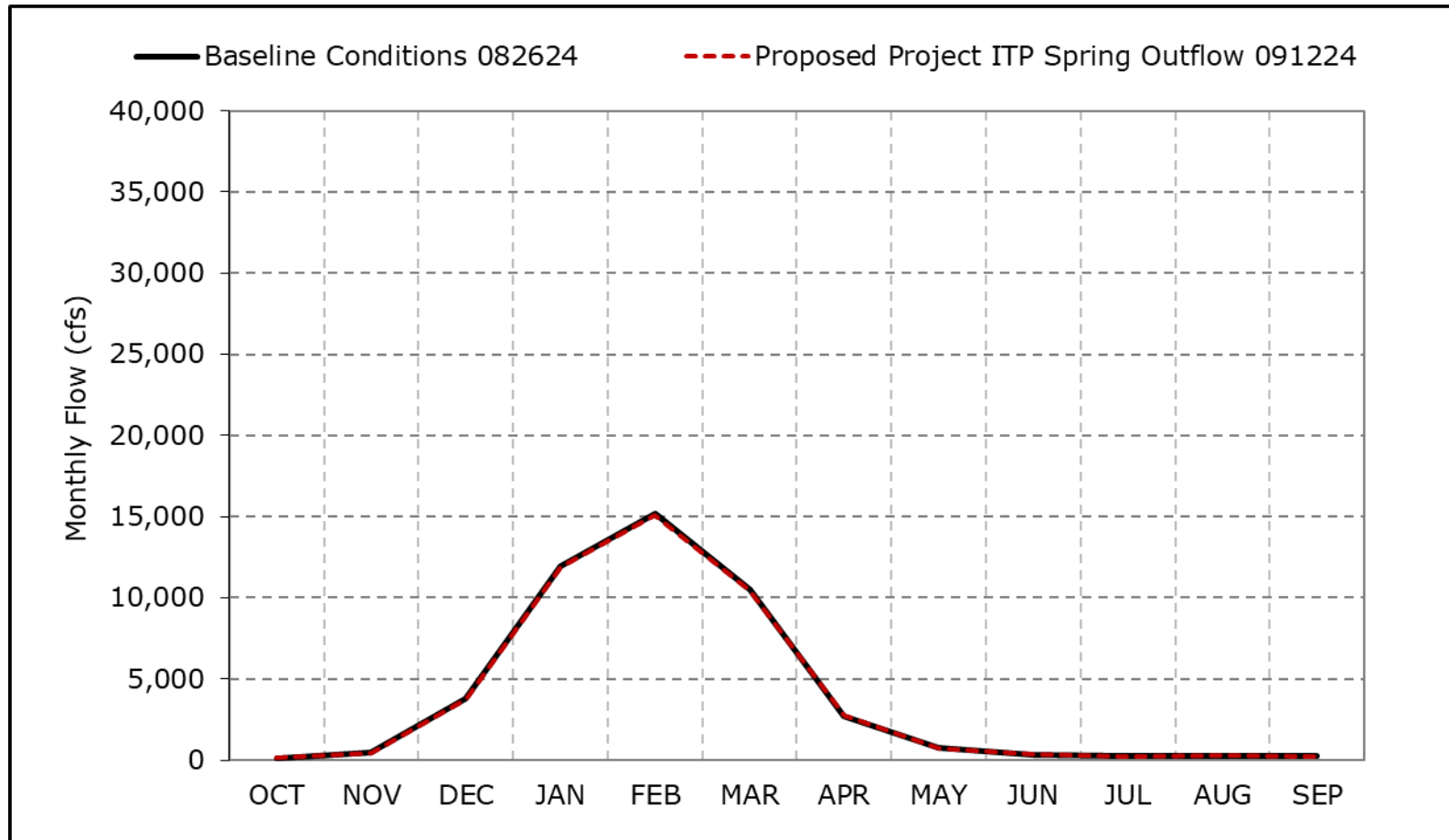
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-3a. Yolo Bypass Flow, Long-Term Average Flow**

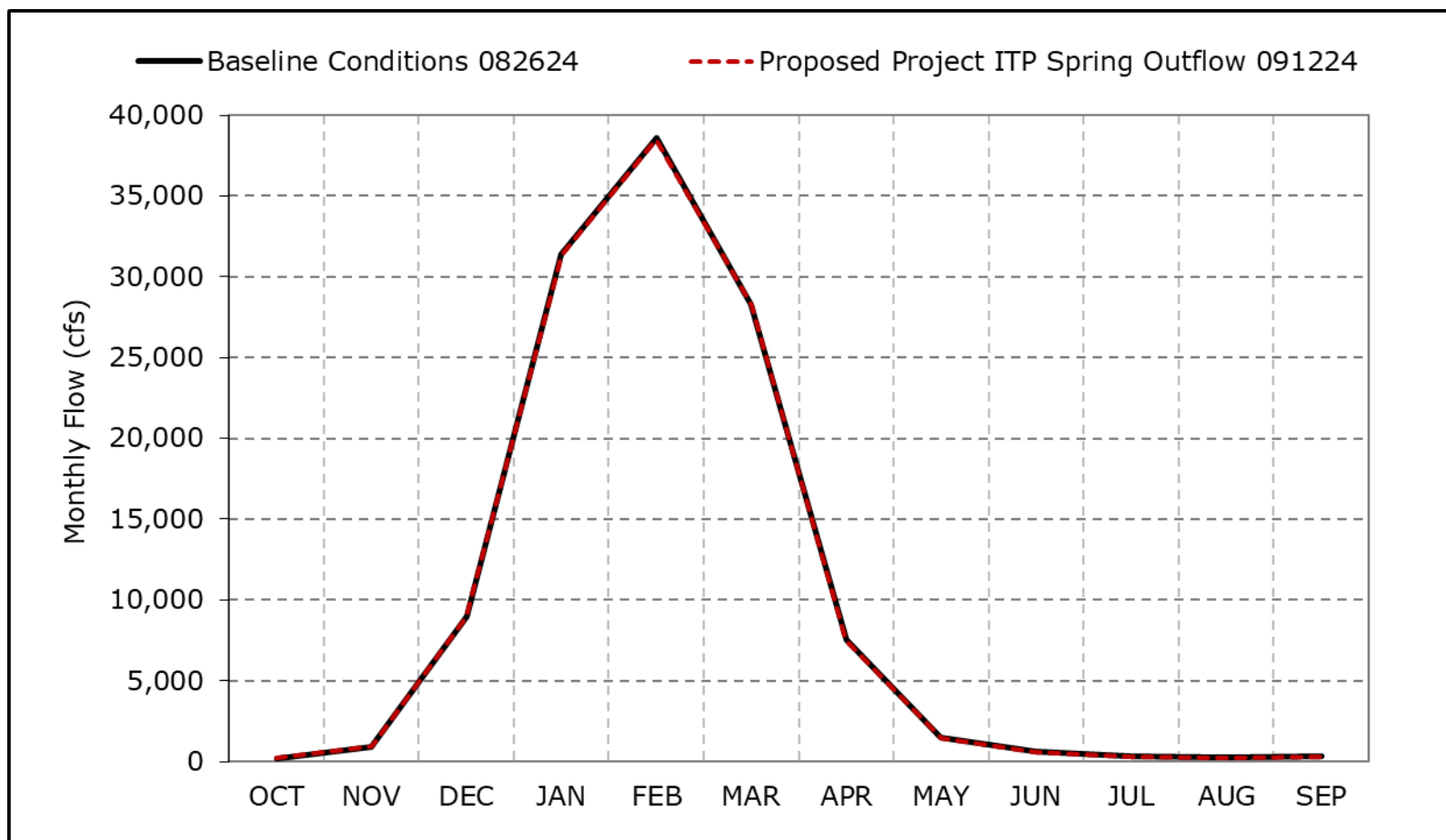


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3b. Yolo Bypass Flow, Wet Year Average Flow**

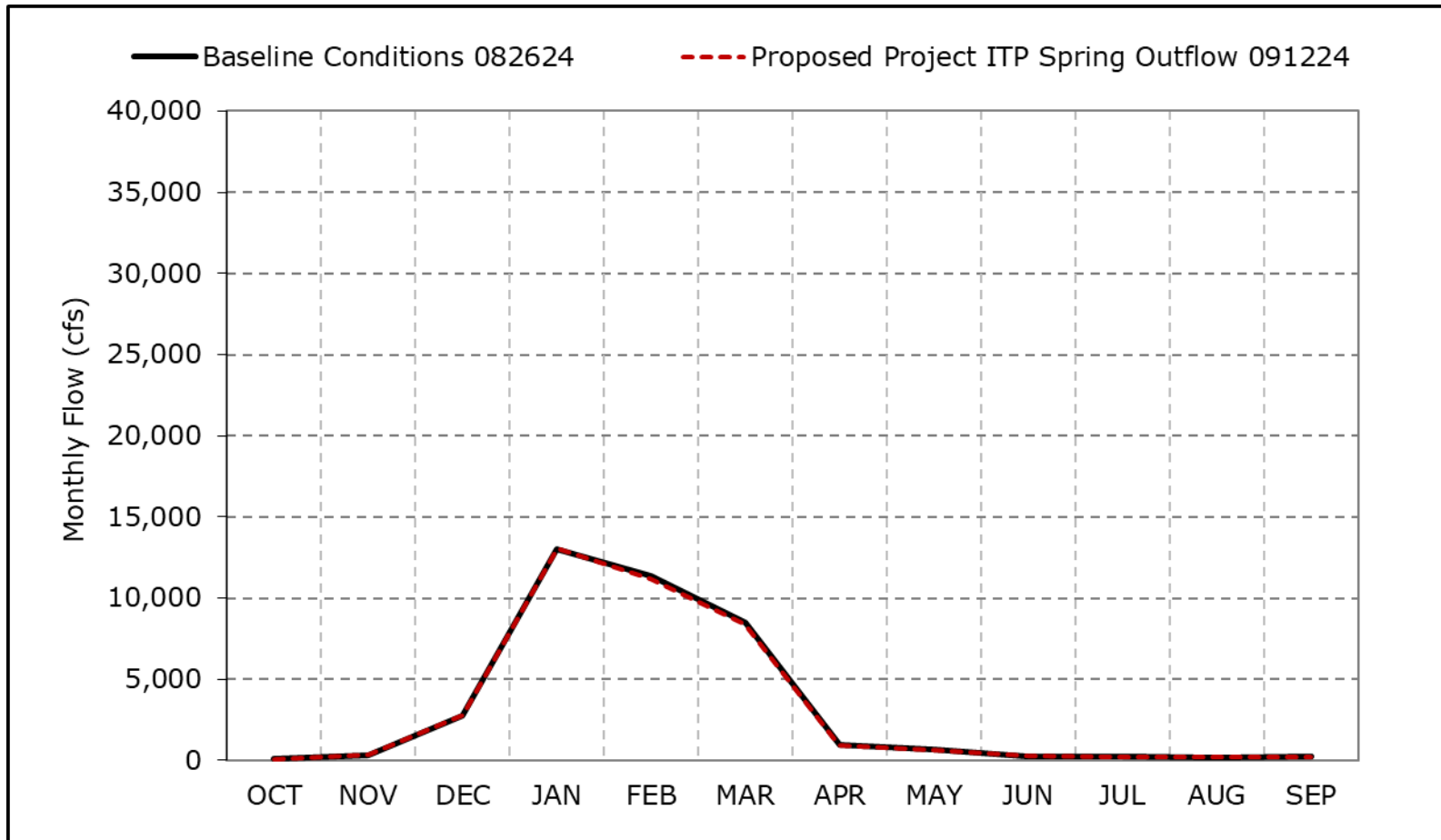


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3c. Yolo Bypass Flow, Above Normal Year Average Flow**

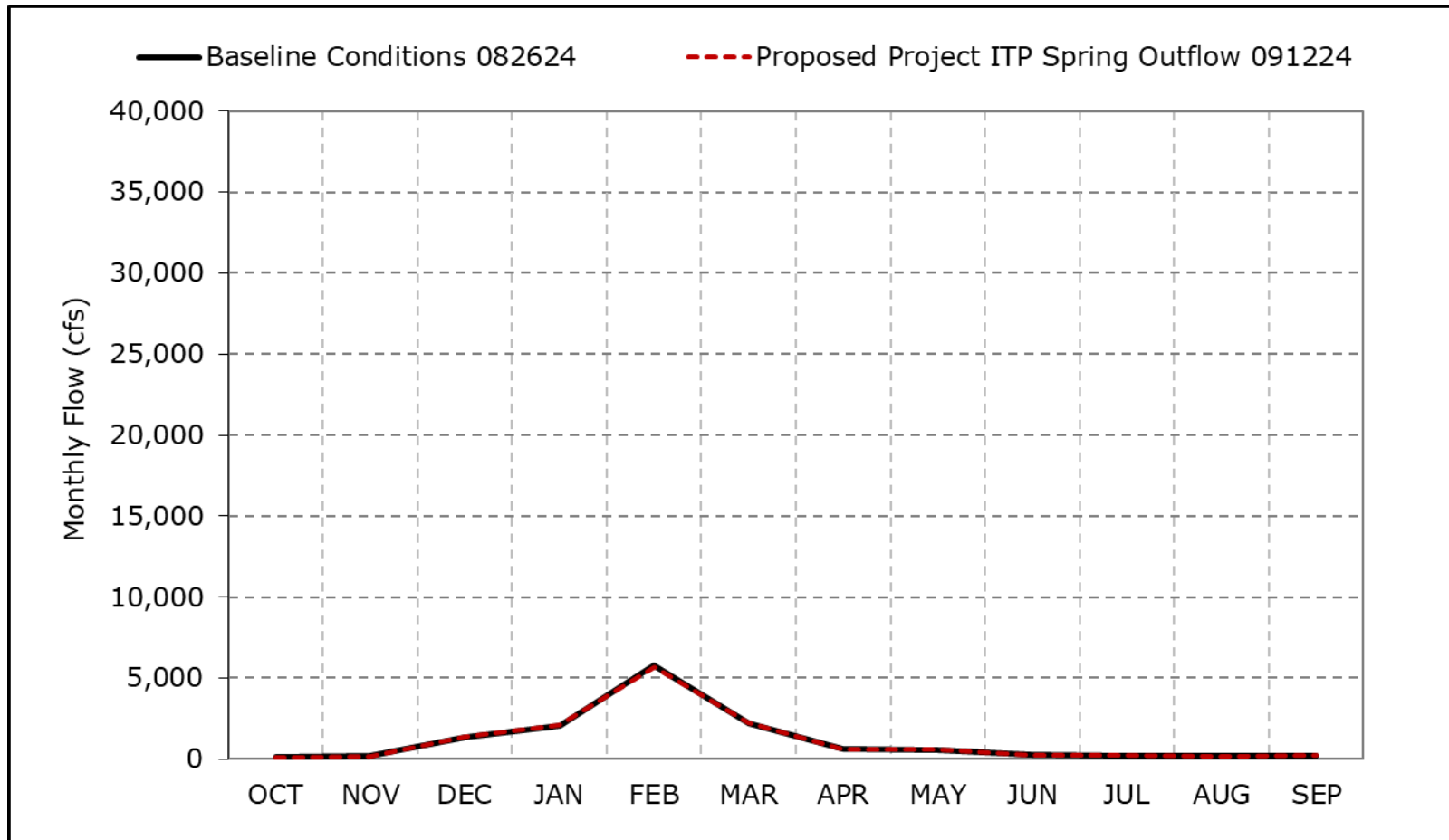


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3d. Yolo Bypass Flow, Below Normal Year Average Flow**

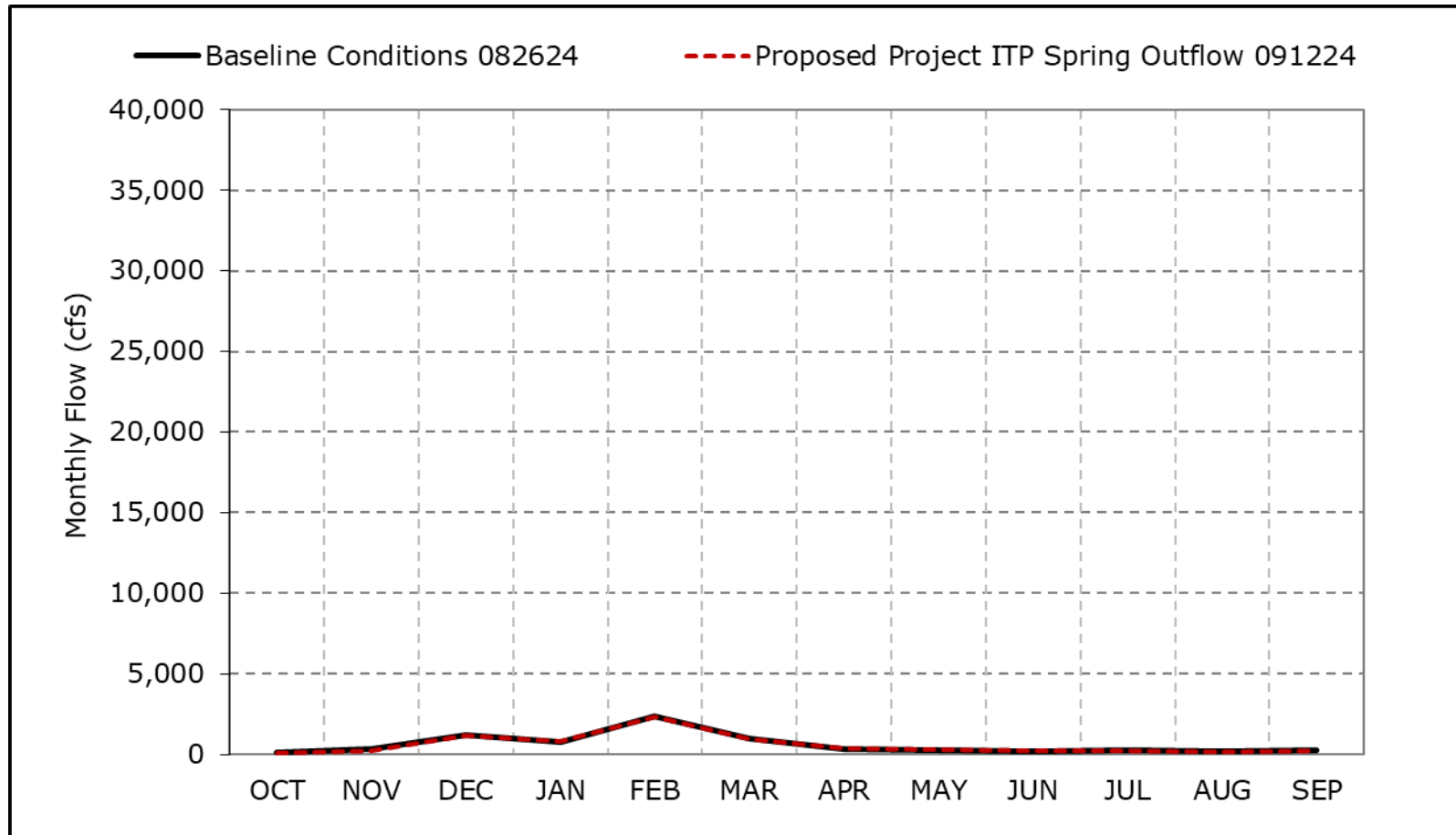


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3e. Yolo Bypass Flow, Dry Year Average Flow**

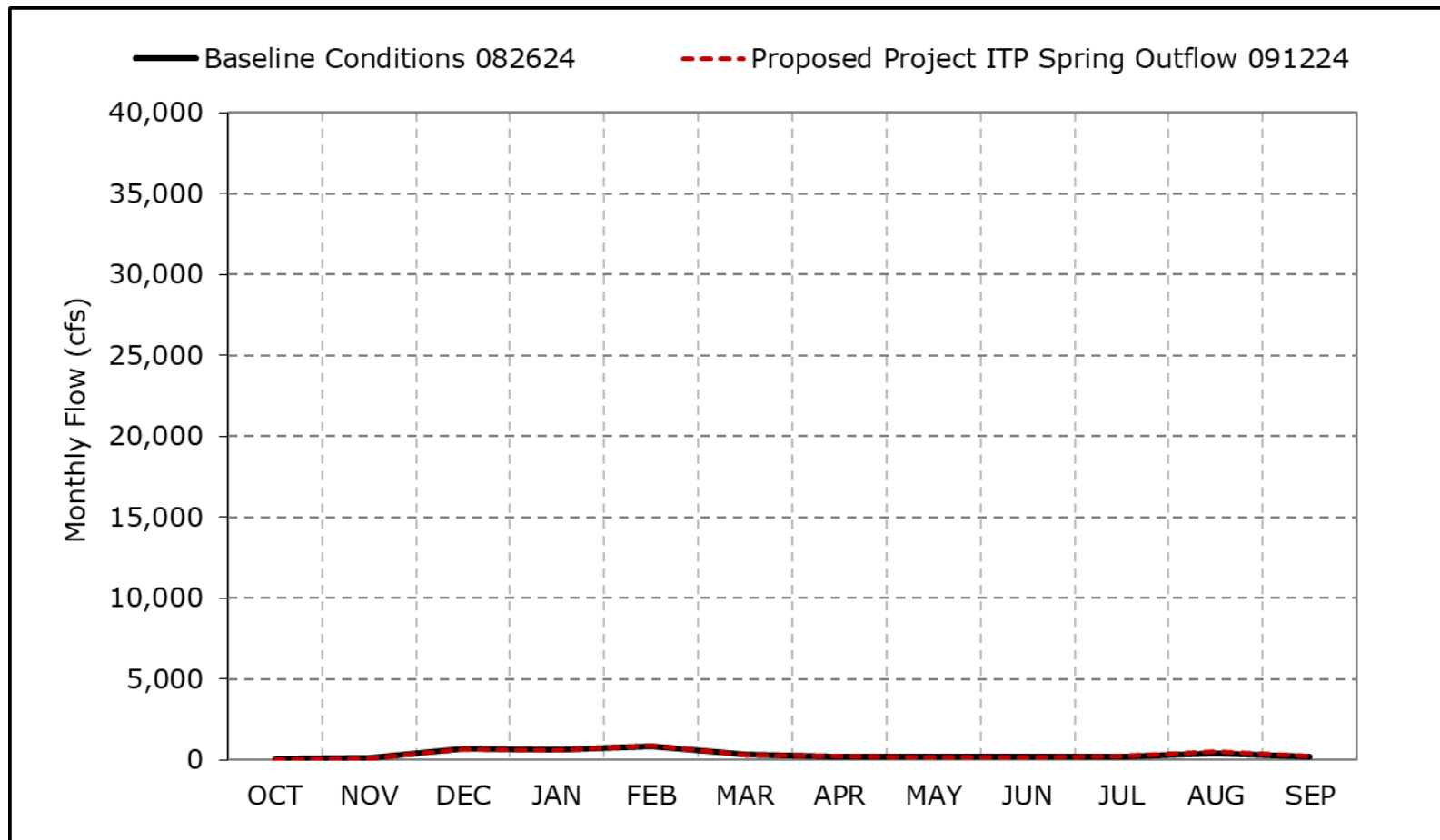


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3f. Yolo Bypass Flow, Critical Year Average Flow**

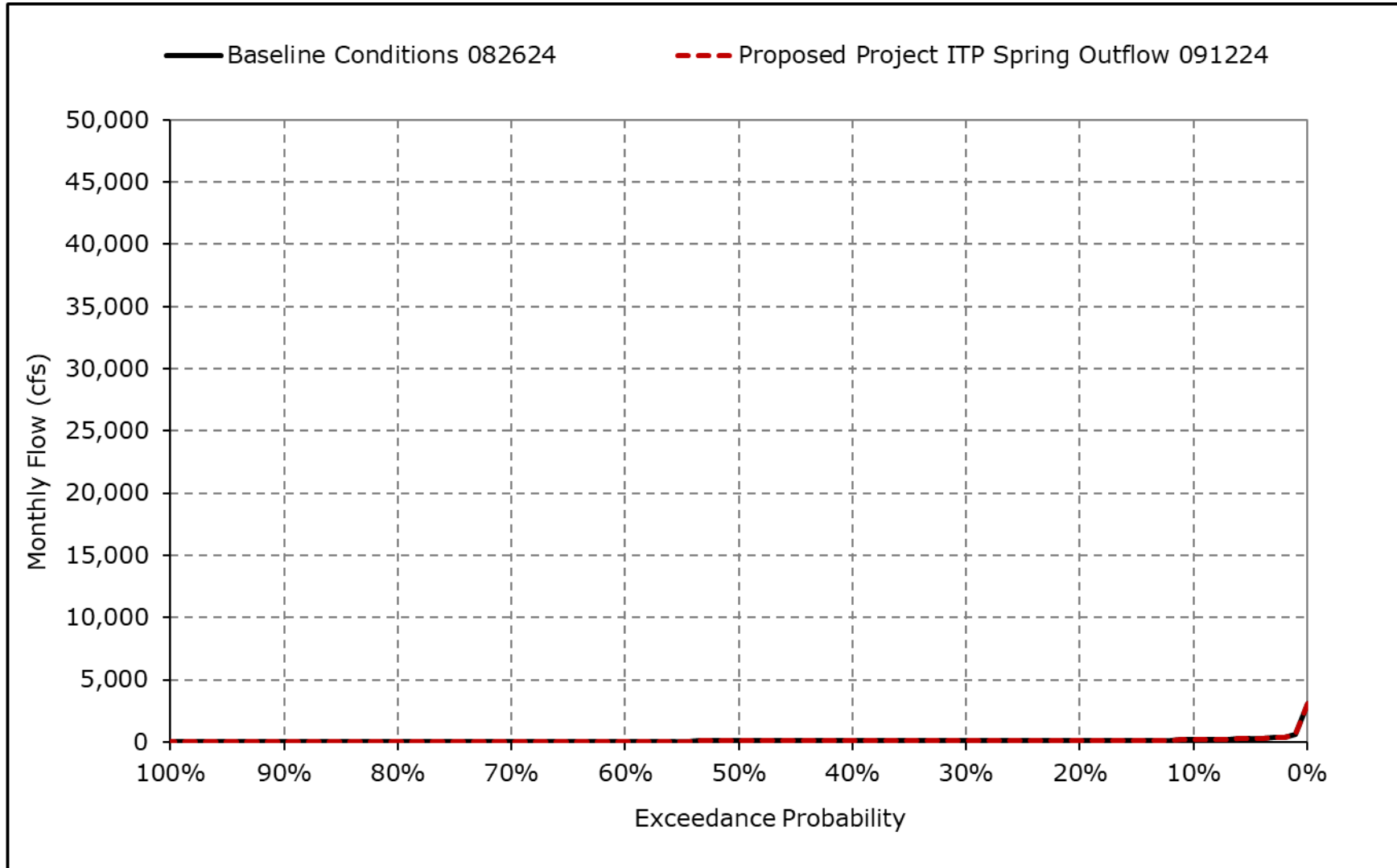


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

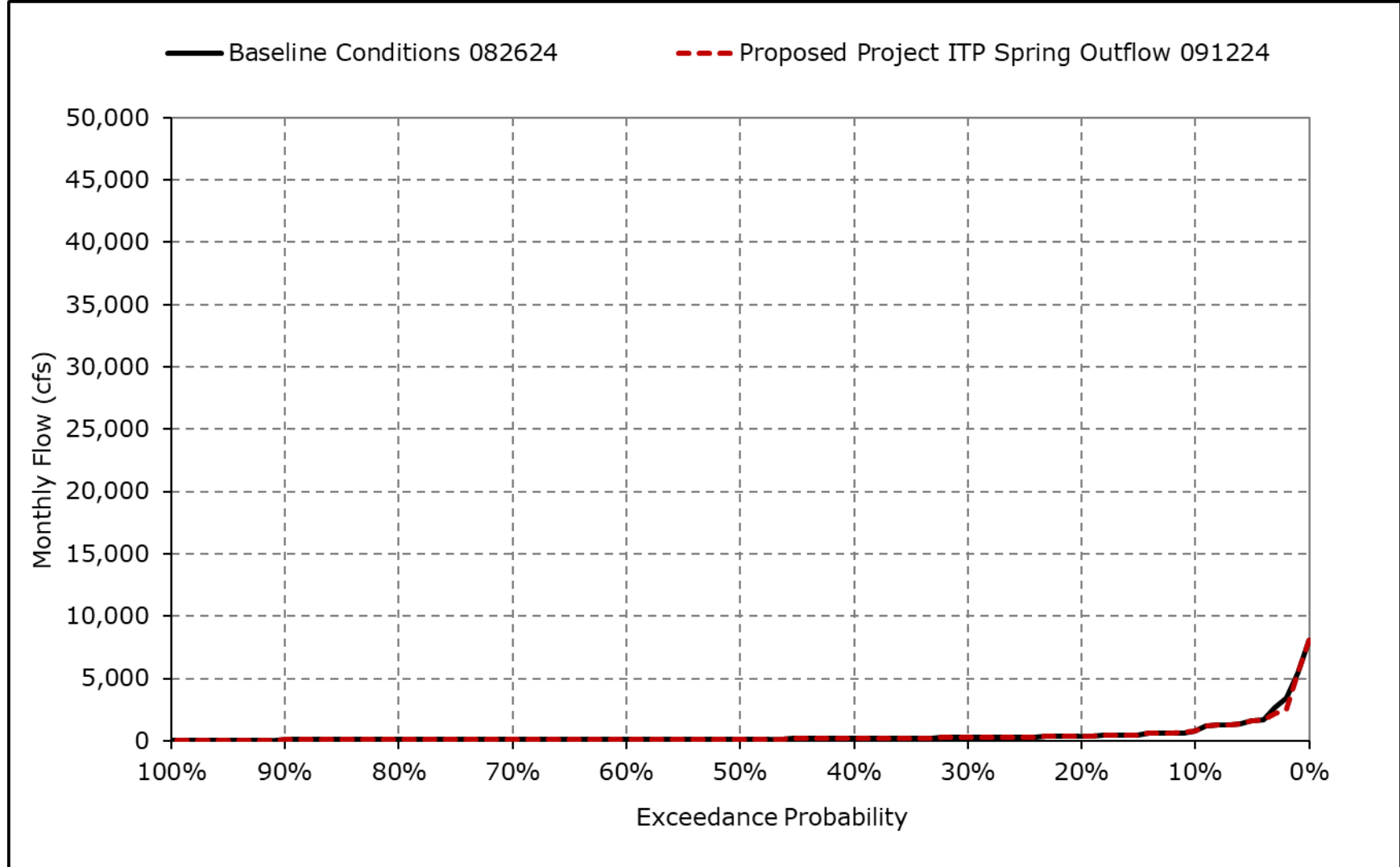
**Figure 4L-3-3g. Yolo Bypass Flow, October**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

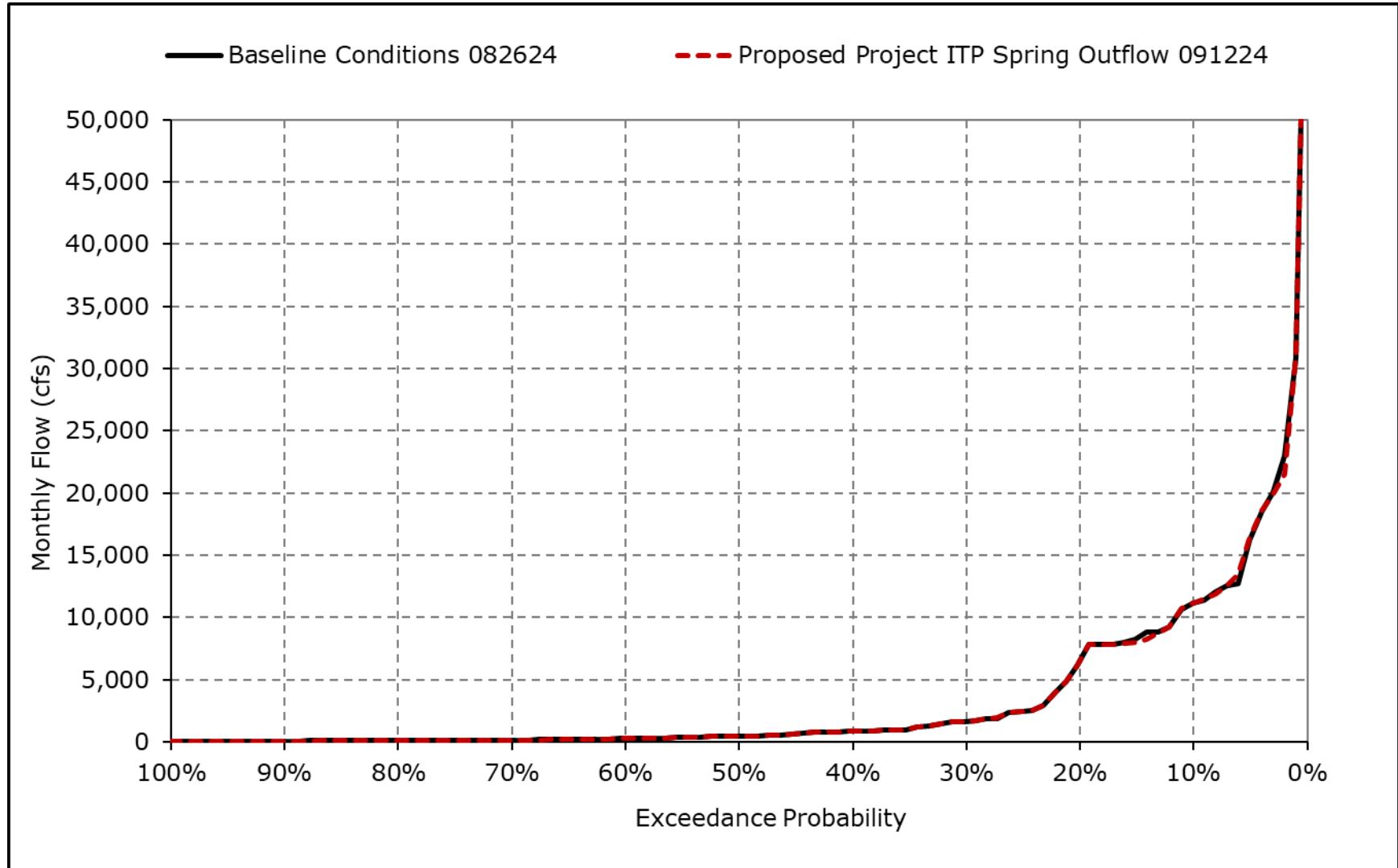


**Figure 4L-3-3h. Yolo Bypass Flow, November**



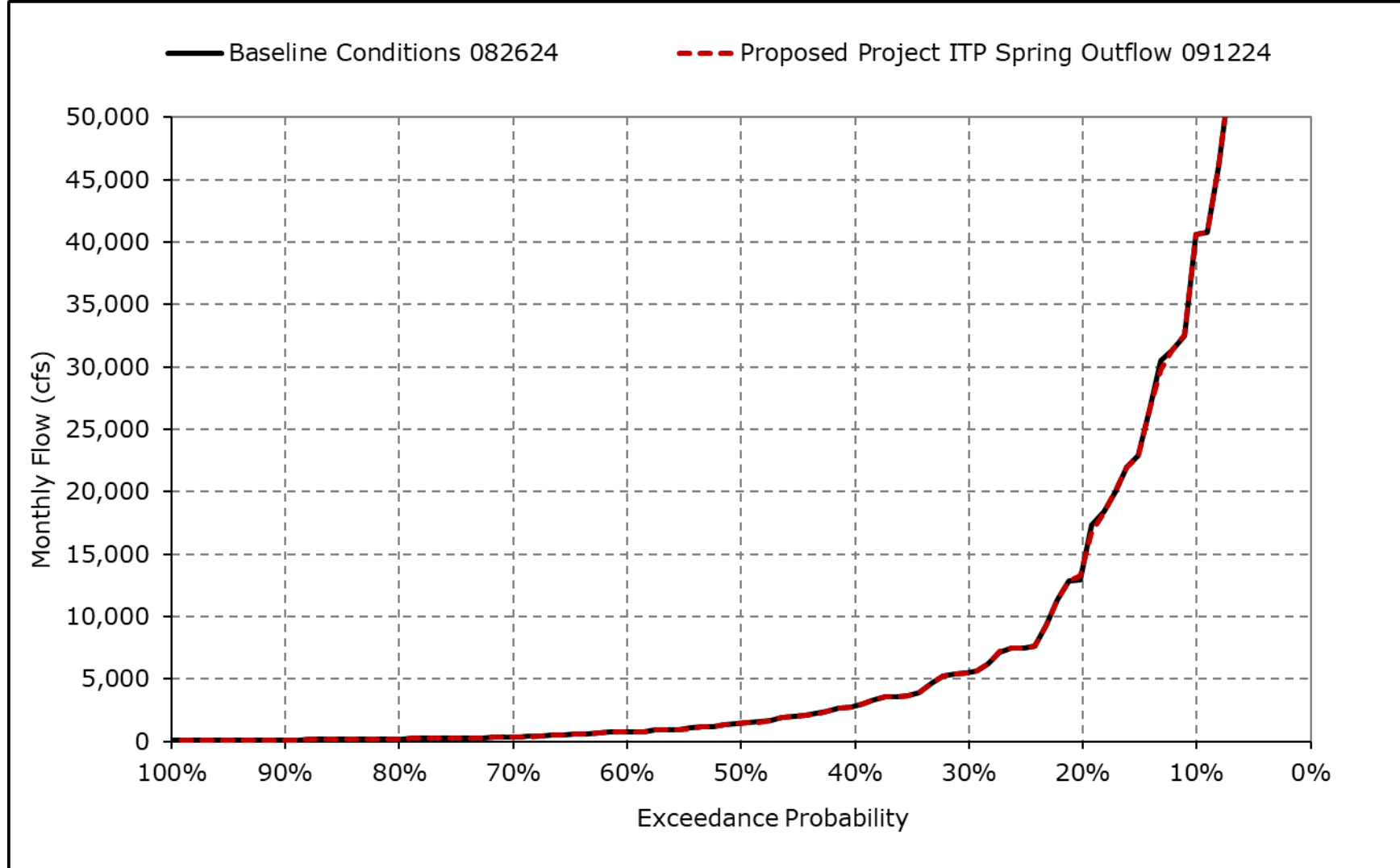
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3i. Yolo Bypass Flow, December**



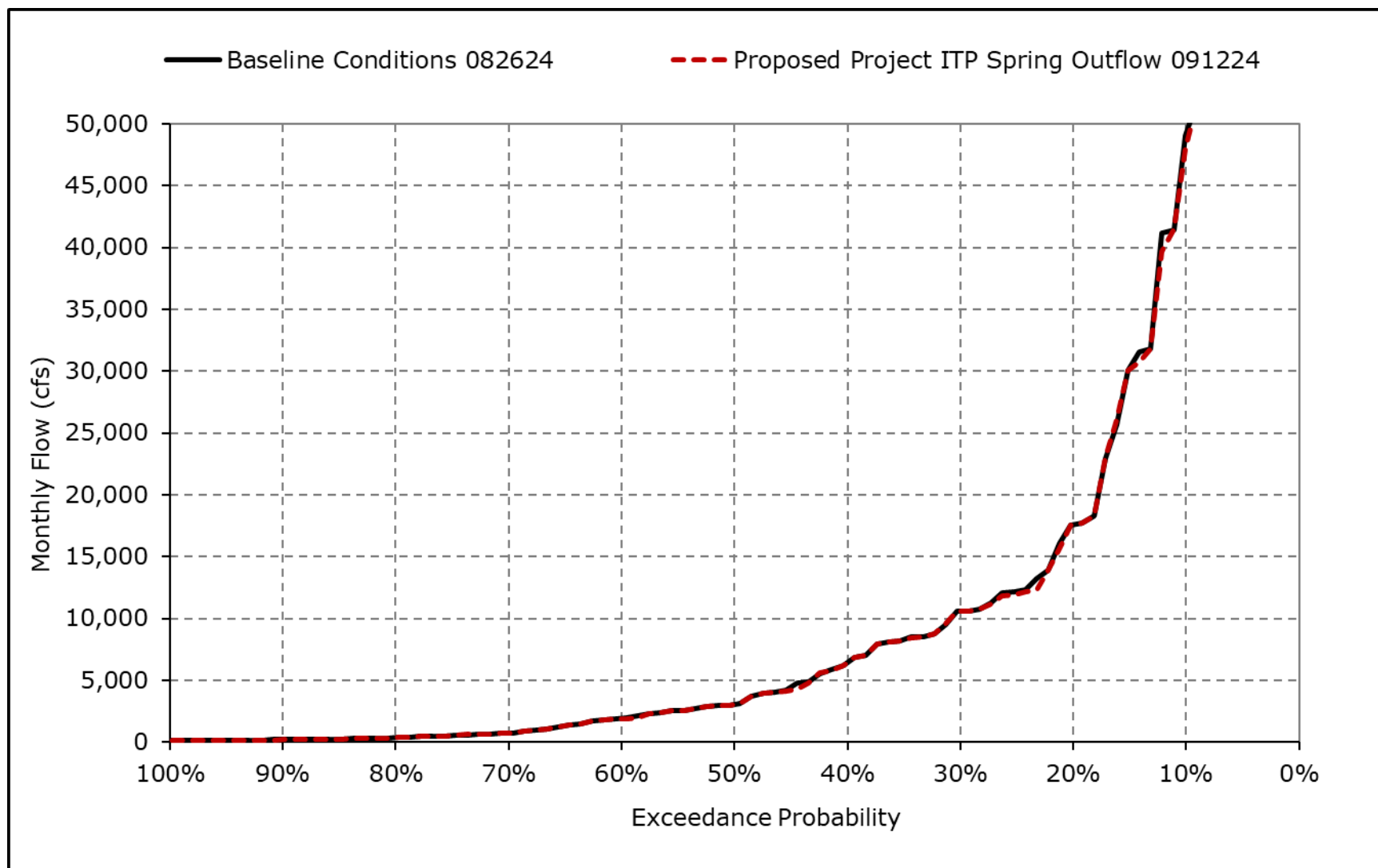
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3j. Yolo Bypass Flow, January**



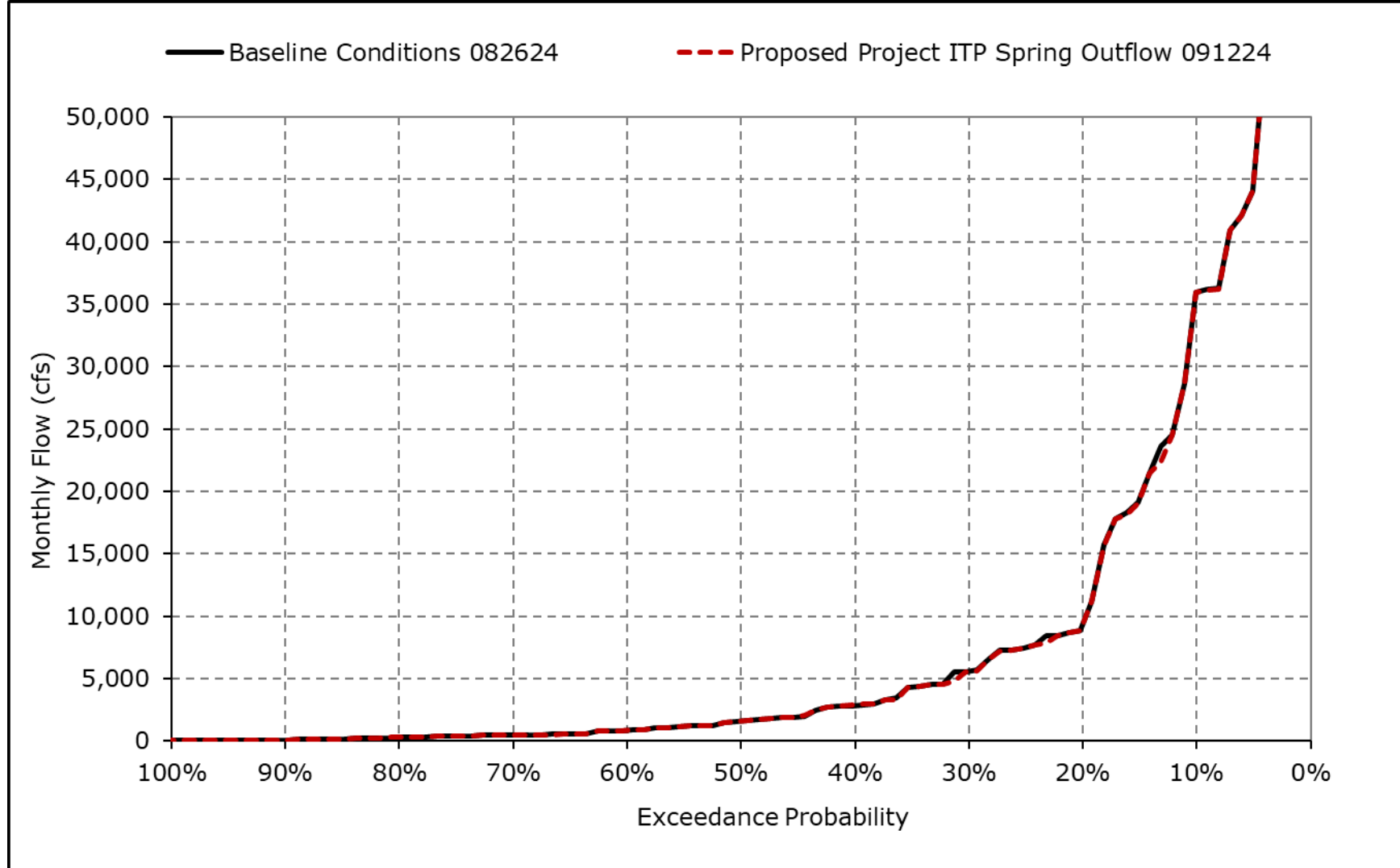
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3k. Yolo Bypass Flow, February**



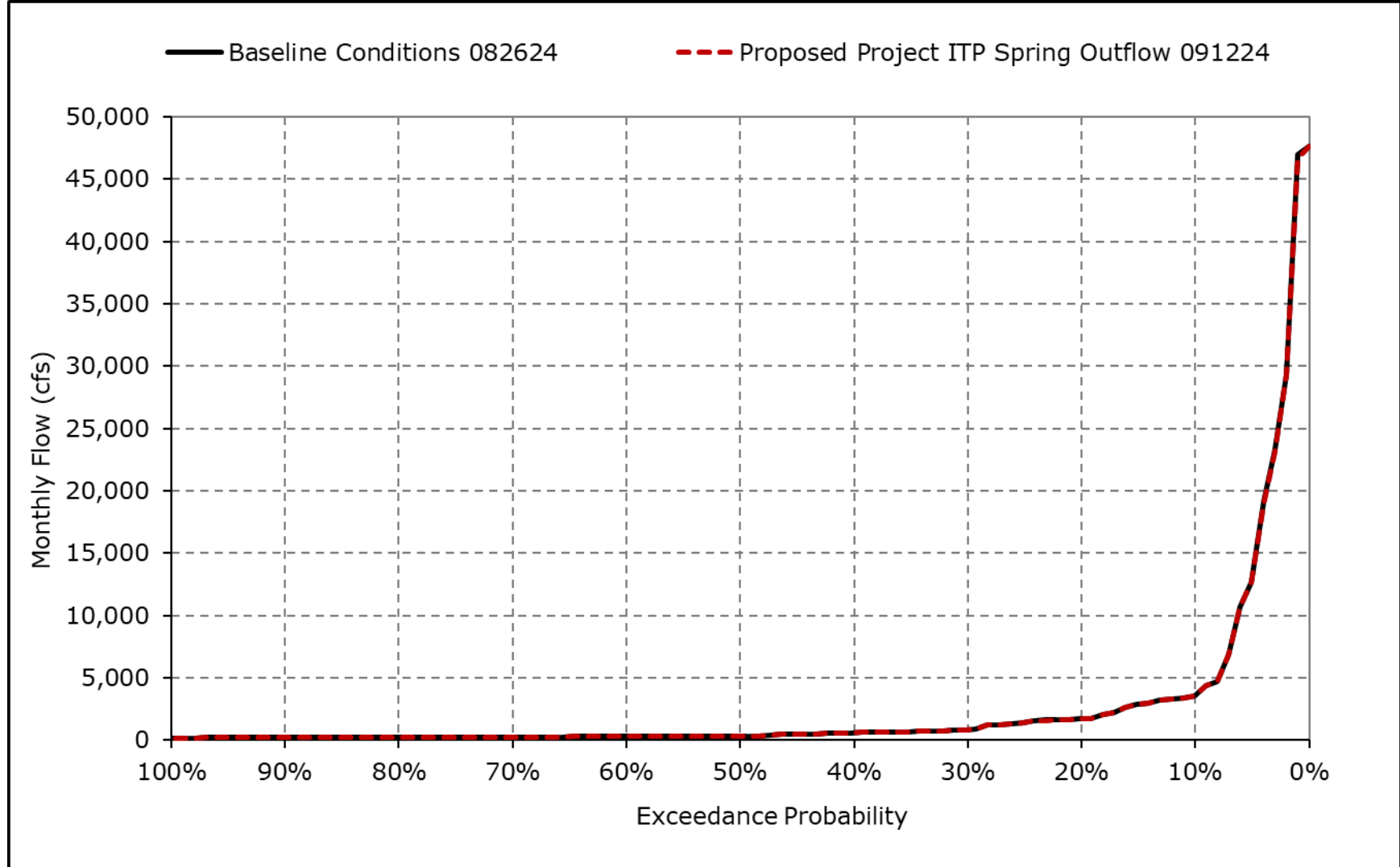
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3I. Yolo Bypass Flow, March**



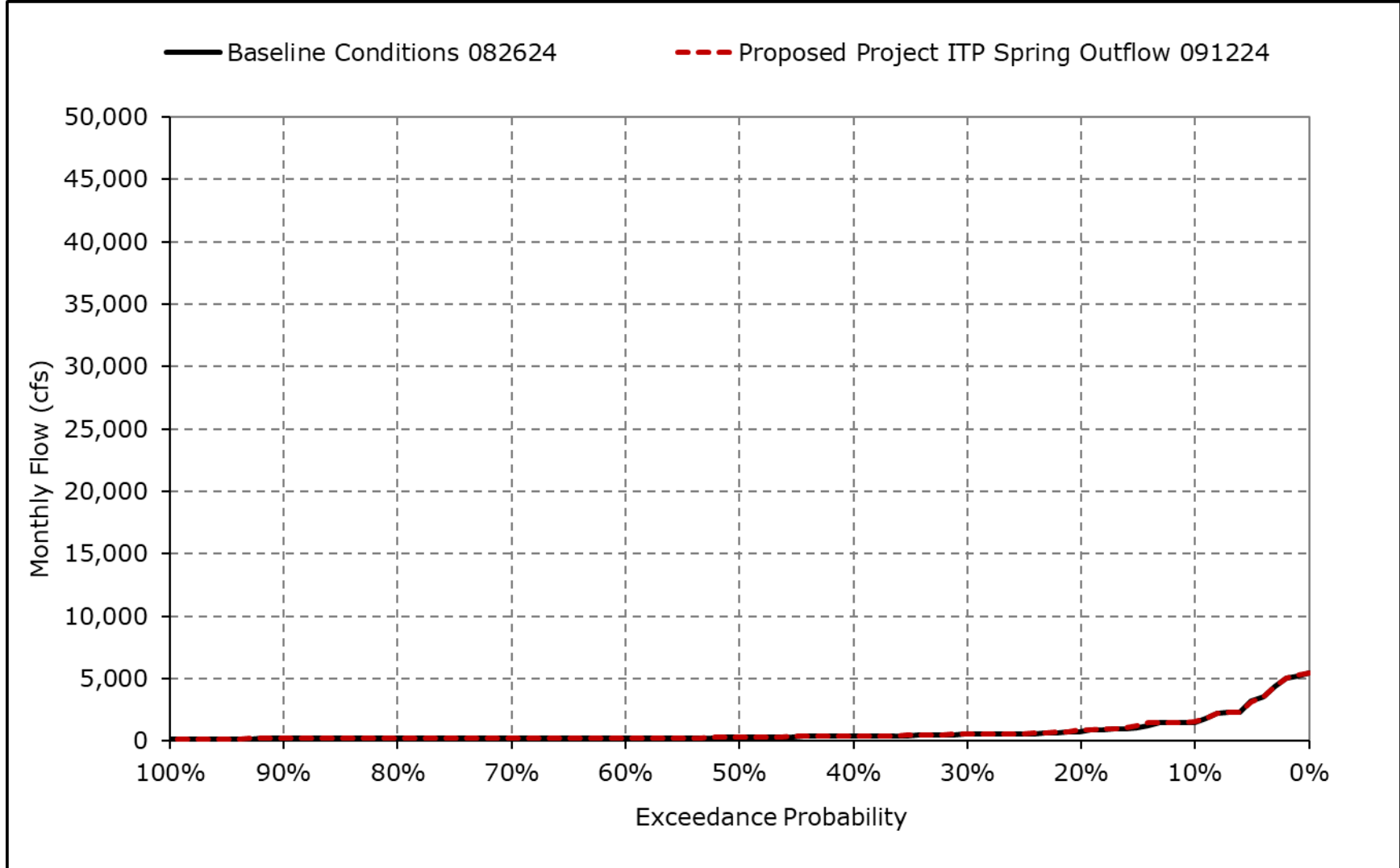
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3m. Yolo Bypass Flow, April**



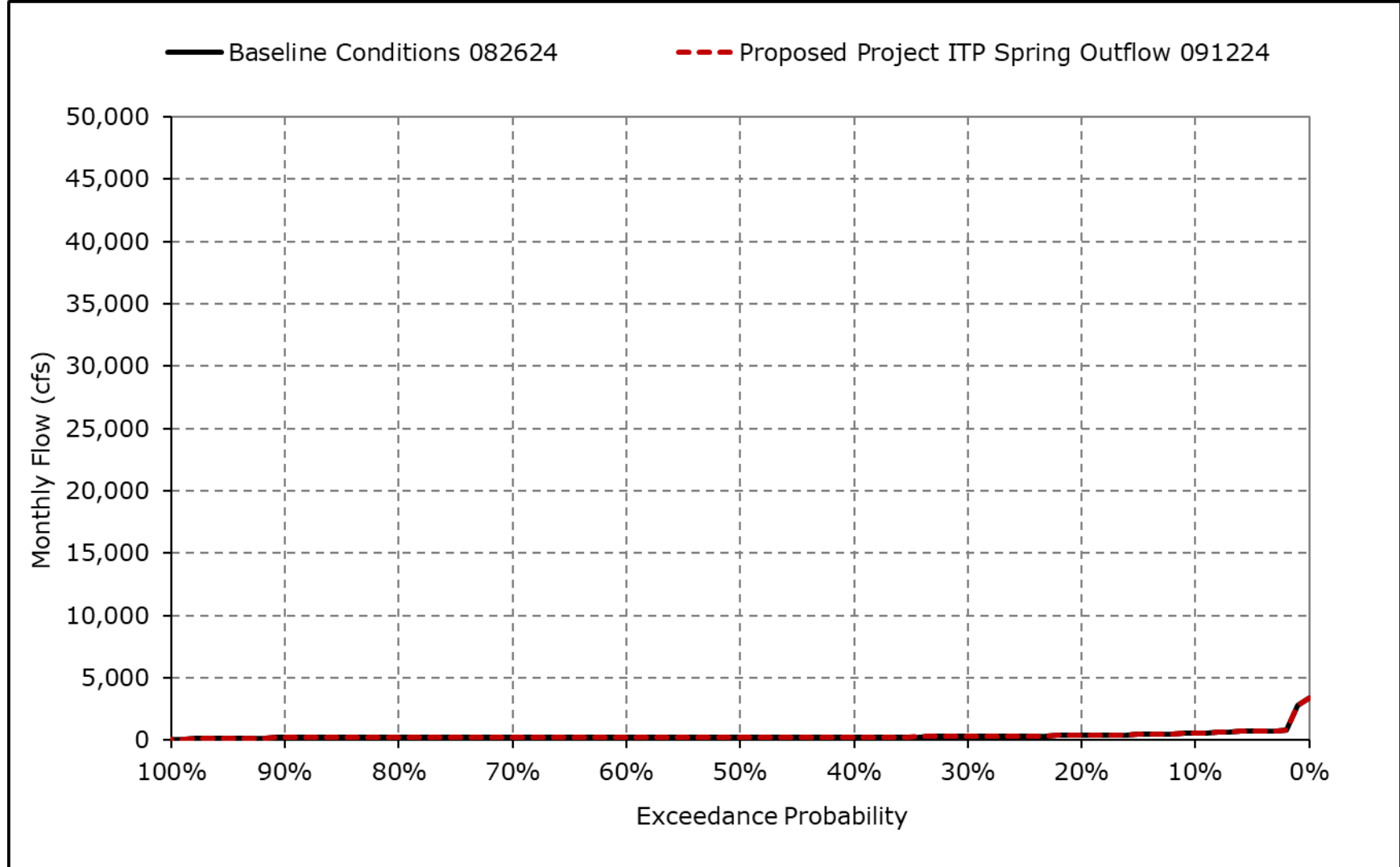
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3n. Yolo Bypass Flow, May**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

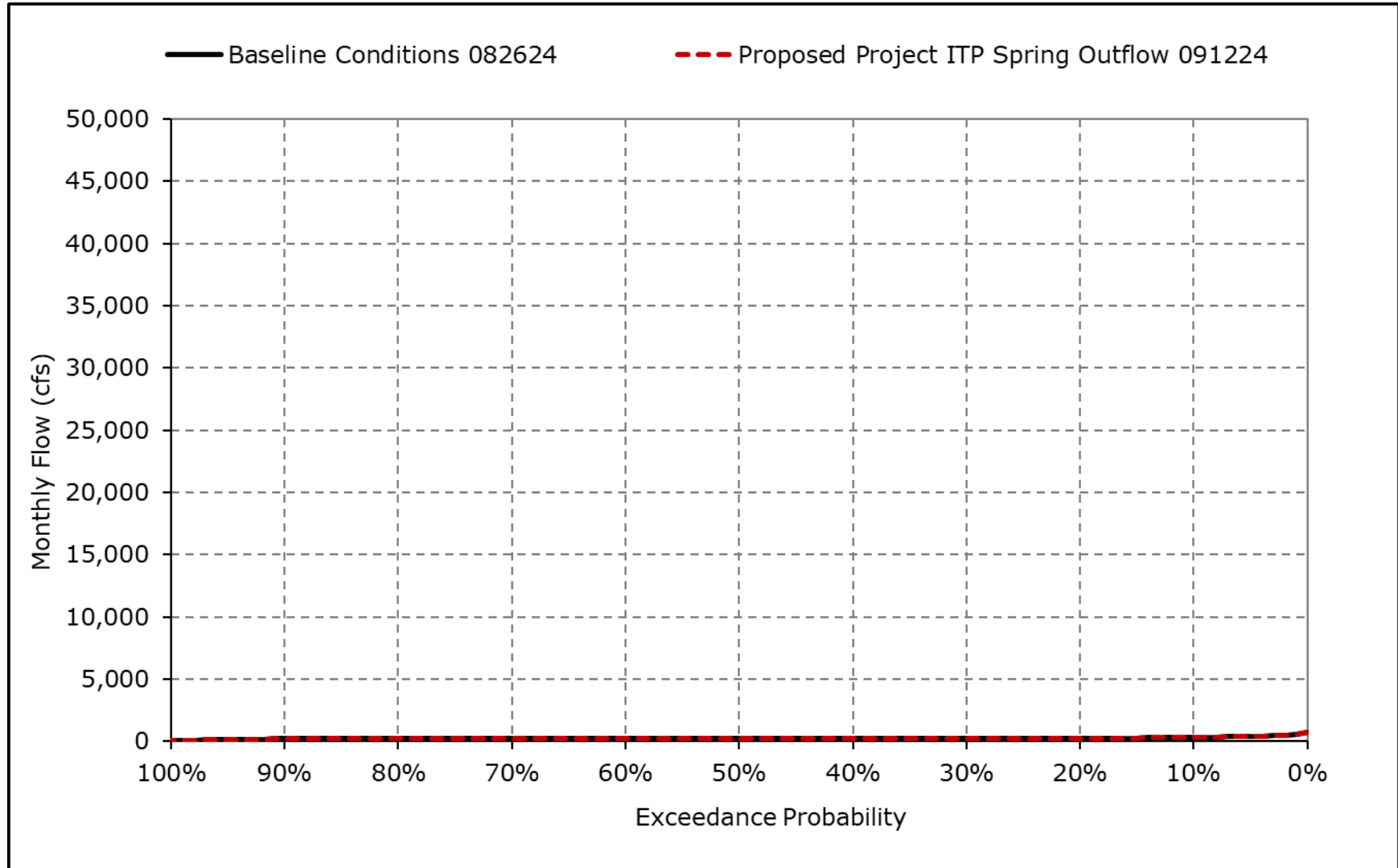
**Figure 4L-3-3o. Yolo Bypass Flow, June**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

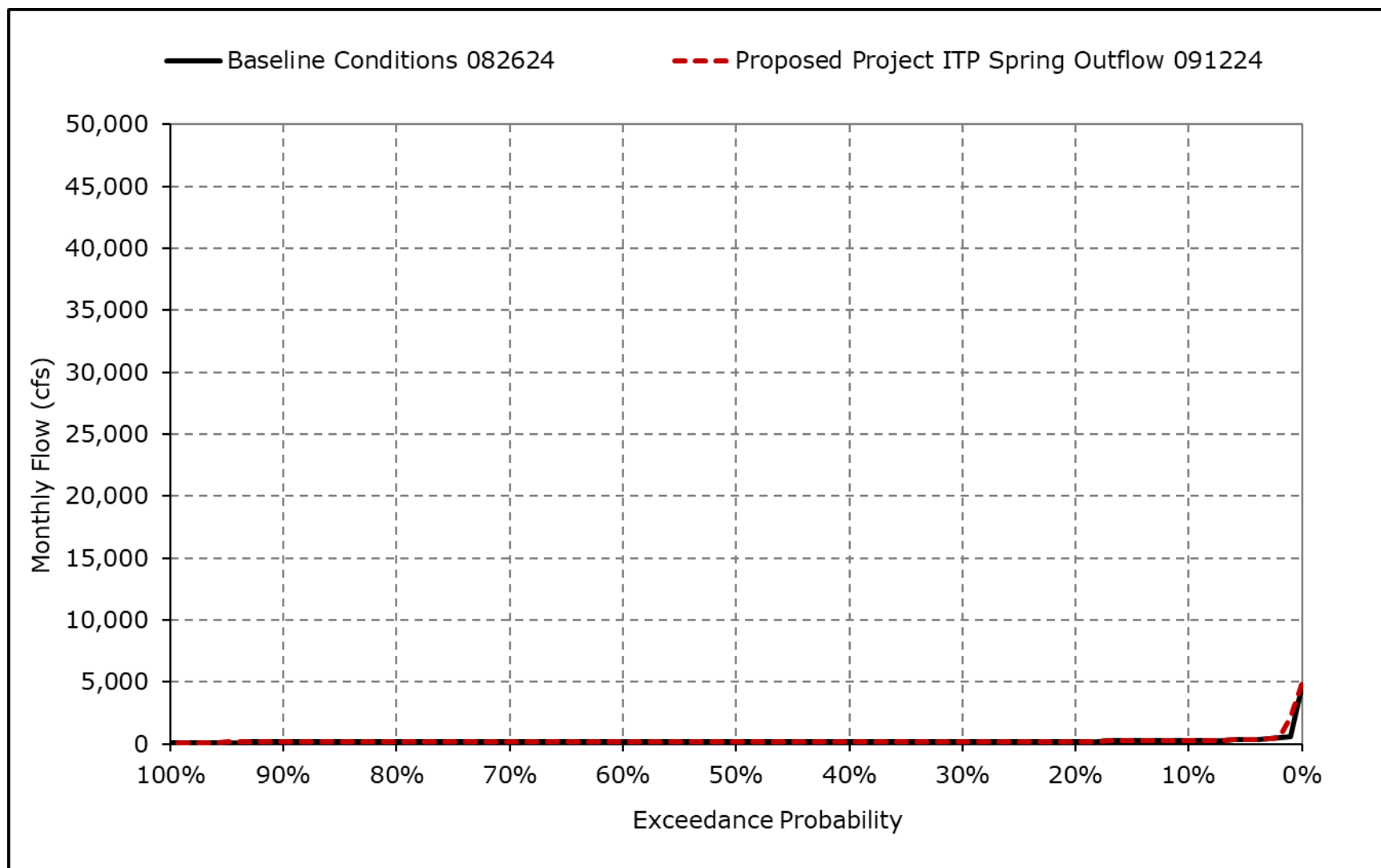


**Figure 4L-3-3p. Yolo Bypass Flow, July**



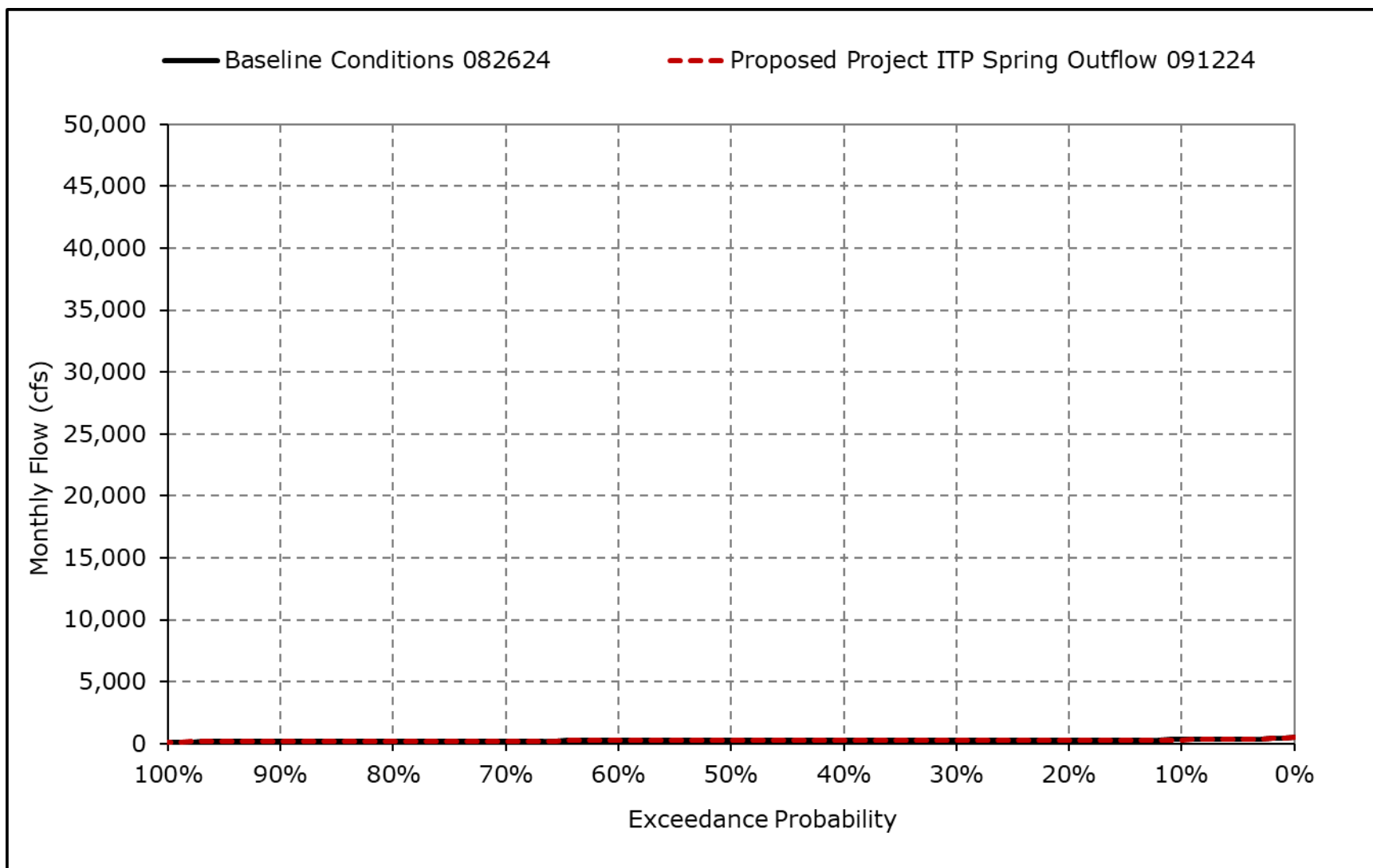
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3q. Yolo Bypass Flow, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-3r. Yolo Bypass Flow, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-4-1a. Sacramento River Flow at Rio Vista, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb     | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 10,415 | 16,212 | 50,783 | 95,850 | 106,810 | 92,672 | 50,816 | 39,995 | 24,026 | 13,599 | 10,497 | 12,118 |
| 20% Exceedance                              | 9,002  | 9,558  | 36,256 | 62,806 | 68,742  | 55,345 | 32,942 | 29,063 | 13,654 | 12,920 | 10,238 | 11,238 |
| 30% Exceedance                              | 7,956  | 8,667  | 19,813 | 35,021 | 52,742  | 44,441 | 21,220 | 18,098 | 9,853  | 11,829 | 9,822  | 10,174 |
| 40% Exceedance                              | 7,104  | 8,219  | 14,650 | 25,510 | 38,715  | 32,948 | 16,122 | 13,065 | 7,812  | 10,928 | 9,645  | 9,169  |
| 50% Exceedance                              | 5,882  | 7,865  | 12,706 | 19,240 | 27,557  | 23,727 | 13,171 | 10,204 | 7,319  | 10,412 | 8,899  | 7,453  |
| 60% Exceedance                              | 4,833  | 6,977  | 11,327 | 14,684 | 22,713  | 19,050 | 9,109  | 9,271  | 7,050  | 9,768  | 7,013  | 5,616  |
| 70% Exceedance                              | 4,150  | 5,857  | 8,523  | 10,994 | 16,555  | 16,517 | 8,415  | 8,177  | 6,549  | 8,796  | 5,327  | 5,005  |
| 80% Exceedance                              | 4,000  | 4,653  | 7,349  | 9,010  | 13,051  | 12,084 | 7,529  | 7,588  | 5,872  | 6,636  | 4,304  | 4,409  |
| 90% Exceedance                              | 3,499  | 4,475  | 5,910  | 7,862  | 10,668  | 8,930  | 6,527  | 5,193  | 4,631  | 4,812  | 3,387  | 3,964  |
| Full Simulation Period Average <sup>a</sup> | 6,883  | 8,994  | 21,330 | 37,364 | 46,510  | 39,277 | 21,646 | 16,934 | 11,388 | 10,021 | 7,685  | 7,923  |
| Wet Water Years (32%)                       | 8,687  | 12,405 | 37,714 | 75,934 | 90,625  | 75,843 | 43,226 | 30,638 | 20,217 | 11,763 | 10,056 | 11,731 |
| Above Normal Water Years (9%)               | 6,472  | 8,894  | 19,972 | 47,951 | 48,127  | 45,462 | 20,696 | 19,235 | 12,386 | 12,152 | 10,298 | 10,277 |
| Below Normal Water Years (20%)              | 6,897  | 7,862  | 13,892 | 20,674 | 31,275  | 26,392 | 13,835 | 13,157 | 7,376  | 12,088 | 8,971  | 7,339  |
| Dry Water Years (21%)                       | 6,131  | 8,189  | 14,196 | 13,005 | 21,316  | 17,691 | 9,295  | 8,523  | 7,184  | 8,956  | 5,357  | 5,091  |
| Critical Water Years (18%)                  | 4,746  | 5,178  | 9,468  | 10,465 | 13,596  | 10,678 | 6,847  | 5,429  | 4,556  | 4,803  | 3,452  | 3,930  |

**Table 4L-3-4-1b. Sacramento River Flow at Rio Vista, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb     | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 10,489 | 15,699 | 50,799 | 95,832 | 105,690 | 92,570 | 50,720 | 39,997 | 24,021 | 13,379 | 10,544 | 13,055 |
| 20% Exceedance                              | 9,027  | 9,562  | 36,320 | 62,786 | 67,475  | 55,307 | 32,941 | 29,073 | 13,657 | 12,627 | 10,303 | 12,229 |
| 30% Exceedance                              | 7,808  | 8,677  | 20,102 | 35,035 | 52,746  | 43,996 | 21,289 | 18,098 | 9,665  | 11,719 | 10,053 | 11,161 |
| 40% Exceedance                              | 7,013  | 8,221  | 14,676 | 25,479 | 38,642  | 33,029 | 16,117 | 12,870 | 7,391  | 10,960 | 9,655  | 9,909  |
| 50% Exceedance                              | 5,849  | 7,864  | 12,813 | 19,180 | 27,548  | 23,880 | 13,168 | 10,179 | 6,892  | 10,412 | 9,026  | 7,456  |
| 60% Exceedance                              | 4,785  | 7,013  | 10,946 | 14,578 | 22,680  | 19,048 | 9,103  | 9,272  | 6,661  | 9,694  | 7,245  | 5,635  |
| 70% Exceedance                              | 4,123  | 5,785  | 8,716  | 10,790 | 16,591  | 16,515 | 8,400  | 8,152  | 6,322  | 8,837  | 5,029  | 5,011  |
| 80% Exceedance                              | 4,000  | 4,696  | 7,409  | 9,034  | 13,048  | 11,802 | 7,566  | 7,547  | 5,540  | 6,558  | 4,236  | 4,450  |
| 90% Exceedance                              | 3,511  | 4,500  | 6,282  | 7,632  | 10,673  | 9,100  | 6,549  | 5,194  | 4,639  | 4,713  | 3,383  | 3,952  |
| Full Simulation Period Average <sup>a</sup> | 6,849  | 8,979  | 21,349 | 37,336 | 46,364  | 39,190 | 21,633 | 16,900 | 11,232 | 9,956  | 7,743  | 8,326  |
| Wet Water Years (32%)                       | 8,630  | 12,407 | 37,733 | 75,918 | 90,415  | 75,720 | 43,196 | 30,634 | 20,168 | 11,747 | 10,115 | 12,554 |
| Above Normal Water Years (9%)               | 6,432  | 8,764  | 19,975 | 47,926 | 47,889  | 45,114 | 20,661 | 19,230 | 12,197 | 12,082 | 10,218 | 11,822 |
| Below Normal Water Years (20%)              | 6,827  | 7,850  | 13,994 | 20,584 | 31,145  | 26,438 | 13,843 | 13,006 | 7,112  | 11,813 | 9,313  | 7,338  |
| Dry Water Years (21%)                       | 6,115  | 8,164  | 14,092 | 13,008 | 21,147  | 17,610 | 9,300  | 8,500  | 6,832  | 8,972  | 5,208  | 5,105  |
| Critical Water Years (18%)                  | 4,774  | 5,197  | 9,547  | 10,450 | 13,617  | 10,631 | 6,831  | 5,443  | 4,573  | 4,791  | 3,503  | 3,920  |

**Table 4L-3-4-1c. Sacramento River Flow at Rio Vista, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct  | Nov  | Dec  | Jan  | Feb    | Mar  | Apr | May  | Jun  | Jul  | Aug  | Sep   |
|---|------|------|------|------|--------|------|-----|------|------|------|------|-------|
| 10% Exceedance                              | 74   | -513 | 16   | -18  | -1,120 | -102 | -96 | 2    | -5   | -219 | 47   | 936   |
| 20% Exceedance                              | 25   | 4    | 64   | -20  | -1,267 | -38  | -1  | 10   | 3    | -293 | 65   | 991   |
| 30% Exceedance                              | -148 | 10   | 289  | 14   | 4      | -445 | 69  | 0    | -188 | -111 | 232  | 987   |
| 40% Exceedance                              | -90  | 2    | 26   | -31  | -73    | 81   | -5  | -196 | -421 | 32   | 10   | 740   |
| 50% Exceedance                              | -33  | 0    | 107  | -60  | -9     | 153  | -3  | -25  | -427 | 0    | 128  | 2     |
| 60% Exceedance                              | -48  | 35   | -381 | -107 | -33    | -2   | -6  | 1    | -389 | -74  | 232  | 18    |
| 70% Exceedance                              | -27  | -71  | 193  | -204 | 36     | -2   | -14 | -25  | -227 | 41   | -298 | 7     |
| 80% Exceedance                              | 0    | 43   | 60   | 24   | -2     | -281 | 37  | -41  | -332 | -78  | -67  | 41    |
| 90% Exceedance                              | 12   | 25   | 372  | -231 | 4      | 170  | 22  | 1    | 8    | -99  | -4   | -12   |
| Full Simulation Period Average <sup>a</sup> | -34  | -15  | 19   | -27  | -146   | -87  | -13 | -34  | -156 | -65  | 58   | 403   |
| Wet Water Years (32%)                       | -56  | 2    | 20   | -16  | -210   | -123 | -30 | -4   | -49  | -15  | 59   | 823   |
| Above Normal Water Years (9%)               | -40  | -129 | 3    | -25  | -238   | -348 | -35 | -5   | -189 | -70  | -79  | 1,545 |
| Below Normal Water Years (20%)              | -70  | -12  | 102  | -90  | -130   | 46   | 8   | -151 | -264 | -276 | 342  | 0     |
| Dry Water Years (21%)                       | -16  | -25  | -104 | 3    | -170   | -81  | 5   | -23  | -352 | 16   | -149 | 13    |
| Critical Water Years (18%)                  | 27   | 19   | 80   | -14  | 21     | -47  | -16 | 14   | 17   | -12  | 51   | -9    |

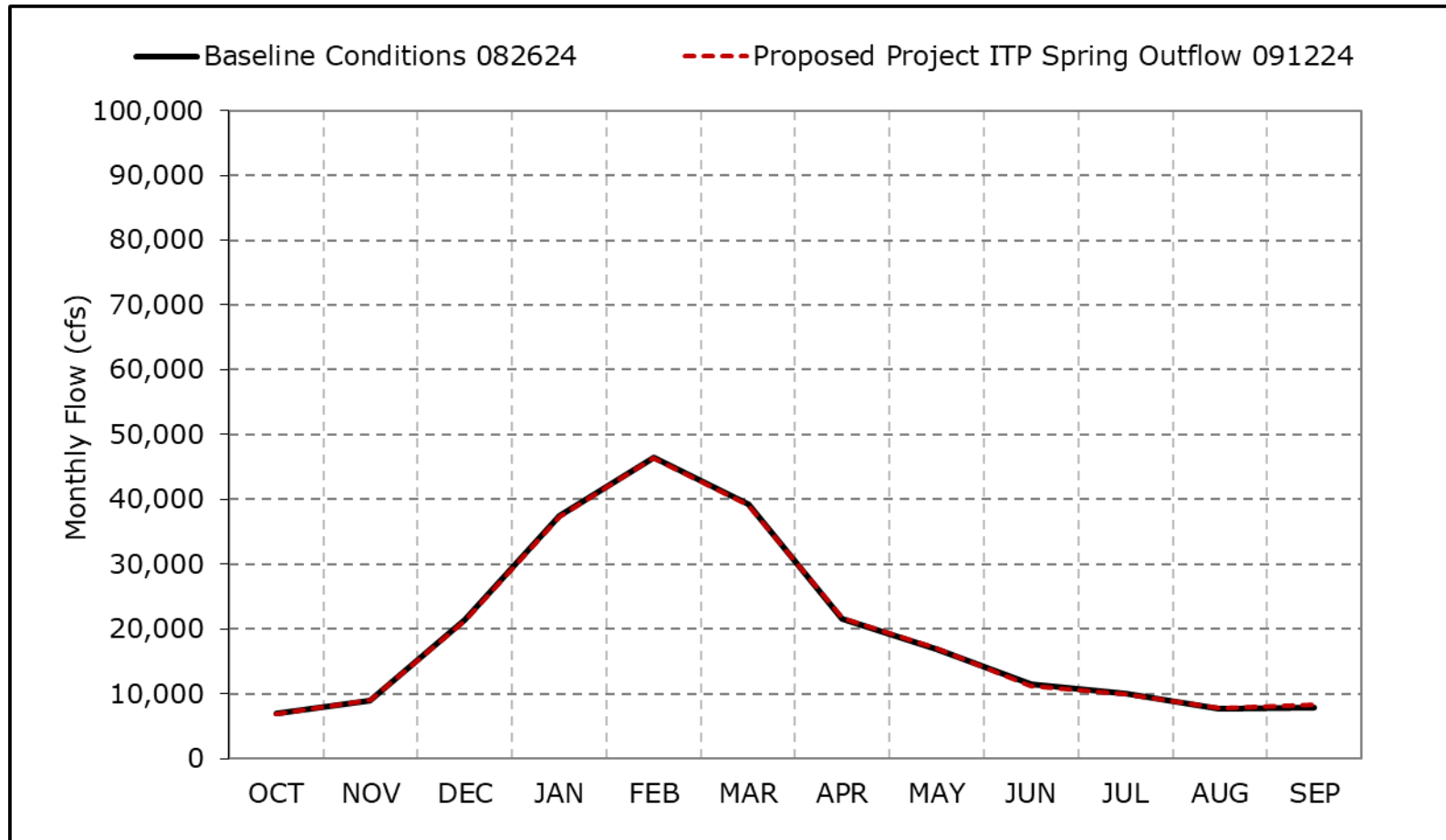
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-4a. Sacramento River Flow at Rio Vista, Long-Term Average Flow**

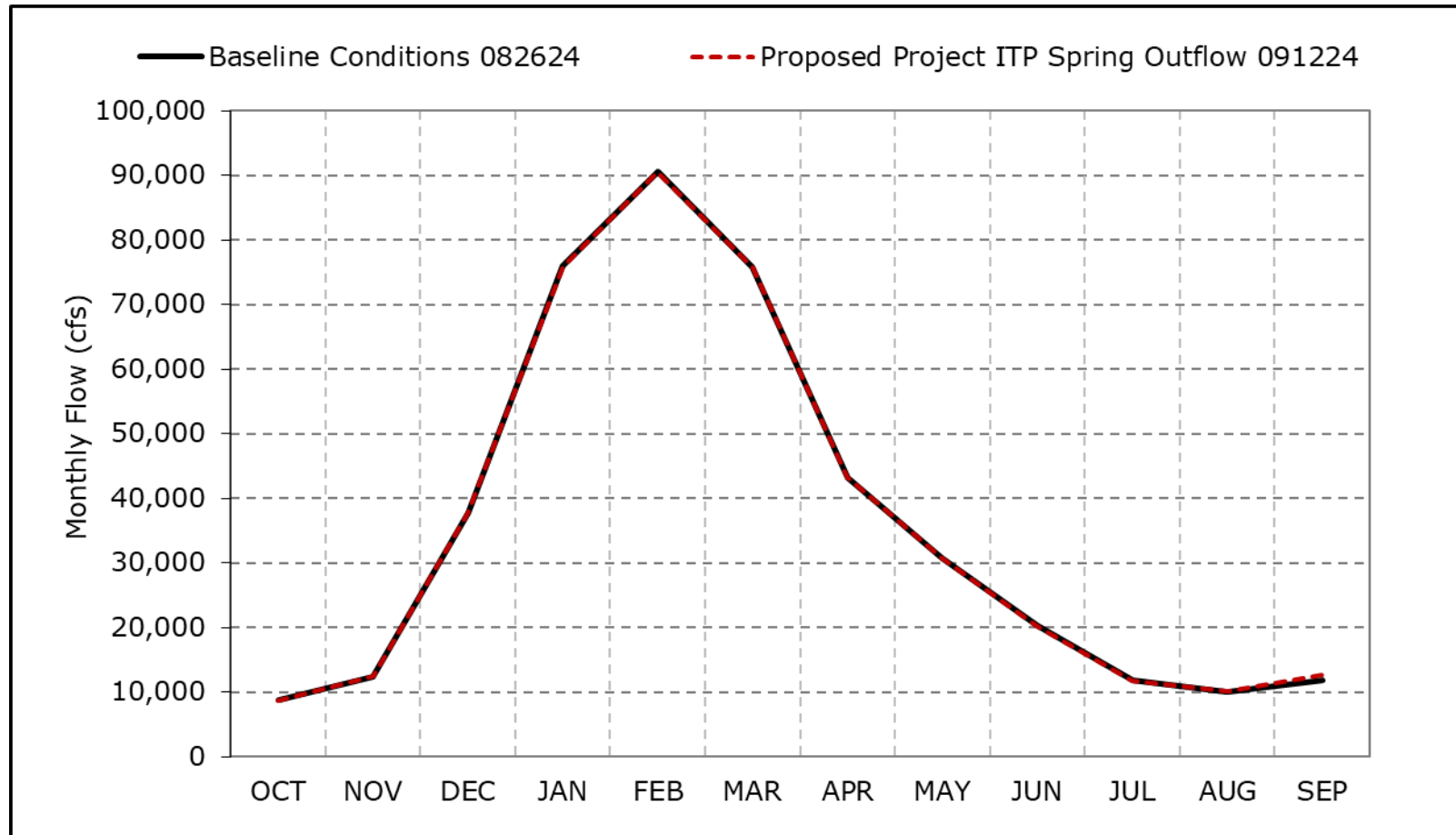


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4b. Sacramento River Flow at Rio Vista, Wet Year Average Flow**

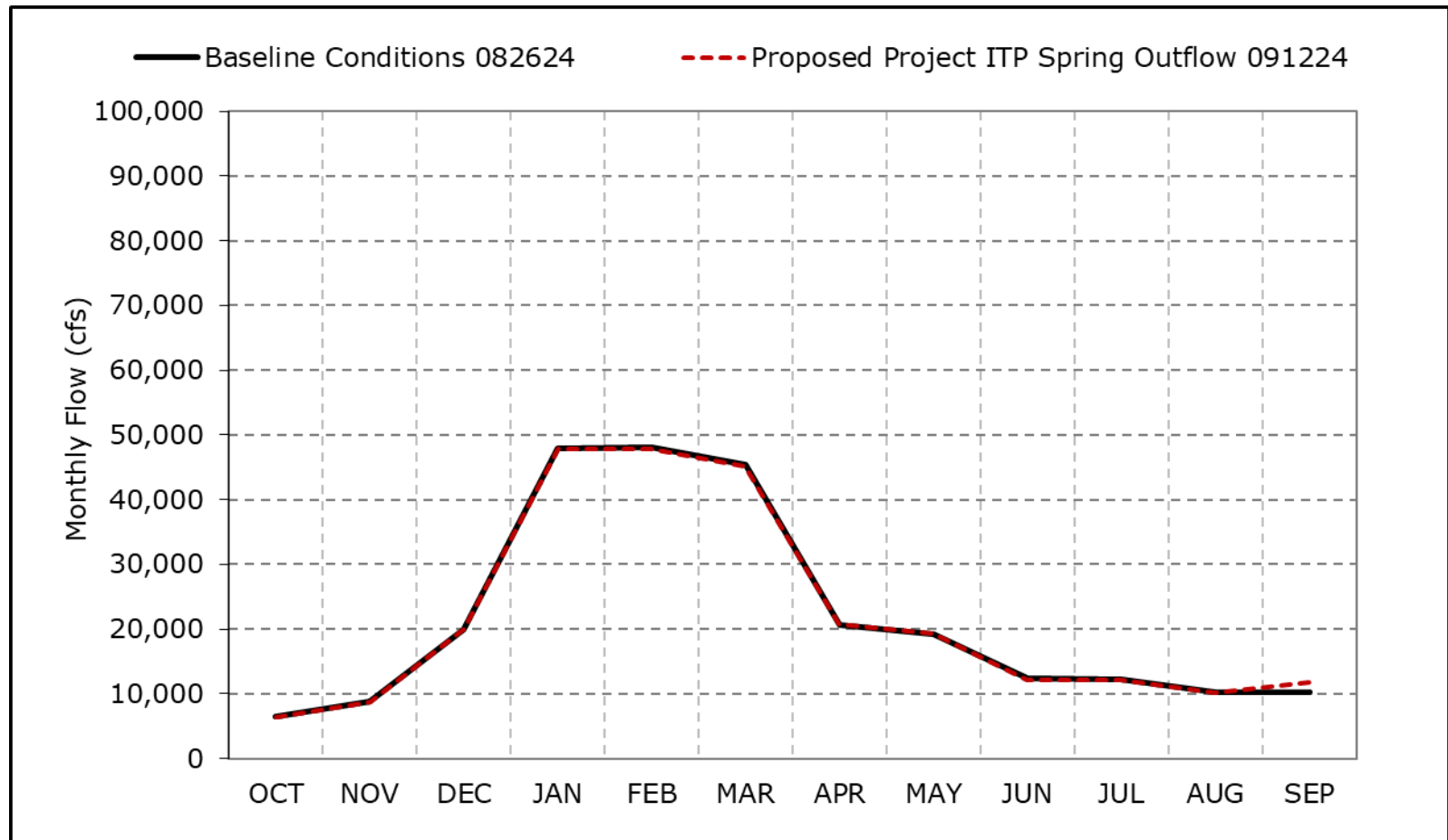


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4c. Sacramento River Flow at Rio Vista, Above Normal Year Average Flow**

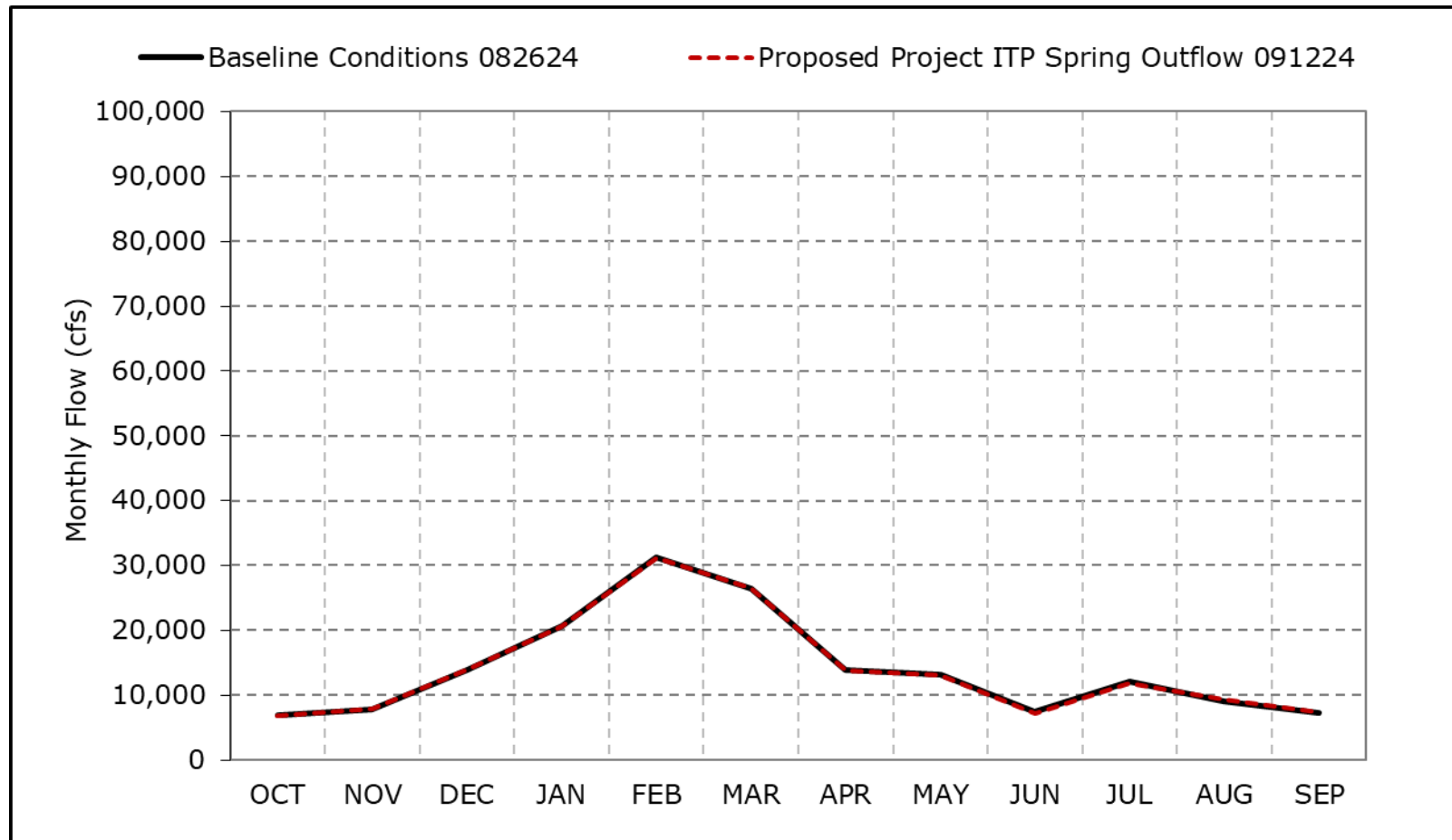


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4d. Sacramento River Flow at Rio Vista, Below Normal Year Average Flow**



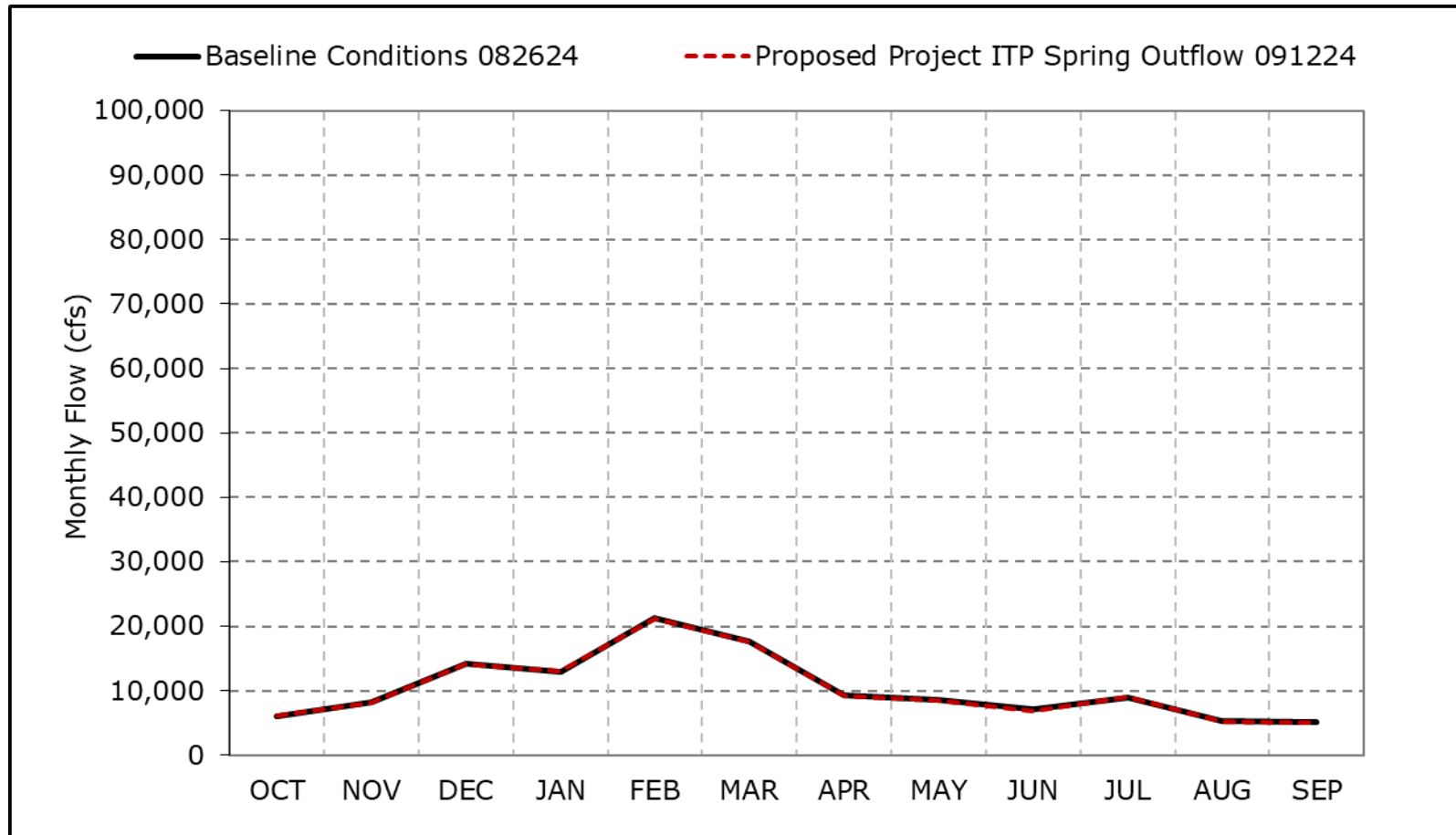
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-4e. Sacramento River Flow at Rio Vista, Dry Year Average Flow**

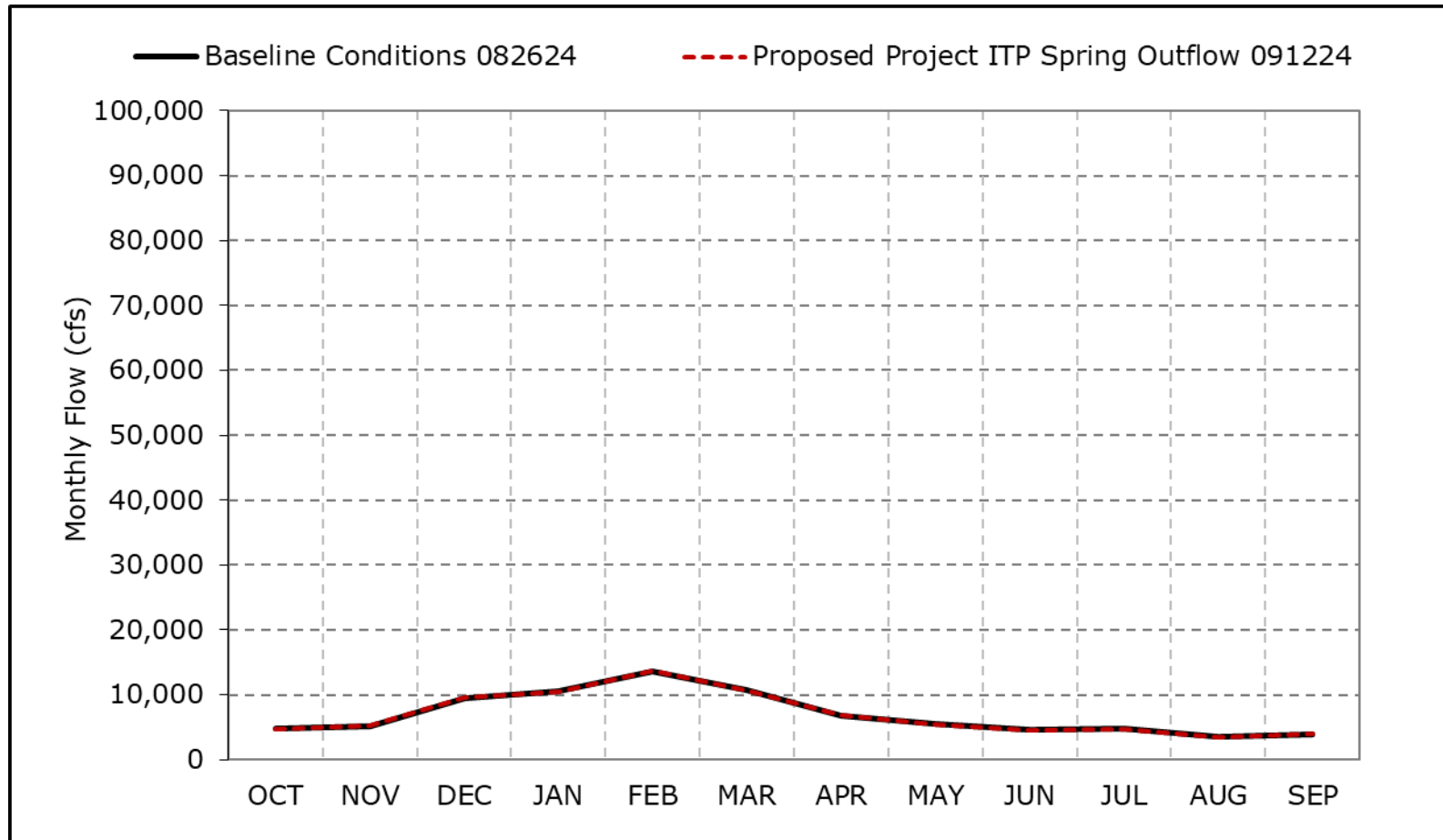


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4f. Sacramento River Flow at Rio Vista, Critical Year Average Flow**

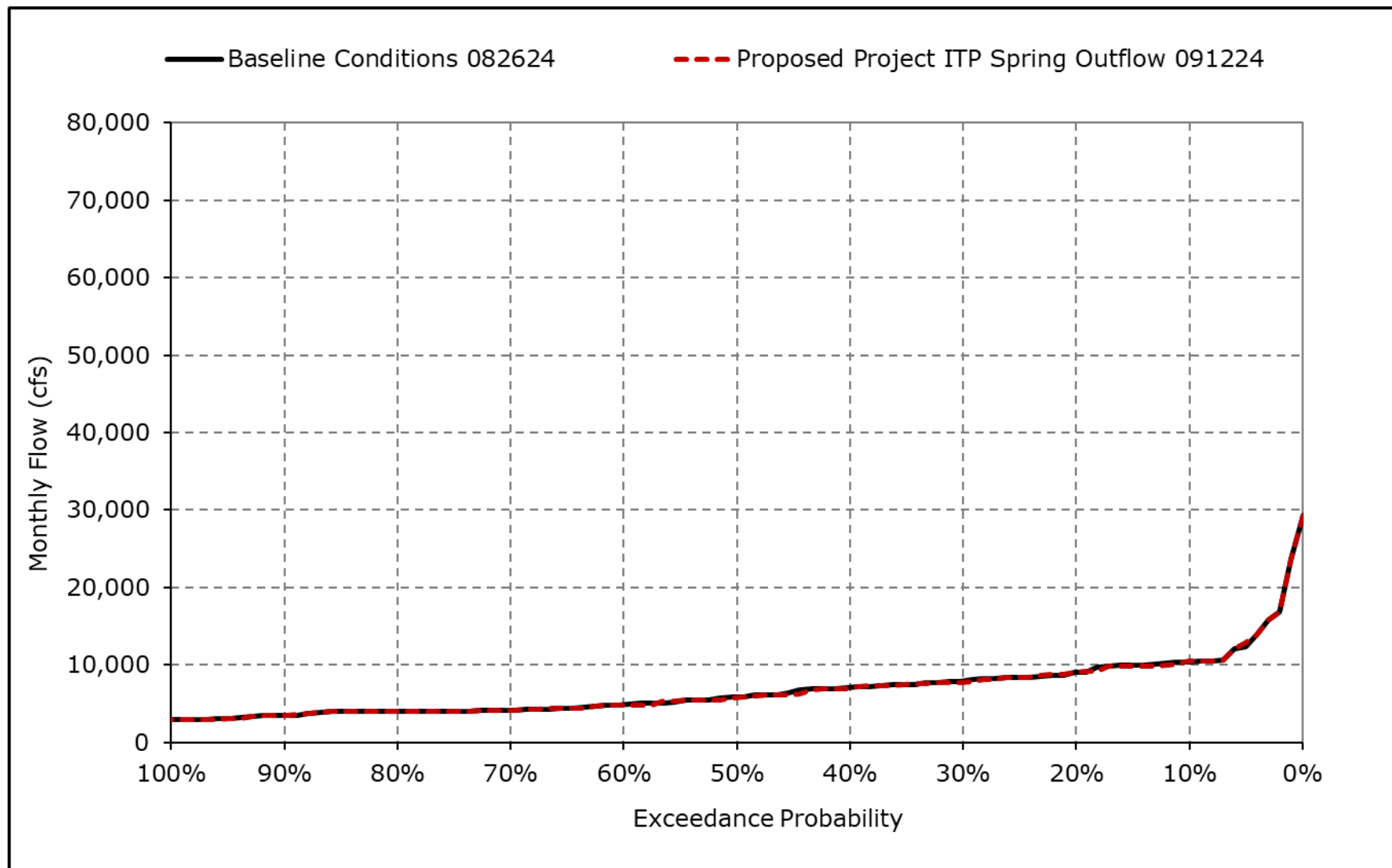


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

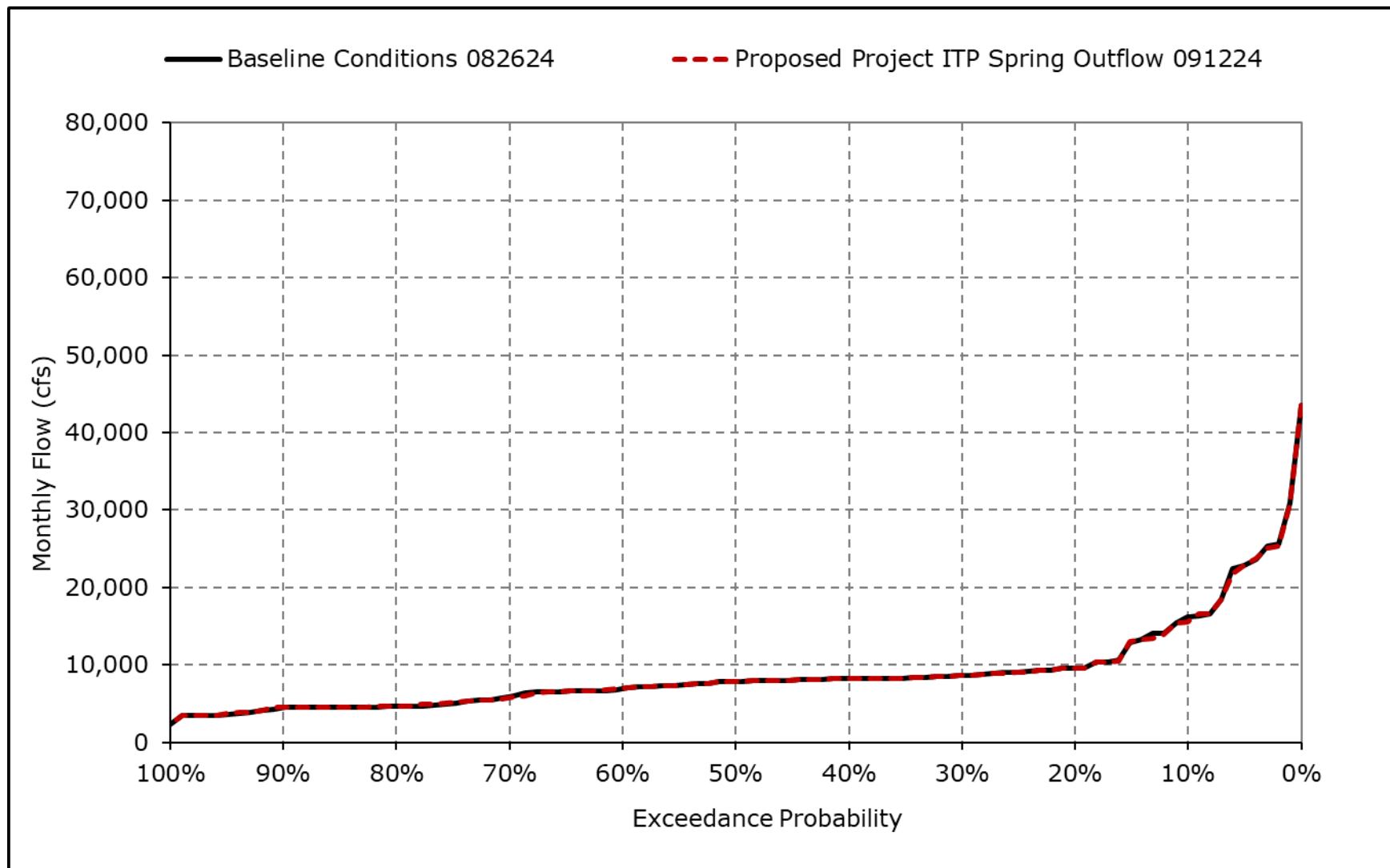
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4g. Sacramento River Flow at Rio Vista, October**



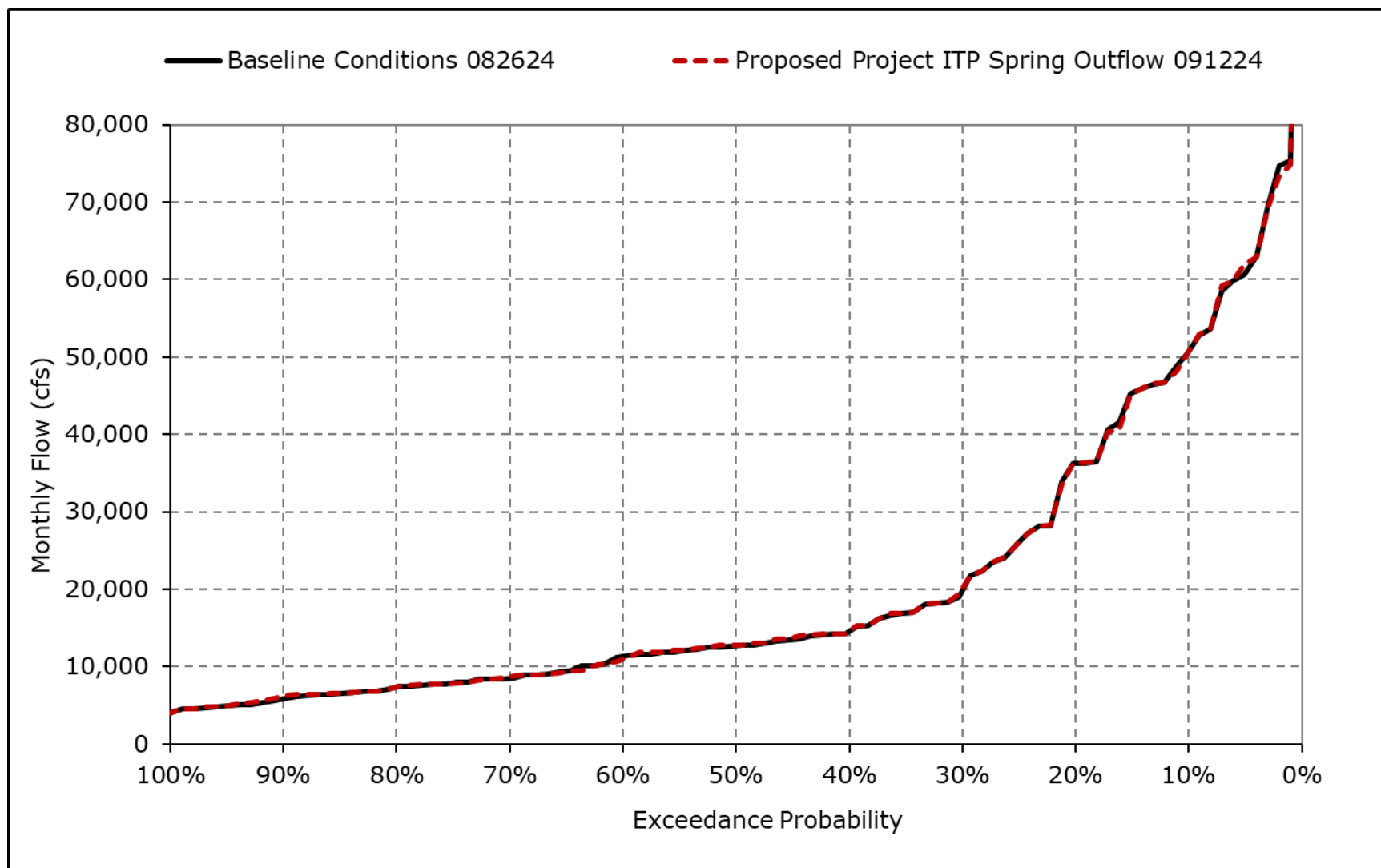
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4h. Sacramento River Flow at Rio Vista, November**



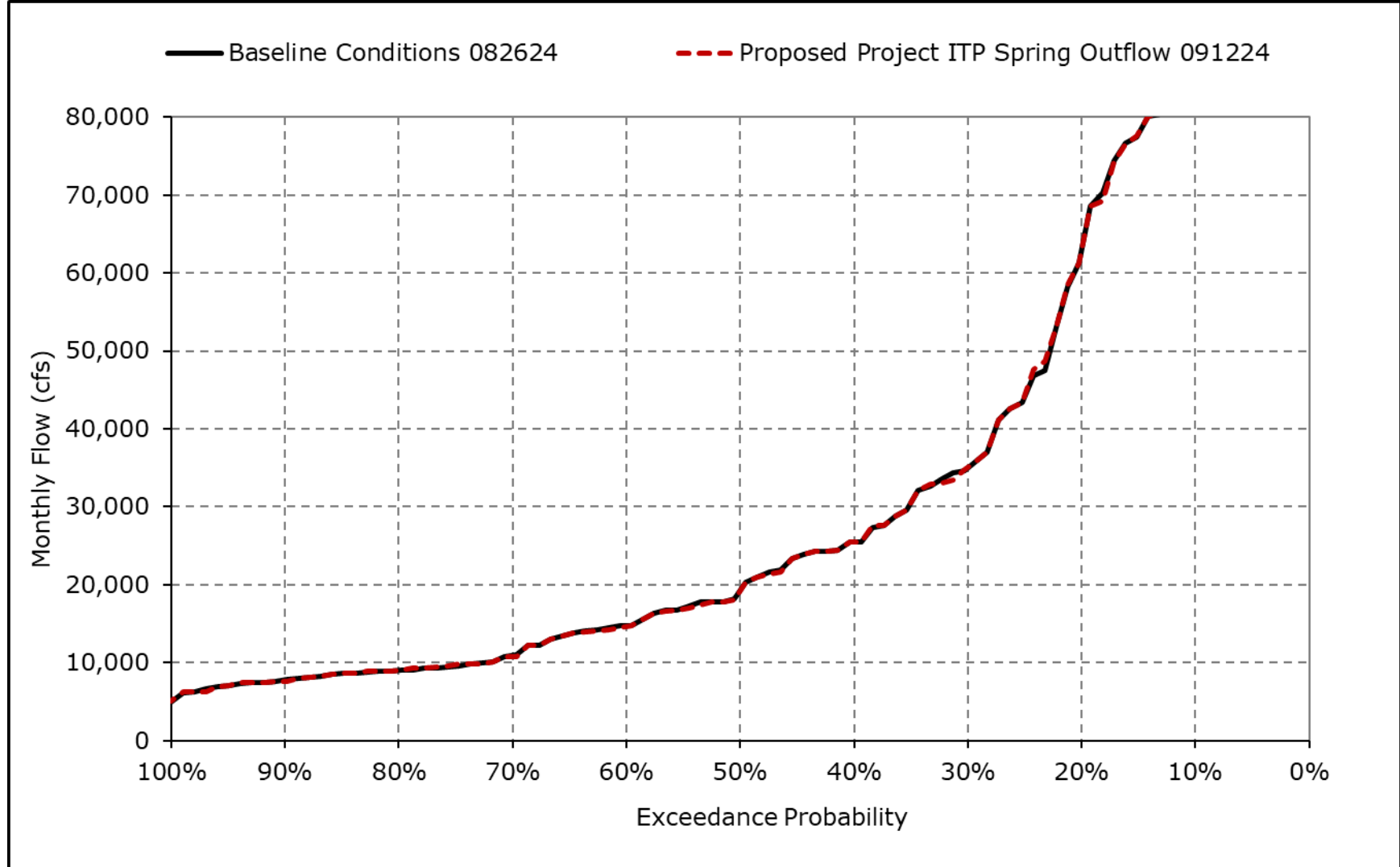
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4i. Sacramento River Flow at Rio Vista, December**



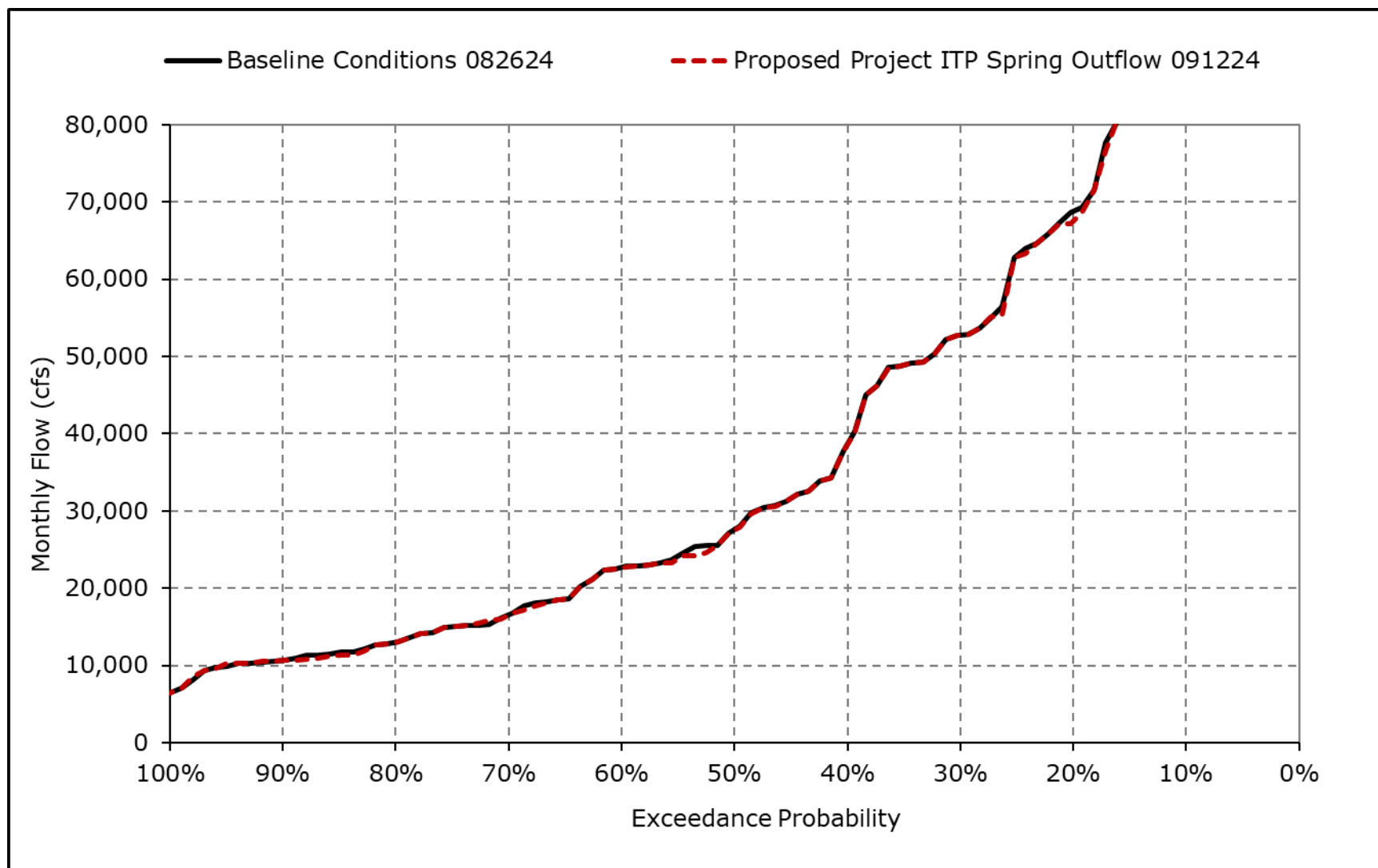
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4j. Sacramento River Flow at Rio Vista, January**



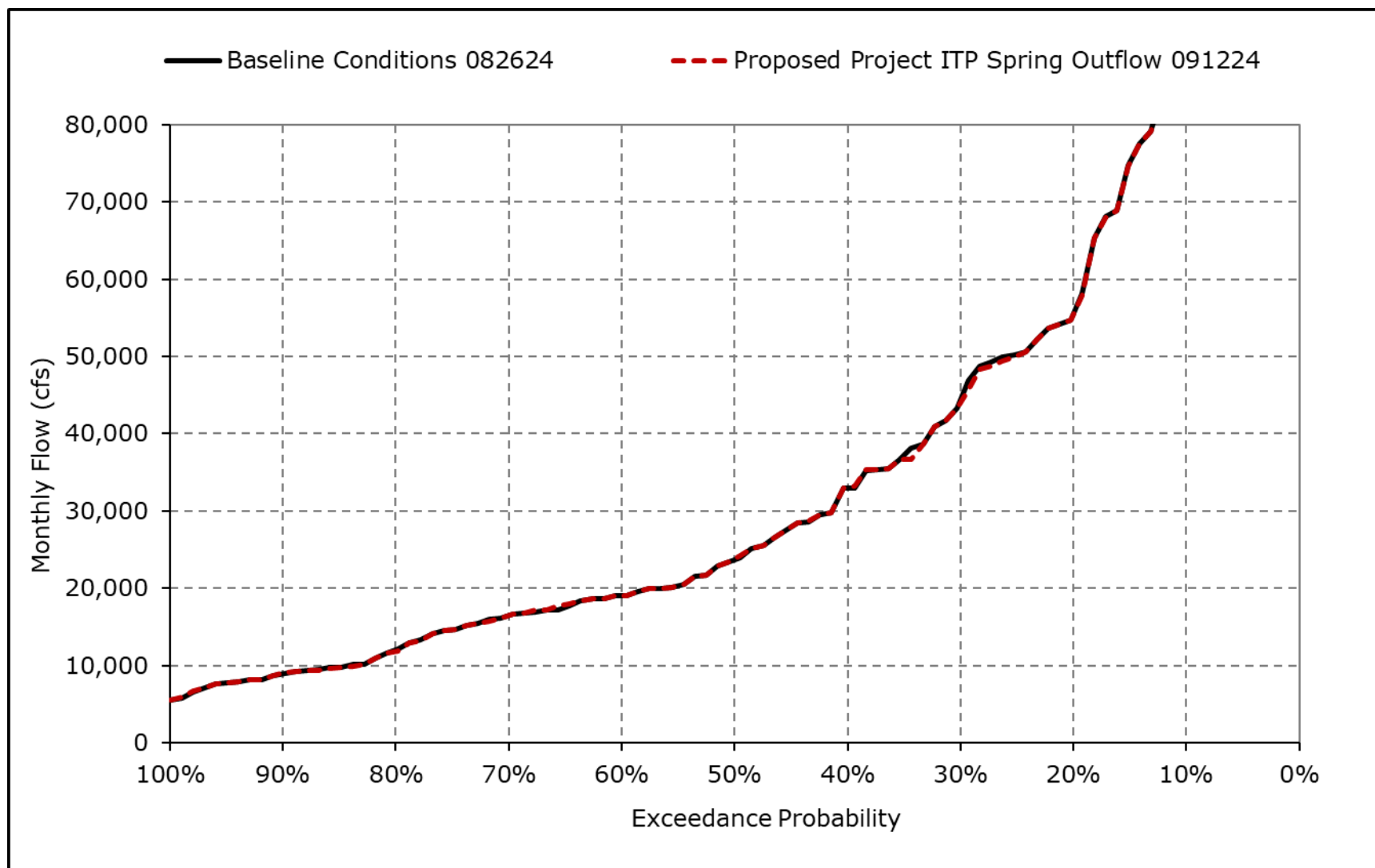
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4k. Sacramento River Flow at Rio Vista, February**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

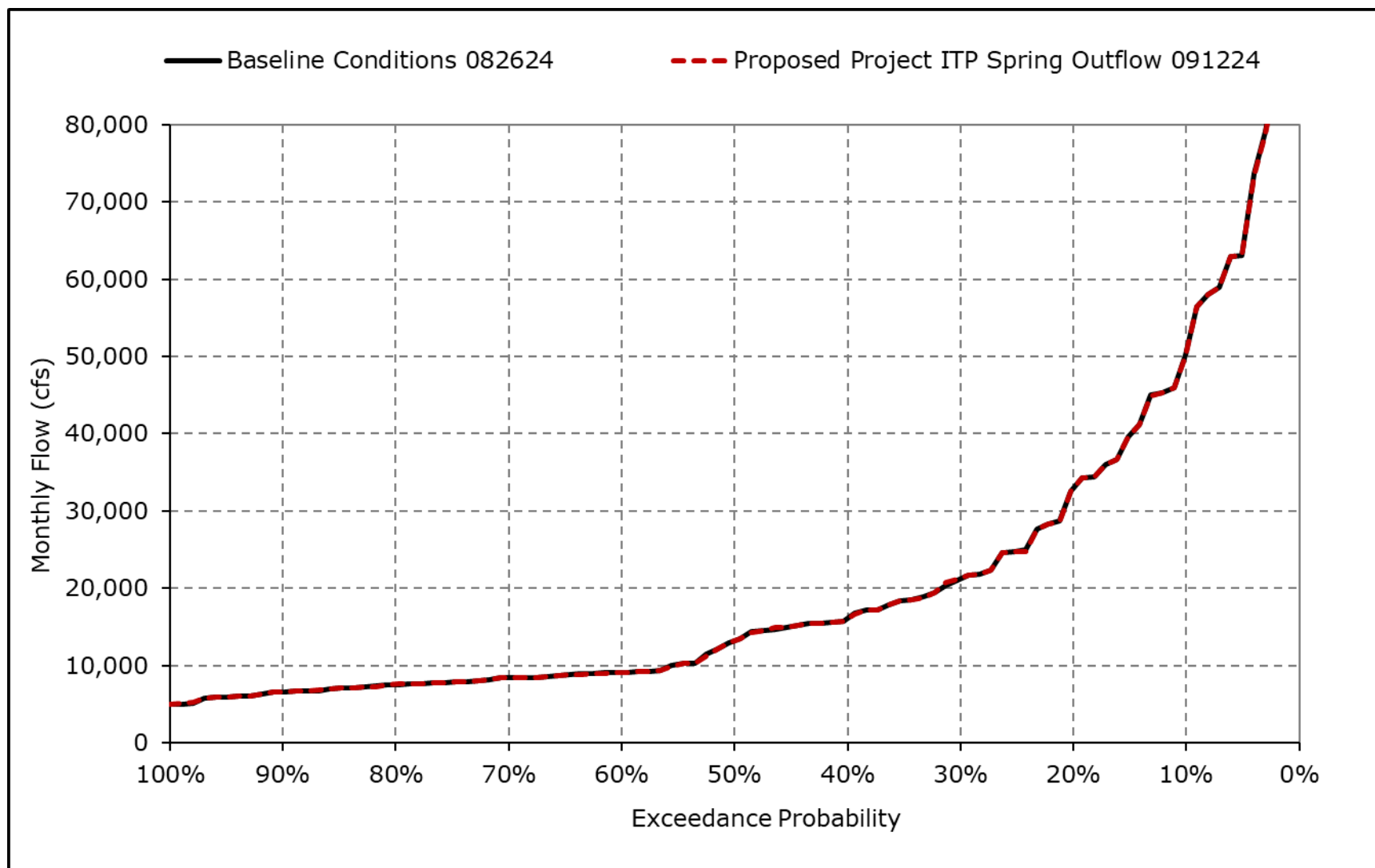
**Figure 4L-3-4I. Sacramento River Flow at Rio Vista, March**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

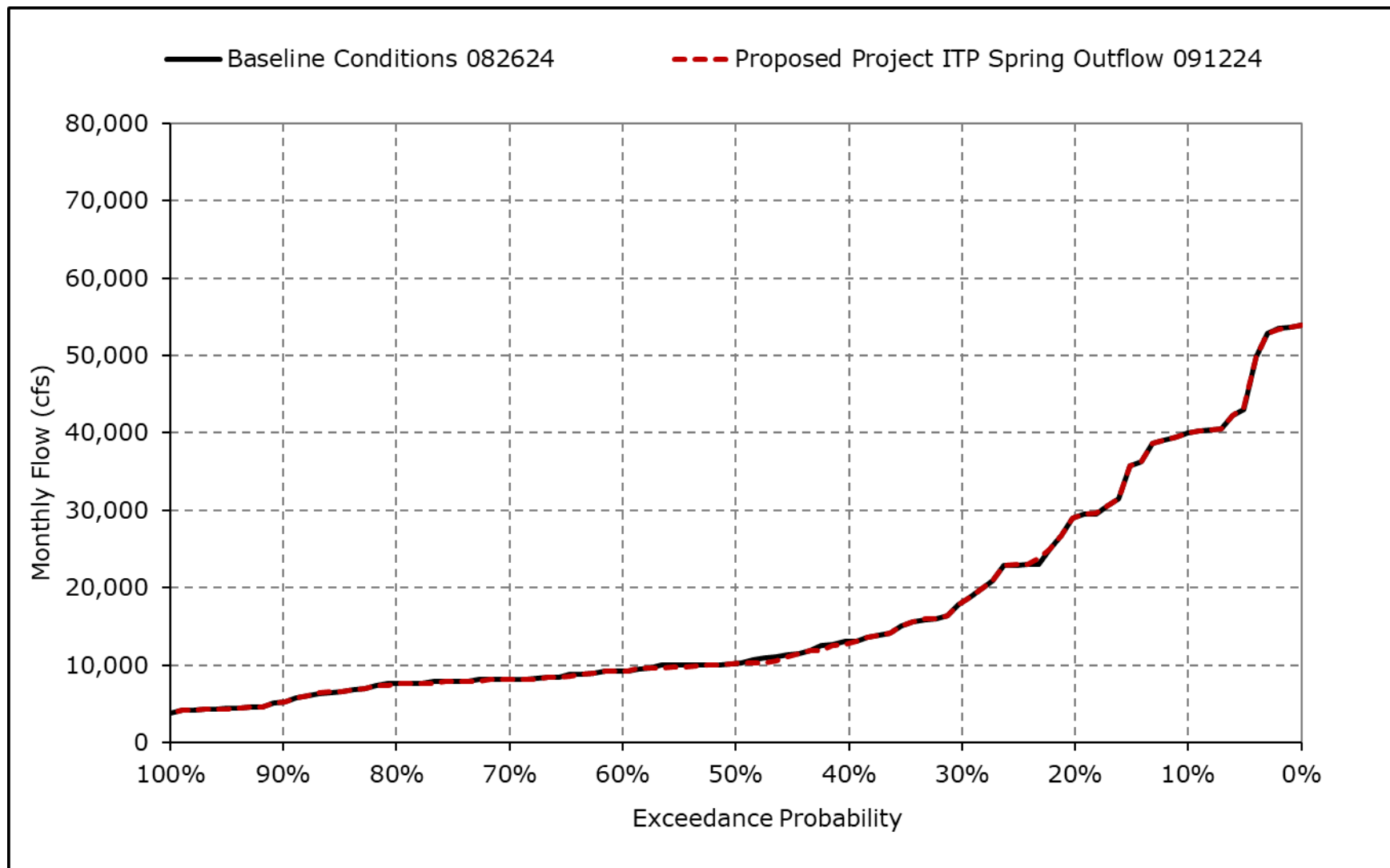


**Figure 4L-3-4m. Sacramento River Flow at Rio Vista, April**



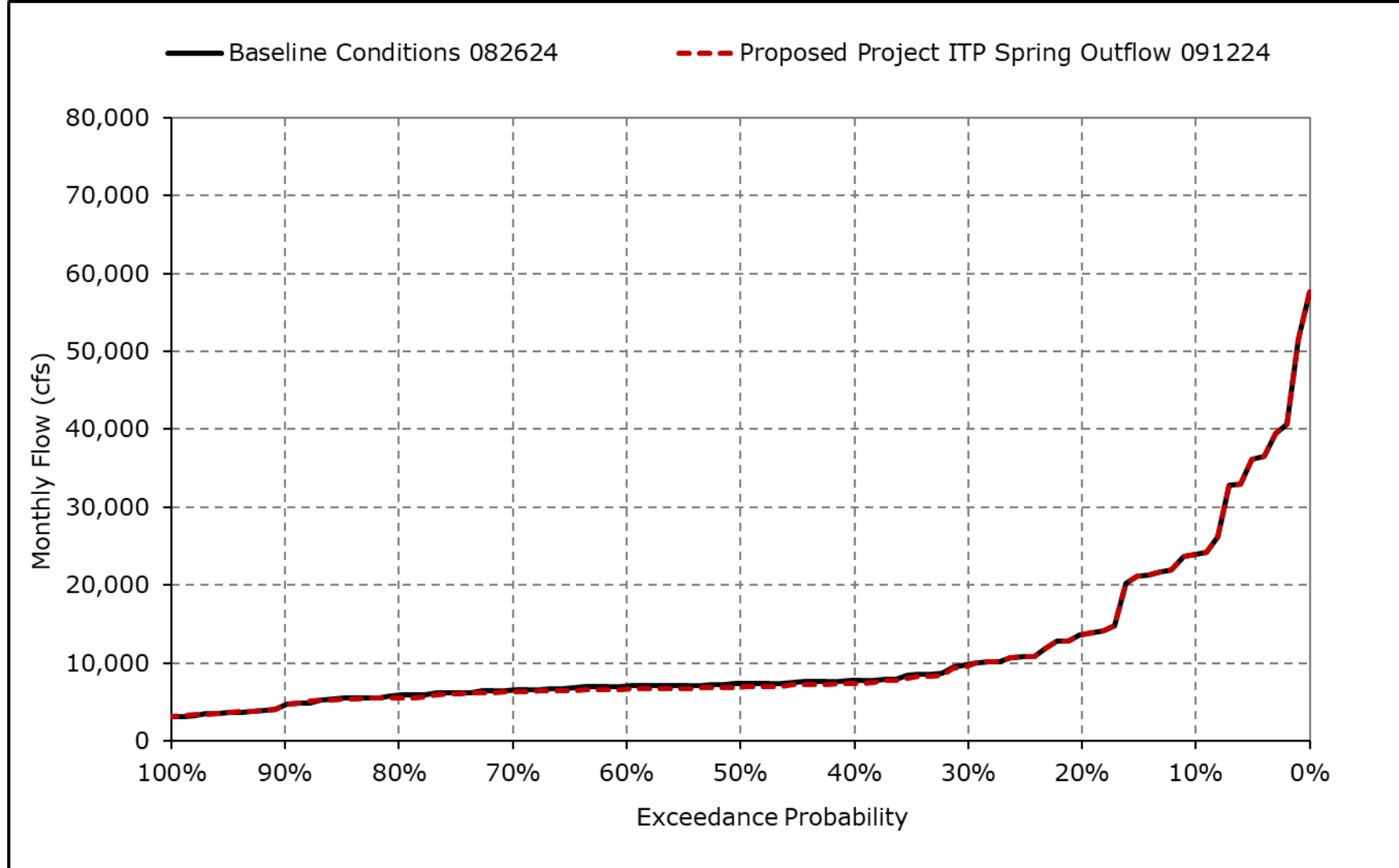
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4n. Sacramento River Flow at Rio Vista, May**



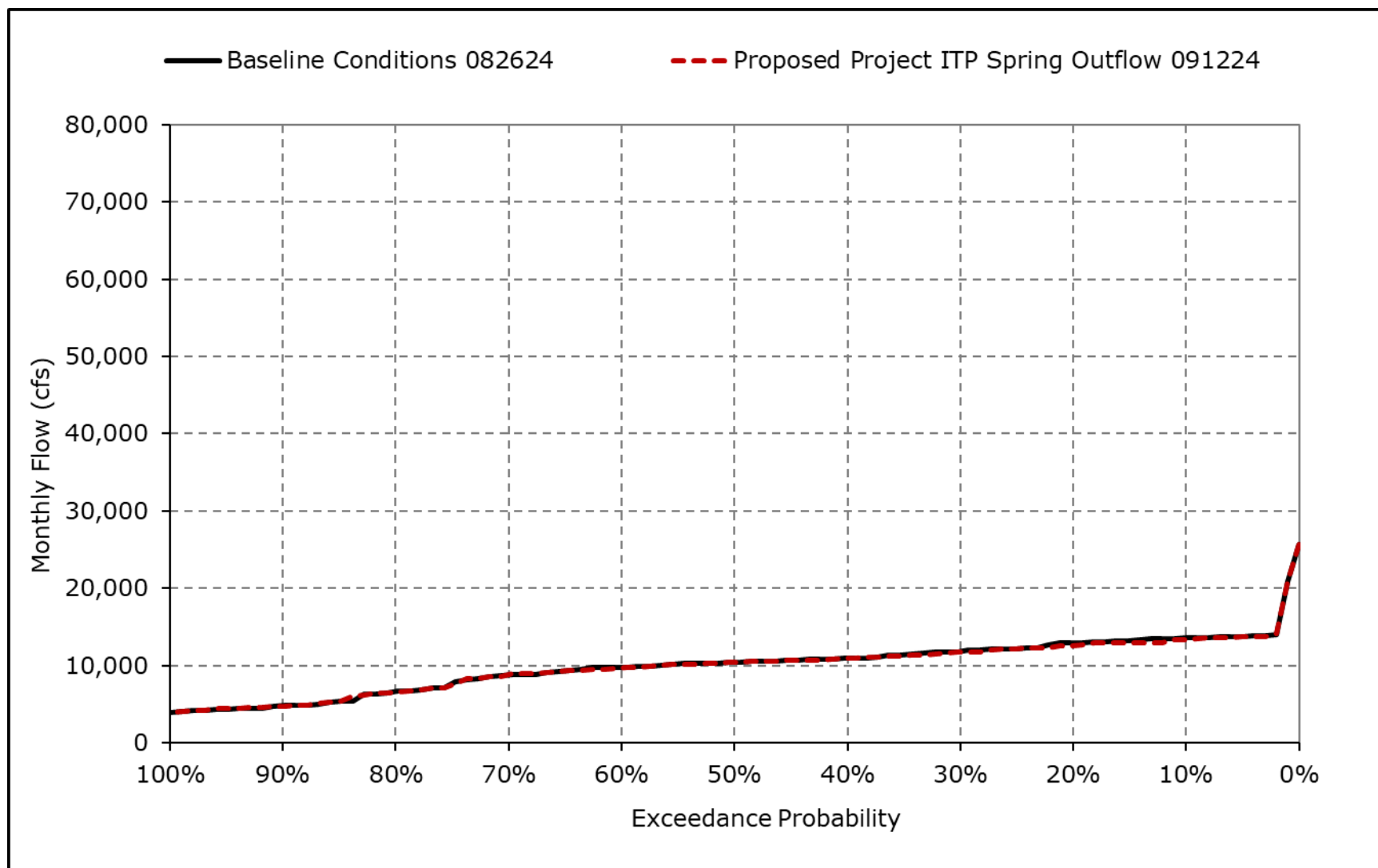
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4o. Sacramento River Flow at Rio Vista, June**



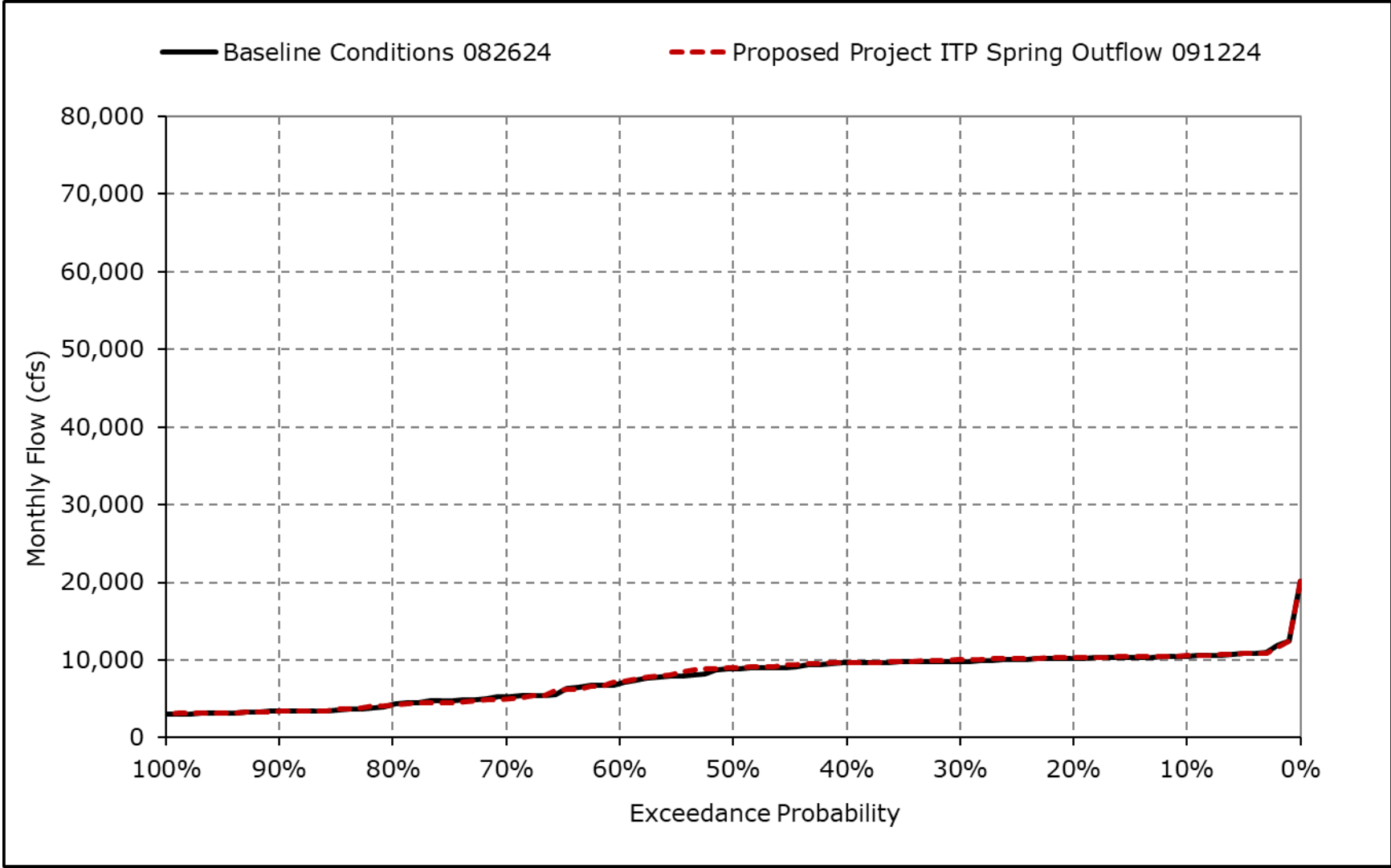
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4p. Sacramento River Flow at Rio Vista, July**



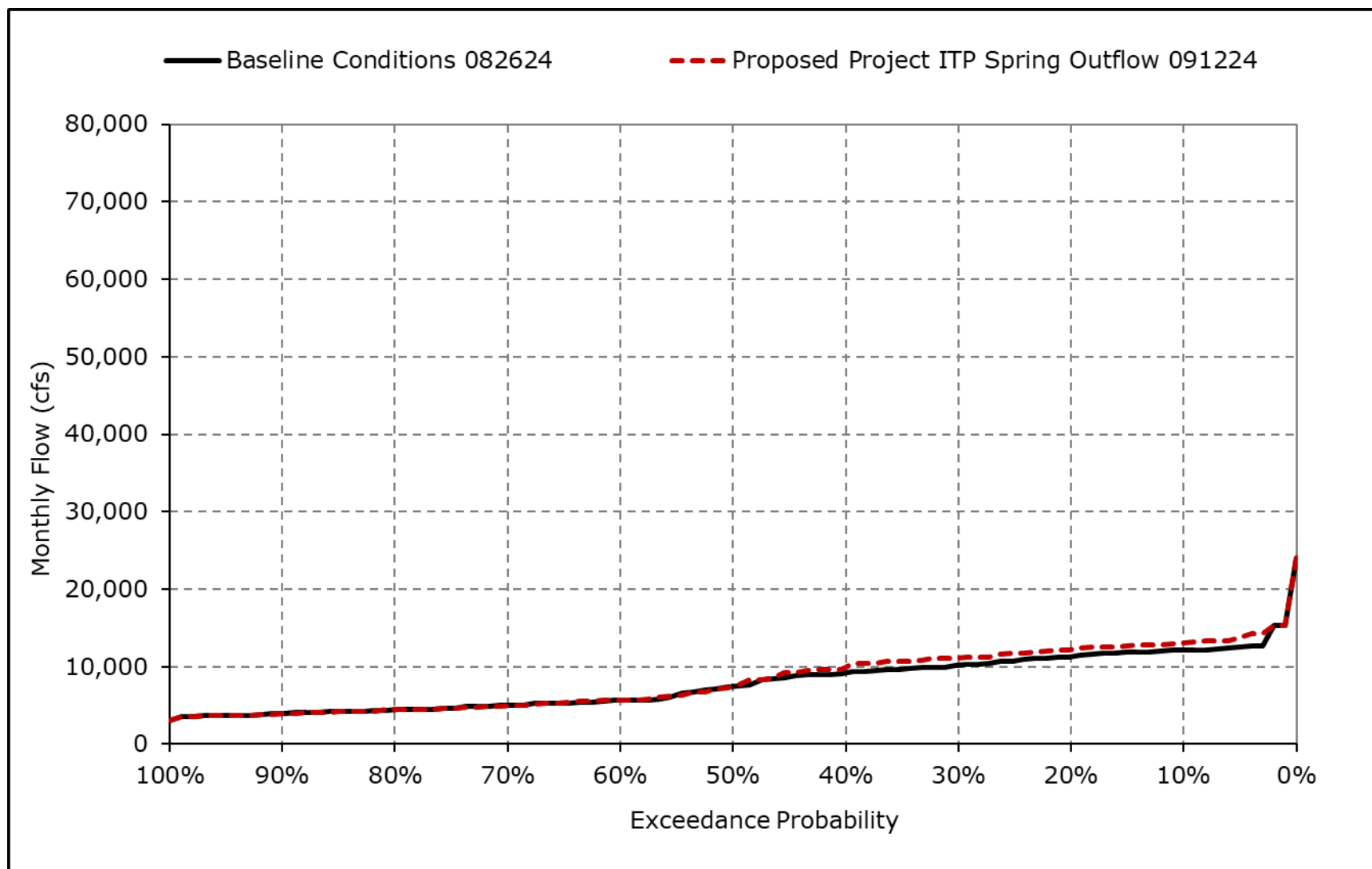
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4q. Sacramento River Flow at Rio Vista, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-4r. Sacramento River Flow at Rio Vista, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-5-1a. San Joaquin River at Vernalis, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan   | Feb    | Mar    | Apr    | May    | Jun    | Jul   | Aug   | Sep   |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|
| 10% Exceedance                              | 3,975 | 2,642 | 3,876 | 9,369 | 11,402 | 13,581 | 14,413 | 12,125 | 13,329 | 6,337 | 4,759 | 3,781 |
| 20% Exceedance                              | 3,678 | 2,321 | 2,521 | 4,272 | 7,952  | 8,982  | 10,005 | 7,943  | 6,530  | 3,765 | 2,198 | 2,041 |
| 30% Exceedance                              | 3,191 | 2,055 | 2,062 | 3,284 | 5,398  | 7,366  | 8,101  | 6,118  | 3,235  | 1,940 | 1,332 | 1,439 |
| 40% Exceedance                              | 2,278 | 1,883 | 1,772 | 2,333 | 3,585  | 4,248  | 6,279  | 5,019  | 2,493  | 1,483 | 1,072 | 1,267 |
| 50% Exceedance                              | 1,843 | 1,714 | 1,571 | 1,963 | 2,681  | 2,533  | 3,922  | 3,742  | 1,747  | 1,152 | 759   | 1,044 |
| 60% Exceedance                              | 1,747 | 1,432 | 1,399 | 1,591 | 2,179  | 2,285  | 3,172  | 3,122  | 1,490  | 937   | 689   | 966   |
| 70% Exceedance                              | 1,684 | 1,371 | 1,298 | 1,476 | 1,832  | 1,887  | 2,754  | 2,762  | 1,249  | 807   | 617   | 909   |
| 80% Exceedance                              | 1,592 | 1,332 | 1,158 | 1,338 | 1,605  | 1,713  | 2,438  | 2,415  | 1,141  | 618   | 506   | 827   |
| 90% Exceedance                              | 1,466 | 1,239 | 1,077 | 1,202 | 1,458  | 1,613  | 2,146  | 2,070  | 929    | 487   | 355   | 657   |
| Full Simulation Period Average <sup>a</sup> | 2,537 | 1,919 | 2,287 | 4,074 | 5,550  | 5,941  | 6,711  | 5,825  | 4,240  | 2,498 | 1,578 | 1,548 |
| Wet Water Years (32%)                       | 2,934 | 2,362 | 3,715 | 8,706 | 11,277 | 12,158 | 12,523 | 10,643 | 9,314  | 5,542 | 3,374 | 2,710 |
| Above Normal Water Years (9%)               | 2,280 | 1,829 | 1,932 | 2,763 | 4,920  | 5,448  | 6,611  | 5,518  | 3,535  | 1,941 | 1,220 | 1,438 |
| Below Normal Water Years (20%)              | 2,764 | 1,974 | 1,783 | 2,217 | 3,929  | 4,287  | 5,523  | 4,782  | 2,485  | 1,435 | 936   | 1,158 |
| Dry Water Years (21%)                       | 2,358 | 1,650 | 1,552 | 1,581 | 1,871  | 1,905  | 2,766  | 2,723  | 1,284  | 818   | 622   | 922   |
| Critical Water Years (18%)                  | 1,916 | 1,430 | 1,341 | 1,468 | 1,779  | 1,682  | 2,353  | 2,189  | 973    | 506   | 394   | 702   |

**Table 4L-3-5-1b. San Joaquin River at Vernalis, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan   | Feb    | Mar    | Apr    | May    | Jun    | Jul   | Aug   | Sep   |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|
| 10% Exceedance                              | 3,970 | 2,639 | 3,873 | 9,358 | 11,399 | 13,577 | 14,414 | 12,118 | 13,321 | 6,335 | 4,759 | 3,778 |
| 20% Exceedance                              | 3,675 | 2,319 | 2,518 | 4,286 | 7,950  | 8,982  | 10,002 | 7,940  | 6,529  | 3,762 | 2,196 | 2,039 |
| 30% Exceedance                              | 3,191 | 2,053 | 2,060 | 3,282 | 5,394  | 7,364  | 8,098  | 6,112  | 3,232  | 1,940 | 1,328 | 1,434 |
| 40% Exceedance                              | 2,276 | 1,882 | 1,770 | 2,330 | 3,583  | 4,244  | 6,277  | 5,015  | 2,491  | 1,480 | 1,068 | 1,262 |
| 50% Exceedance                              | 1,840 | 1,711 | 1,567 | 1,963 | 2,678  | 2,529  | 3,920  | 3,736  | 1,741  | 1,142 | 755   | 1,048 |
| 60% Exceedance                              | 1,737 | 1,429 | 1,395 | 1,589 | 2,177  | 2,282  | 3,169  | 3,113  | 1,482  | 931   | 682   | 962   |
| 70% Exceedance                              | 1,679 | 1,379 | 1,293 | 1,474 | 1,831  | 1,883  | 2,751  | 2,758  | 1,243  | 807   | 602   | 903   |
| 80% Exceedance                              | 1,576 | 1,330 | 1,154 | 1,335 | 1,602  | 1,707  | 2,435  | 2,405  | 1,140  | 606   | 487   | 823   |
| 90% Exceedance                              | 1,463 | 1,232 | 1,080 | 1,201 | 1,459  | 1,611  | 2,144  | 2,067  | 916    | 490   | 366   | 677   |
| Full Simulation Period Average <sup>a</sup> | 2,536 | 1,918 | 2,284 | 4,070 | 5,547  | 5,937  | 6,708  | 5,821  | 4,236  | 2,493 | 1,574 | 1,547 |
| Wet Water Years (32%)                       | 2,929 | 2,357 | 3,711 | 8,696 | 11,272 | 12,152 | 12,519 | 10,639 | 9,310  | 5,538 | 3,371 | 2,708 |
| Above Normal Water Years (9%)               | 2,289 | 1,843 | 1,938 | 2,763 | 4,918  | 5,443  | 6,608  | 5,513  | 3,531  | 1,937 | 1,214 | 1,433 |
| Below Normal Water Years (20%)              | 2,771 | 1,976 | 1,781 | 2,215 | 3,927  | 4,284  | 5,519  | 4,777  | 2,480  | 1,429 | 930   | 1,153 |
| Dry Water Years (21%)                       | 2,355 | 1,648 | 1,550 | 1,579 | 1,868  | 1,902  | 2,762  | 2,718  | 1,279  | 812   | 616   | 925   |
| Critical Water Years (18%)                  | 1,908 | 1,426 | 1,338 | 1,466 | 1,776  | 1,680  | 2,351  | 2,188  | 969    | 501   | 394   | 706   |

**Table 4L-3-5-1c. San Joaquin River at Vernalis, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10% Exceedance                              | -5  | -3  | -3  | -12 | -2  | -3  | 1   | -7  | -8  | -3  | -1  | -2  |
| 20% Exceedance                              | -3  | -2  | -3  | 14  | -2  | 0   | -3  | -4  | -2  | -3  | -2  | -2  |
| 30% Exceedance                              | 0   | -2  | -2  | -2  | -4  | -2  | -3  | -6  | -2  | 0   | -4  | -5  |
| 40% Exceedance                              | -2  | -2  | -2  | -3  | -2  | -4  | -3  | -3  | -2  | -3  | -4  | -5  |
| 50% Exceedance                              | -3  | -3  | -3  | 0   | -3  | -3  | -2  | -6  | -5  | -9  | -4  | 5   |
| 60% Exceedance                              | -10 | -3  | -4  | -2  | -2  | -3  | -3  | -9  | -8  | -6  | -7  | -4  |
| 70% Exceedance                              | -5  | 8   | -5  | -2  | -1  | -4  | -3  | -4  | -5  | 0   | -16 | -6  |
| 80% Exceedance                              | -16 | -1  | -4  | -4  | -3  | -6  | -3  | -9  | -1  | -12 | -19 | -5  |
| 90% Exceedance                              | -3  | -7  | 3   | -1  | 1   | -1  | -2  | -4  | -12 | 2   | 11  | 20  |
| Full Simulation Period Average <sup>a</sup> | -1  | -1  | -2  | -5  | -3  | -4  | -3  | -4  | -4  | -5  | -4  | -1  |
| Wet Water Years (32%)                       | -4  | -5  | -5  | -11 | -4  | -7  | -4  | -4  | -5  | -4  | -3  | -3  |
| Above Normal Water Years (9%)               | 10  | 13  | 6   | 1   | -3  | -5  | -4  | -5  | -4  | -4  | -6  | -5  |
| Below Normal Water Years (20%)              | 7   | 1   | -2  | -3  | -2  | -3  | -3  | -4  | -5  | -6  | -6  | -5  |
| Dry Water Years (21%)                       | -4  | -2  | -2  | -2  | -2  | -3  | -4  | -5  | -5  | -6  | -6  | 2   |
| Critical Water Years (18%)                  | -8  | -5  | -3  | -2  | -3  | -2  | -2  | -1  | -4  | -5  | 0   | 4   |

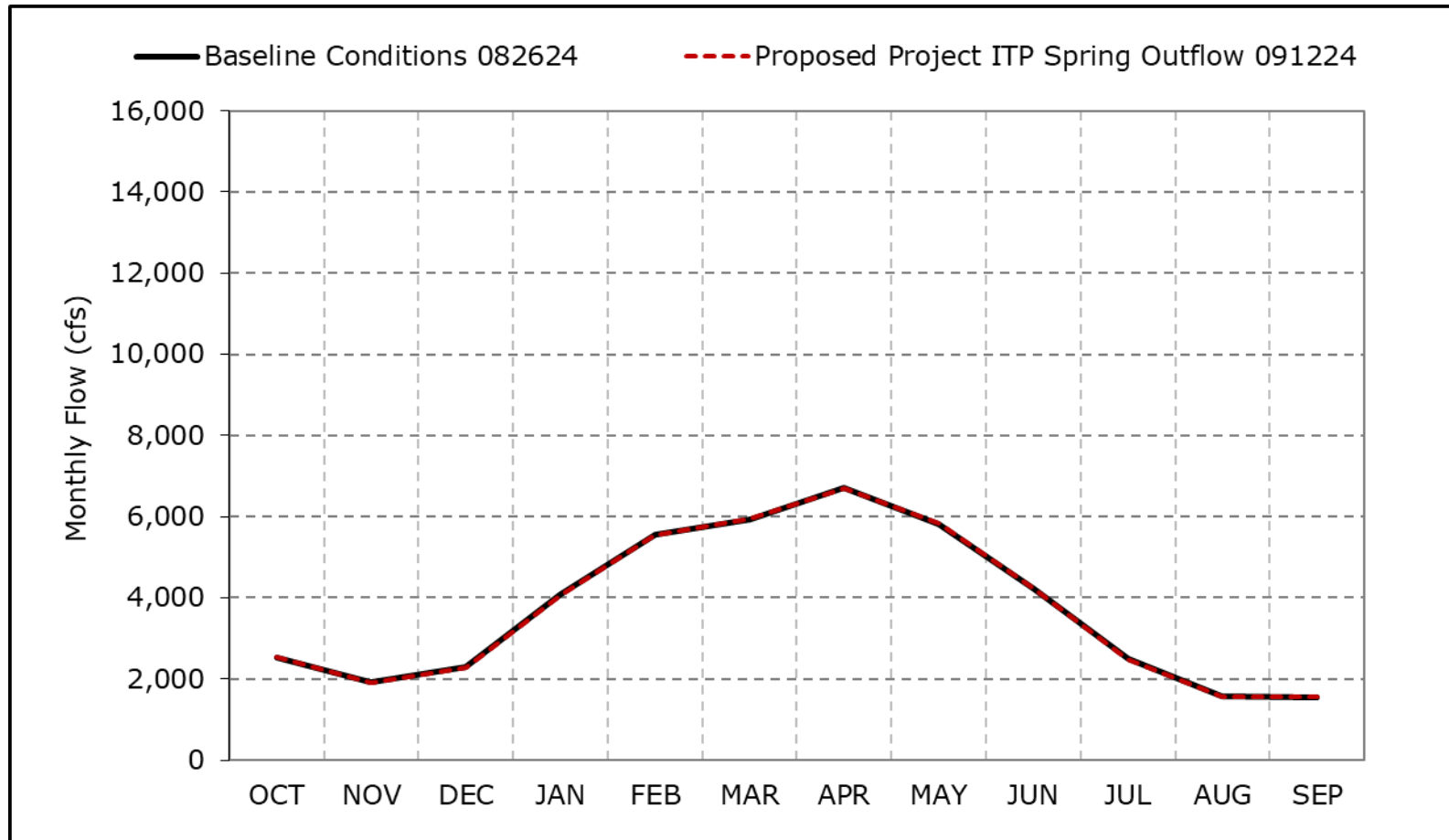
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-5a. San Joaquin River at Vernalis, Long-Term Average Flow**



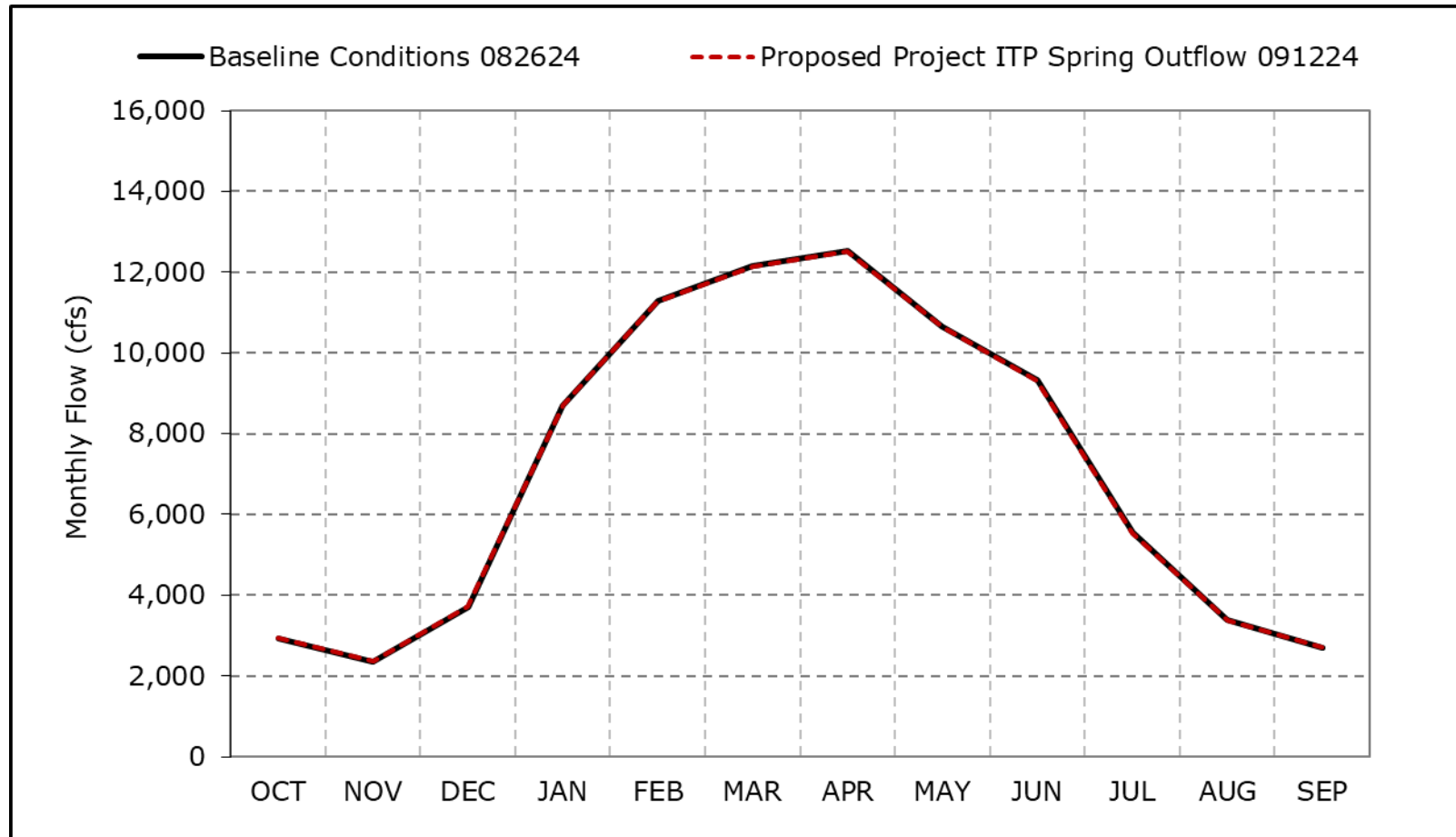
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-5b. San Joaquin River at Vernalis, Wet Year Average Flow**

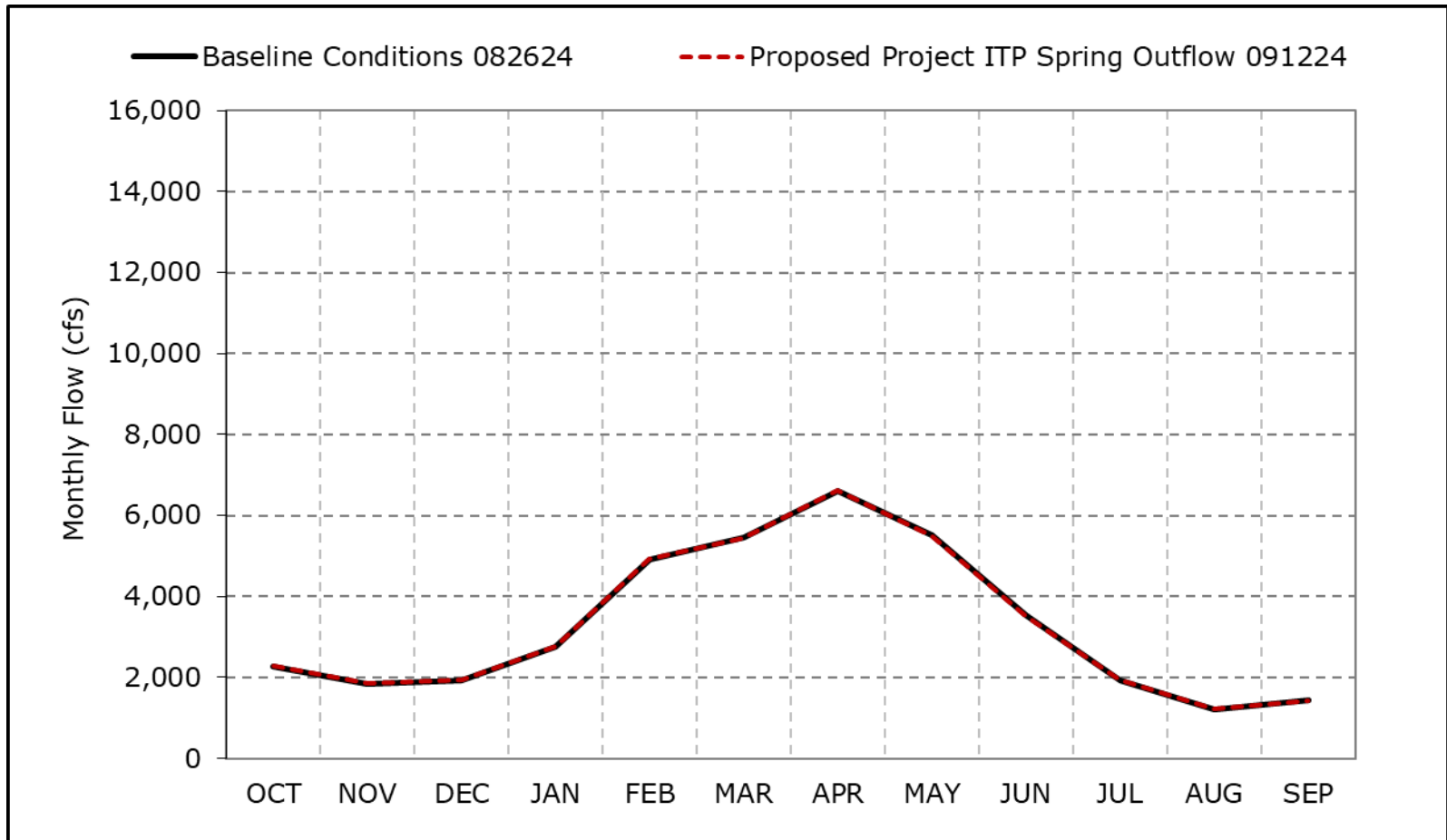


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5c. San Joaquin River at Vernalis, Above Normal Year Average Flow**

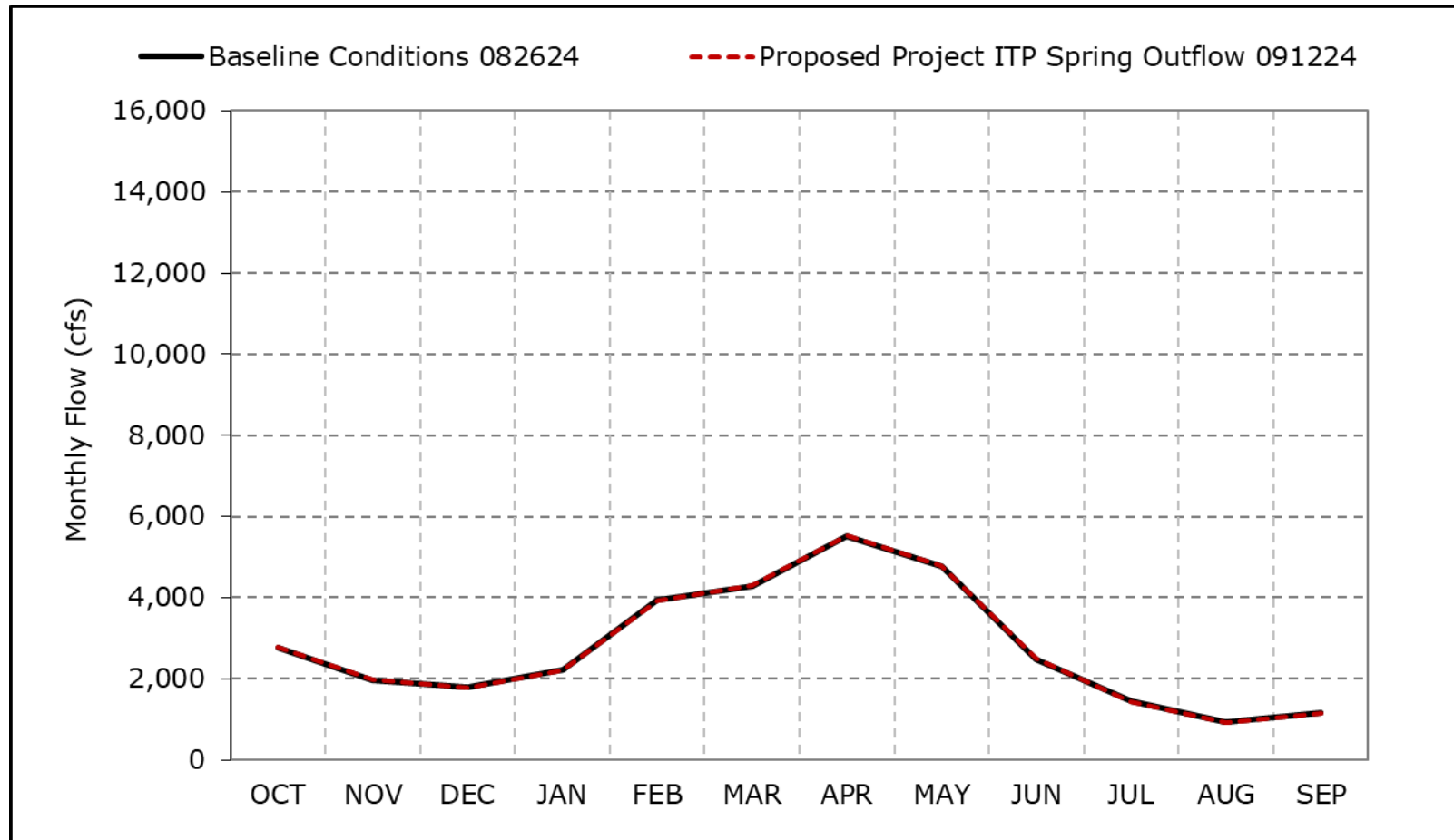


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5d. San Joaquin River at Vernalis, Below Normal Year Average Flow**

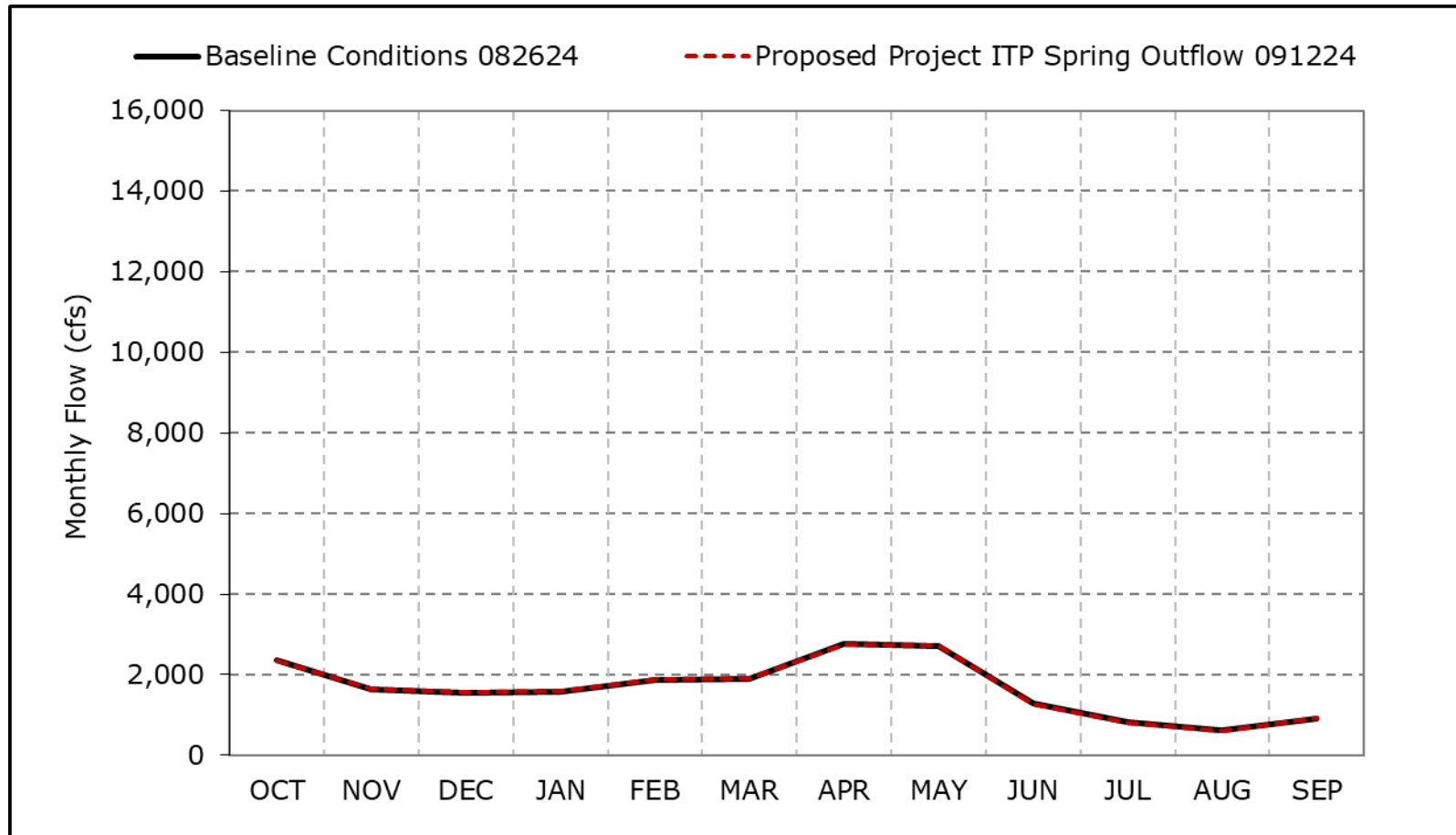


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5e. San Joaquin River at Vernalis, Dry Year Average Flow**

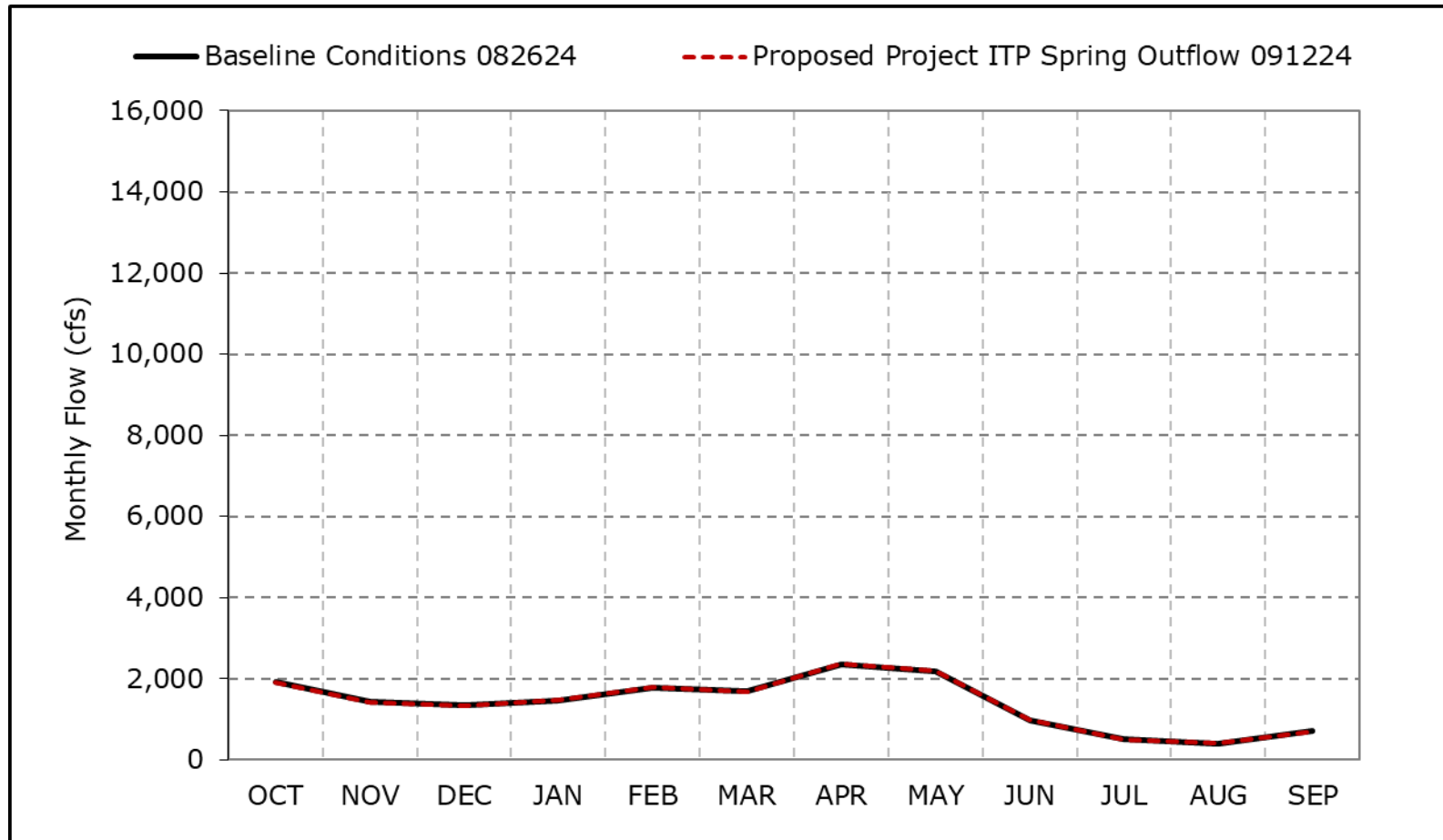


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5f. San Joaquin River at Vernalis, Critical Year Average Flow**

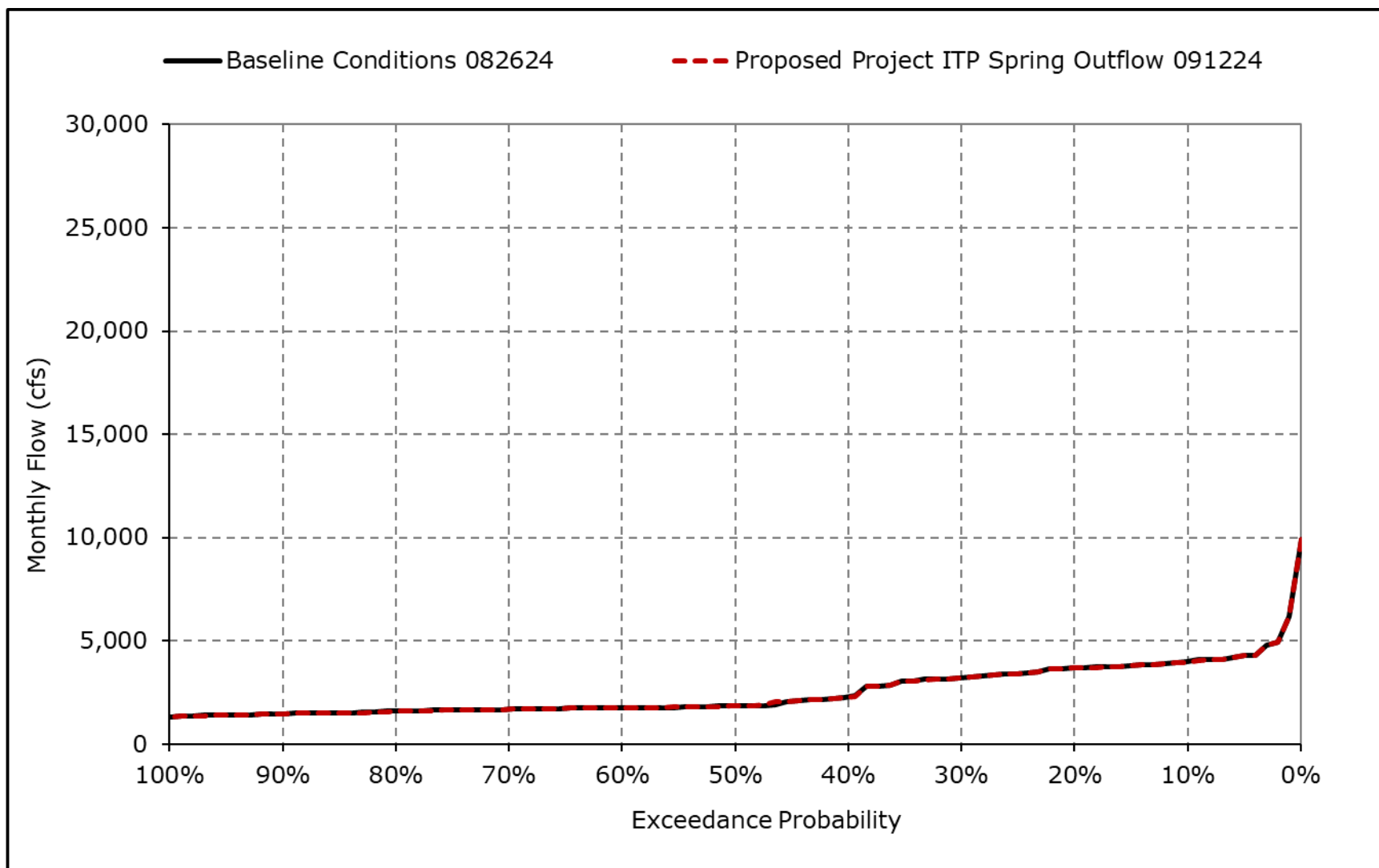


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

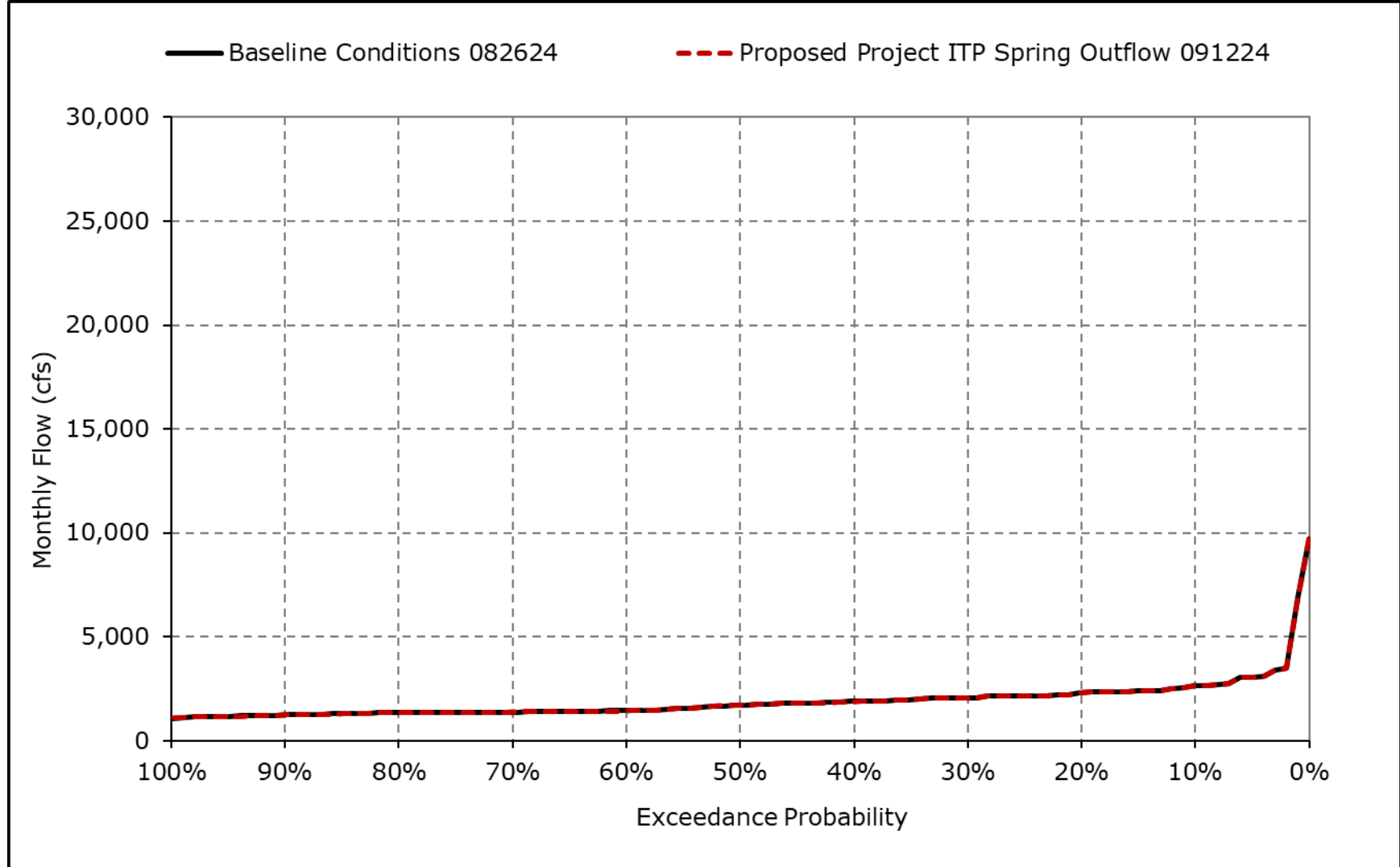
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5g. San Joaquin River at Vernalis, October**



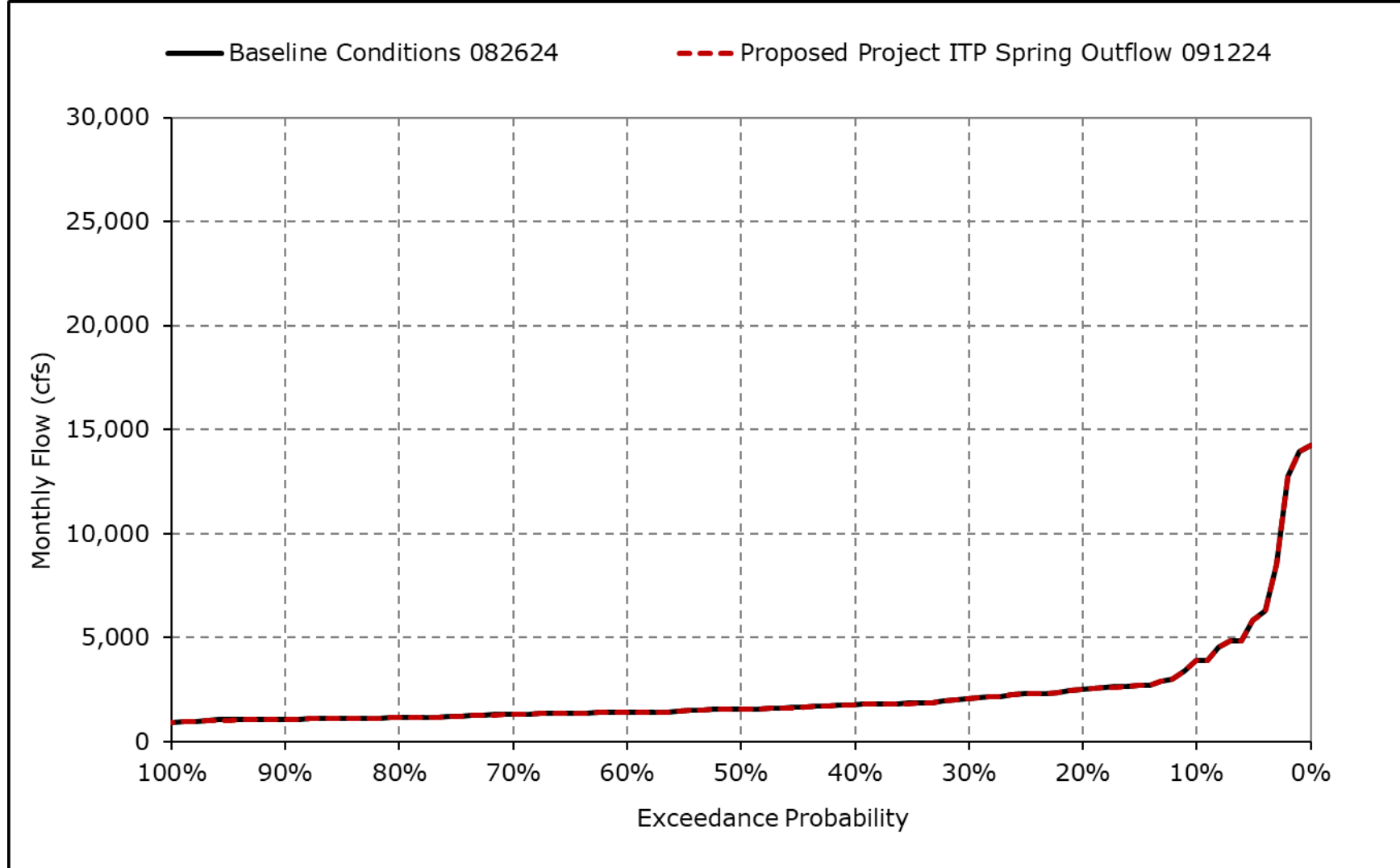
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5h. San Joaquin River at Vernalis, November**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

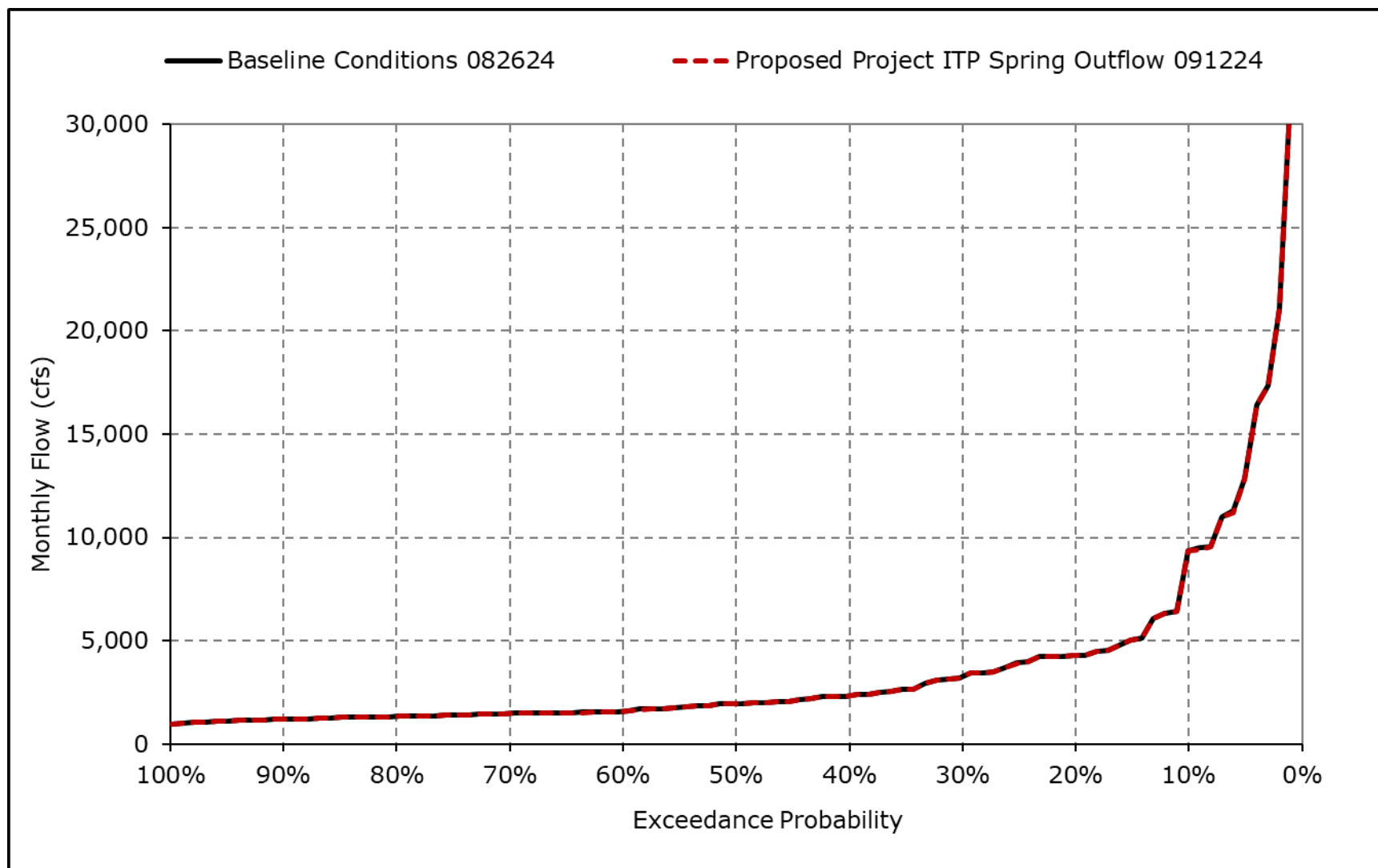
**Figure 4L-3-5i. San Joaquin River at Vernalis, December**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

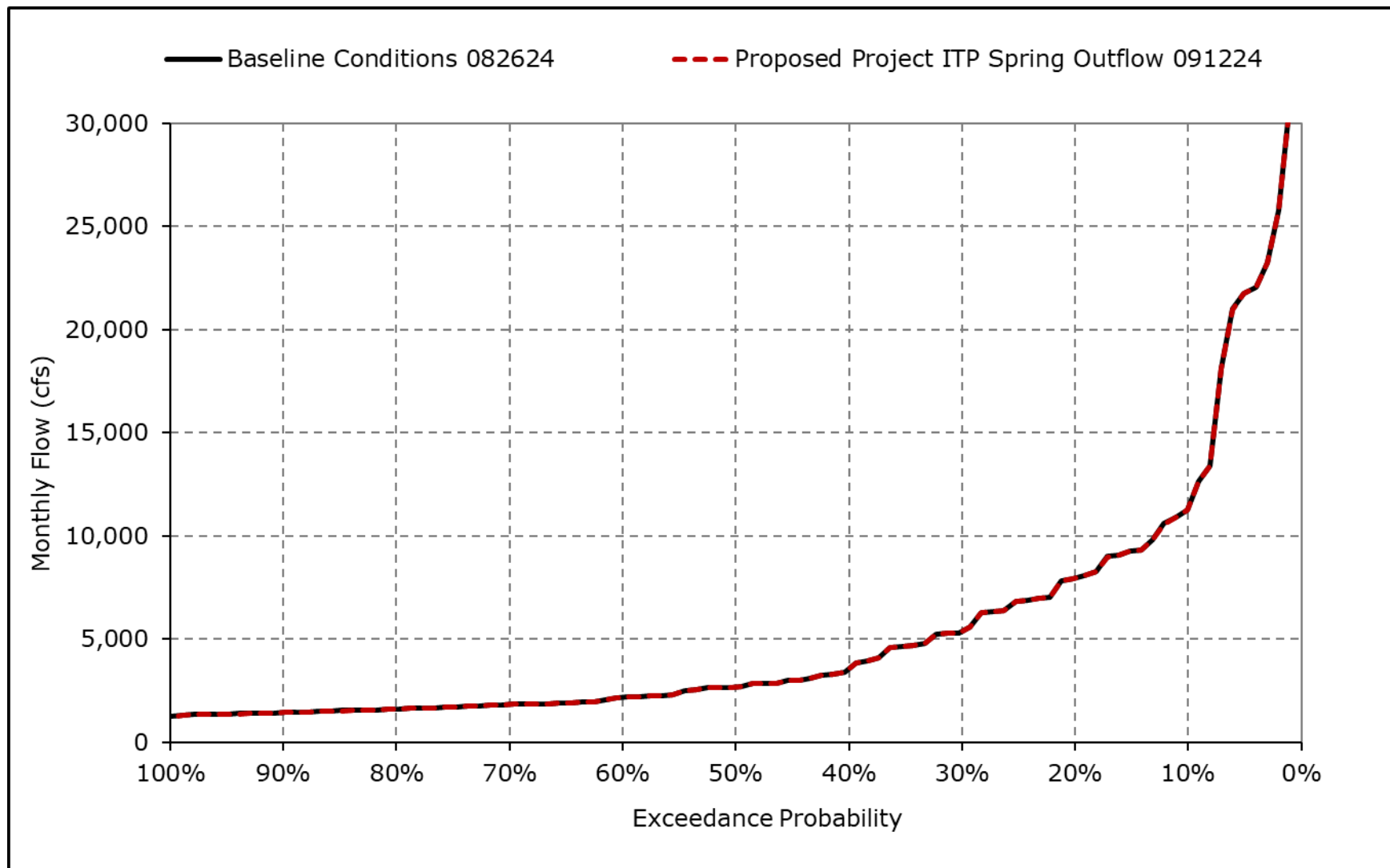


**Figure 4L-3-5j. San Joaquin River at Vernalis, January**



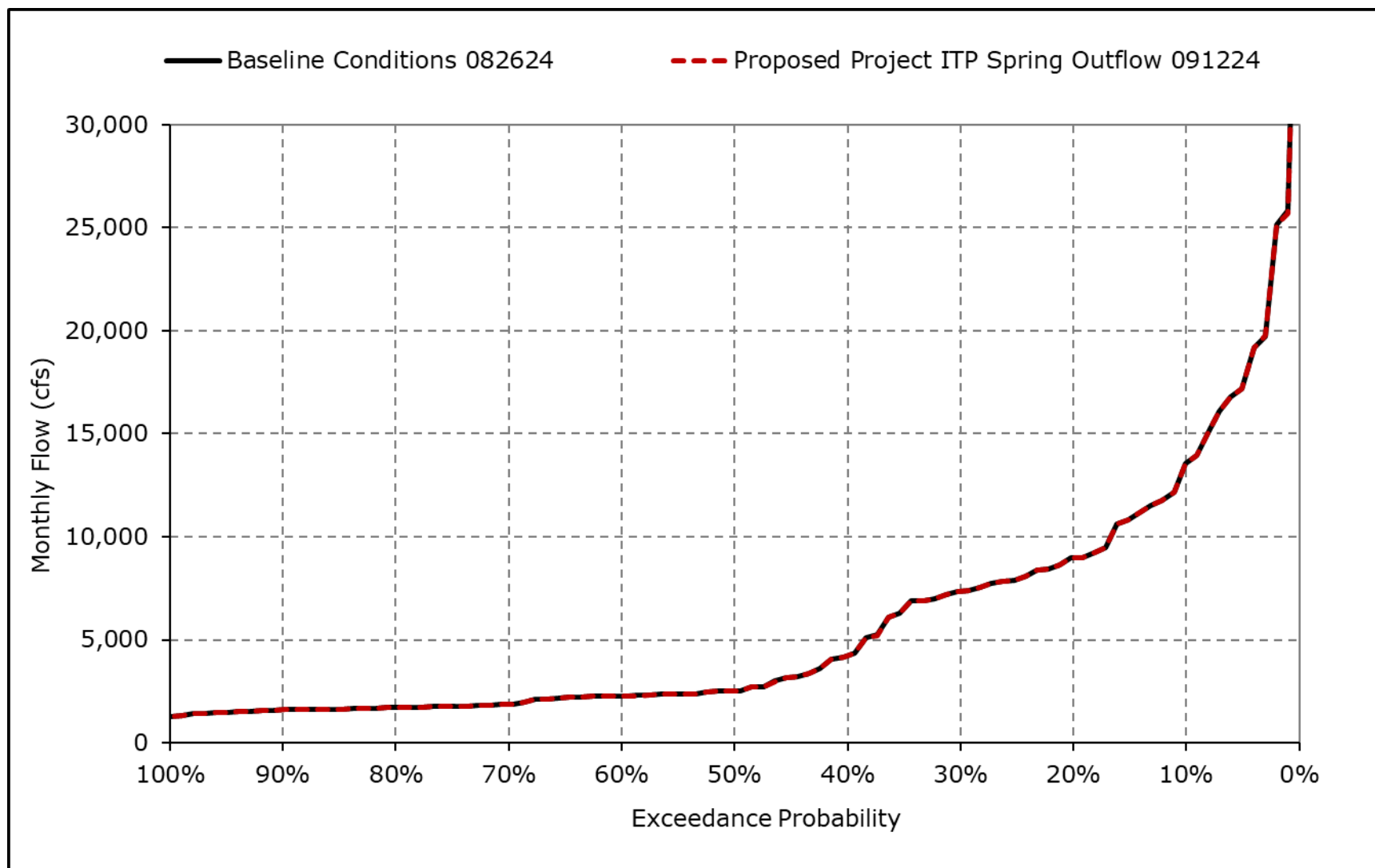
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5k. San Joaquin River at Vernalis, February**



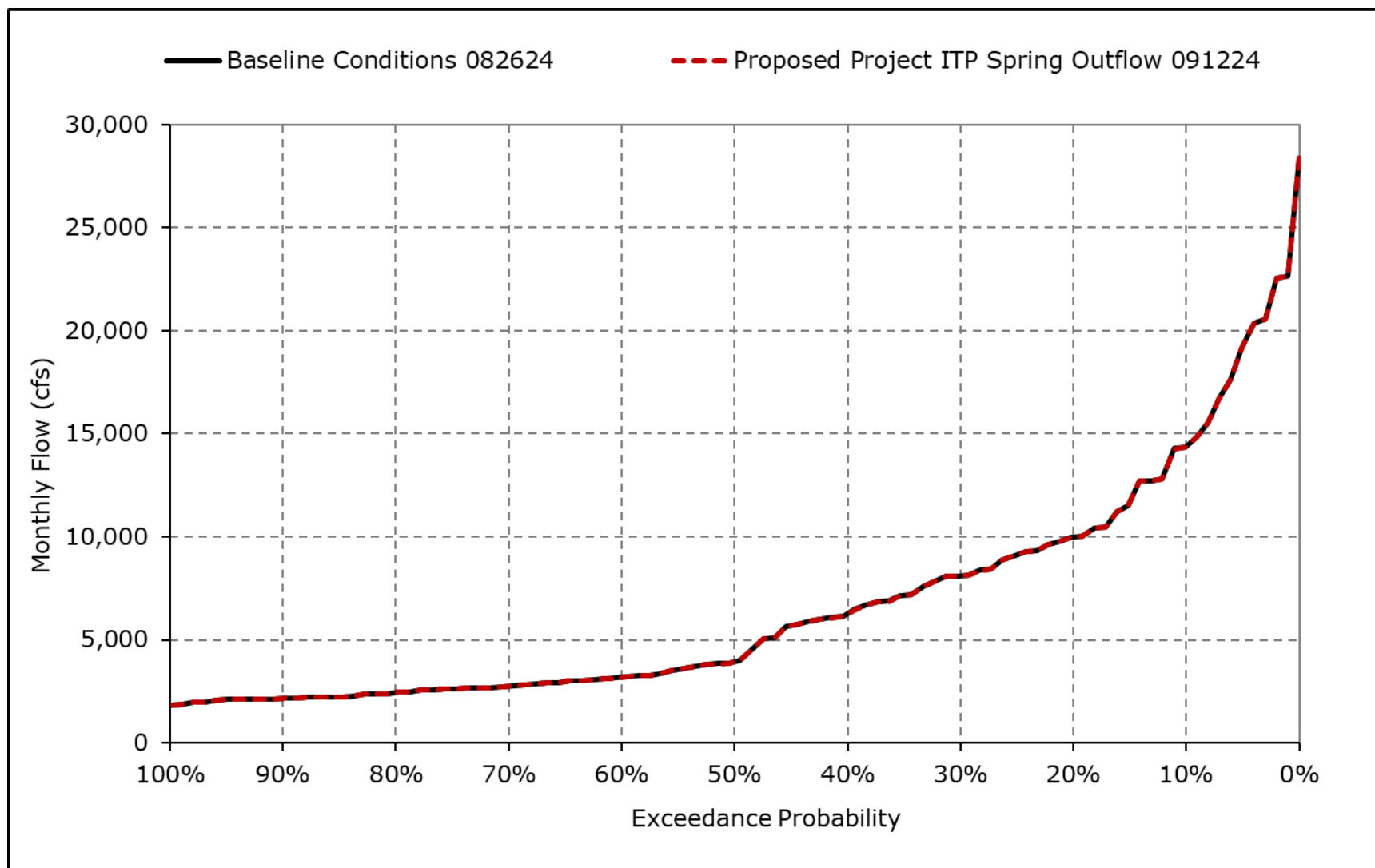
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5I. San Joaquin River at Vernalis, March**



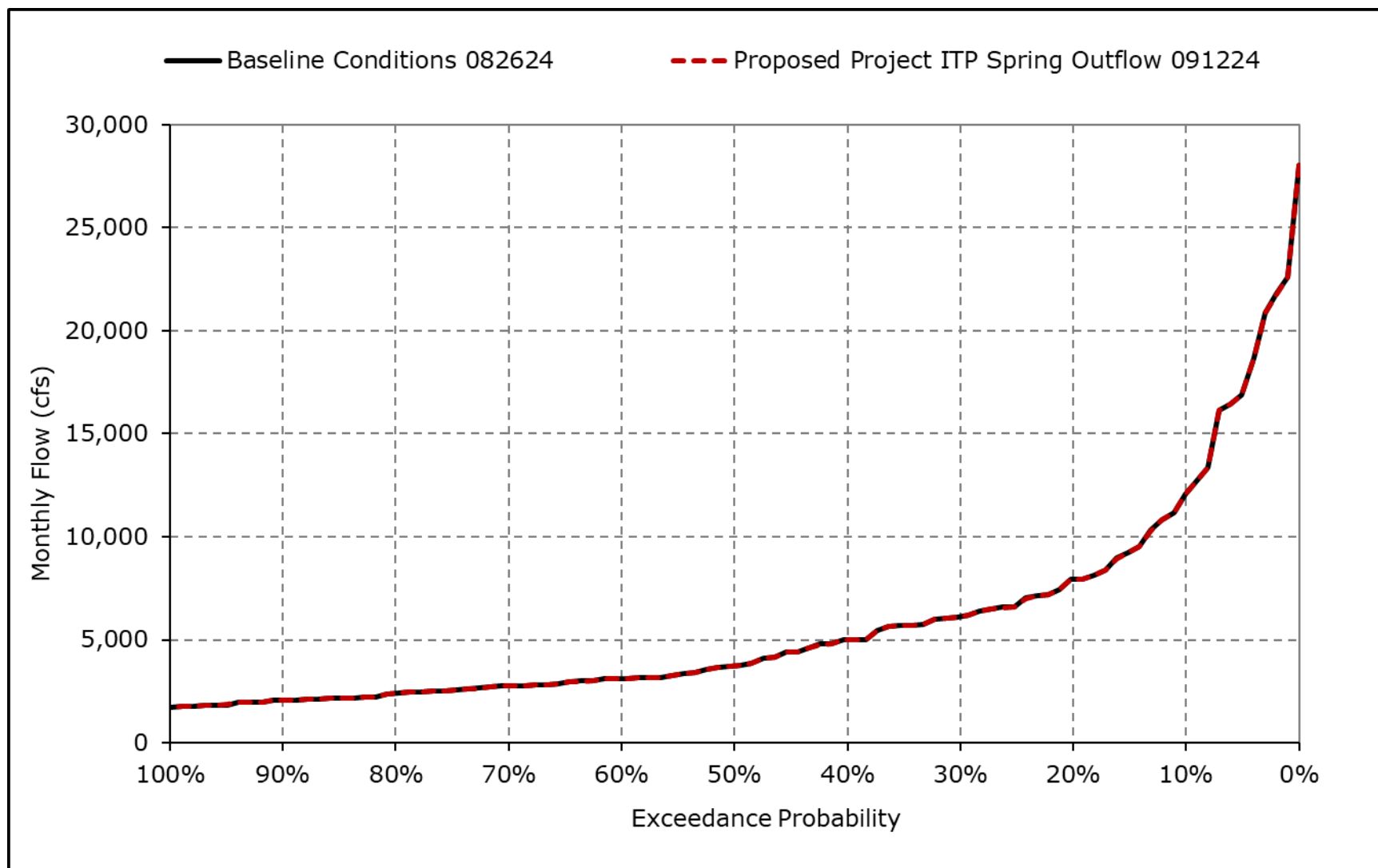
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5m. San Joaquin River at Vernalis, April**



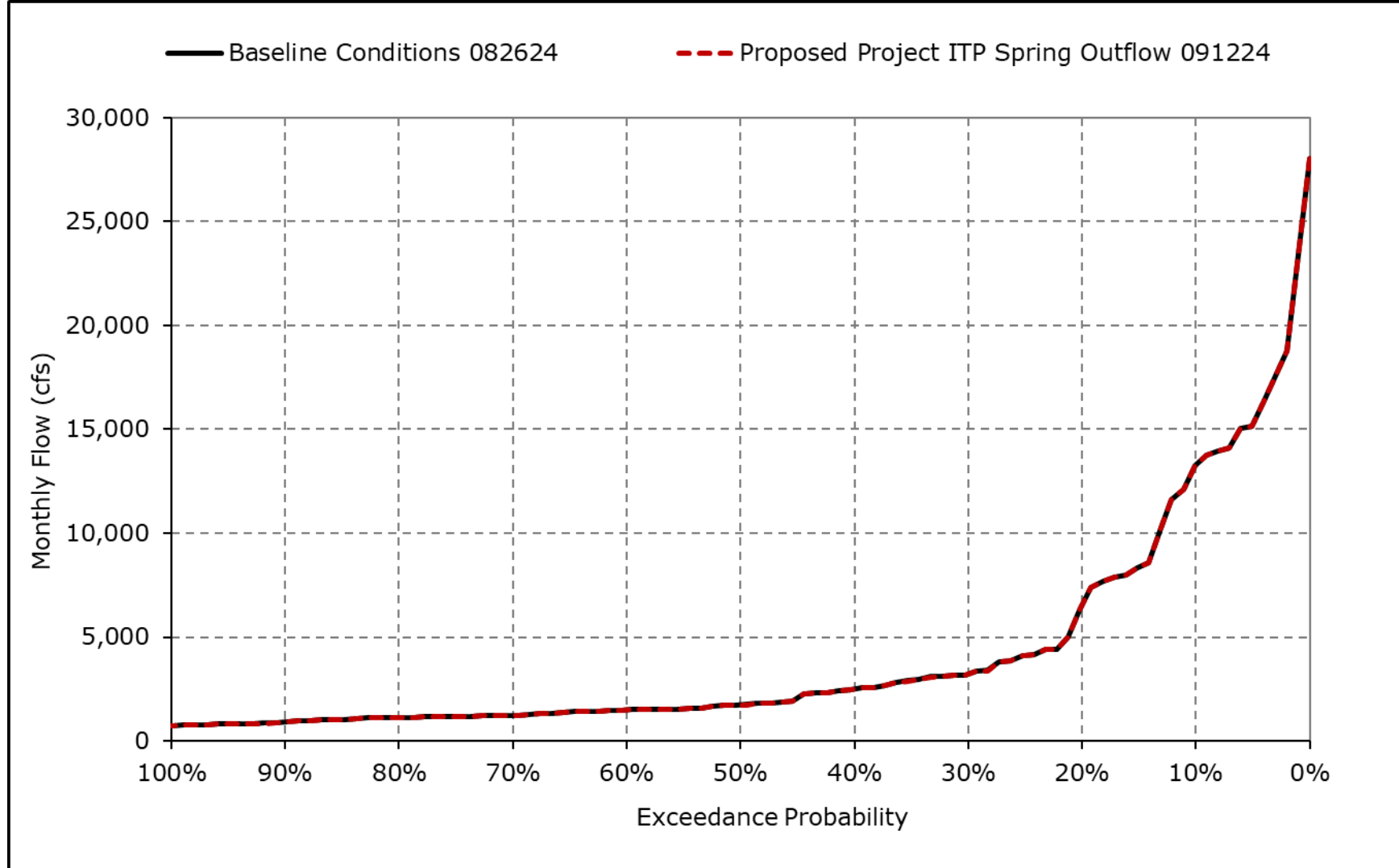
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5n. San Joaquin River at Vernalis, May**



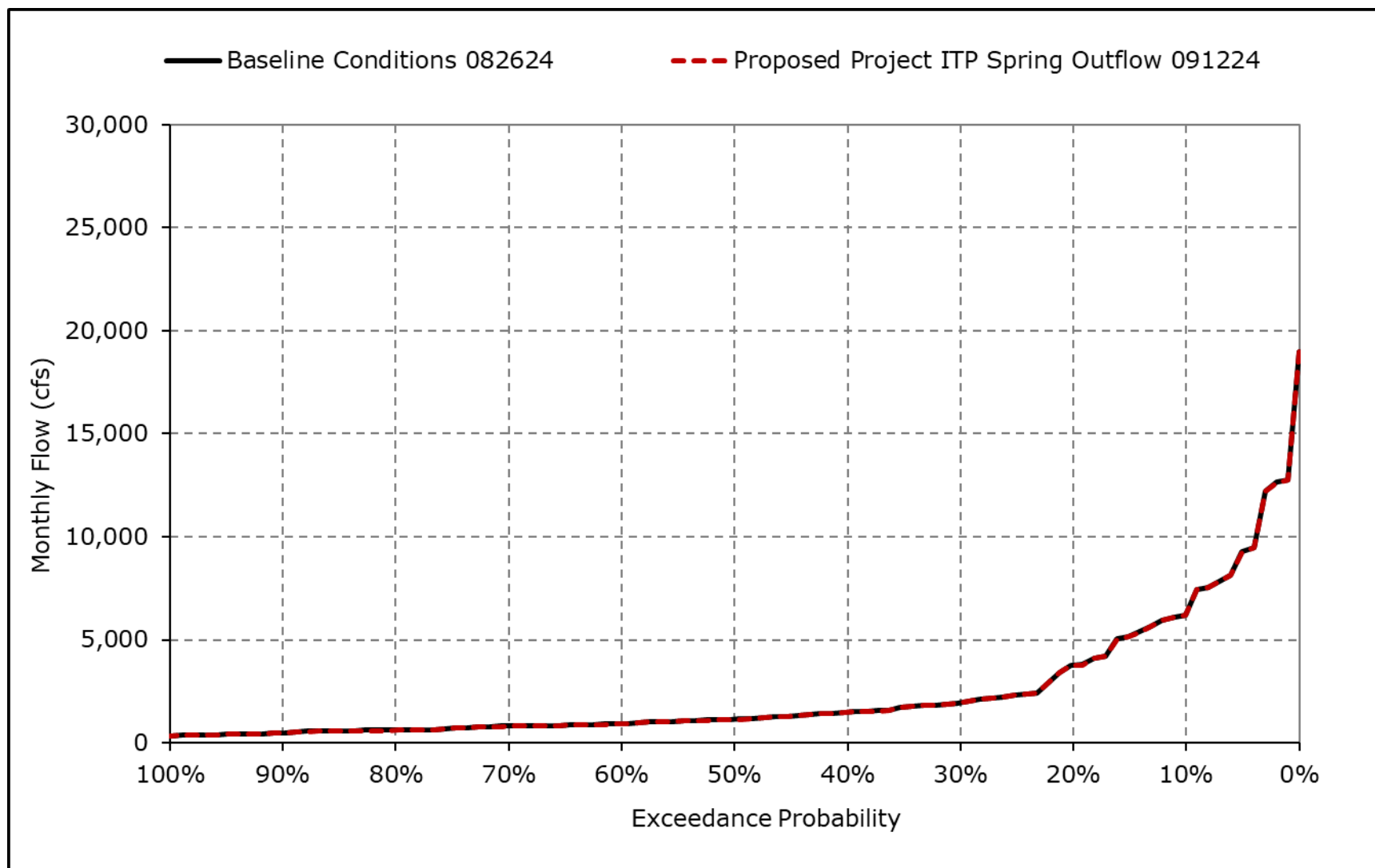
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5o. San Joaquin River at Vernalis, June**



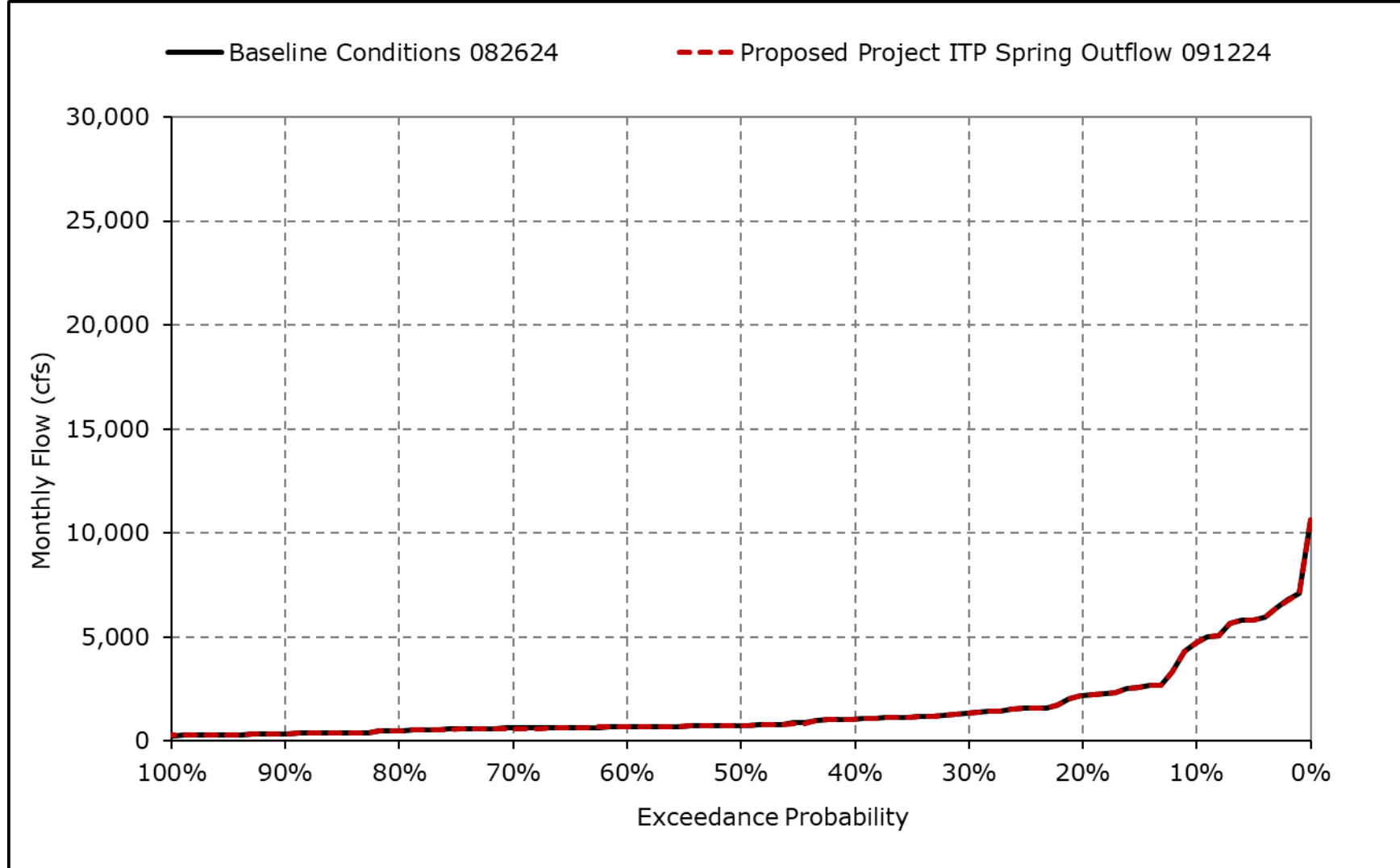
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-5p. San Joaquin River at Vernalis, July**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

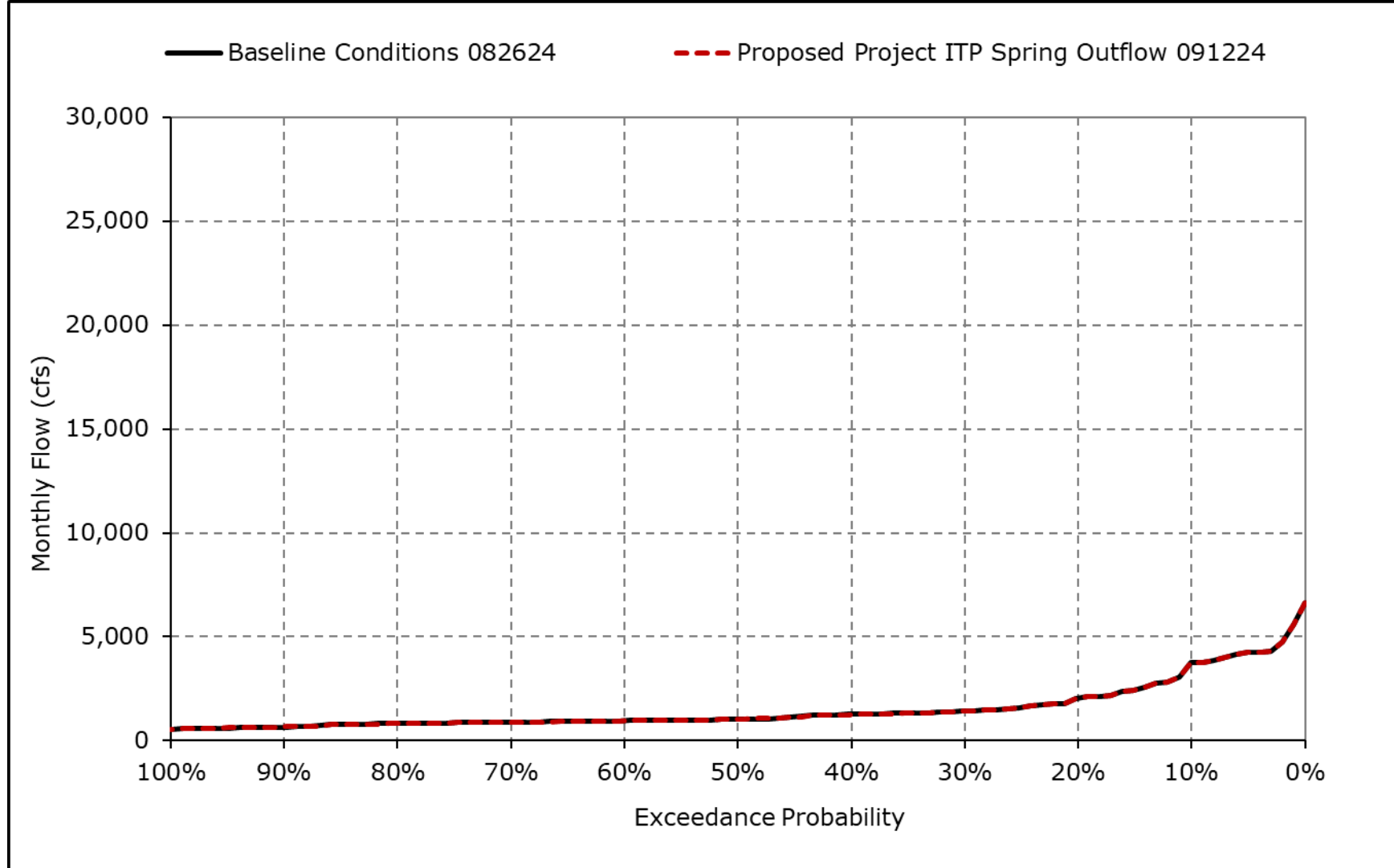
**Figure 4L-3-5q. San Joaquin River at Vernalis, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-5r. San Joaquin River at Vernalis, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-6-1a. San Joaquin River at Vernalis (60-20-20), Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan   | Feb    | Mar    | Apr    | May    | Jun    | Jul   | Aug   | Sep   |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|
| 10% Exceedance                              | 3,975 | 2,642 | 3,876 | 9,369 | 11,402 | 13,581 | 14,413 | 12,125 | 13,329 | 6,337 | 4,759 | 3,781 |
| 20% Exceedance                              | 3,678 | 2,321 | 2,521 | 4,272 | 7,952  | 8,982  | 10,005 | 7,943  | 6,530  | 3,765 | 2,198 | 2,041 |
| 30% Exceedance                              | 3,191 | 2,055 | 2,062 | 3,284 | 5,398  | 7,366  | 8,101  | 6,118  | 3,235  | 1,940 | 1,332 | 1,439 |
| 40% Exceedance                              | 2,278 | 1,883 | 1,772 | 2,333 | 3,585  | 4,248  | 6,279  | 5,019  | 2,493  | 1,483 | 1,072 | 1,267 |
| 50% Exceedance                              | 1,843 | 1,714 | 1,571 | 1,963 | 2,681  | 2,533  | 3,922  | 3,742  | 1,747  | 1,152 | 759   | 1,044 |
| 60% Exceedance                              | 1,747 | 1,432 | 1,399 | 1,591 | 2,179  | 2,285  | 3,172  | 3,122  | 1,490  | 937   | 689   | 966   |
| 70% Exceedance                              | 1,684 | 1,371 | 1,298 | 1,476 | 1,832  | 1,887  | 2,754  | 2,762  | 1,249  | 807   | 617   | 909   |
| 80% Exceedance                              | 1,592 | 1,332 | 1,158 | 1,338 | 1,605  | 1,713  | 2,438  | 2,415  | 1,141  | 618   | 506   | 827   |
| 90% Exceedance                              | 1,466 | 1,239 | 1,077 | 1,202 | 1,458  | 1,613  | 2,146  | 2,070  | 929    | 487   | 355   | 657   |
| Full Simulation Period Average <sup>a</sup> | 2,537 | 1,919 | 2,287 | 4,074 | 5,550  | 5,941  | 6,711  | 5,825  | 4,240  | 2,498 | 1,578 | 1,548 |
| Wet Water Years (24%)                       | 2,783 | 2,057 | 3,645 | 9,748 | 13,118 | 14,606 | 14,700 | 12,756 | 11,680 | 6,931 | 4,168 | 3,248 |
| Above Normal Water Years (18%)              | 2,635 | 2,339 | 2,684 | 4,072 | 6,066  | 5,977  | 7,545  | 5,934  | 3,691  | 2,026 | 1,314 | 1,431 |
| Below Normal Water Years (13%)              | 2,554 | 1,950 | 2,041 | 2,194 | 3,510  | 3,745  | 5,076  | 4,453  | 1,962  | 1,176 | 757   | 987   |
| Dry Water Years (13%)                       | 2,847 | 1,934 | 1,714 | 1,842 | 2,026  | 2,312  | 3,080  | 3,042  | 1,414  | 915   | 644   | 913   |
| Critical Water Years (32%)                  | 2,164 | 1,561 | 1,377 | 1,491 | 1,844  | 1,788  | 2,390  | 2,253  | 1,043  | 618   | 498   | 826   |

**Table 4L-3-6-1b. San Joaquin River at Vernalis (60-20-20), Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct   | Nov   | Dec   | Jan   | Feb    | Mar    | Apr    | May    | Jun    | Jul   | Aug   | Sep   |
|---|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|
| 10% Exceedance                              | 3,970 | 2,639 | 3,873 | 9,358 | 11,399 | 13,577 | 14,414 | 12,118 | 13,321 | 6,335 | 4,759 | 3,778 |
| 20% Exceedance                              | 3,675 | 2,319 | 2,518 | 4,286 | 7,950  | 8,982  | 10,002 | 7,940  | 6,529  | 3,762 | 2,196 | 2,039 |
| 30% Exceedance                              | 3,191 | 2,053 | 2,060 | 3,282 | 5,394  | 7,364  | 8,098  | 6,112  | 3,232  | 1,940 | 1,328 | 1,434 |
| 40% Exceedance                              | 2,276 | 1,882 | 1,770 | 2,330 | 3,583  | 4,244  | 6,277  | 5,015  | 2,491  | 1,480 | 1,068 | 1,262 |
| 50% Exceedance                              | 1,840 | 1,711 | 1,567 | 1,963 | 2,678  | 2,529  | 3,920  | 3,736  | 1,741  | 1,142 | 755   | 1,048 |
| 60% Exceedance                              | 1,737 | 1,429 | 1,395 | 1,589 | 2,177  | 2,282  | 3,169  | 3,113  | 1,482  | 931   | 682   | 962   |
| 70% Exceedance                              | 1,679 | 1,379 | 1,293 | 1,474 | 1,831  | 1,883  | 2,751  | 2,758  | 1,243  | 807   | 602   | 903   |
| 80% Exceedance                              | 1,576 | 1,330 | 1,154 | 1,335 | 1,602  | 1,707  | 2,435  | 2,405  | 1,140  | 606   | 487   | 823   |
| 90% Exceedance                              | 1,463 | 1,232 | 1,080 | 1,201 | 1,459  | 1,611  | 2,144  | 2,067  | 916    | 490   | 366   | 677   |
| Full Simulation Period Average <sup>a</sup> | 2,536 | 1,918 | 2,284 | 4,070 | 5,547  | 5,937  | 6,708  | 5,821  | 4,236  | 2,493 | 1,574 | 1,547 |
| Wet Water Years (24%)                       | 2,778 | 2,052 | 3,640 | 9,735 | 13,113 | 14,598 | 14,695 | 12,751 | 11,675 | 6,927 | 4,164 | 3,245 |
| Above Normal Water Years (18%)              | 2,647 | 2,346 | 2,684 | 4,071 | 6,064  | 5,975  | 7,543  | 5,931  | 3,687  | 2,023 | 1,311 | 1,428 |
| Below Normal Water Years (13%)              | 2,553 | 1,950 | 2,039 | 2,192 | 3,508  | 3,742  | 5,073  | 4,449  | 1,957  | 1,170 | 750   | 981   |
| Dry Water Years (13%)                       | 2,848 | 1,936 | 1,712 | 1,839 | 2,023  | 2,309  | 3,076  | 3,036  | 1,408  | 908   | 634   | 912   |
| Critical Water Years (32%)                  | 2,157 | 1,557 | 1,374 | 1,489 | 1,842  | 1,786  | 2,387  | 2,250  | 1,040  | 613   | 497   | 829   |

**Table 4L-3-6-1c. San Joaquin River at Vernalis (60-20-20), Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10% Exceedance                              | -5  | -3  | -3  | -12 | -2  | -3  | 1   | -7  | -8  | -3  | -1  | -2  |
| 20% Exceedance                              | -3  | -2  | -3  | 14  | -2  | 0   | -3  | -4  | -2  | -3  | -2  | -2  |
| 30% Exceedance                              | 0   | -2  | -2  | -2  | -4  | -2  | -3  | -6  | -2  | 0   | -4  | -5  |
| 40% Exceedance                              | -2  | -2  | -2  | -3  | -2  | -4  | -3  | -3  | -2  | -3  | -4  | -5  |
| 50% Exceedance                              | -3  | -3  | -3  | 0   | -3  | -3  | -2  | -6  | -5  | -9  | -4  | 5   |
| 60% Exceedance                              | -10 | -3  | -4  | -2  | -2  | -3  | -3  | -9  | -8  | -6  | -7  | -4  |
| 70% Exceedance                              | -5  | 8   | -5  | -2  | -1  | -4  | -3  | -4  | -5  | 0   | -16 | -6  |
| 80% Exceedance                              | -16 | -1  | -4  | -4  | -3  | -6  | -3  | -9  | -1  | -12 | -19 | -5  |
| 90% Exceedance                              | -3  | -7  | 3   | -1  | 1   | -1  | -2  | -4  | -12 | 2   | 11  | 20  |
| Full Simulation Period Average <sup>a</sup> | -1  | -1  | -2  | -5  | -3  | -4  | -3  | -4  | -4  | -5  | -4  | -1  |
| Wet Water Years (24%)                       | -5  | -5  | -5  | -13 | -5  | -8  | -4  | -5  | -5  | -4  | -3  | -2  |
| Above Normal Water Years (18%)              | 12  | 7   | 1   | -1  | -1  | -2  | -3  | -3  | -4  | -3  | -3  | -2  |
| Below Normal Water Years (13%)              | -1  | 0   | -1  | -2  | -2  | -3  | -3  | -4  | -4  | -6  | -7  | -7  |
| Dry Water Years (13%)                       | 1   | 2   | -2  | -3  | -3  | -3  | -5  | -6  | -6  | -8  | -10 | -1  |
| Critical Water Years (32%)                  | -7  | -4  | -3  | -2  | -3  | -3  | -3  | -3  | -4  | -5  | -1  | 3   |

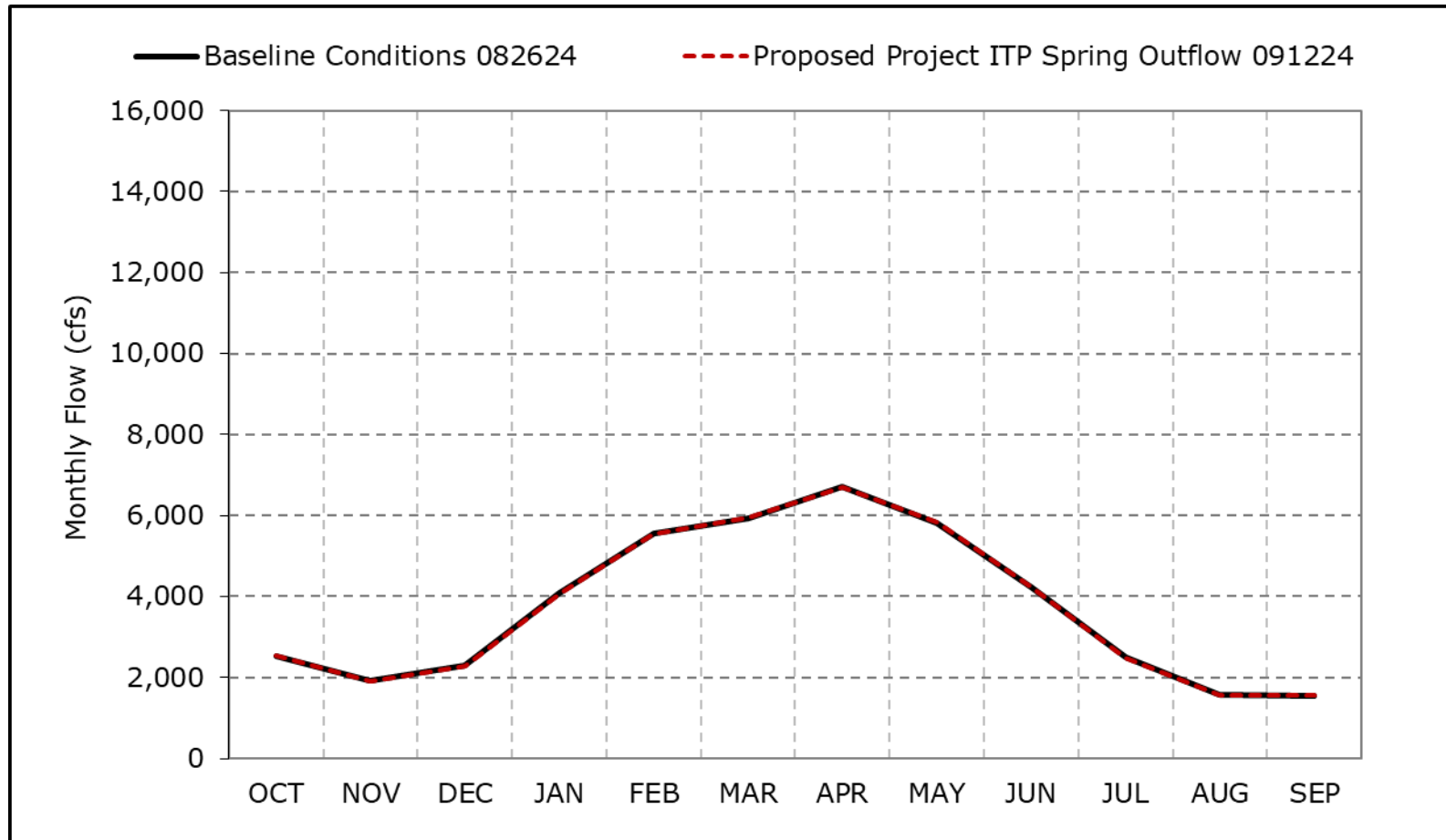
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-6a. San Joaquin River at Vernalis (60-20-20), Long-Term Average Flow**

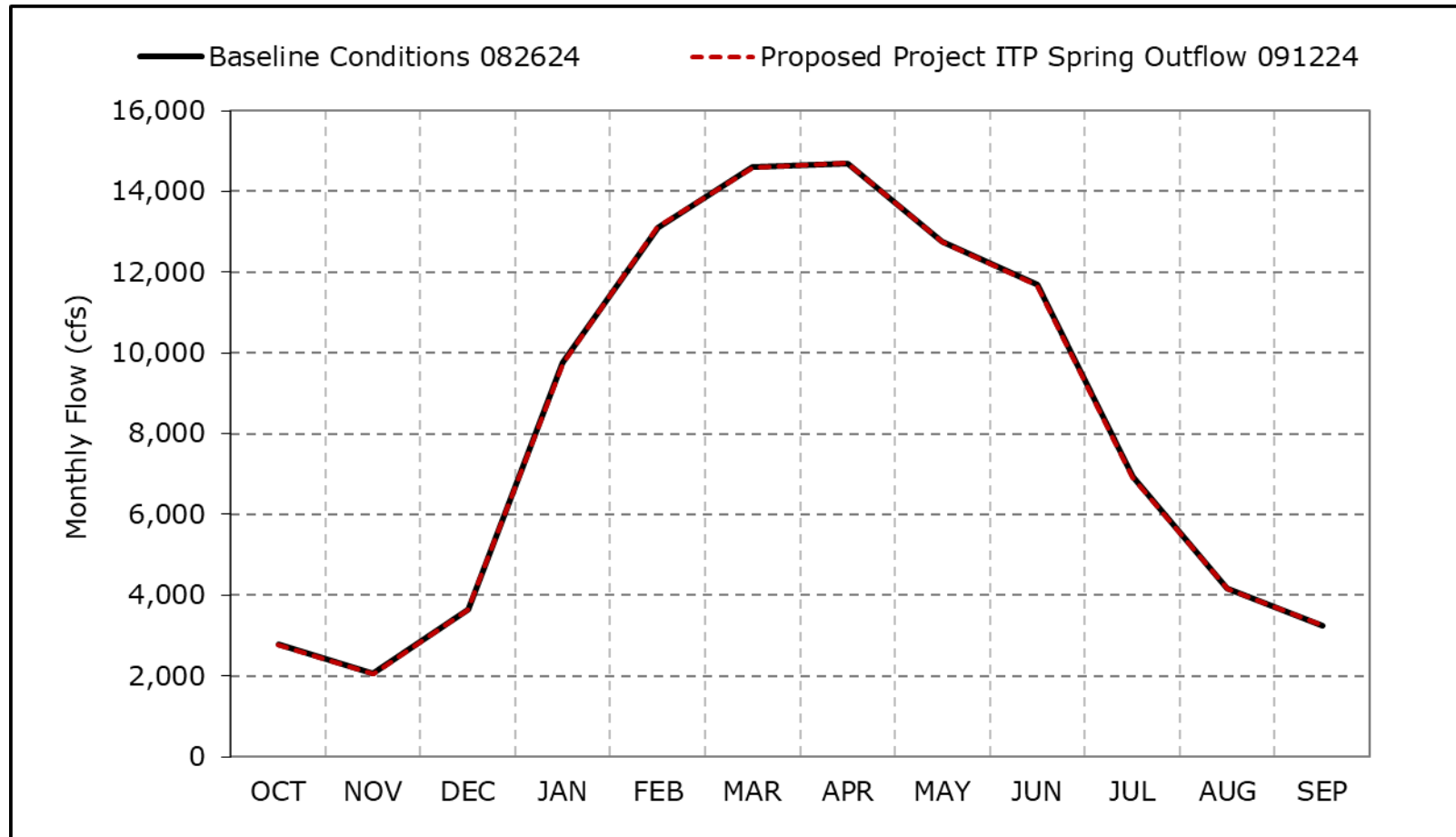


\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-6b. San Joaquin River at Vernalis (60-20-20), Wet Year Average Flow**

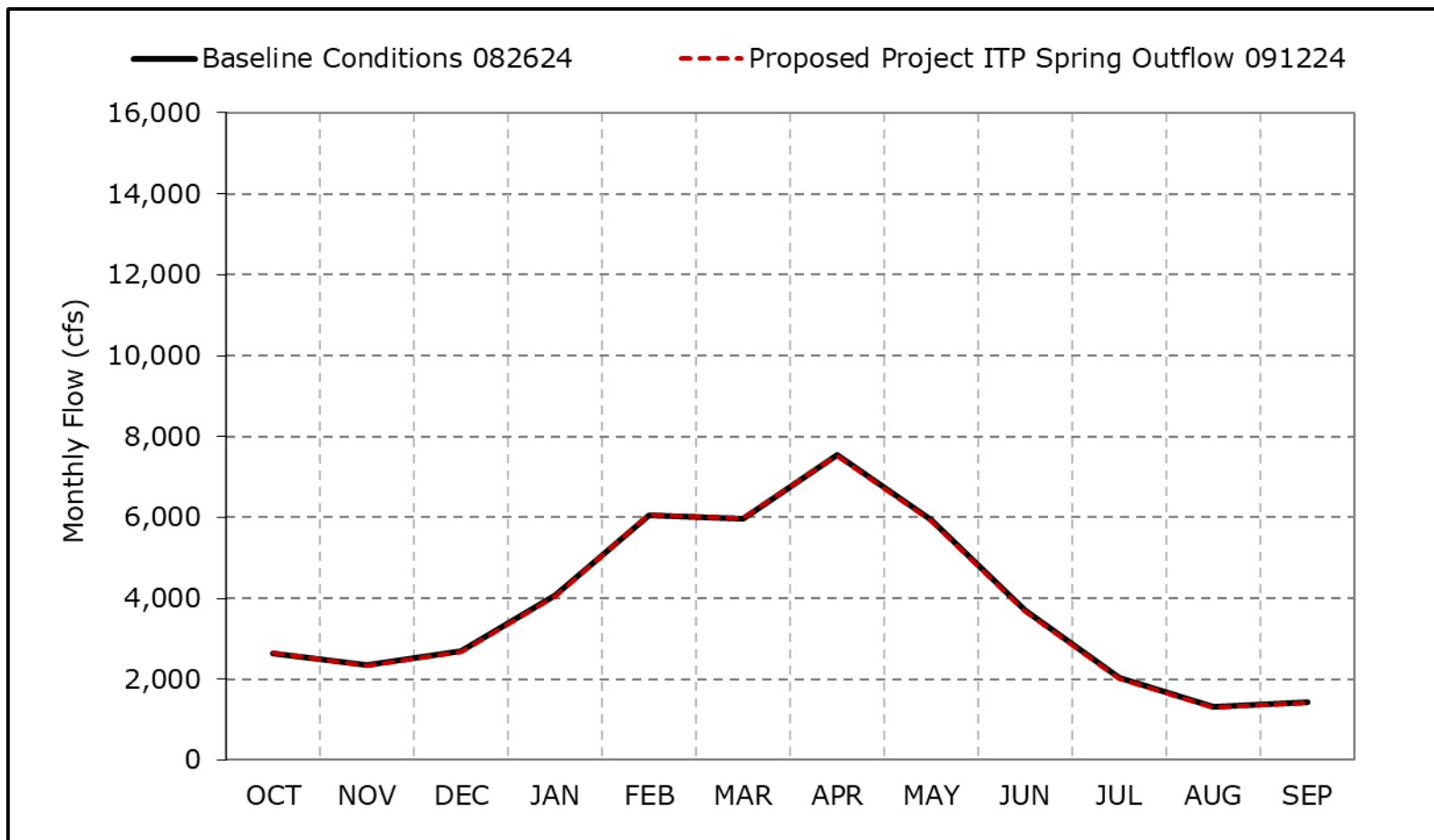


\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-6c. San Joaquin River at Vernalis (60-20-20), Above Normal Year Average Flow**

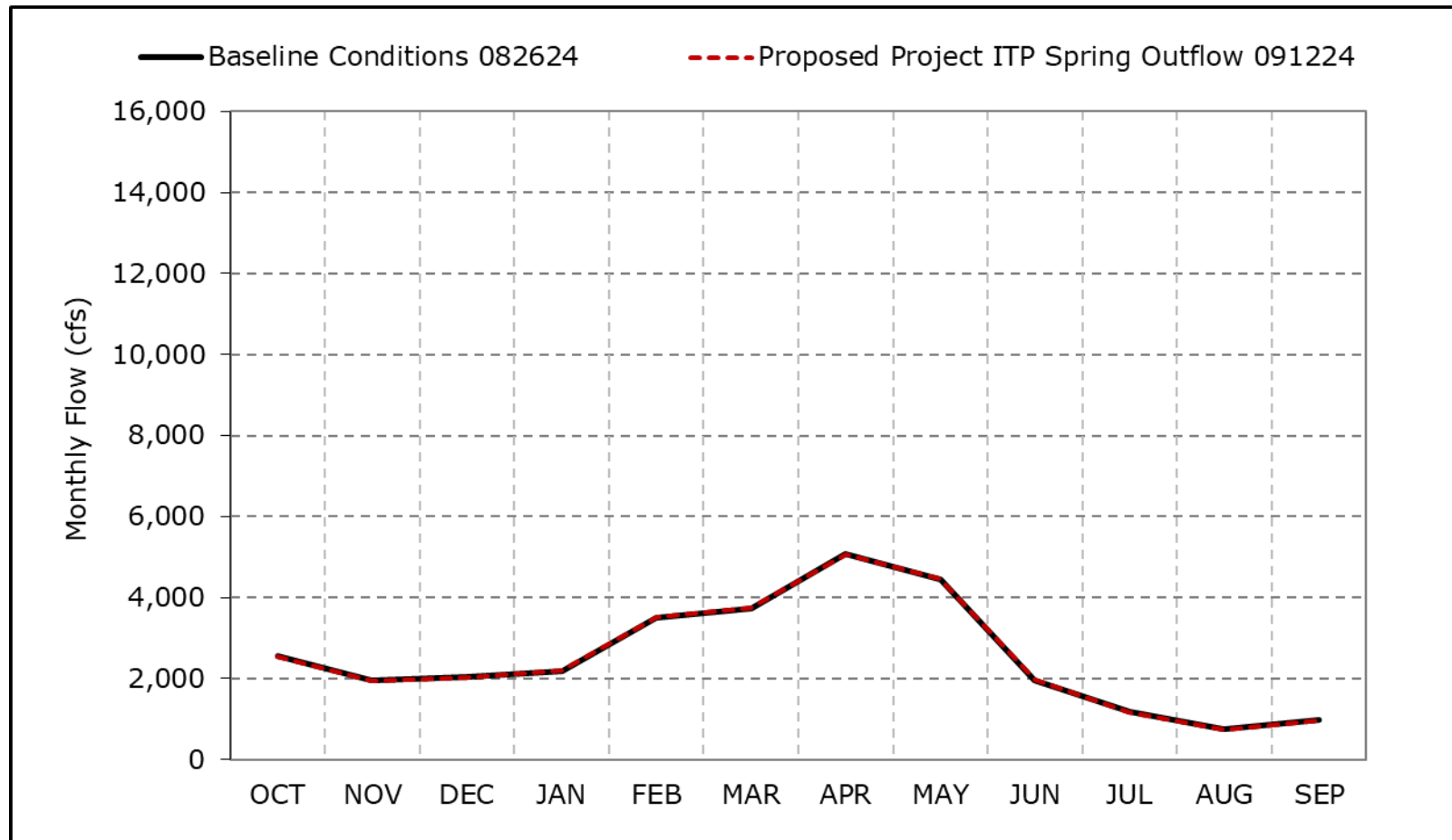


\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-6d. San Joaquin River at Vernalis (60-20-20), Below Normal Year Average Flow**

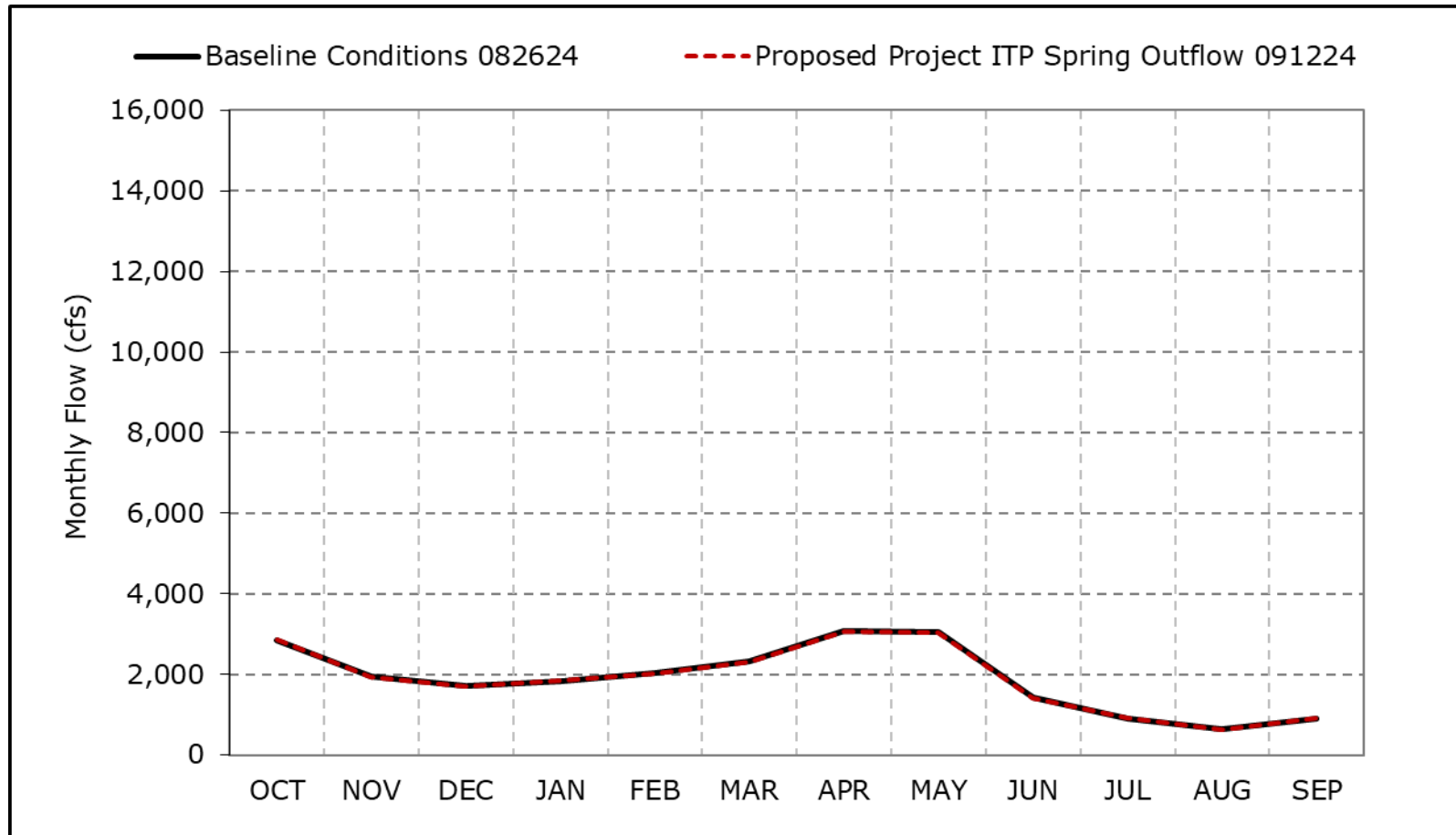


\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-6e. San Joaquin River at Vernalis (60-20-20), Dry Year Average Flow**

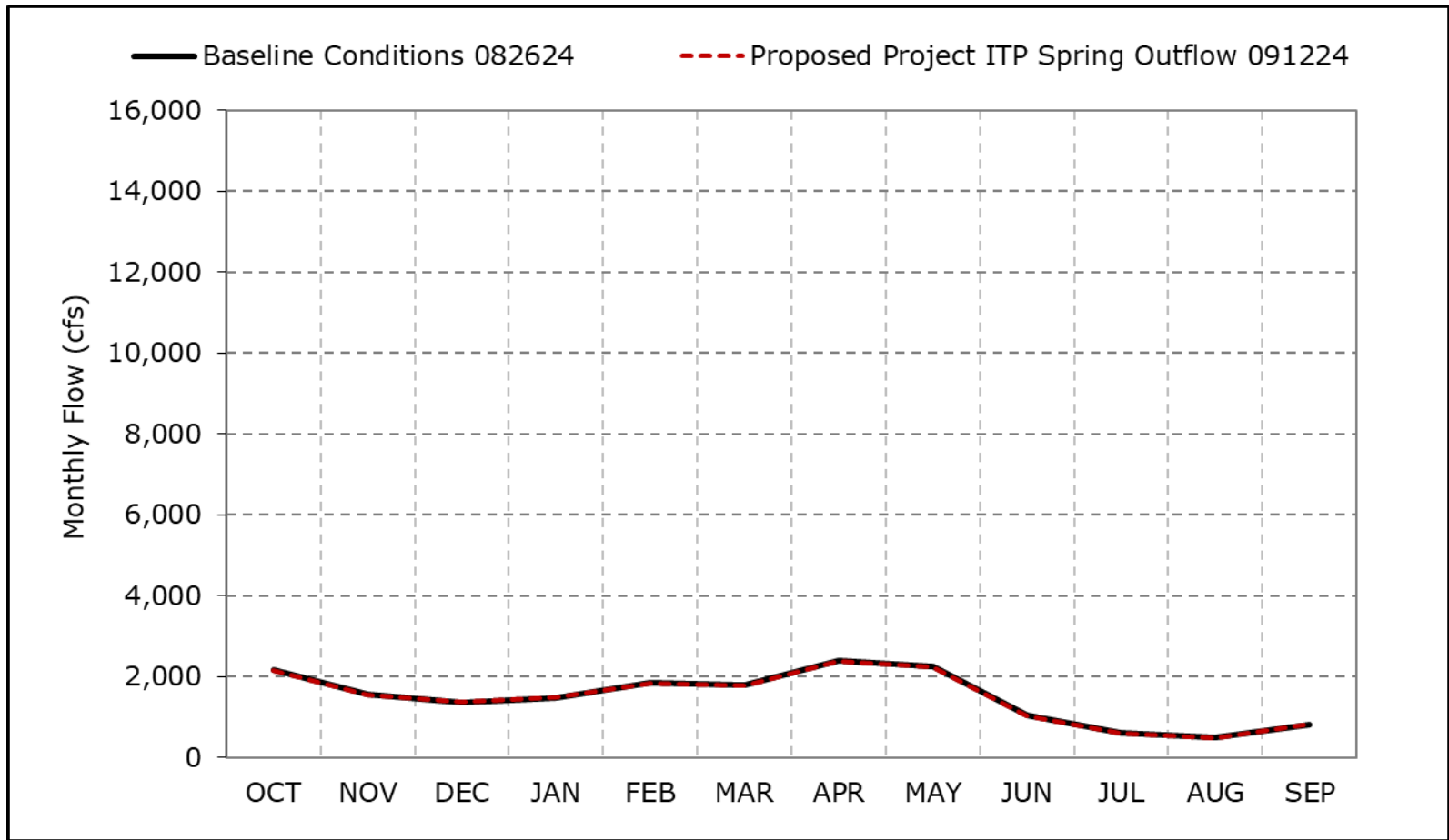


\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-6f. San Joaquin River at Vernalis (60-20-20), Critical Year Average Flow**



\*As defined by the San Joaquin Valley 60-20-20 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Table 4L-3-7-1a. Mokelumne River below Cosumnes, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug | Sep |
|---|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 10% Exceedance                              | 532 | 717 | 2,529 | 6,241 | 5,962 | 5,448 | 4,818 | 4,237 | 2,330 | 978   | 763 | 866 |
| 20% Exceedance                              | 420 | 517 | 1,390 | 3,739 | 3,980 | 3,727 | 2,754 | 2,430 | 1,739 | 794   | 722 | 839 |
| 30% Exceedance                              | 374 | 432 | 812   | 1,935 | 3,068 | 2,857 | 1,926 | 1,546 | 1,155 | 644   | 680 | 805 |
| 40% Exceedance                              | 345 | 385 | 595   | 1,243 | 2,028 | 2,277 | 1,717 | 1,100 | 607   | 550   | 643 | 754 |
| 50% Exceedance                              | 325 | 360 | 510   | 906   | 1,275 | 1,500 | 1,320 | 858   | 407   | 122   | 164 | 655 |
| 60% Exceedance                              | 307 | 341 | 438   | 685   | 1,086 | 1,294 | 904   | 605   | 275   | 81    | 72  | 73  |
| 70% Exceedance                              | 261 | 313 | 409   | 531   | 808   | 1,036 | 714   | 469   | 131   | 73    | 62  | 60  |
| 80% Exceedance                              | 222 | 275 | 373   | 461   | 599   | 793   | 610   | 314   | 79    | 54    | 48  | 49  |
| 90% Exceedance                              | 208 | 225 | 276   | 370   | 476   | 547   | 414   | 135   | 58    | 39    | 30  | 35  |
| Full Simulation Period Average <sup>a</sup> | 369 | 473 | 1,120 | 2,248 | 2,573 | 2,504 | 1,965 | 1,526 | 882   | 463   | 375 | 448 |
| Wet Water Years (32%)                       | 472 | 707 | 2,210 | 5,061 | 5,057 | 4,759 | 3,820 | 3,227 | 1,950 | 1,043 | 739 | 849 |
| Above Normal Water Years (9%)               | 310 | 390 | 713   | 2,101 | 2,398 | 2,468 | 1,664 | 1,425 | 976   | 464   | 545 | 634 |
| Below Normal Water Years (20%)              | 367 | 412 | 740   | 1,106 | 1,907 | 2,009 | 1,625 | 1,055 | 560   | 282   | 306 | 410 |
| Dry Water Years (21%)                       | 320 | 361 | 554   | 646   | 1,055 | 1,162 | 916   | 526   | 194   | 112   | 107 | 142 |
| Critical Water Years (18%)                  | 274 | 299 | 469   | 458   | 754   | 627   | 420   | 244   | 97    | 40    | 35  | 41  |

**Table 4L-3-7-1b. Mokelumne River below Cosumnes, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec   | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug | Sep |
|---|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 10% Exceedance                              | 532 | 717 | 2,529 | 6,241 | 5,962 | 5,448 | 4,818 | 4,237 | 2,330 | 978   | 763 | 866 |
| 20% Exceedance                              | 420 | 517 | 1,390 | 3,739 | 3,980 | 3,727 | 2,754 | 2,430 | 1,739 | 794   | 722 | 839 |
| 30% Exceedance                              | 374 | 432 | 812   | 1,935 | 3,068 | 2,857 | 1,926 | 1,545 | 1,155 | 648   | 680 | 805 |
| 40% Exceedance                              | 345 | 385 | 595   | 1,243 | 2,028 | 2,277 | 1,717 | 1,100 | 607   | 550   | 643 | 754 |
| 50% Exceedance                              | 325 | 360 | 510   | 906   | 1,275 | 1,500 | 1,320 | 858   | 407   | 122   | 164 | 655 |
| 60% Exceedance                              | 307 | 341 | 438   | 685   | 1,086 | 1,294 | 904   | 605   | 275   | 81    | 72  | 73  |
| 70% Exceedance                              | 261 | 313 | 409   | 531   | 808   | 1,036 | 714   | 469   | 131   | 73    | 62  | 60  |
| 80% Exceedance                              | 222 | 275 | 373   | 461   | 599   | 793   | 610   | 314   | 79    | 54    | 48  | 49  |
| 90% Exceedance                              | 208 | 225 | 276   | 370   | 476   | 549   | 414   | 135   | 59    | 39    | 30  | 35  |
| Full Simulation Period Average <sup>a</sup> | 369 | 473 | 1,120 | 2,248 | 2,573 | 2,504 | 1,965 | 1,526 | 882   | 463   | 375 | 448 |
| Wet Water Years (32%)                       | 472 | 707 | 2,210 | 5,061 | 5,057 | 4,759 | 3,820 | 3,227 | 1,950 | 1,043 | 739 | 849 |
| Above Normal Water Years (9%)               | 310 | 390 | 713   | 2,101 | 2,398 | 2,468 | 1,664 | 1,425 | 976   | 464   | 545 | 634 |
| Below Normal Water Years (20%)              | 367 | 412 | 740   | 1,106 | 1,907 | 2,009 | 1,625 | 1,055 | 559   | 282   | 305 | 410 |
| Dry Water Years (21%)                       | 320 | 361 | 554   | 646   | 1,055 | 1,162 | 916   | 526   | 194   | 112   | 106 | 142 |
| Critical Water Years (18%)                  | 274 | 299 | 469   | 458   | 754   | 627   | 420   | 244   | 97    | 40    | 35  | 41  |

**Table 4L-3-7-1c. Mokelumne River below Cosumnes, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 10% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 20% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 30% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -1  | 4   | 0   | 0   |
| 40% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 50% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 60% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 70% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 80% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 90% Exceedance                              | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 0   |
| Full Simulation Period Average <sup>a</sup> | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Wet Water Years (32%)                       | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Above Normal Water Years (9%)               | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Below Normal Water Years (20%)              | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -1  | 0   |
| Dry Water Years (21%)                       | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | -1  | 0   |
| Critical Water Years (18%)                  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |

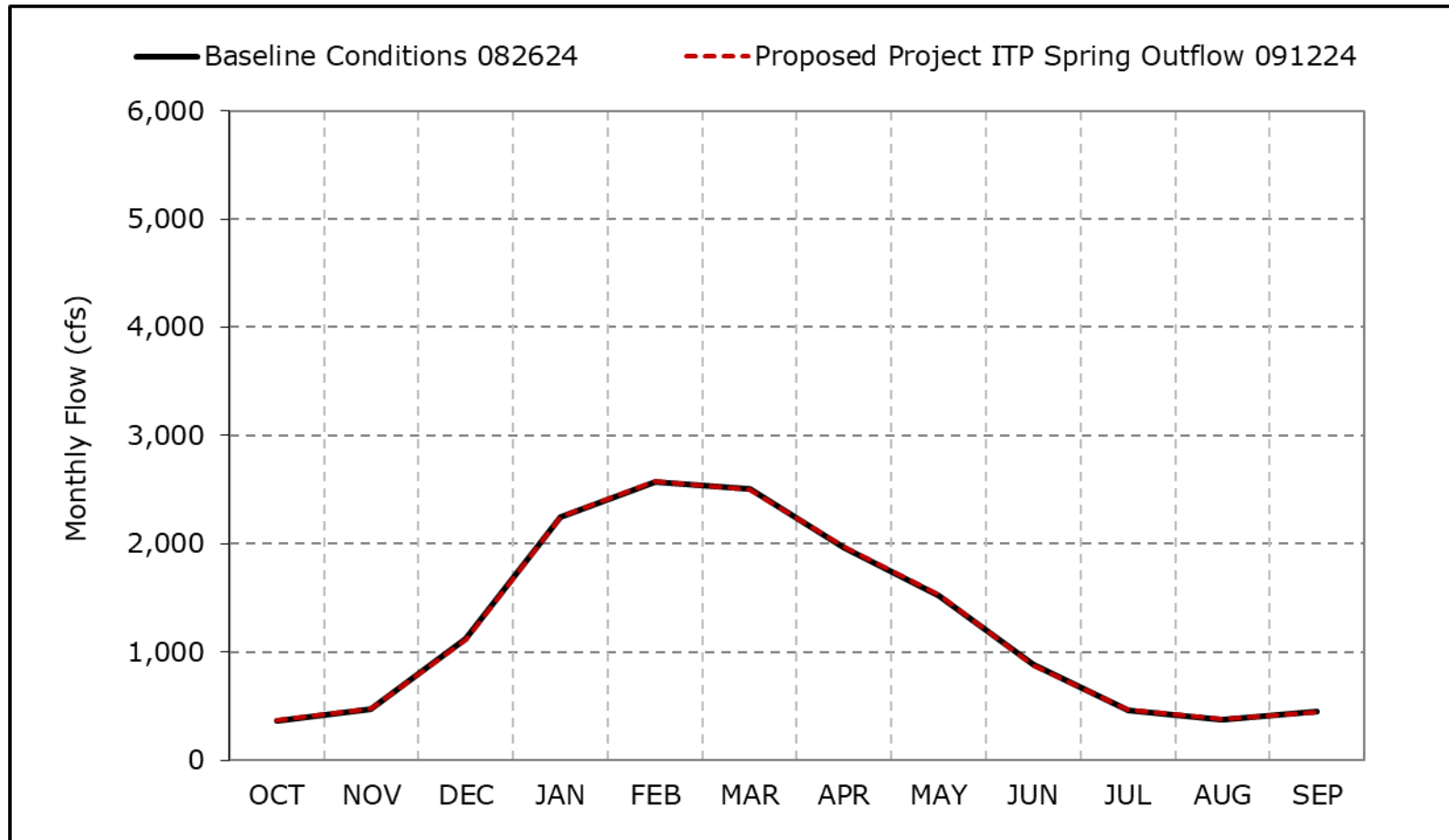
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-7a. Mokelumne River below Cosumnes, Long-Term Average Flow**

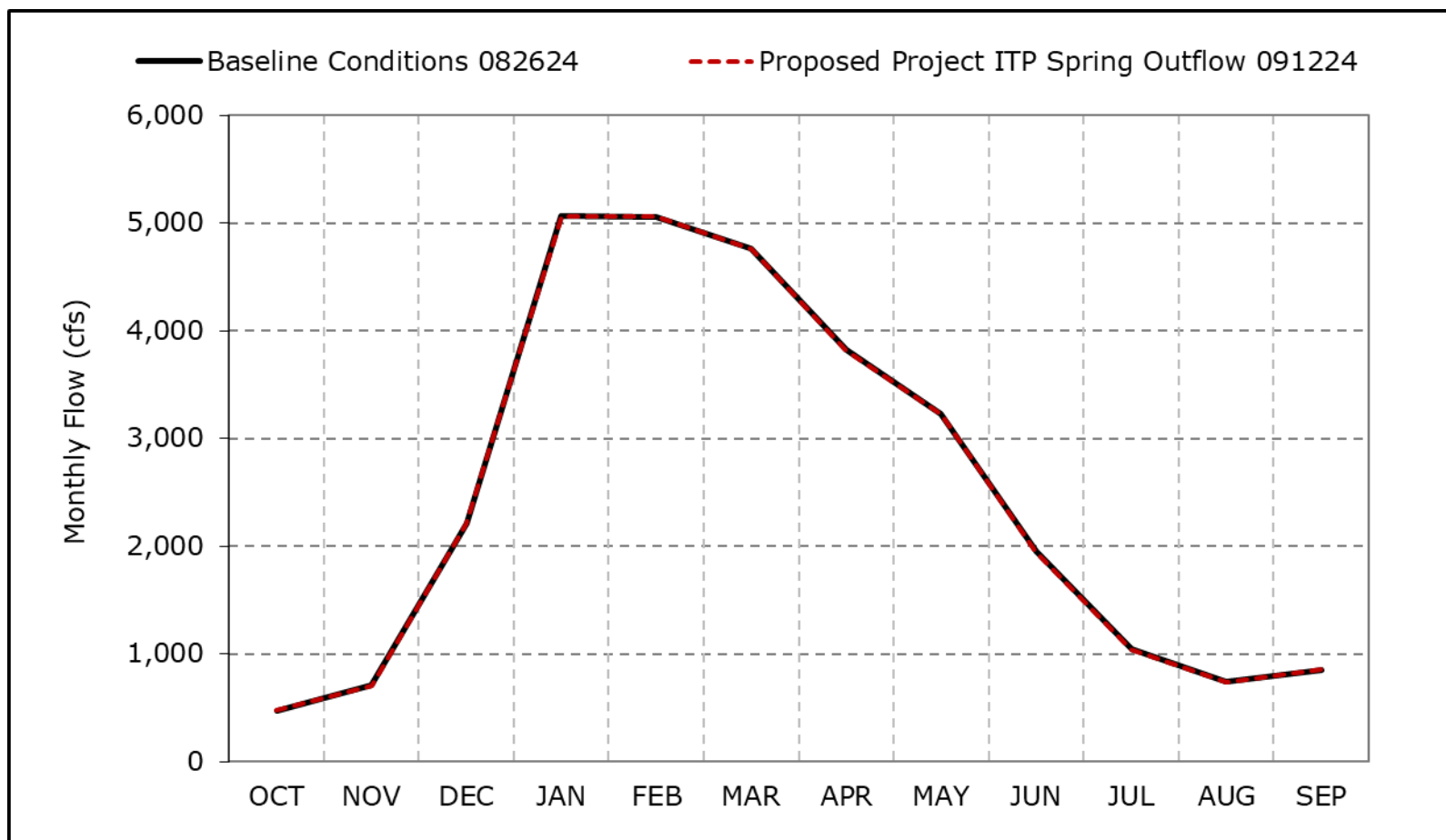


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7b. Mokelumne River below Cosumnes, Wet Year Average Flow**

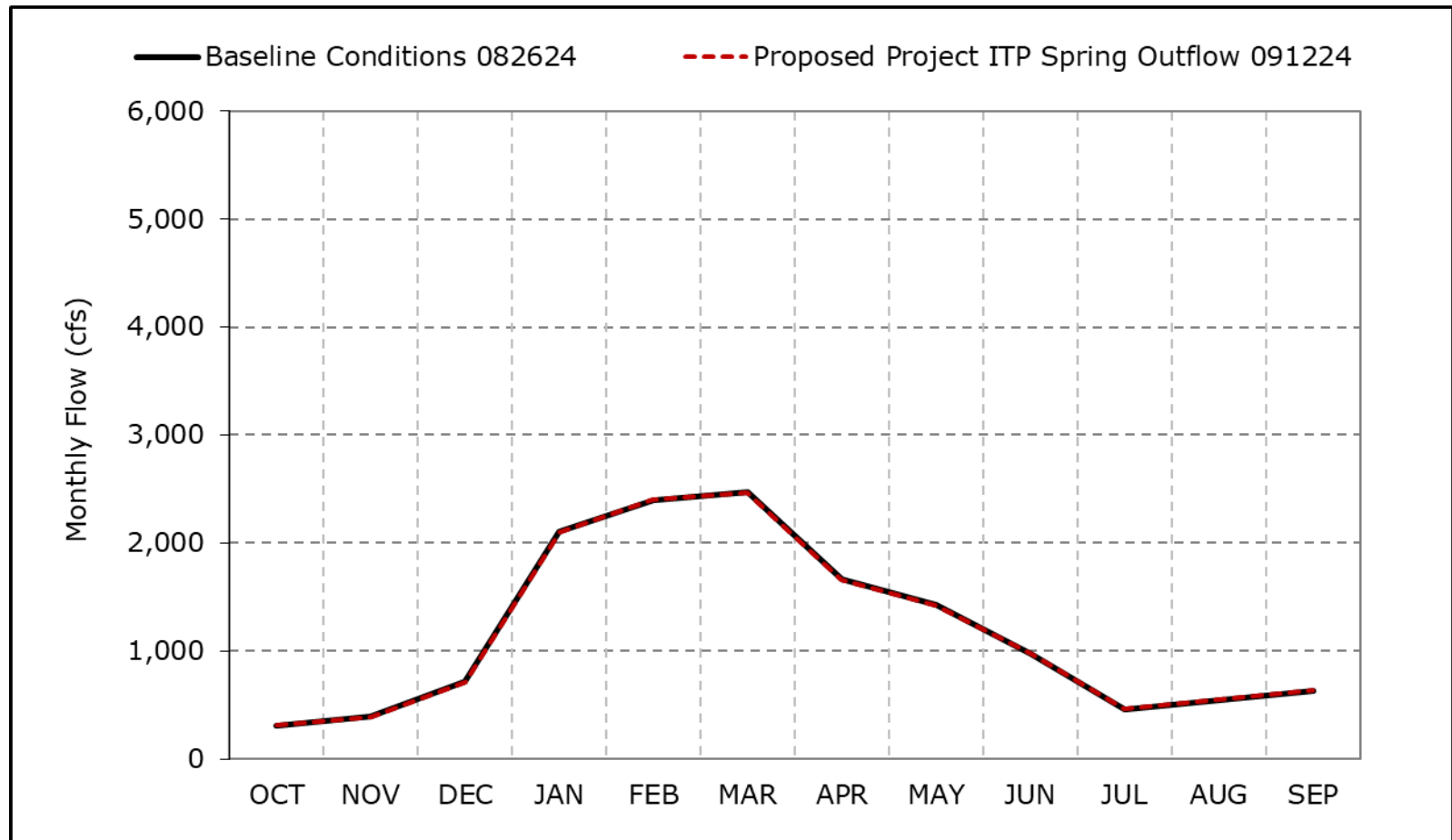


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7c. Mokelumne River below Cosumnes, Above Normal Year Average Flow**

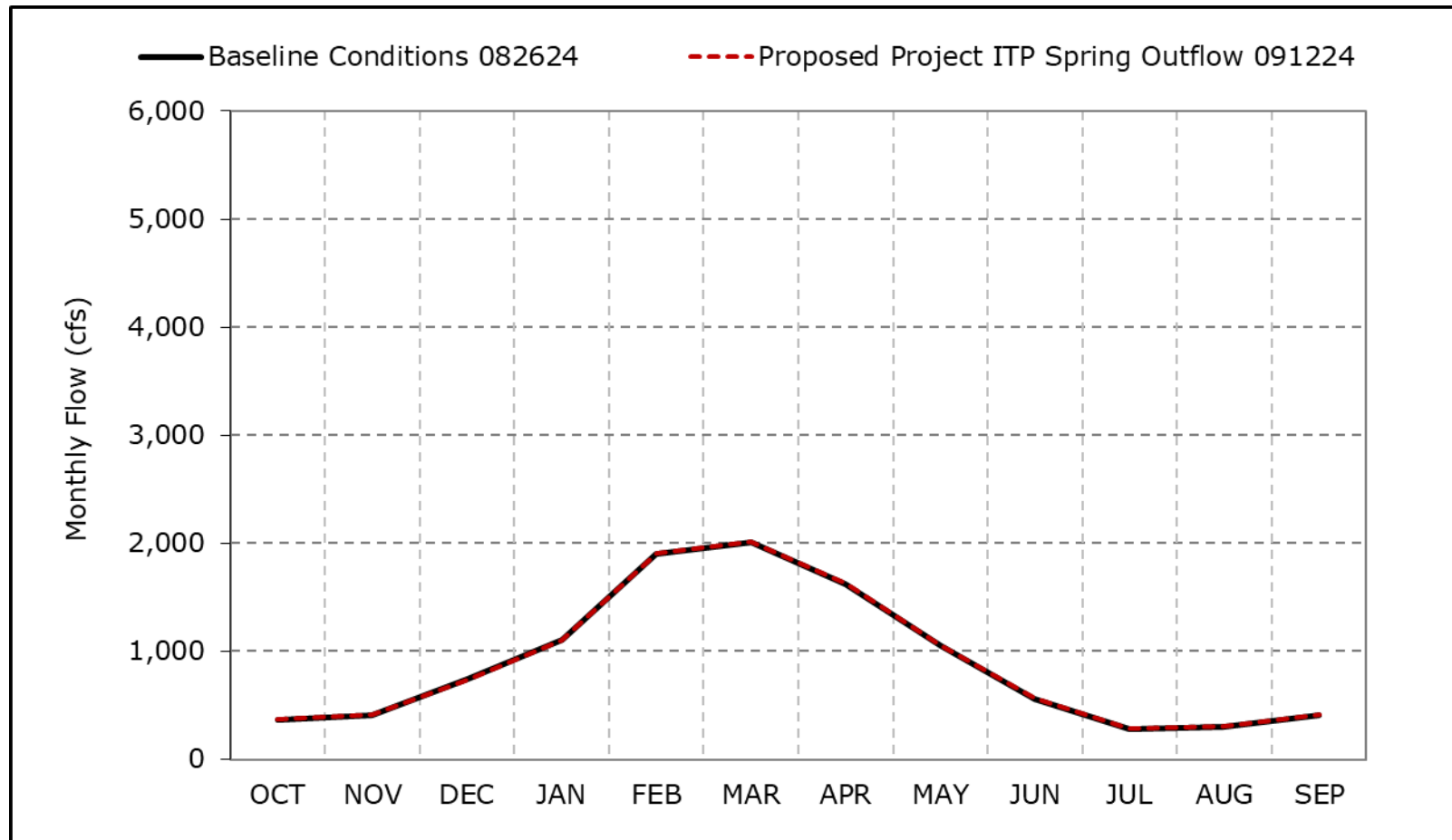


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7d. Mokelumne River below Cosumnes, Below Normal Year Average Flow**

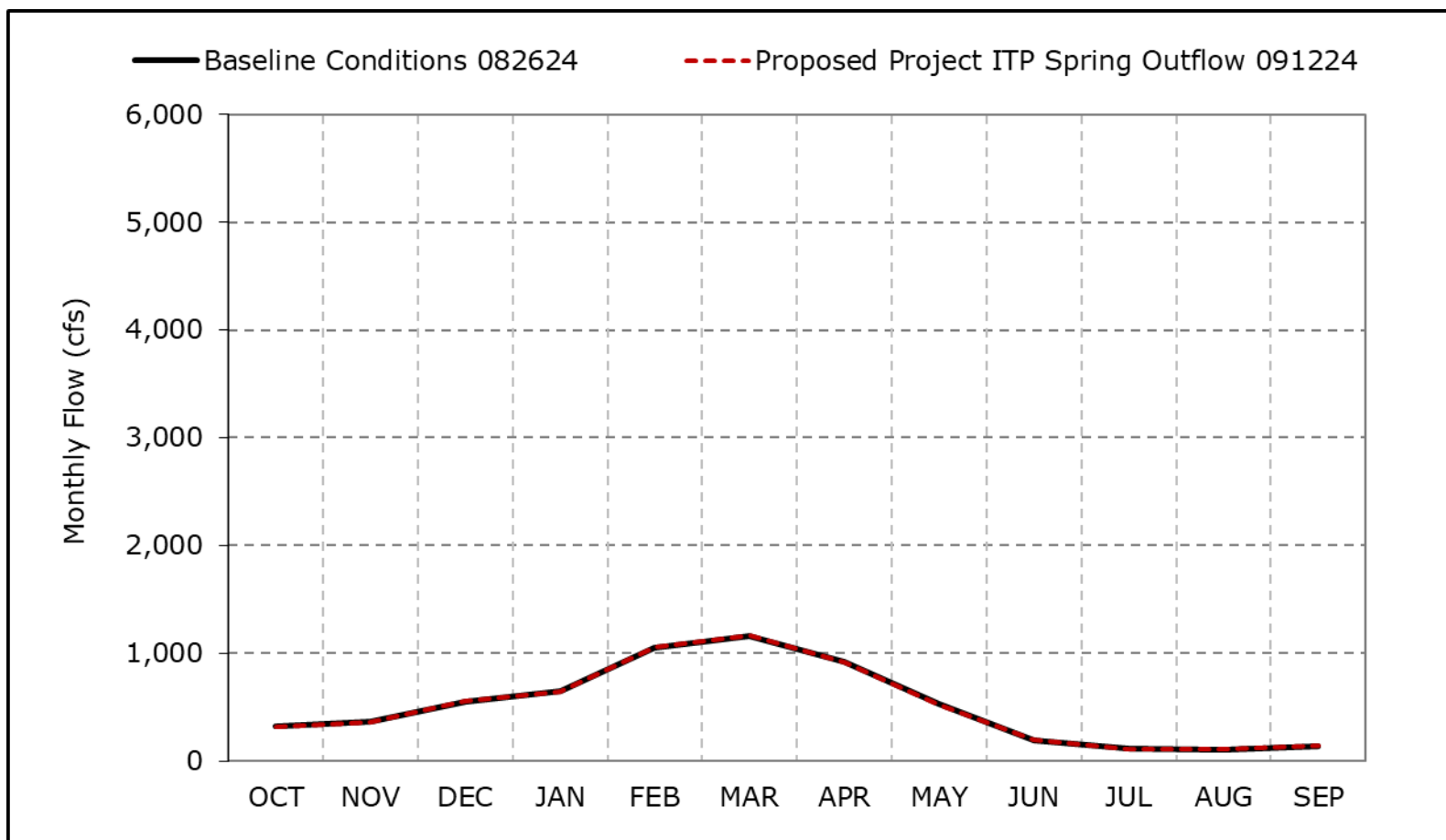


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7e. Mokelumne River below Cosumnes, Dry Year Average Flow**

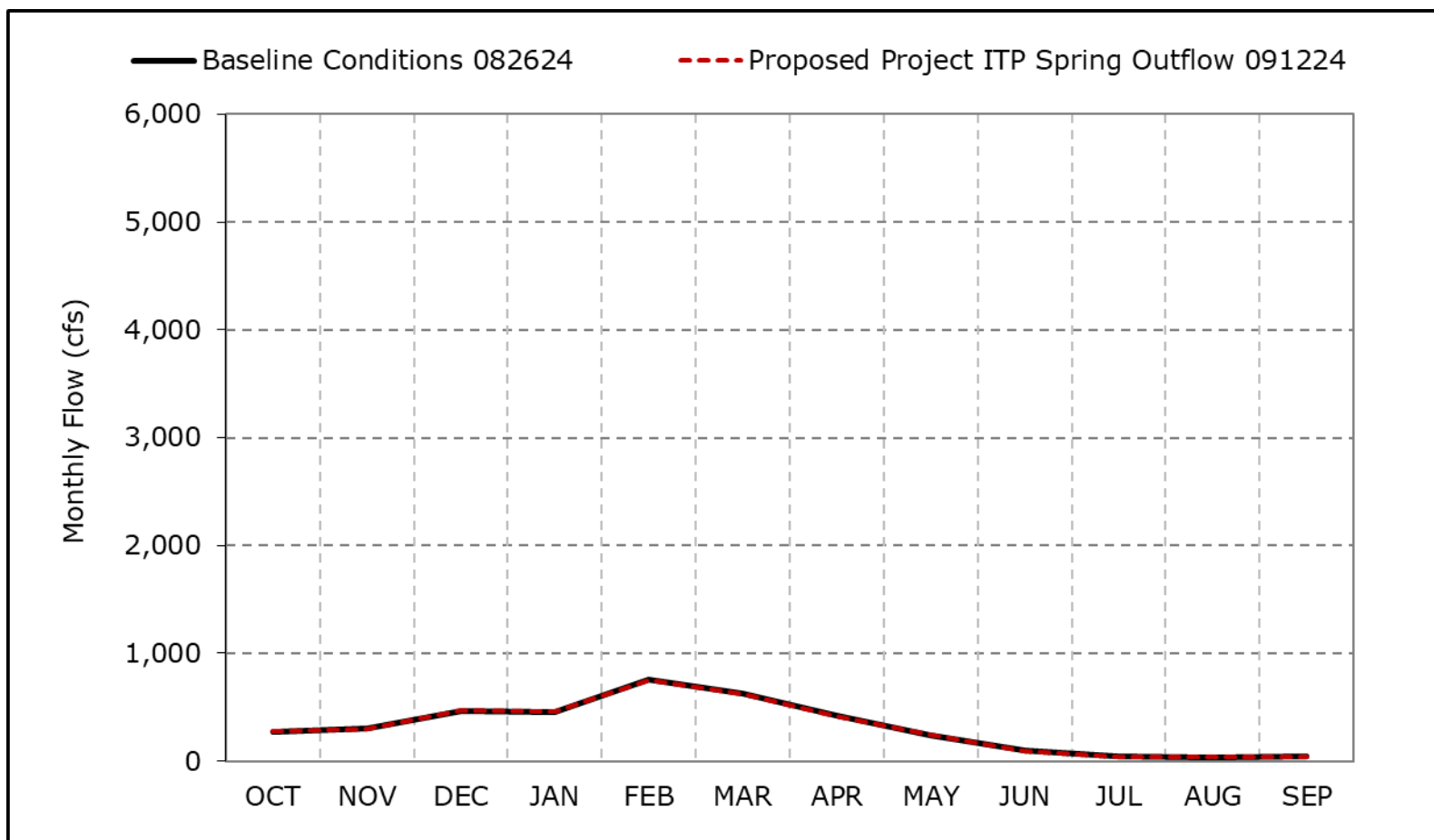


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7f. Mokelumne River below Cosumnes, Critical Year Average Flow**

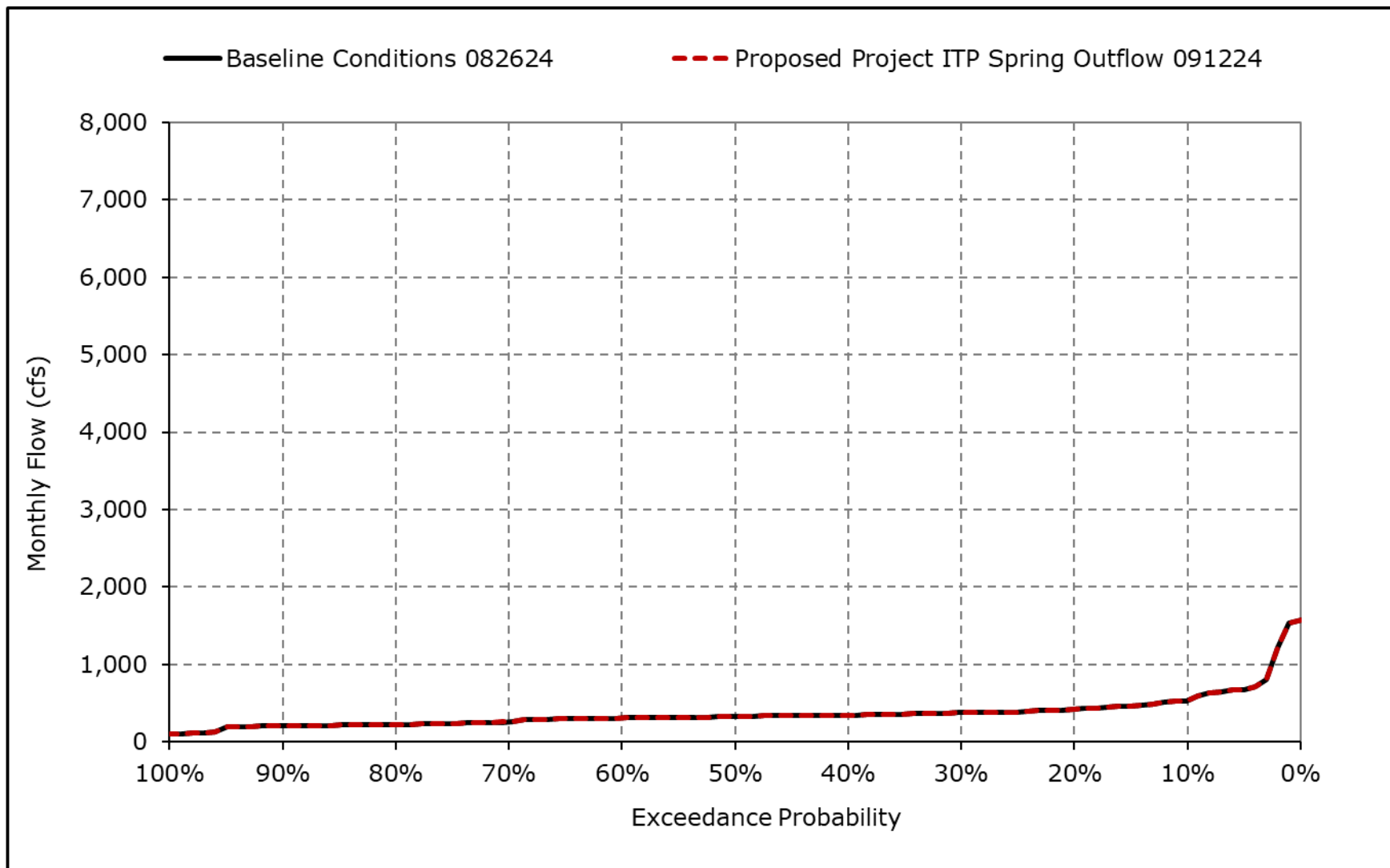


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

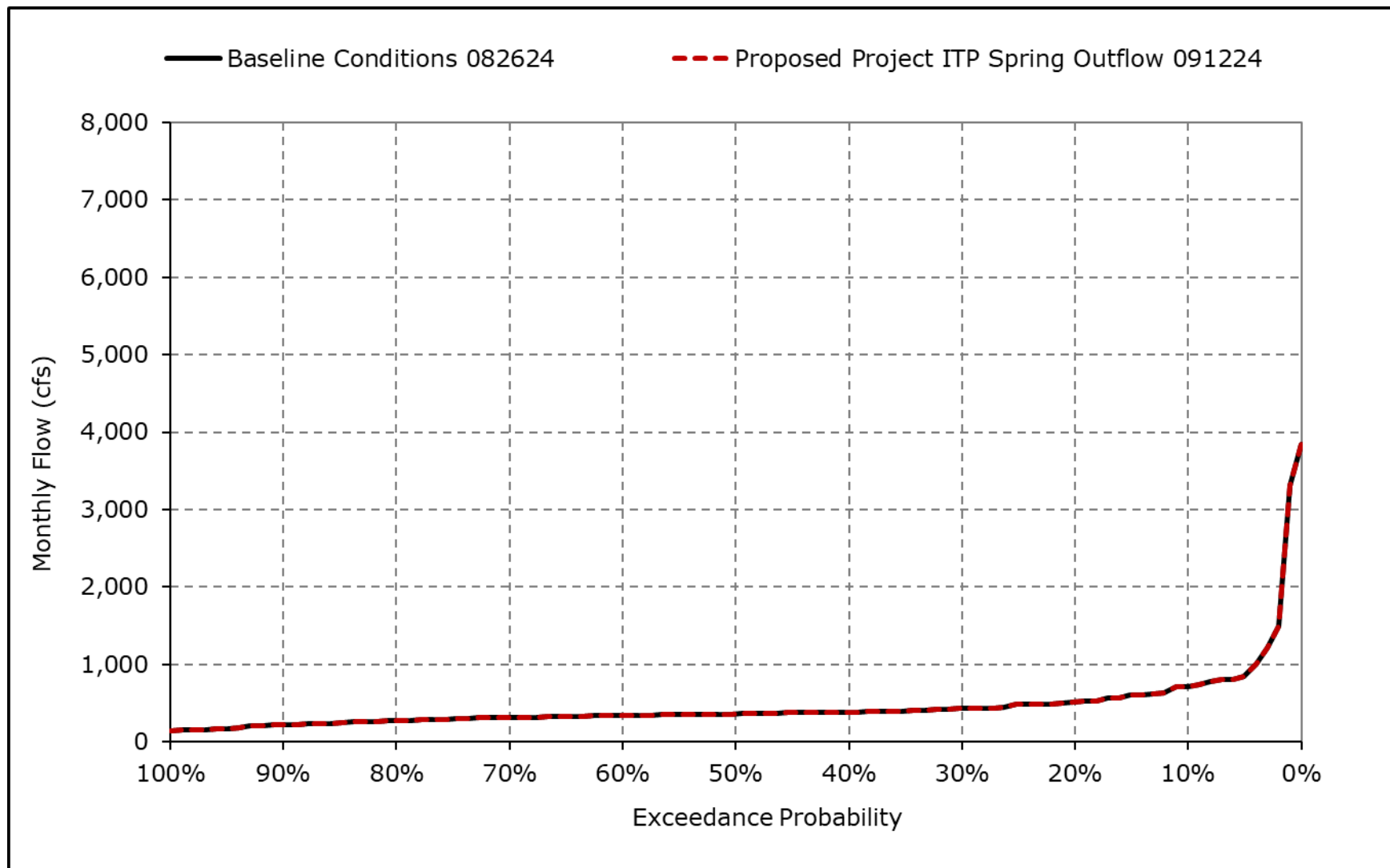
**Figure 4L-3-7g. Mokelumne River below Cosumnes, October**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

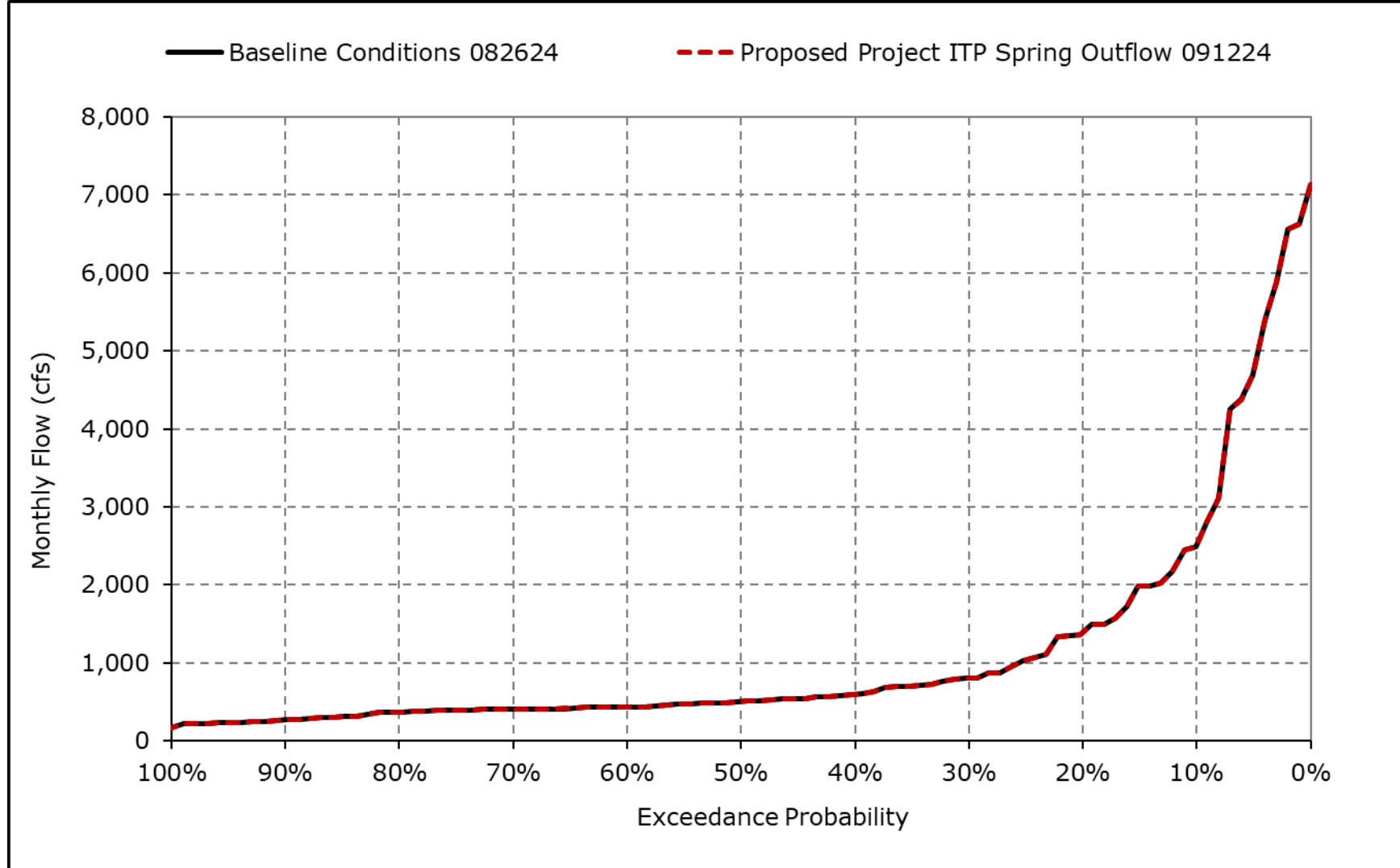


**Figure 4L-3-7h. Mokelumne River below Cosumnes, November**



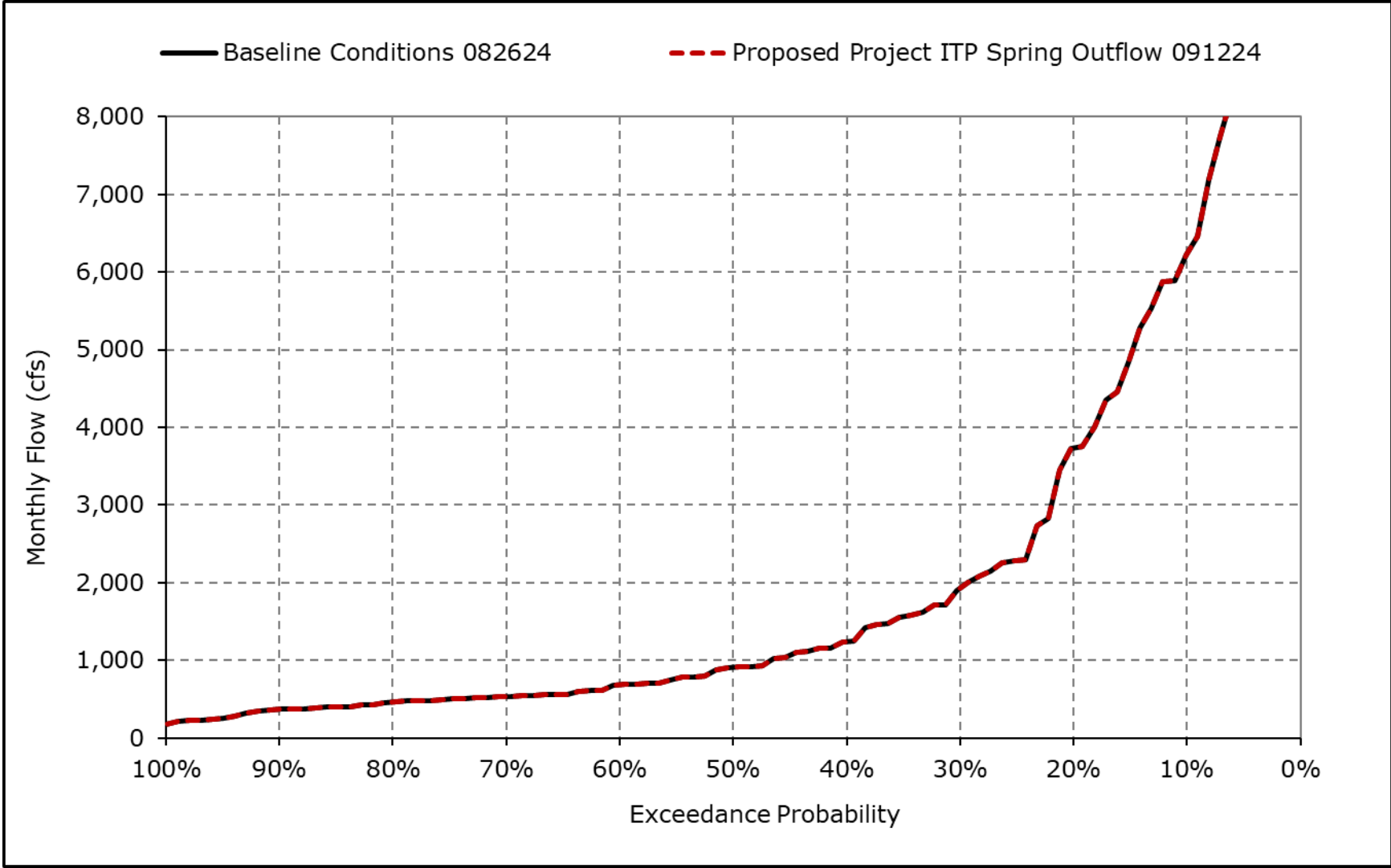
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7i. Mokelumne River below Cosumnes, December**



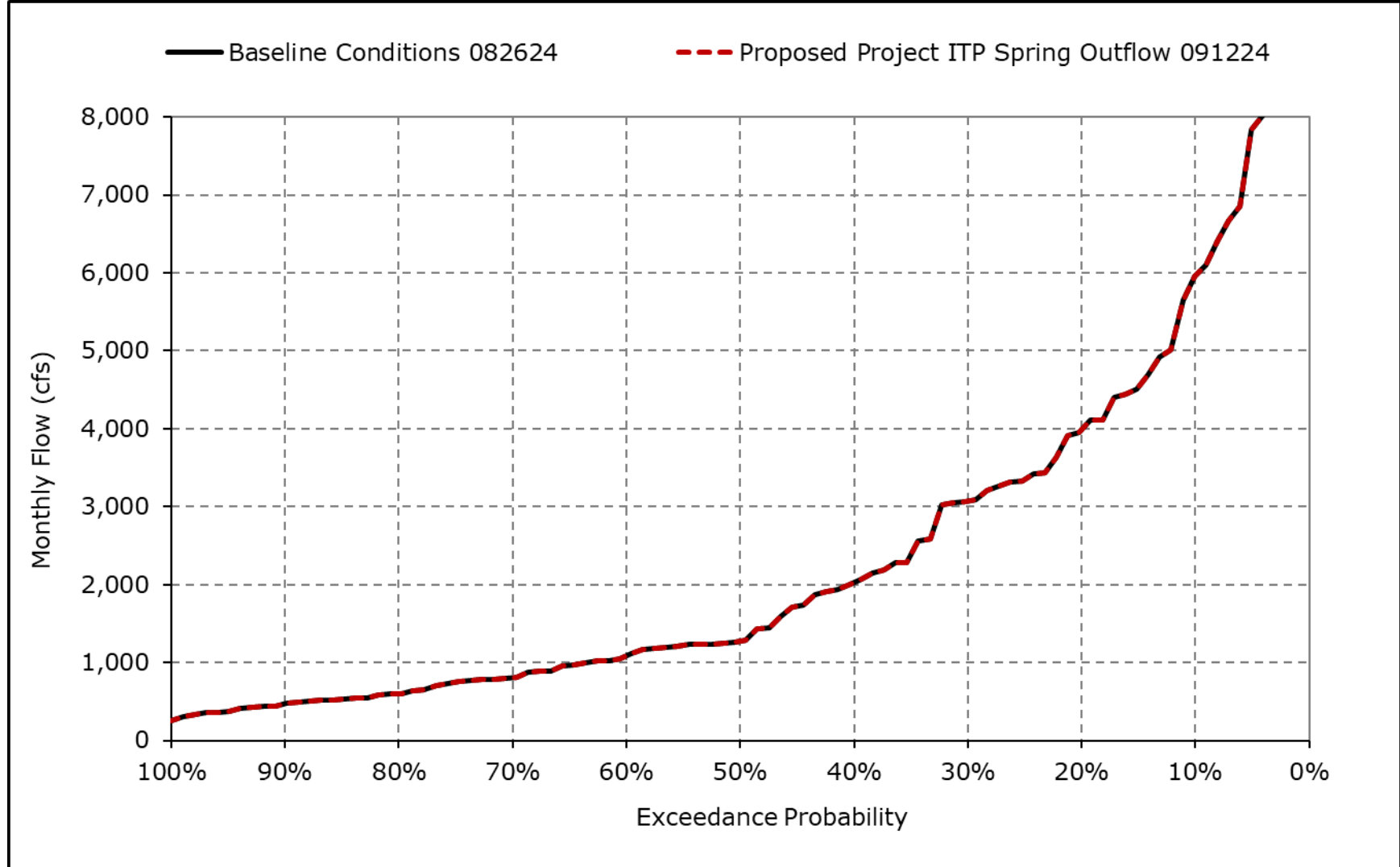
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7j. Mokelumne River below Cosumnes, January**



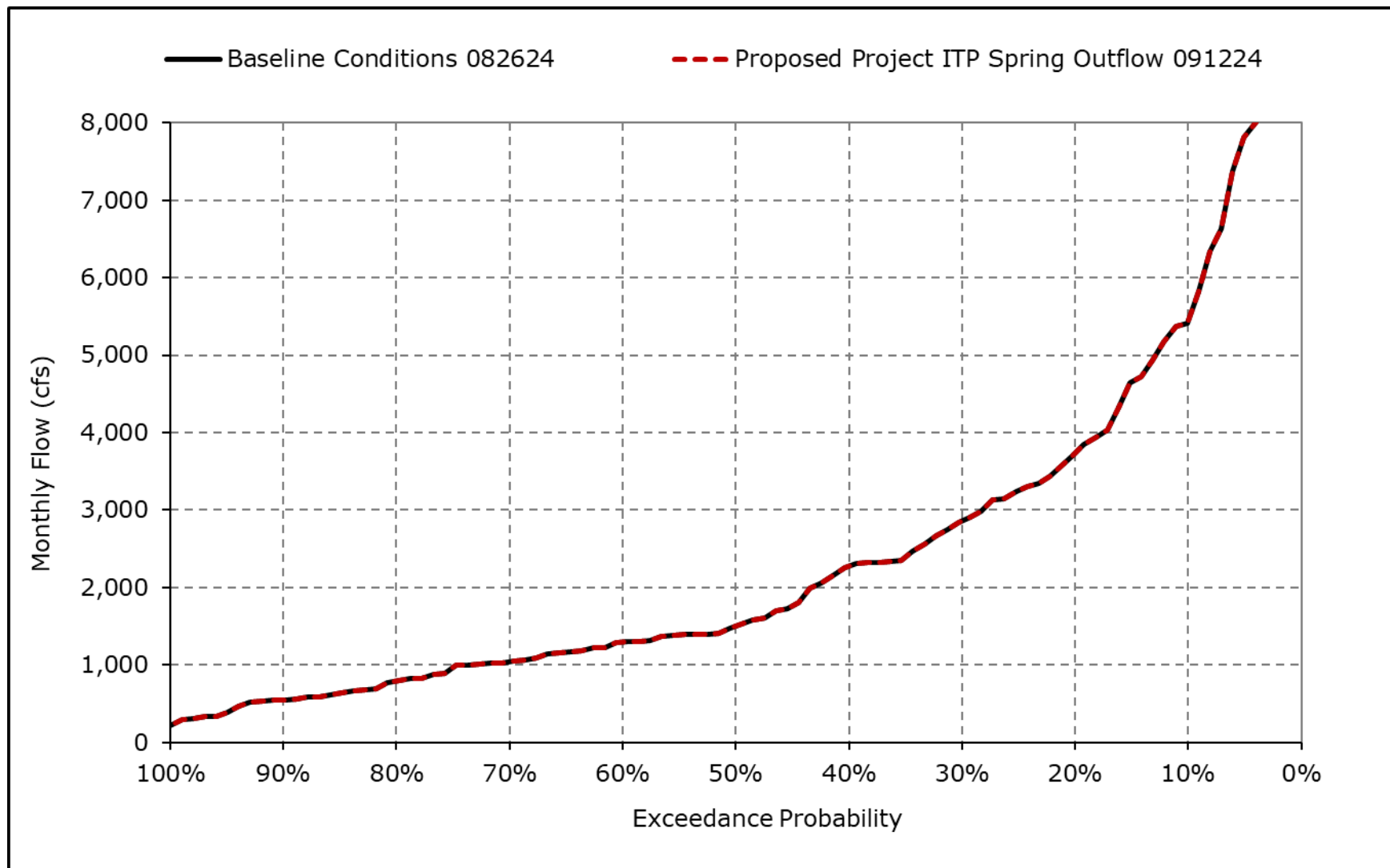
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7k. Mokelumne River below Cosumnes, February**



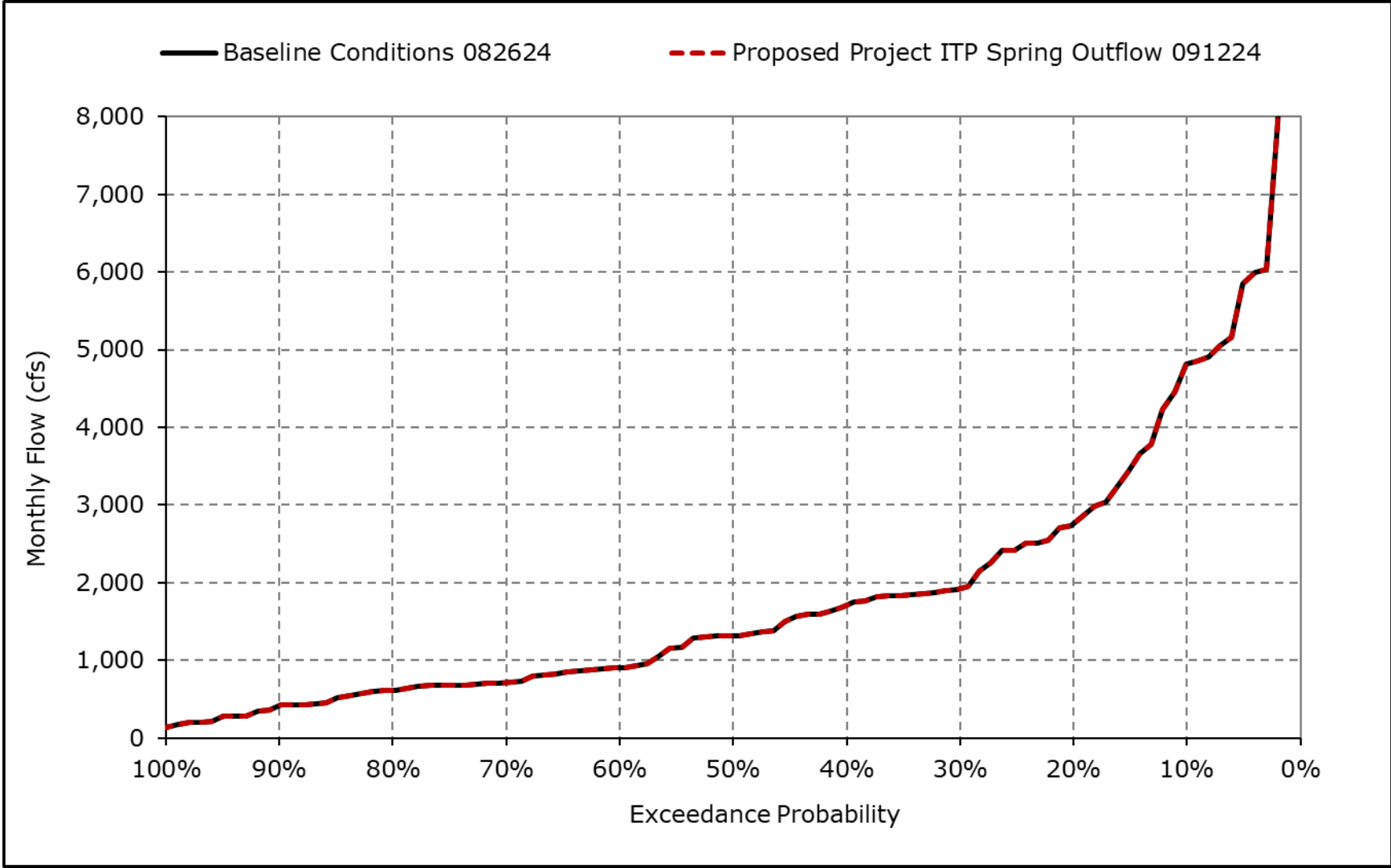
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7I. Mokelumne River below Cosumnes, March**



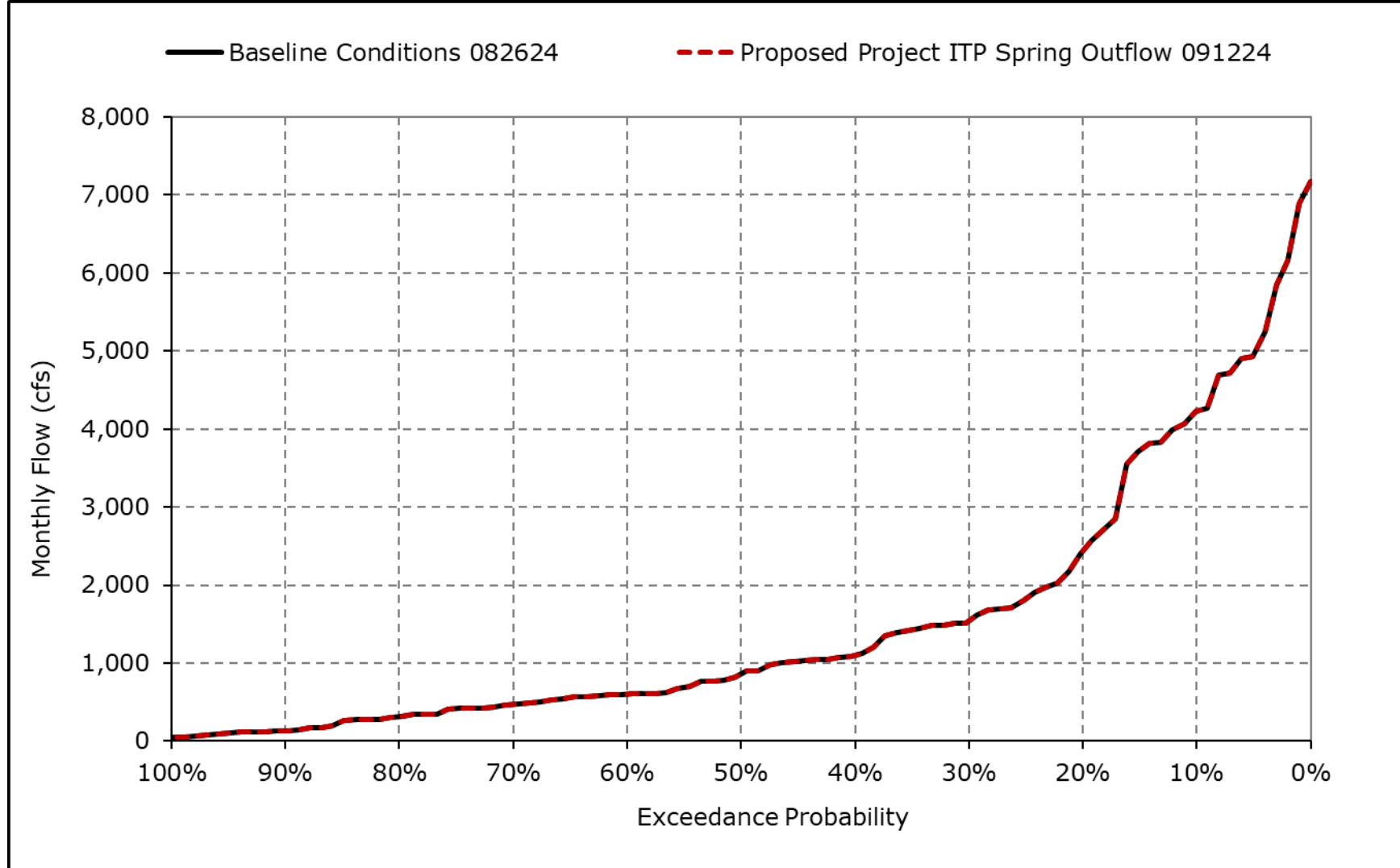
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7m. Mokelumne River below Cosumnes, April**



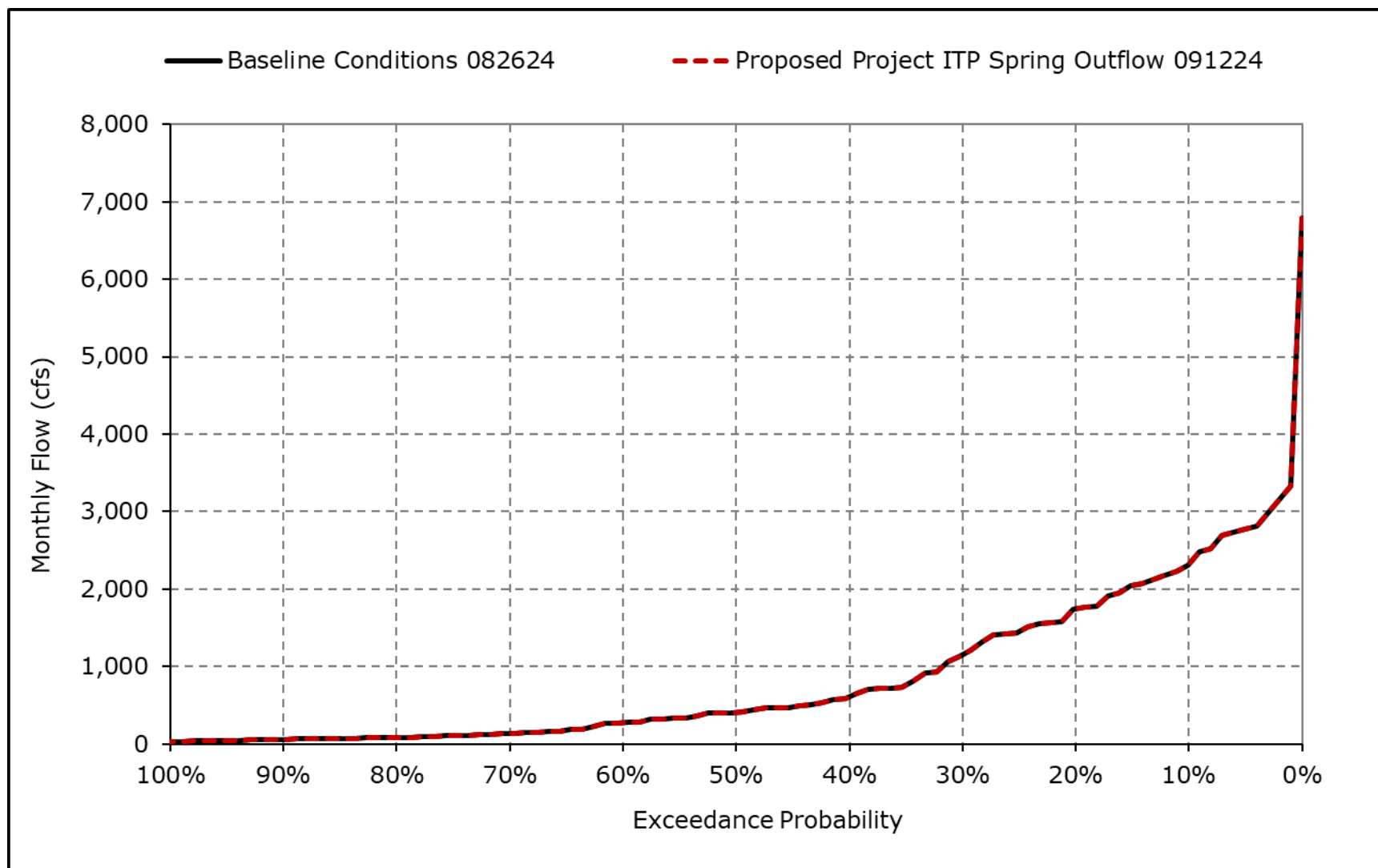
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7n. Mokelumne River below Cosumnes, May**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

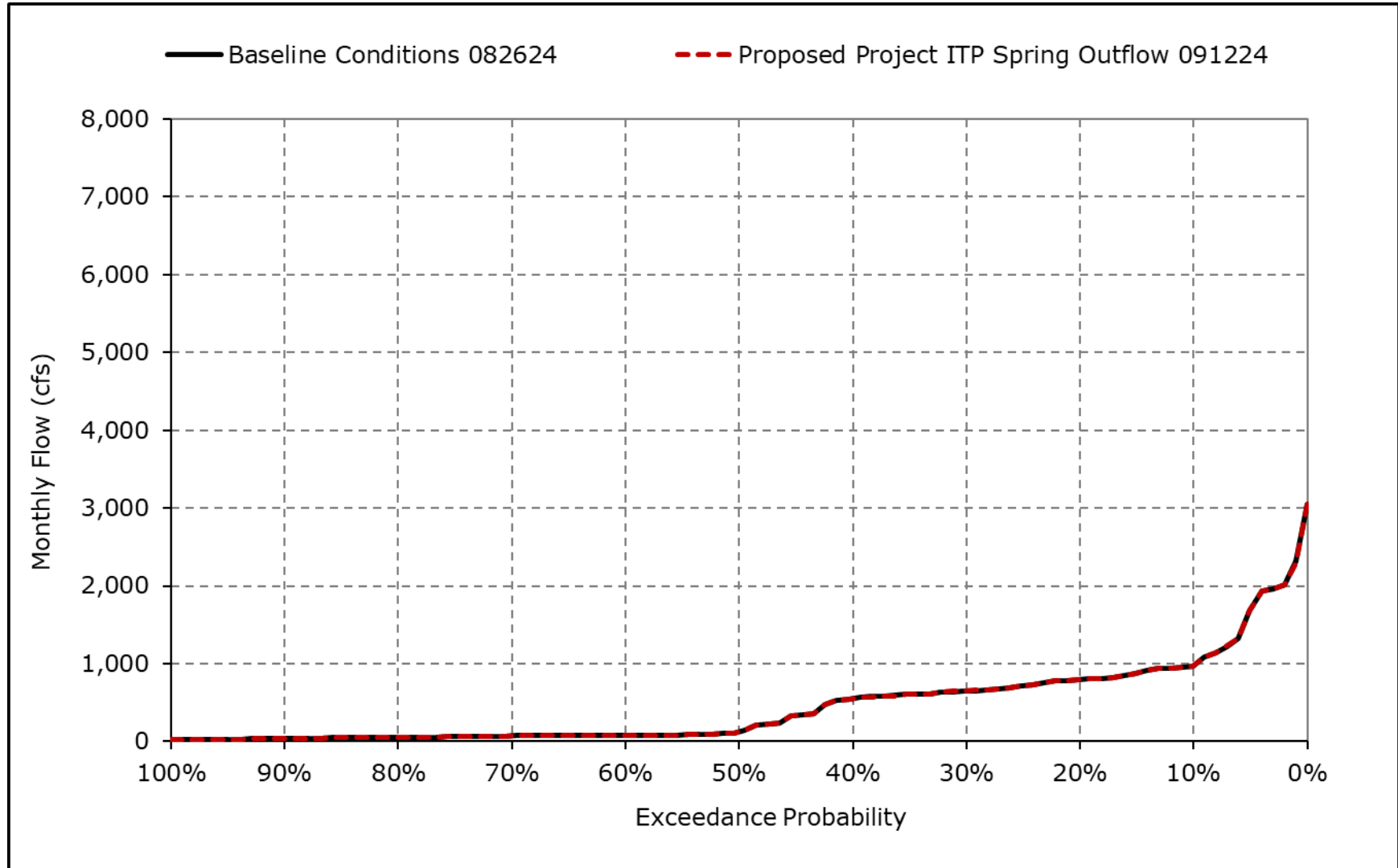
**Figure 4L-3-7o. Mokelumne River below Cosumnes, June**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

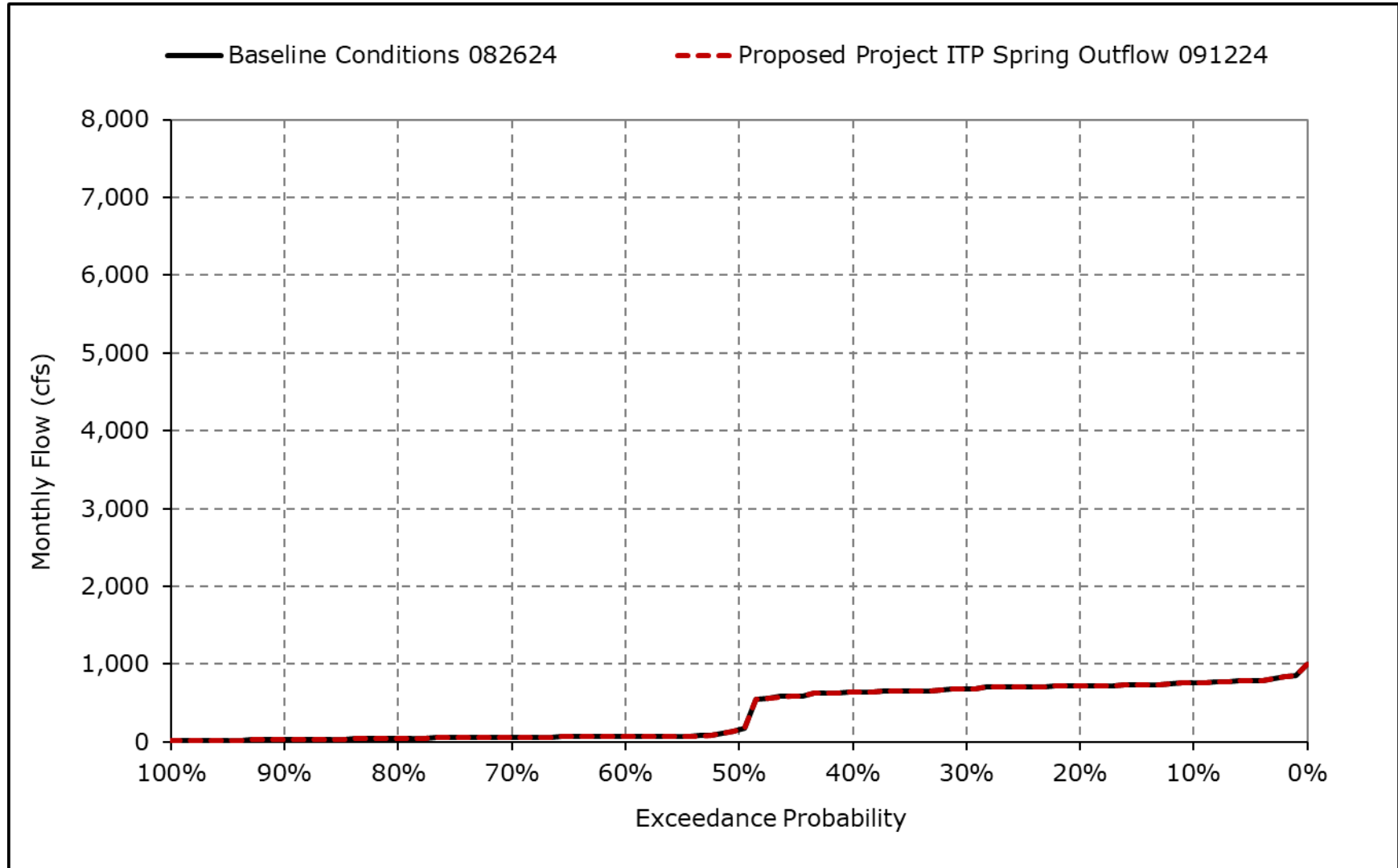


**Figure 4L-3-7p. Mokelumne River below Cosumnes, July**



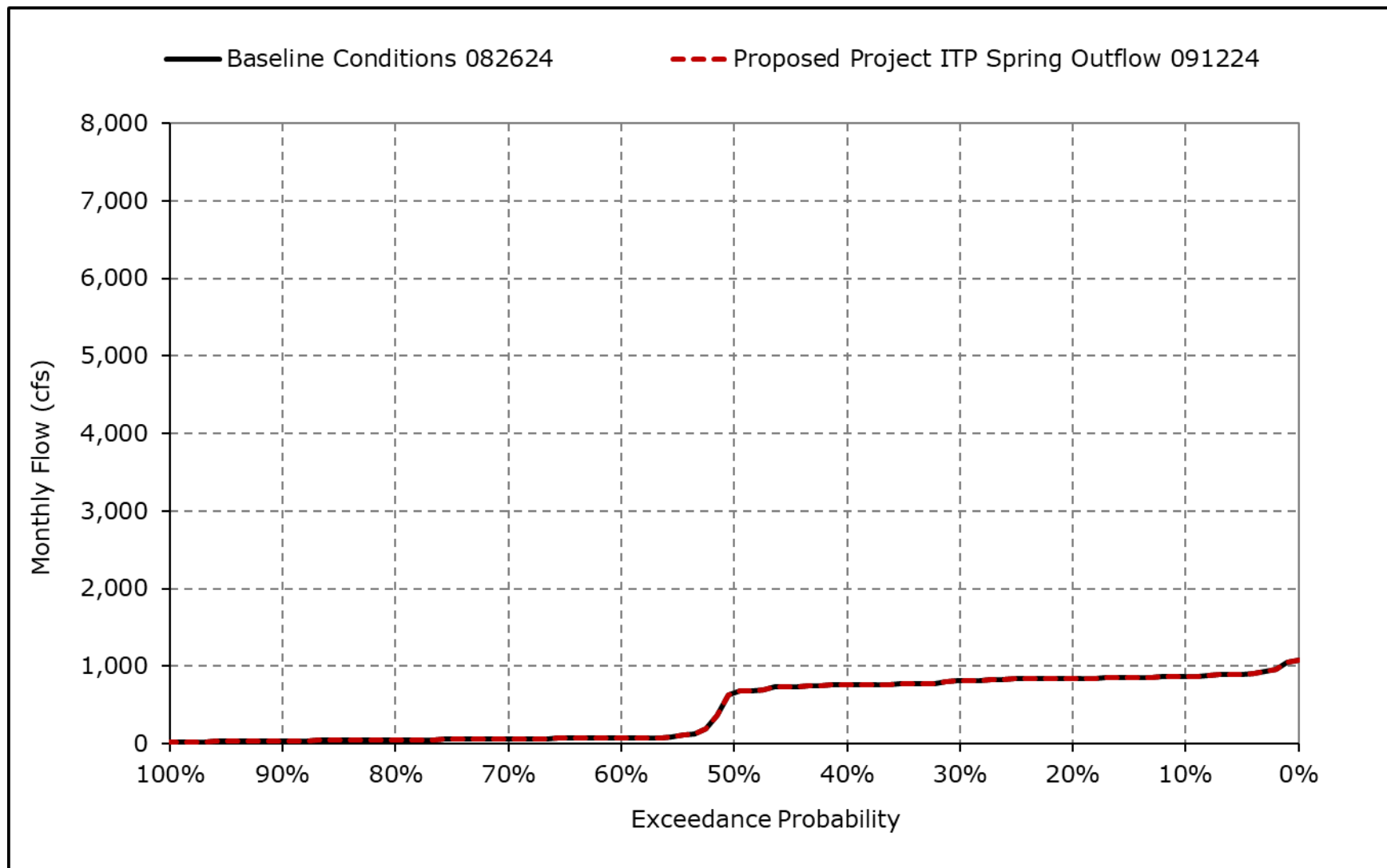
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7q. Mokelumne River below Cosumnes, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-7r. Mokelumne River below Cosumnes, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-8-1a. Old and Middle River Flow, Baseline Conditions 082624, Monthly Flow (combined flows)(cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul     | Aug     | Sep    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 10% Exceedance                              | -2,274 | -1,649 | -2,406 | -2,131 | -1,898 | -1,346 | 1,295  | 378    | -1,804 | -2,912  | -2,356  | -3,403 |
| 20% Exceedance                              | -3,666 | -3,268 | -3,217 | -3,645 | -4,292 | -2,829 | 244    | -449   | -3,630 | -5,028  | -3,284  | -4,197 |
| 30% Exceedance                              | -4,046 | -3,960 | -4,910 | -3,645 | -4,329 | -3,370 | -268   | -976   | -4,388 | -7,261  | -4,497  | -5,031 |
| 40% Exceedance                              | -4,731 | -5,828 | -5,290 | -3,645 | -4,329 | -3,409 | -526   | -1,386 | -4,544 | -8,783  | -7,286  | -5,664 |
| 50% Exceedance                              | -5,332 | -6,717 | -5,290 | -4,516 | -4,464 | -3,413 | -754   | -1,595 | -4,839 | -9,595  | -9,097  | -6,322 |
| 60% Exceedance                              | -5,847 | -8,370 | -5,290 | -4,516 | -4,464 | -3,425 | -1,059 | -1,728 | -5,000 | -10,065 | -9,607  | -7,669 |
| 70% Exceedance                              | -6,348 | -8,874 | -5,290 | -4,516 | -4,464 | -3,442 | -1,262 | -1,998 | -5,000 | -10,775 | -10,252 | -8,624 |
| 80% Exceedance                              | -7,357 | -9,131 | -6,062 | -4,608 | -4,483 | -4,191 | -1,413 | -2,405 | -5,000 | -11,108 | -10,585 | -9,394 |
| 90% Exceedance                              | -8,501 | -9,492 | -8,156 | -5,000 | -4,963 | -4,196 | -1,873 | -3,587 | -5,000 | -11,401 | -11,155 | -9,911 |
| Full Simulation Period Average <sup>a</sup> | -5,339 | -6,250 | -5,185 | -3,569 | -3,743 | -2,825 | -493   | -1,445 | -4,138 | -8,442  | -7,480  | -6,690 |
| Wet Water Years (32%)                       | -6,285 | -7,266 | -5,452 | -2,870 | -2,540 | -1,398 | -677   | -2,092 | -3,976 | -9,344  | -9,910  | -8,390 |
| Above Normal Water Years (9%)               | -4,689 | -6,826 | -6,718 | -4,183 | -4,331 | -3,391 | -735   | -2,338 | -4,820 | -9,926  | -10,090 | -6,690 |
| Below Normal Water Years (20%)              | -5,629 | -6,728 | -5,134 | -4,167 | -4,301 | -3,666 | 516    | -585   | -4,842 | -10,771 | -9,792  | -8,294 |
| Dry Water Years (21%)                       | -5,146 | -6,261 | -5,156 | -4,097 | -4,421 | -3,902 | -767   | -1,020 | -4,859 | -8,634  | -4,813  | -5,392 |
| Critical Water Years (18%)                  | -3,887 | -3,609 | -4,032 | -3,222 | -4,177 | -2,887 | -845   | -1,299 | -2,459 | -3,286  | -2,396  | -3,400 |

**Table 4L-3-8-1b. Old and Middle River Flow, Proposed Project ITP Spring Outflow 091224, Monthly Flow (combined flows)(cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul     | Aug     | Sep     |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 10% Exceedance                              | -2,517 | -1,692 | -2,515 | -2,486 | -2,387 | -1,329 | 1,295  | 371    | -1,978 | -3,060  | -2,282  | -3,472  |
| 20% Exceedance                              | -3,605 | -3,270 | -3,386 | -3,318 | -3,611 | -3,161 | 240    | -449   | -3,562 | -5,149  | -3,333  | -4,206  |
| 30% Exceedance                              | -4,027 | -3,986 | -5,137 | -3,569 | -3,792 | -3,411 | -270   | -977   | -4,069 | -7,441  | -4,821  | -5,072  |
| 40% Exceedance                              | -4,461 | -5,675 | -5,290 | -3,645 | -3,897 | -3,415 | -585   | -1,449 | -4,115 | -8,736  | -7,424  | -5,979  |
| 50% Exceedance                              | -5,430 | -6,806 | -5,290 | -4,042 | -3,963 | -3,487 | -780   | -1,636 | -4,148 | -9,493  | -9,477  | -7,101  |
| 60% Exceedance                              | -5,837 | -8,372 | -5,290 | -4,235 | -4,058 | -3,562 | -1,037 | -1,792 | -4,262 | -10,321 | -10,142 | -8,488  |
| 70% Exceedance                              | -6,327 | -8,875 | -5,290 | -4,385 | -4,265 | -3,817 | -1,268 | -2,015 | -4,310 | -10,914 | -10,827 | -9,733  |
| 80% Exceedance                              | -6,872 | -9,132 | -6,154 | -4,439 | -4,357 | -3,859 | -1,405 | -2,379 | -4,400 | -11,231 | -11,070 | -10,421 |
| 90% Exceedance                              | -8,446 | -9,493 | -8,434 | -4,700 | -4,379 | -4,237 | -1,759 | -3,857 | -4,400 | -11,434 | -11,481 | -10,875 |
| Full Simulation Period Average <sup>a</sup> | -5,280 | -6,239 | -5,203 | -3,462 | -3,406 | -2,888 | -500   | -1,495 | -3,694 | -8,514  | -7,780  | -7,211  |
| Wet Water Years (32%)                       | -6,186 | -7,216 | -5,485 | -2,761 | -2,467 | -1,816 | -692   | -2,175 | -3,430 | -9,425  | -10,307 | -9,740  |
| Above Normal Water Years (9%)               | -4,535 | -6,812 | -6,858 | -4,010 | -3,946 | -3,525 | -718   | -2,445 | -4,119 | -10,278 | -10,656 | -7,957  |
| Below Normal Water Years (20%)              | -5,443 | -6,759 | -5,150 | -3,995 | -3,869 | -3,580 | 495    | -647   | -4,296 | -10,704 | -10,262 | -8,296  |
| Dry Water Years (21%)                       | -5,263 | -6,288 | -5,039 | -4,041 | -3,862 | -3,687 | -767   | -1,027 | -4,380 | -8,783  | -4,929  | -5,280  |
| Critical Water Years (18%)                  | -3,881 | -3,581 | -4,125 | -3,167 | -3,762 | -2,774 | -843   | -1,299 | -2,480 | -3,266  | -2,418  | -3,391  |

**Table 4L-3-8-1c. Old and Middle River Flow, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (combined flows)(cfs)**

| Statistic                                   | Oct  | Nov | Dec  | Jan  | Feb  | Mar  | Apr | May  | Jun  | Jul  | Aug  | Sep    |
|---|------|-----|------|------|------|------|-----|------|------|------|------|--------|
| 10% Exceedance                              | -243 | -43 | -109 | -355 | -489 | 17   | 0   | -7   | -174 | -148 | 73   | -69    |
| 20% Exceedance                              | 61   | -2  | -168 | 327  | 680  | -332 | -4  | -1   | 67   | -121 | -49  | -10    |
| 30% Exceedance                              | 19   | -26 | -227 | 76   | 537  | -41  | -2  | -1   | 319  | -181 | -325 | -41    |
| 40% Exceedance                              | 271  | 154 | 0    | 0    | 432  | -6   | -59 | -63  | 429  | 47   | -138 | -315   |
| 50% Exceedance                              | -98  | -89 | 0    | 474  | 501  | -74  | -26 | -41  | 692  | 101  | -380 | -779   |
| 60% Exceedance                              | 10   | -1  | 0    | 281  | 406  | -137 | 22  | -64  | 738  | -256 | -534 | -819   |
| 70% Exceedance                              | 21   | -1  | 0    | 131  | 199  | -375 | -7  | -16  | 690  | -139 | -575 | -1,109 |
| 80% Exceedance                              | 486  | -1  | -92  | 168  | 126  | 332  | 8   | 27   | 600  | -123 | -485 | -1,027 |
| 90% Exceedance                              | 54   | -1  | -278 | 300  | 584  | -41  | 114 | -270 | 600  | -33  | -326 | -963   |
| Full Simulation Period Average <sup>a</sup> | 59   | 10  | -18  | 106  | 337  | -63  | -7  | -50  | 444  | -72  | -300 | -522   |
| Wet Water Years (32%)                       | 99   | 50  | -33  | 109  | 73   | -418 | -15 | -83  | 546  | -82  | -397 | -1,350 |
| Above Normal Water Years (9%)               | 155  | 14  | -140 | 173  | 385  | -133 | 17  | -107 | 701  | -352 | -565 | -1,268 |
| Below Normal Water Years (20%)              | 186  | -30 | -16  | 172  | 432  | 85   | -21 | -62  | 546  | 67   | -470 | -2     |
| Dry Water Years (21%)                       | -117 | -28 | 117  | 56   | 559  | 215  | 0   | -8   | 479  | -149 | -116 | 112    |
| Critical Water Years (18%)                  | 6    | 28  | -92  | 55   | 415  | 113  | 2   | 0    | -21  | 20   | -22  | 9      |

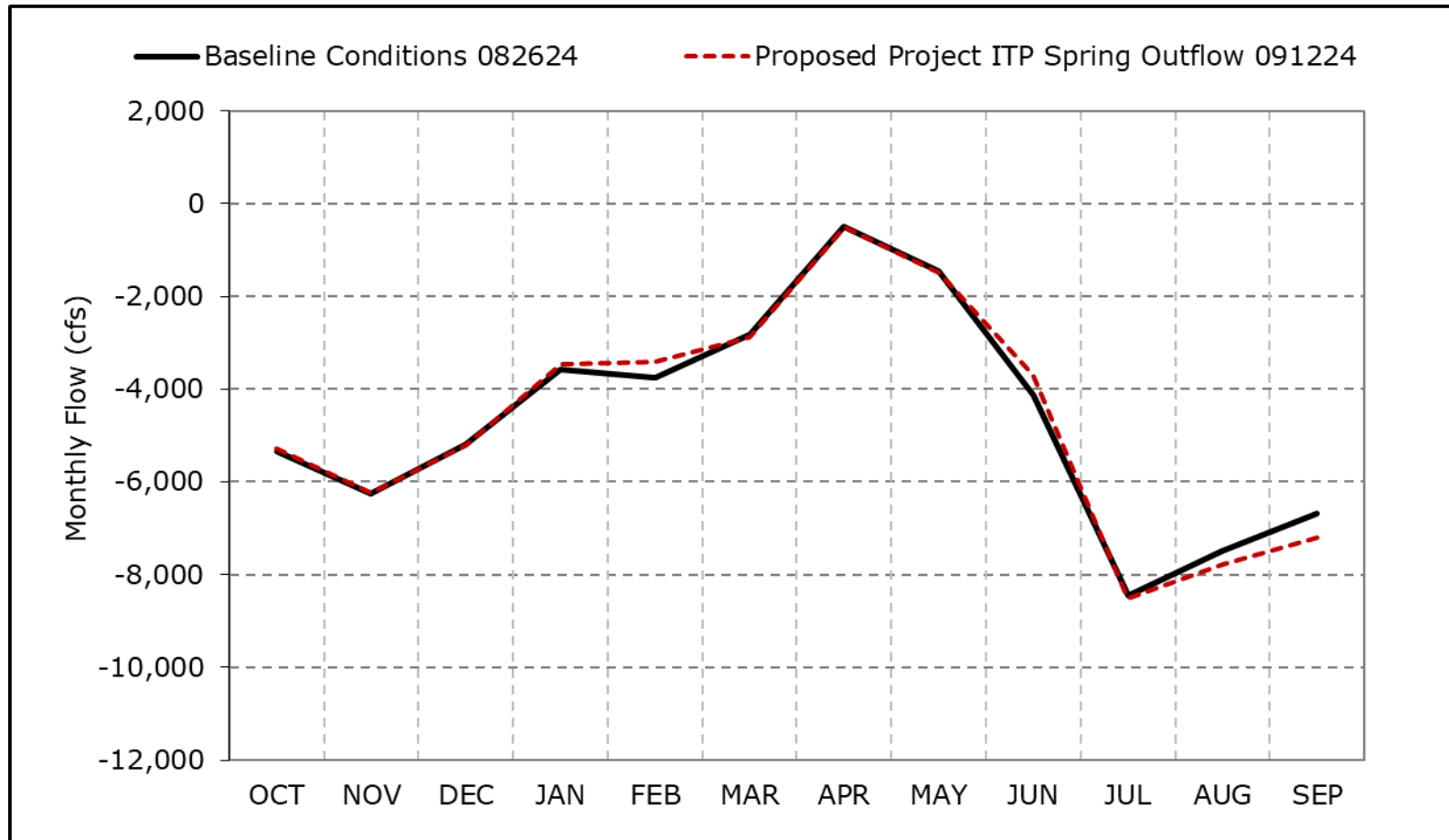
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-8a. Old and Middle River Flow, Long-Term Average Flow**

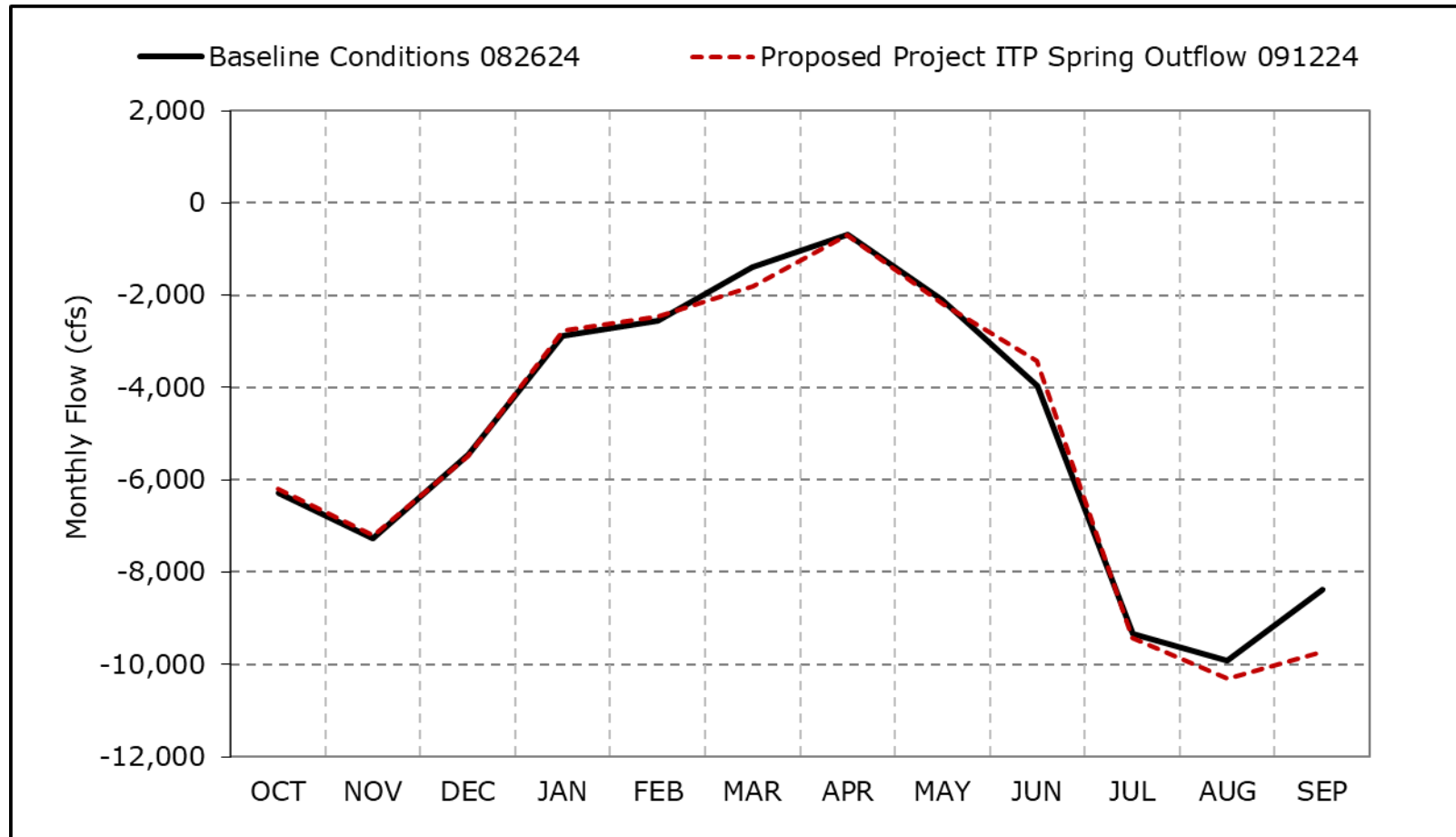


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8b. Old and Middle River Flow, Wet Year Average Flow**

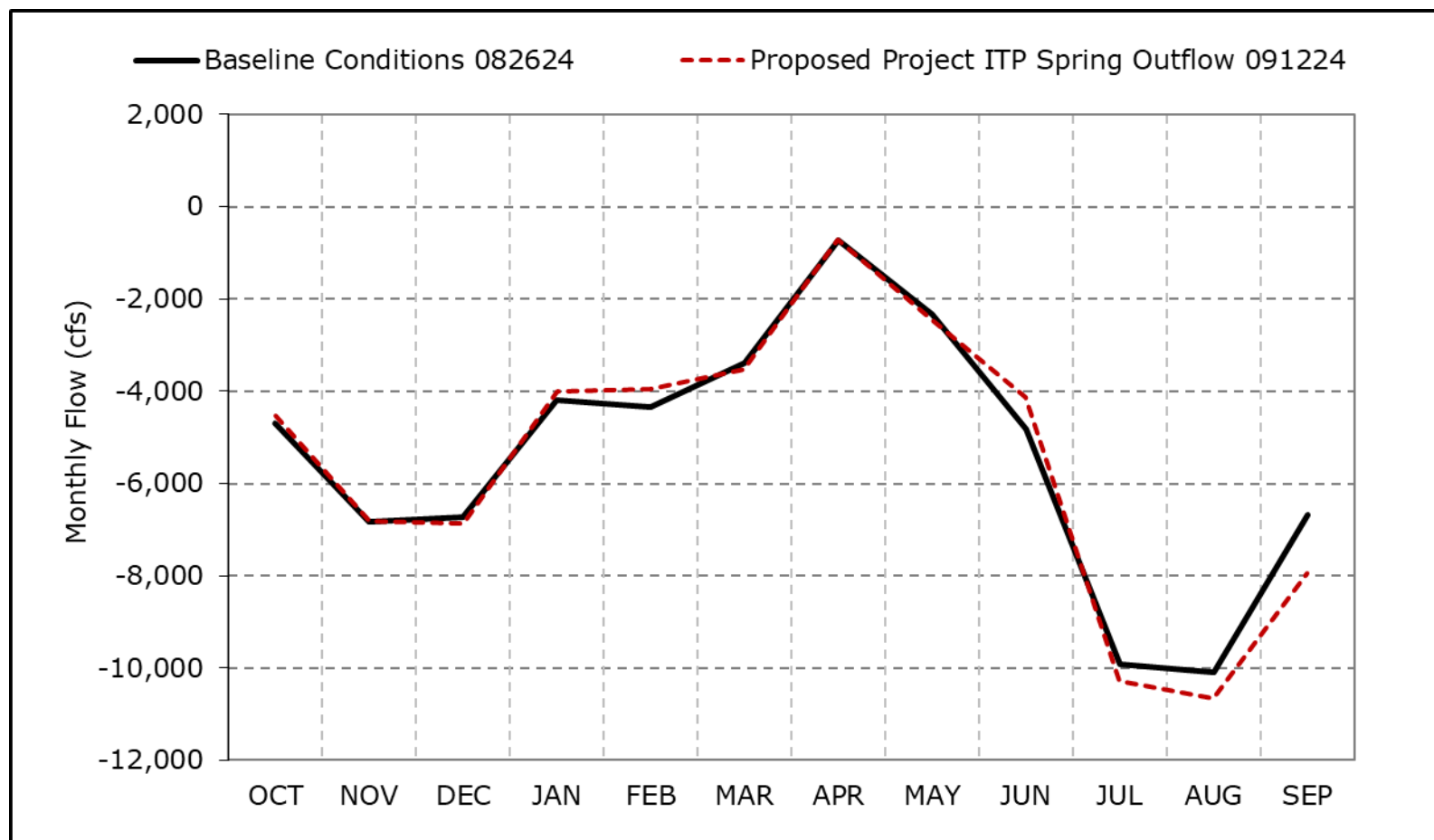


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8c. Old and Middle River Flow, Above Normal Year Average Flow**

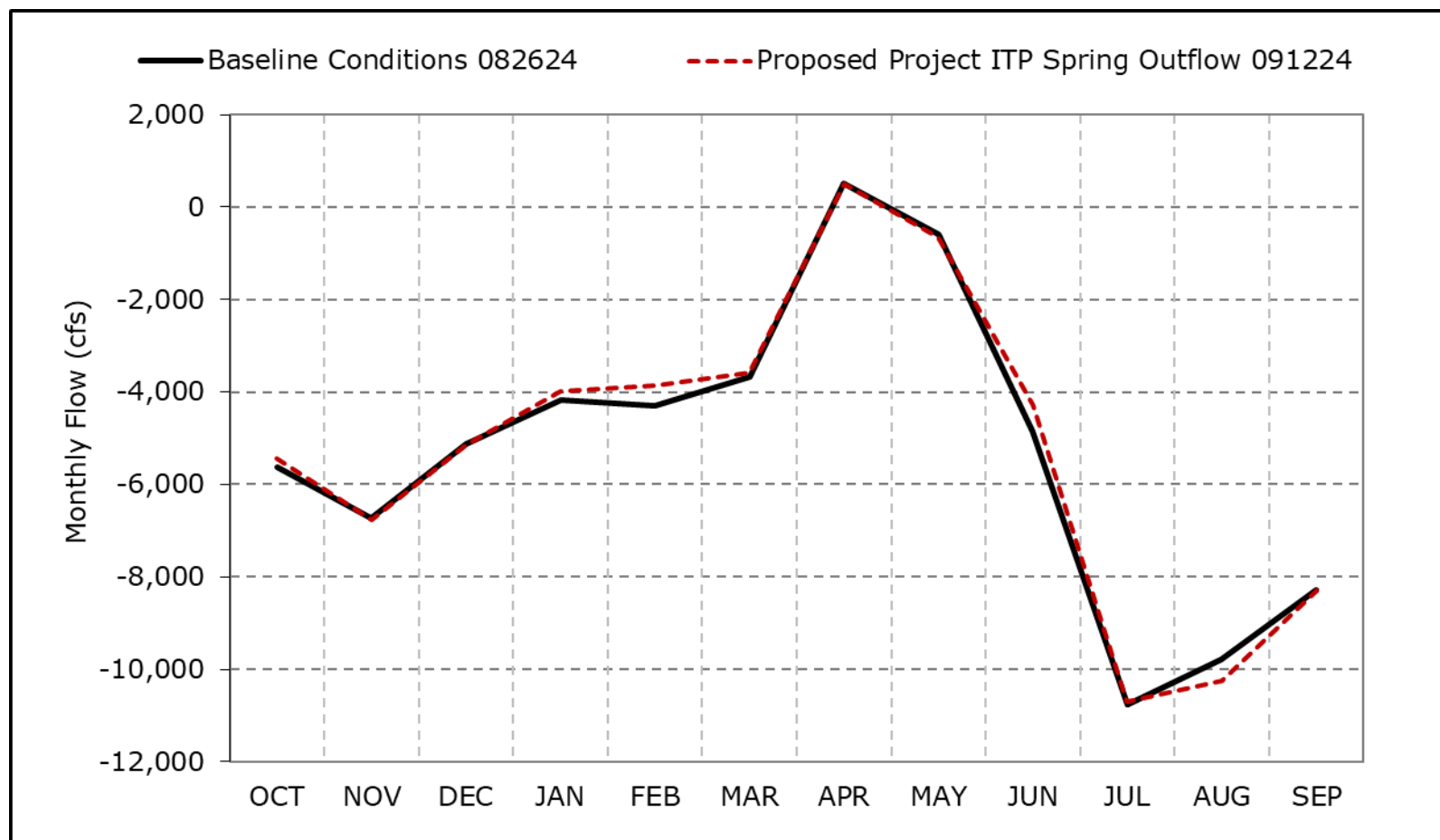


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8d. Old and Middle River Flow, Below Normal Year Average Flow**



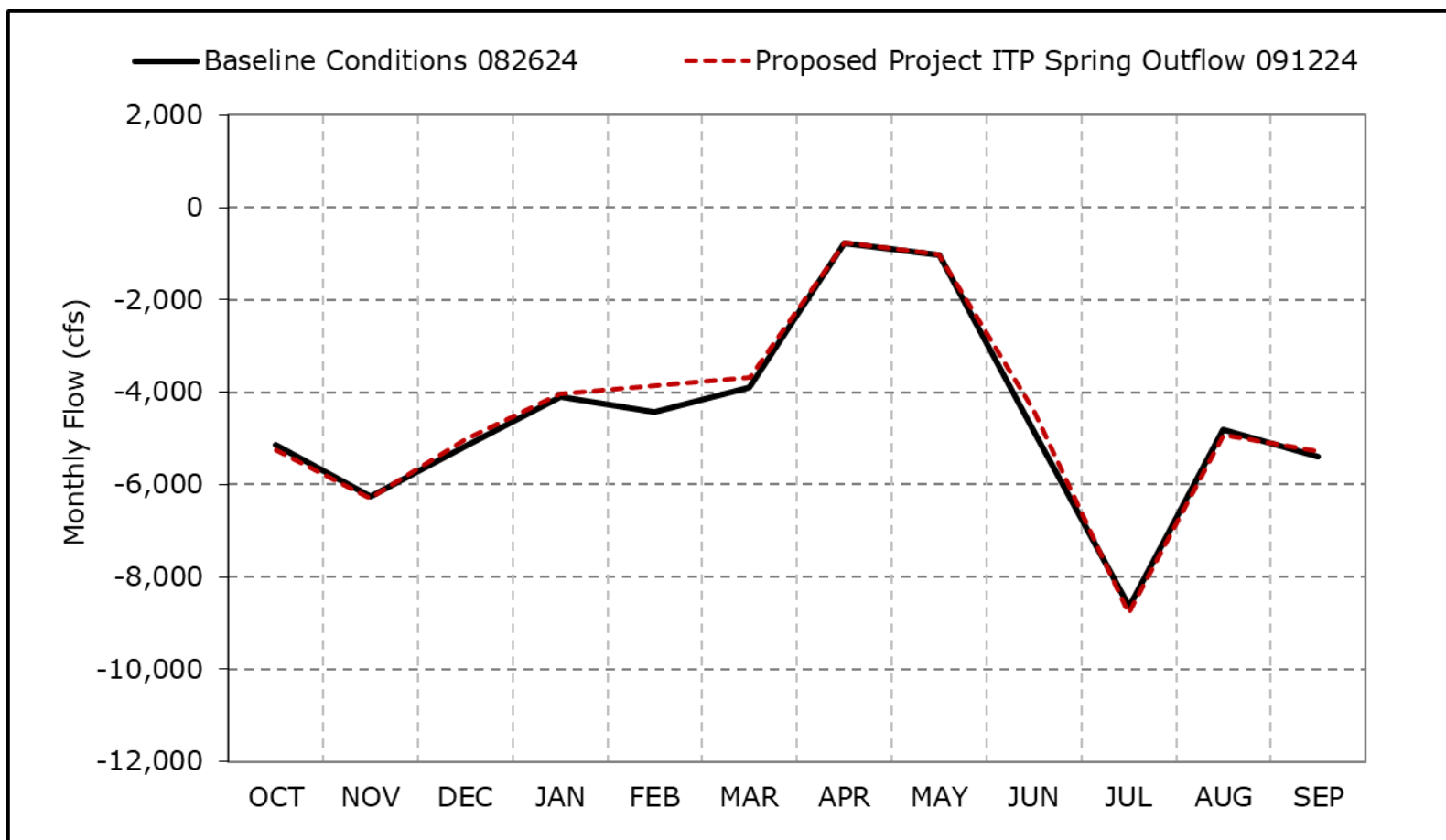
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-8e. Old and Middle River Flow, Dry Year Average Flow**

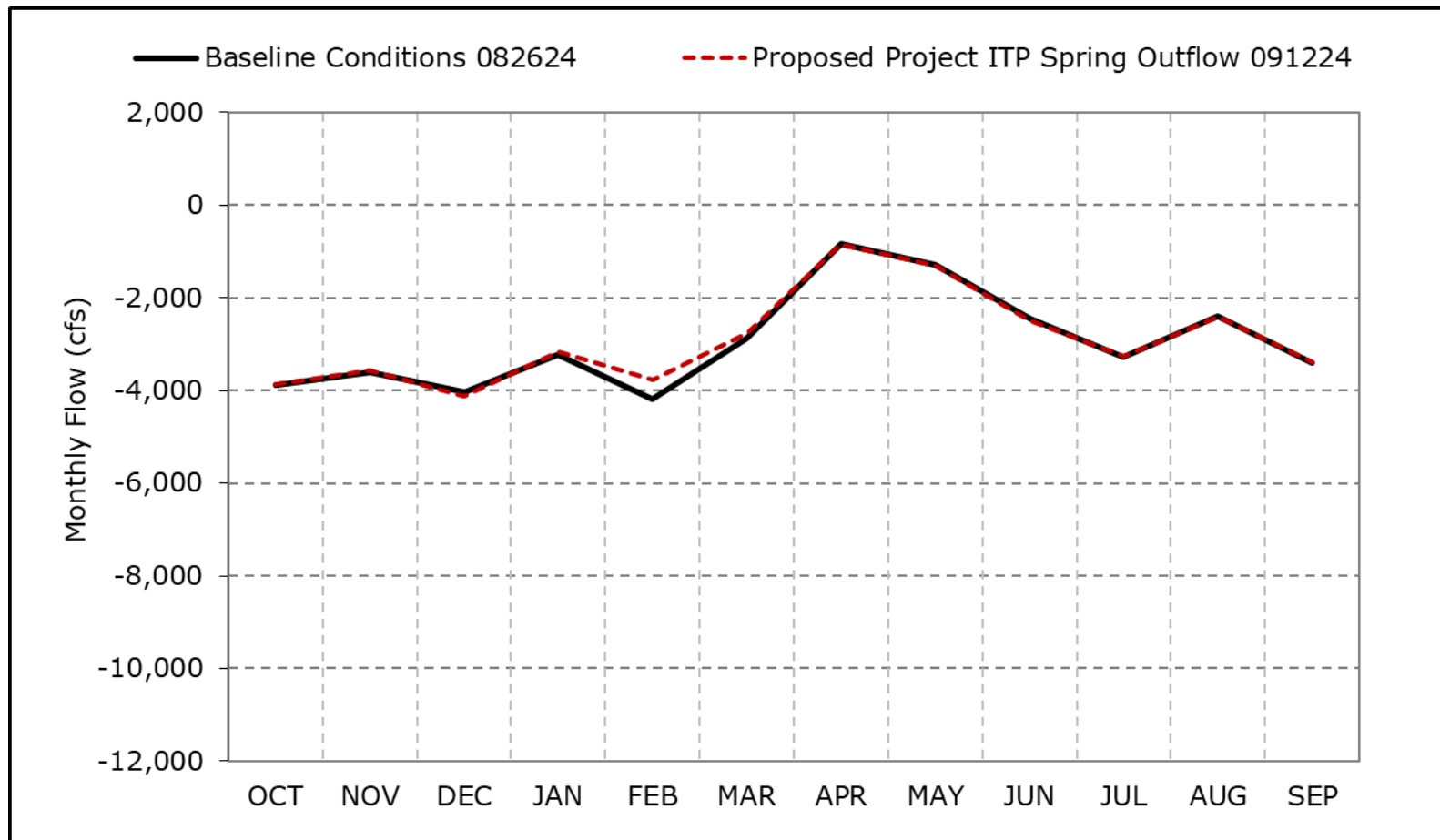


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8f. Old and Middle River Flow, Critical Year Average Flow**

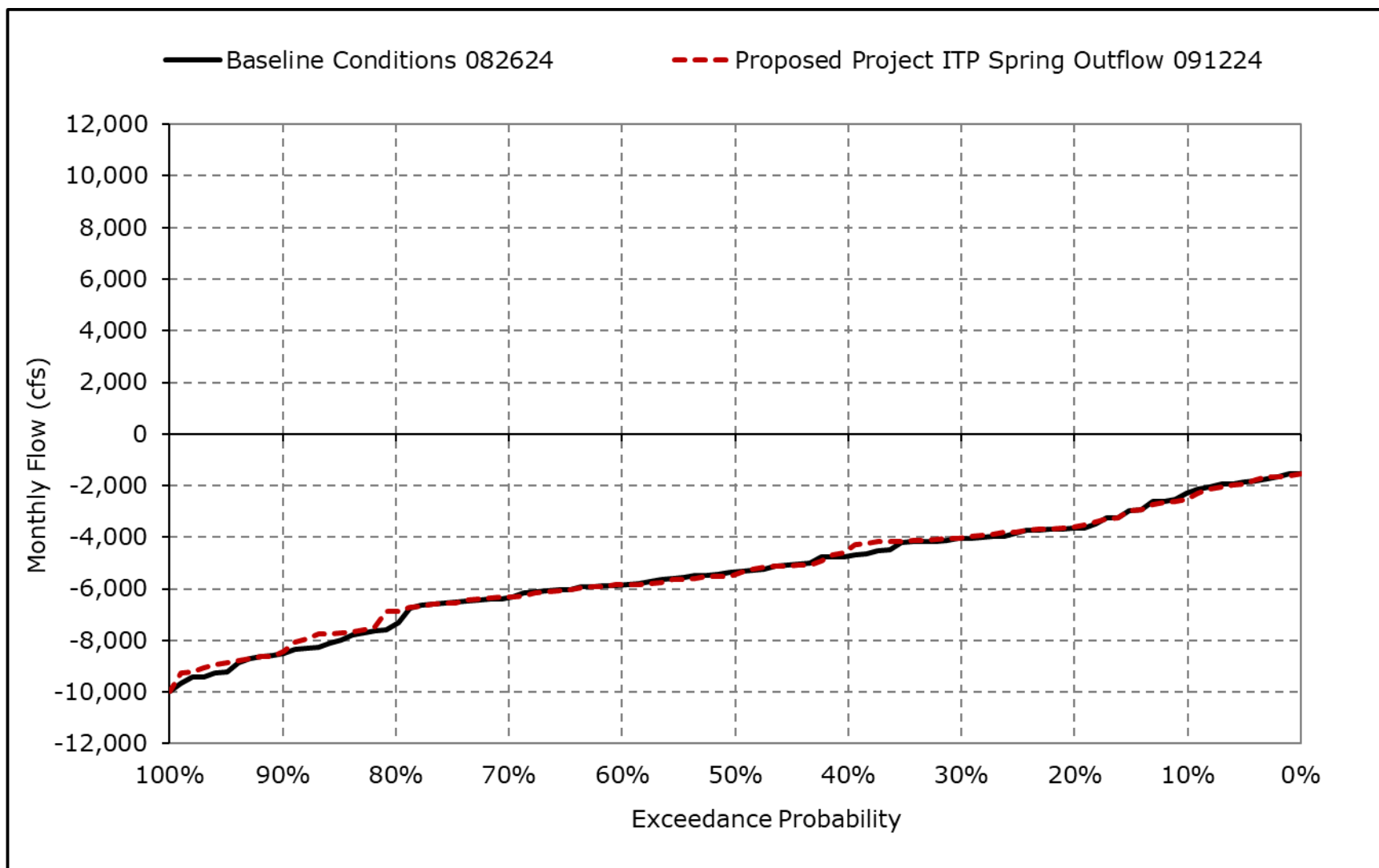


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

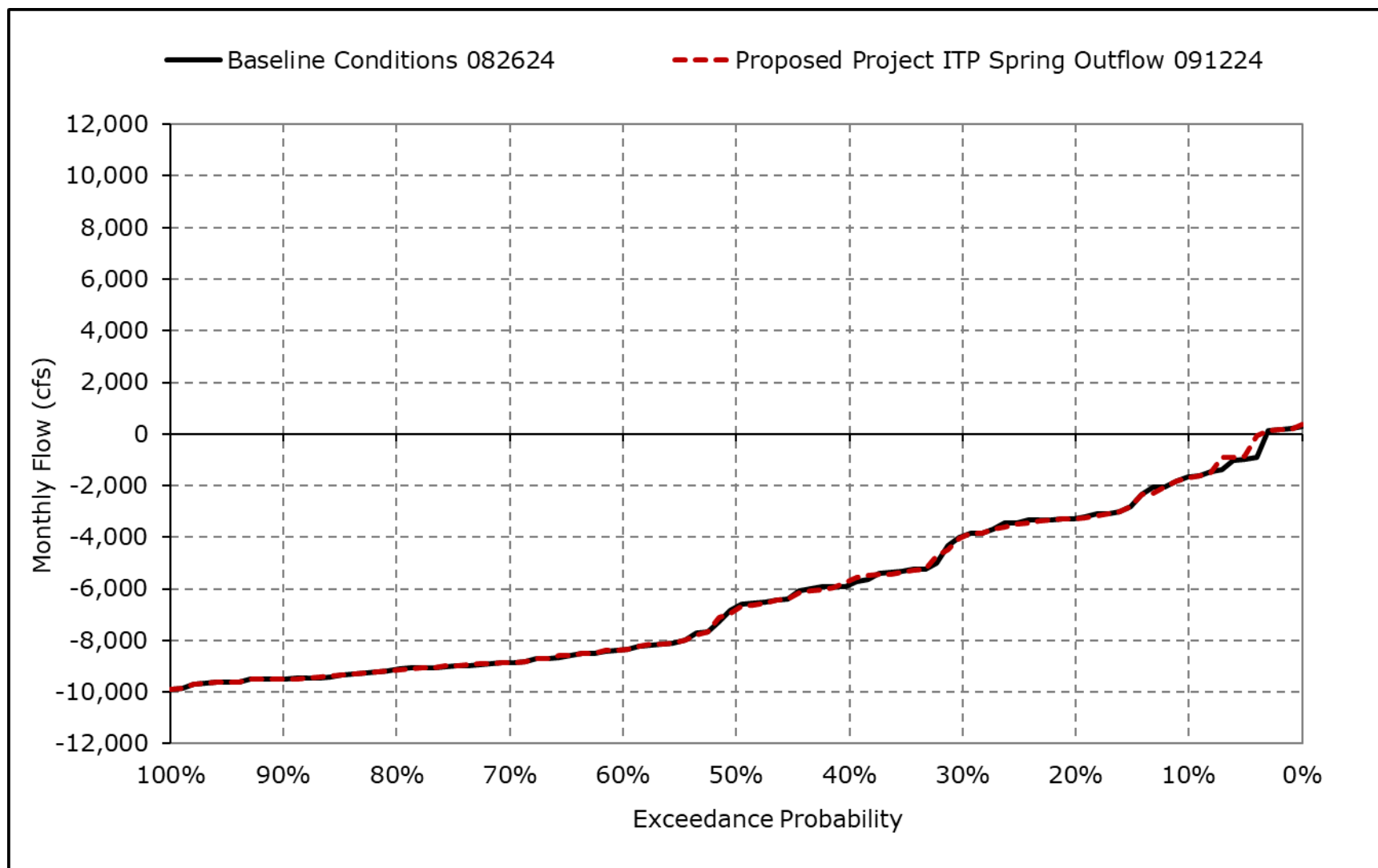
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8g. Old and Middle River Flow, October**



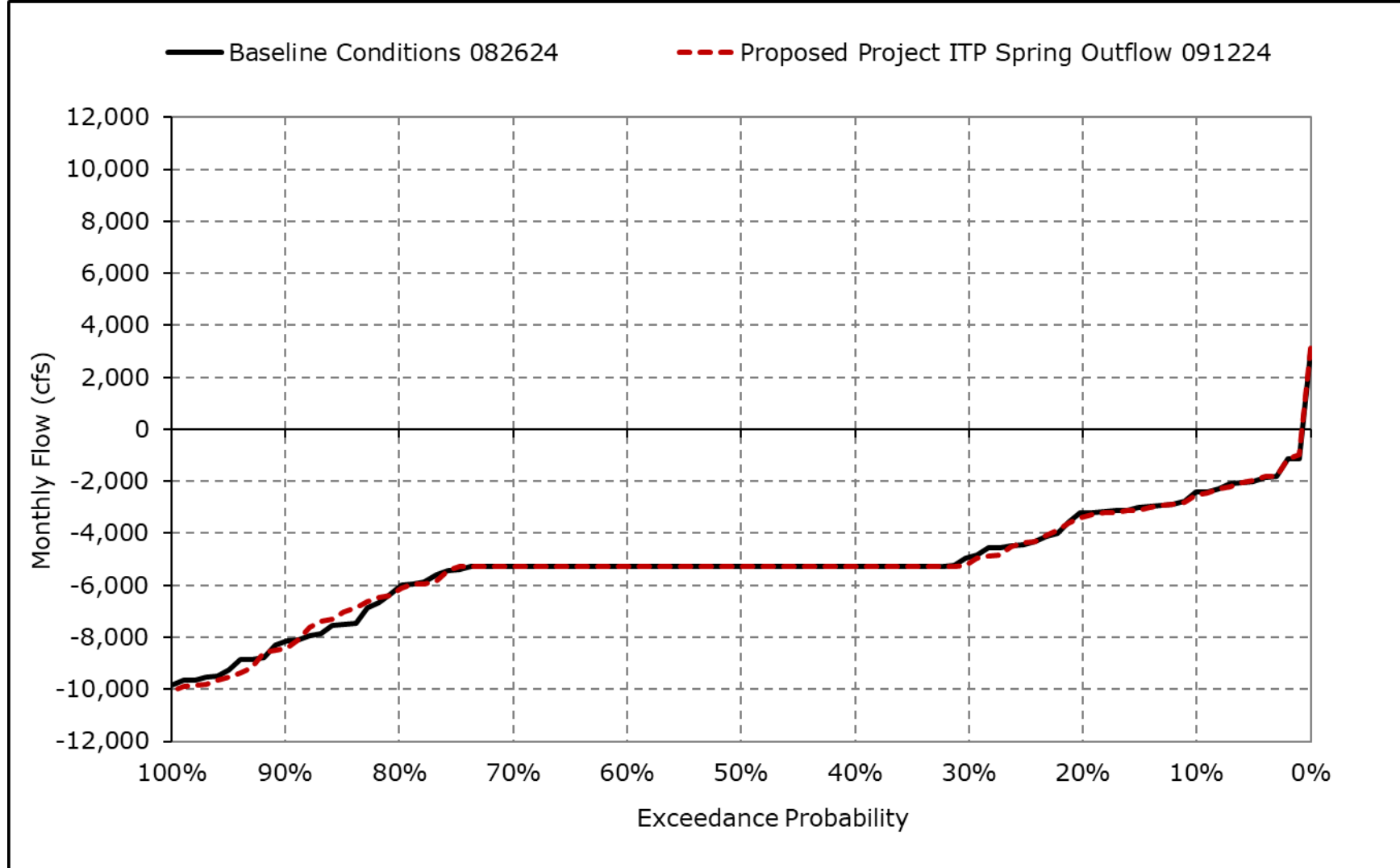
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8h. Old and Middle River Flow, November**



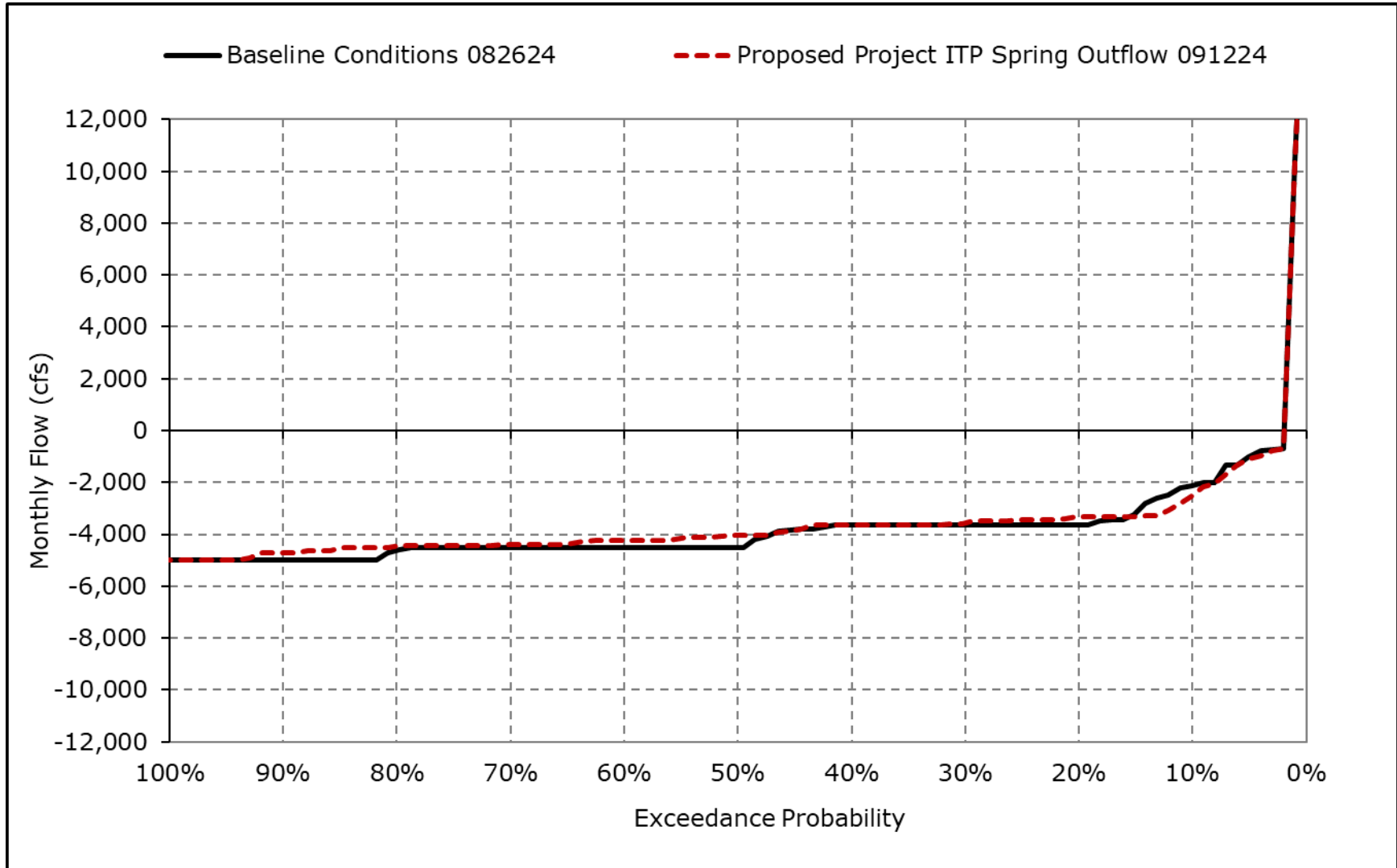
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8i. Old and Middle River Flow, December**



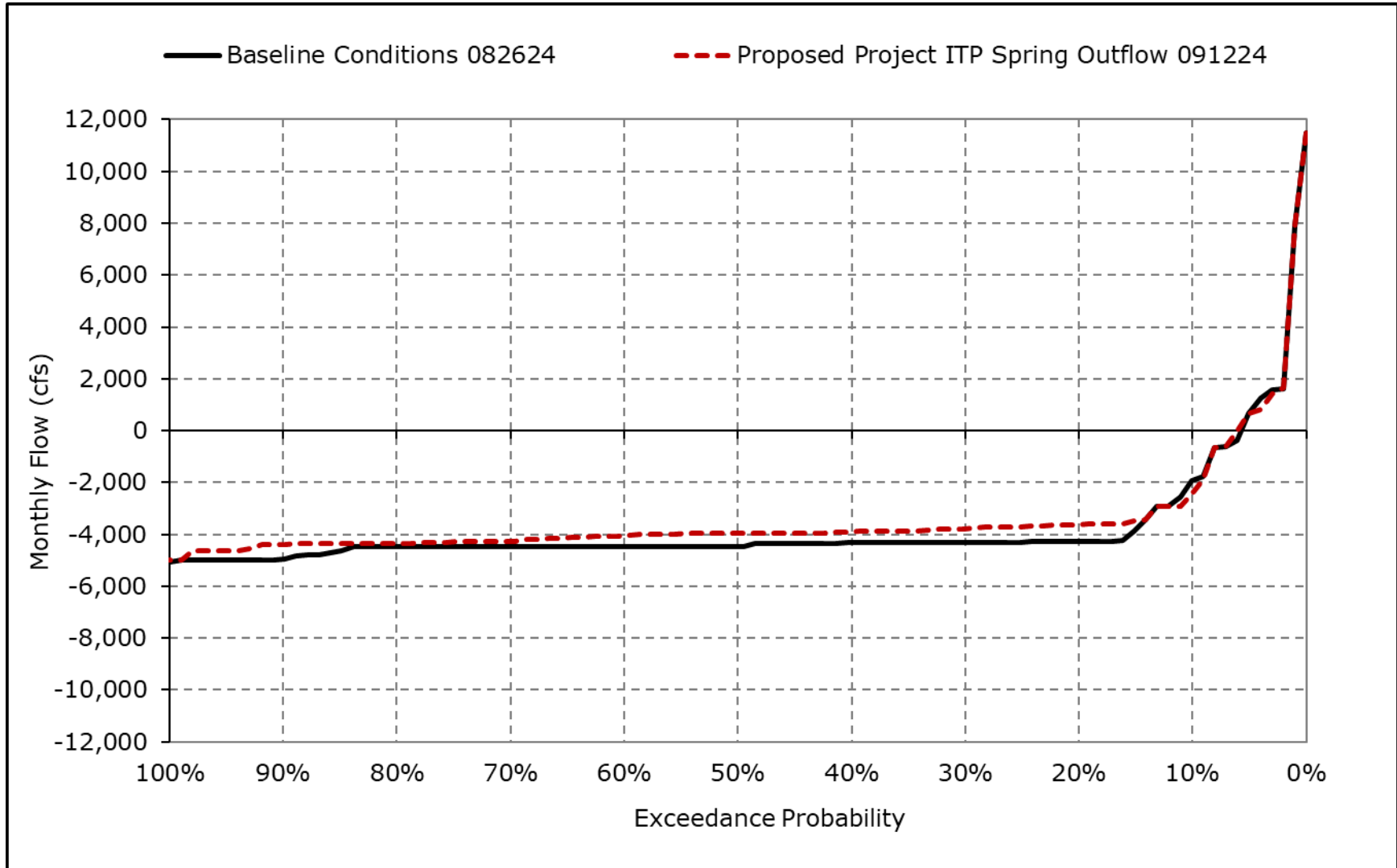
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8j. Old and Middle River Flow, January**



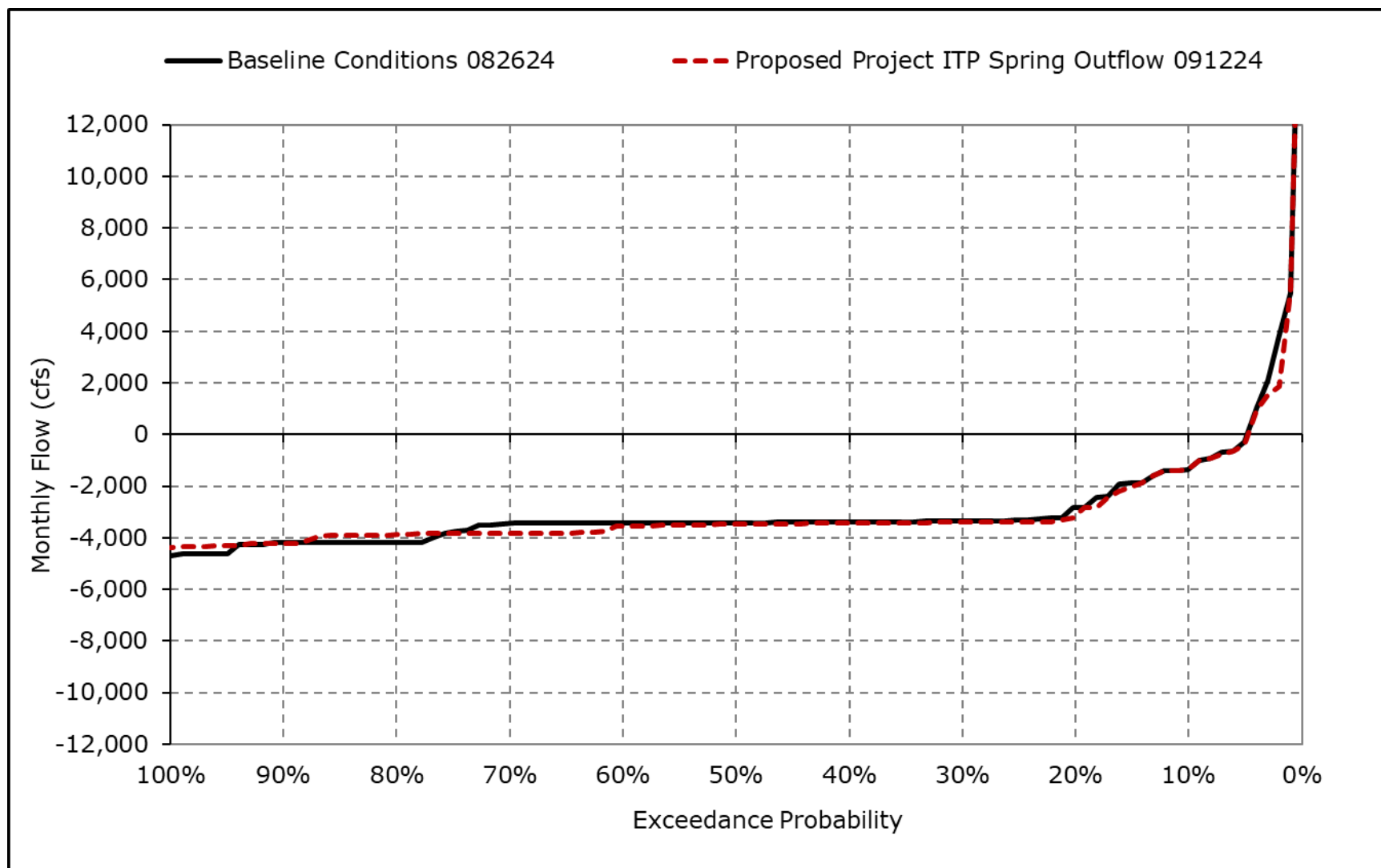
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8k. Old and Middle River Flow, February**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

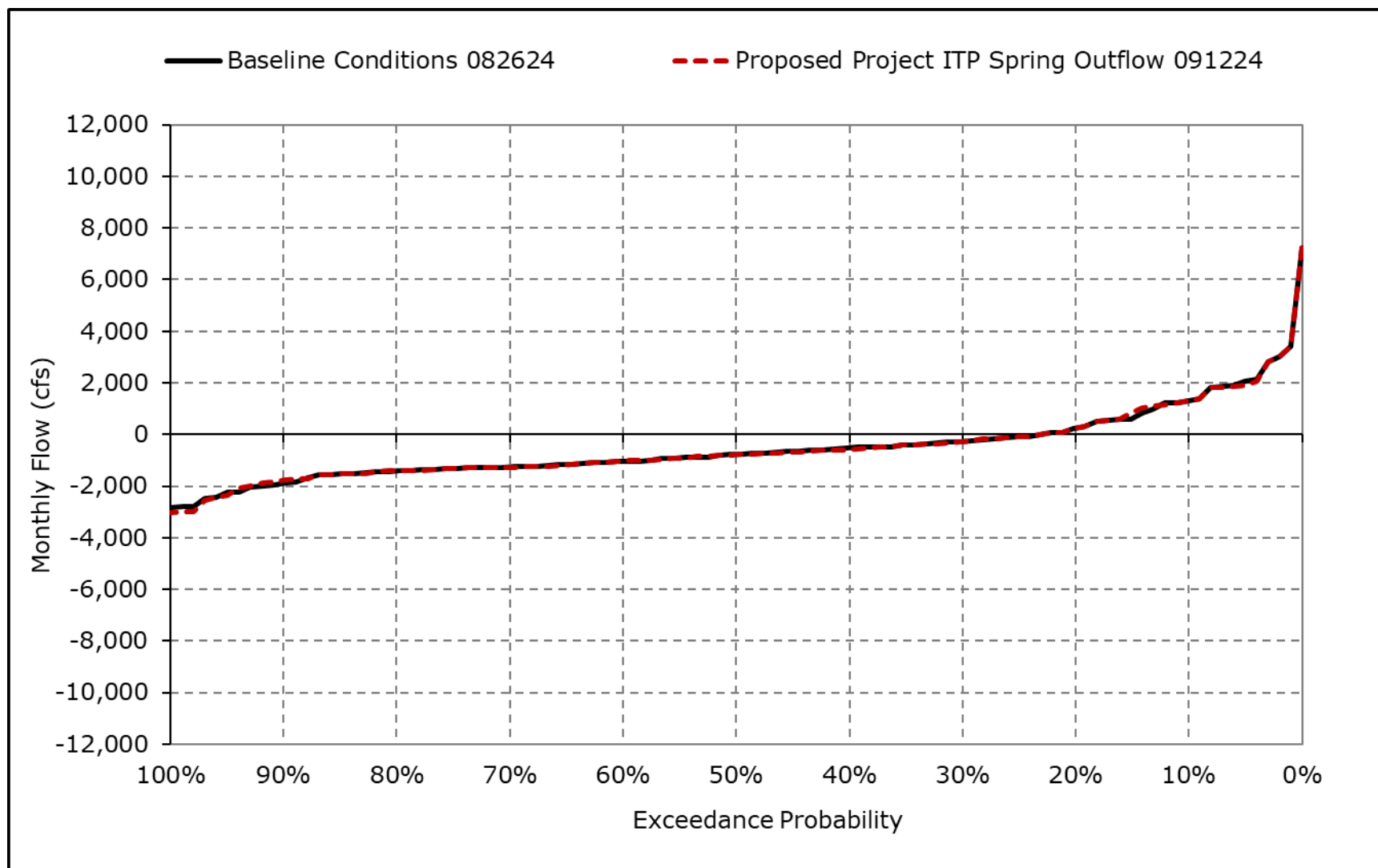
**Figure 4L-3-8I. Old and Middle River Flow, March**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

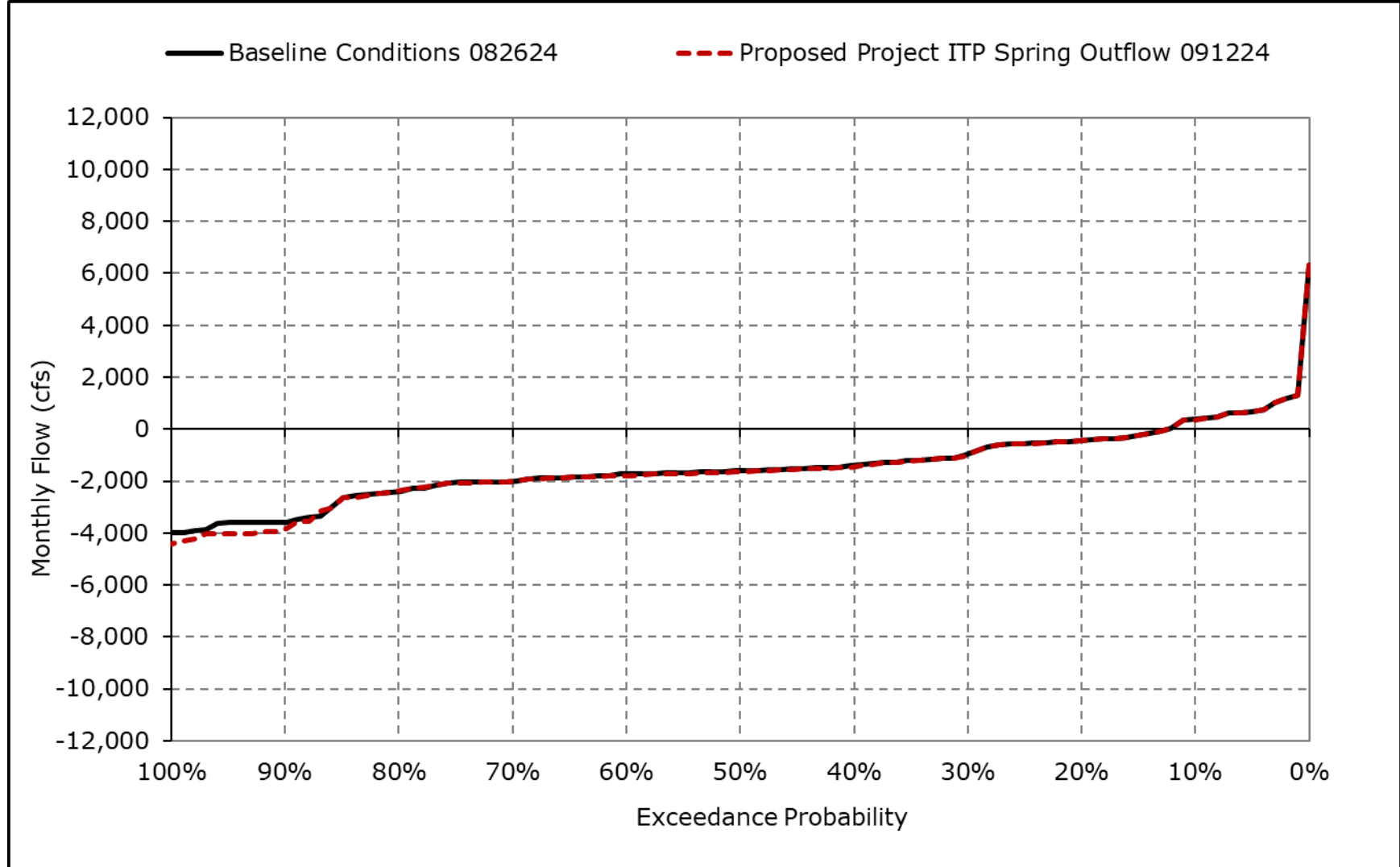


**Figure 4L-3-8m. Old and Middle River Flow, April**



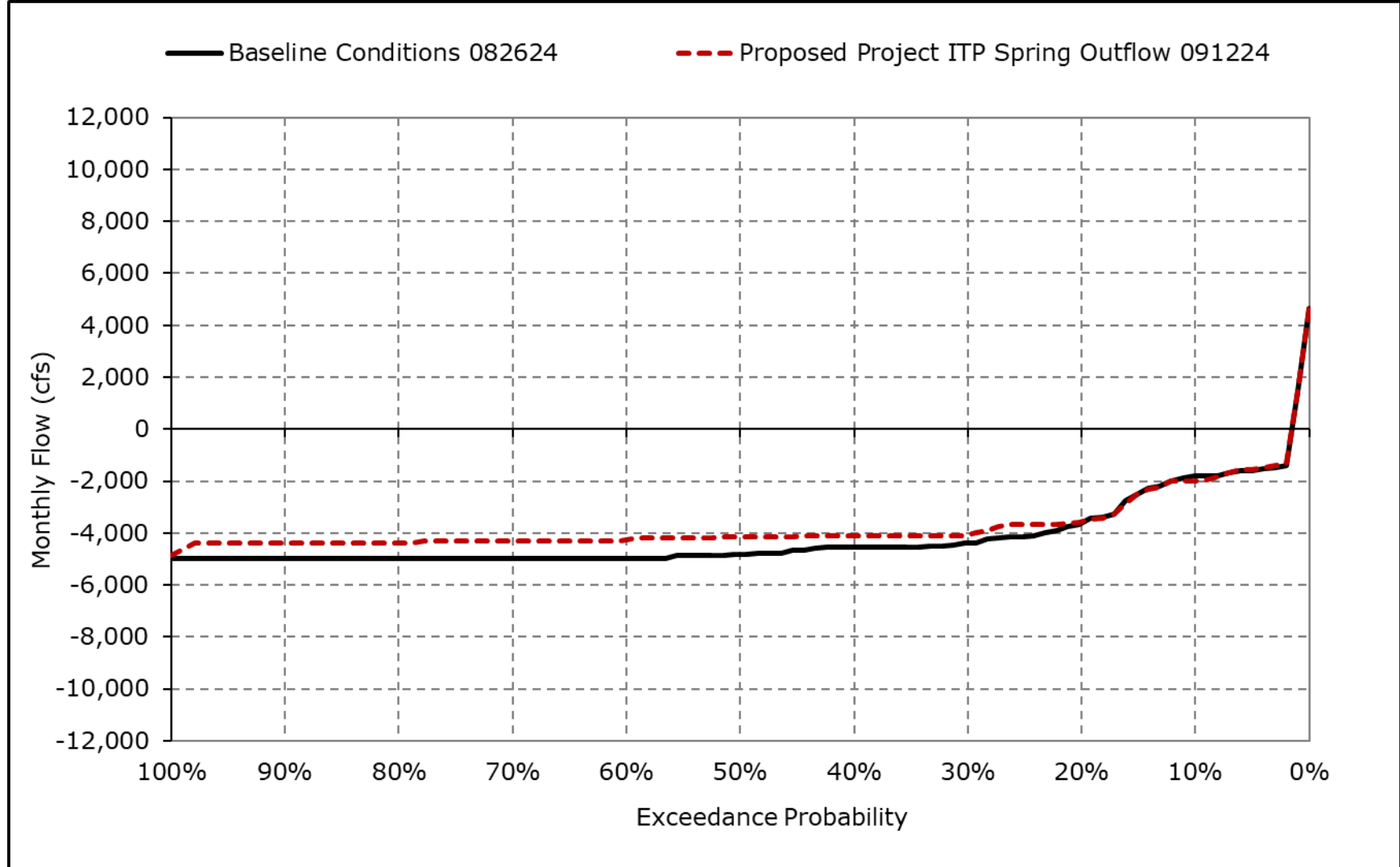
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8n. Old and Middle River Flow, May**



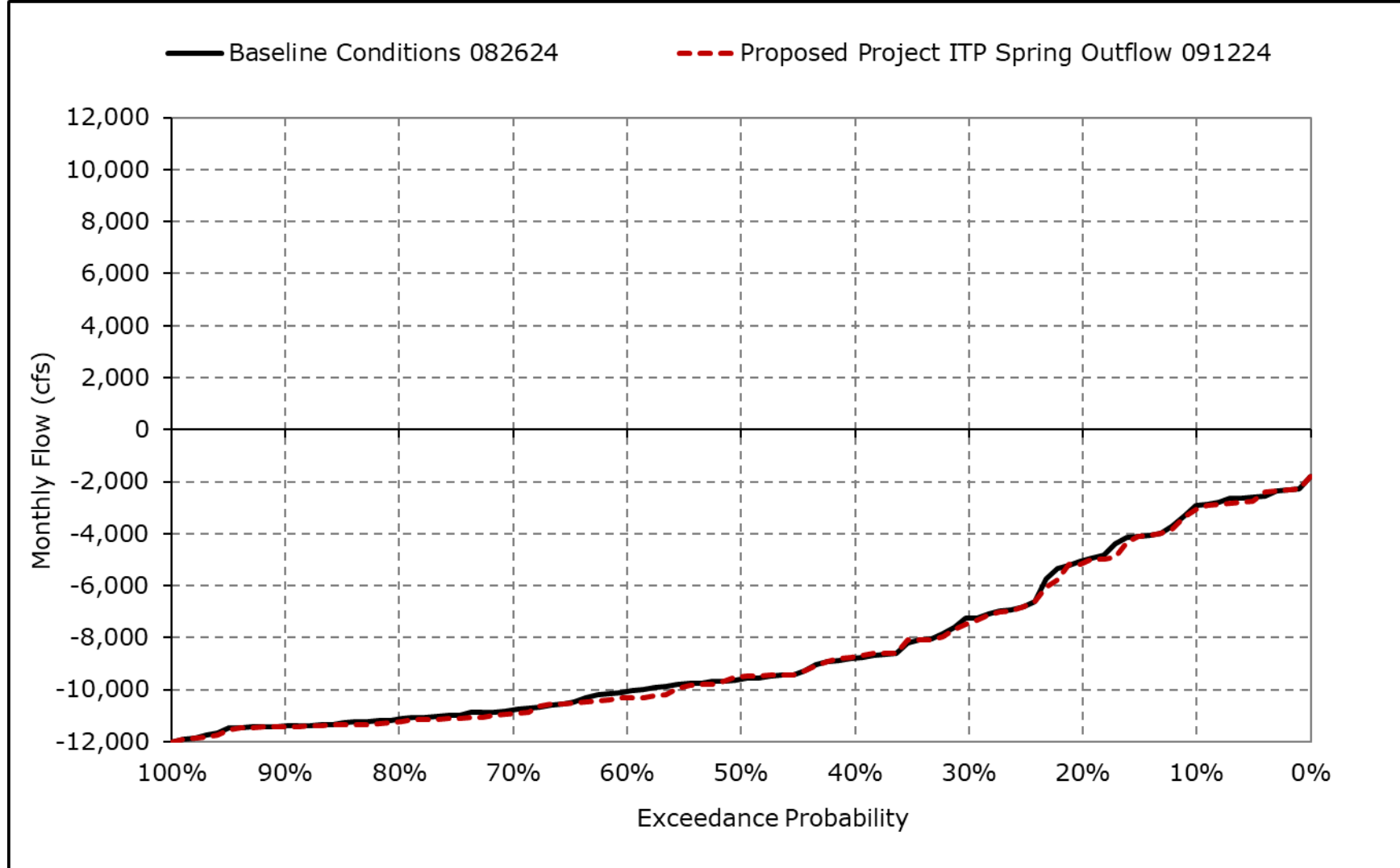
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8o. Old and Middle River Flow, June**



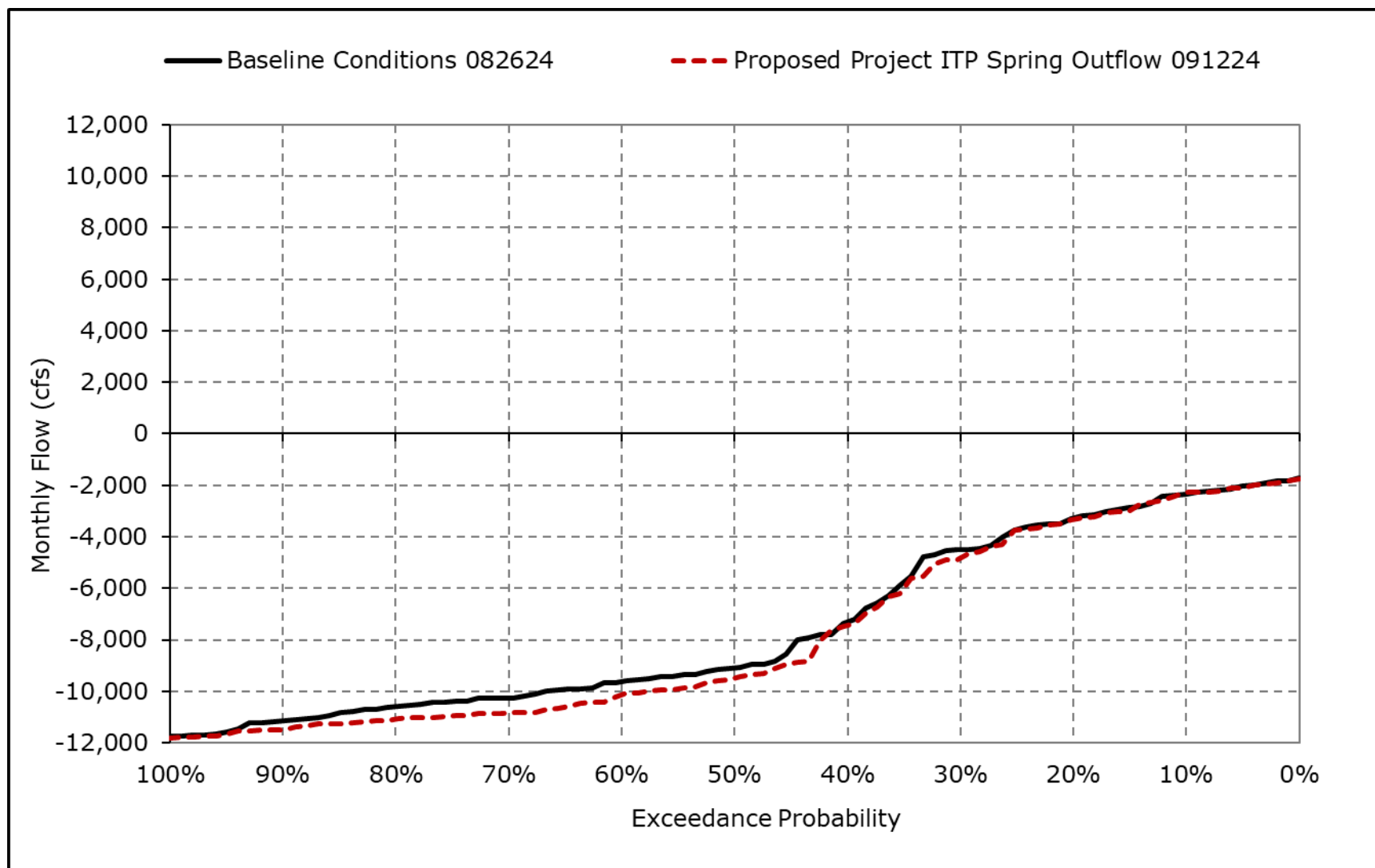
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8p. Old and Middle River Flow, July**



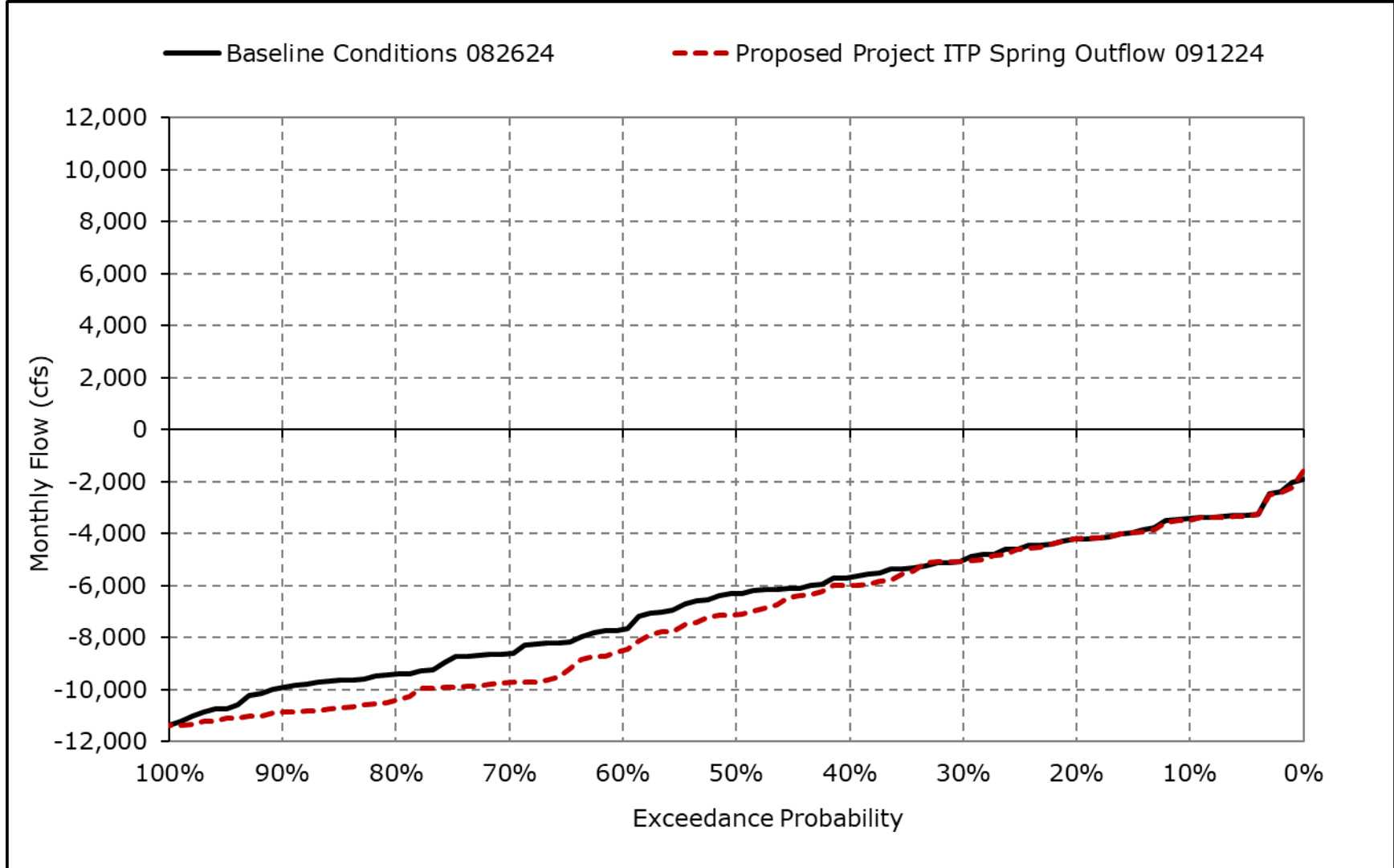
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8q. Old and Middle River Flow, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-8r. Old and Middle River Flow, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-9-1a. Qwest, Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 1,552  | 765    | 7,513  | 18,028 | 21,137 | 20,930 | 16,991 | 14,774 | 10,980 | 1,853  | 1,551  | 2,062  |
| 20% Exceedance                              | 1,118  | 74     | 2,702  | 11,876 | 13,311 | 14,256 | 13,134 | 8,692  | 5,420  | 1,448  | 1,183  | 918    |
| 30% Exceedance                              | 889    | -163   | 1,105  | 4,851  | 10,270 | 9,733  | 10,669 | 6,713  | 3,454  | 478    | 813    | 588    |
| 40% Exceedance                              | 716    | -1,299 | 496    | 3,390  | 6,132  | 7,195  | 8,280  | 5,507  | 2,228  | -219   | 73     | 128    |
| 50% Exceedance                              | 491    | -1,717 | -207   | 1,813  | 4,003  | 4,293  | 6,333  | 4,501  | 1,872  | -1,102 | -957   | -140   |
| 60% Exceedance                              | 186    | -2,628 | -903   | 1,037  | 2,203  | 2,671  | 5,148  | 3,657  | 1,225  | -1,776 | -2,246 | -361   |
| 70% Exceedance                              | -154   | -3,253 | -2,045 | -147   | 1,321  | 2,119  | 3,655  | 2,372  | 749    | -2,590 | -2,563 | -653   |
| 80% Exceedance                              | -578   | -3,674 | -3,167 | -1,134 | 130    | 1,466  | 2,717  | 2,050  | 567    | -3,049 | -3,066 | -1,165 |
| 90% Exceedance                              | -1,549 | -4,058 | -5,164 | -1,938 | -646   | 402    | 2,237  | 1,689  | 341    | -3,478 | -3,823 | -2,013 |
| Full Simulation Period Average <sup>a</sup> | 287    | -1,578 | 777    | 5,855  | 8,319  | 8,512  | 8,771  | 6,362  | 3,631  | -612   | -1,050 | -53    |
| Wet Water Years (32%)                       | -64    | -1,562 | 4,414  | 15,695 | 18,943 | 18,821 | 16,008 | 11,654 | 7,977  | 1,105  | -1,412 | 814    |
| Above Normal Water Years (9%)               | 738    | -2,403 | -1,569 | 6,198  | 8,536  | 8,887  | 8,330  | 5,510  | 3,065  | -1,353 | -2,547 | 1,395  |
| Below Normal Water Years (20%)              | 216    | -1,947 | -802   | 1,793  | 5,318  | 5,512  | 8,028  | 5,776  | 1,584  | -2,739 | -3,151 | -2,093 |
| Dry Water Years (21%)                       | 437    | -1,925 | -1,113 | -316   | 1,685  | 1,801  | 3,873  | 3,084  | 682    | -2,382 | 78     | -508   |
| Critical Water Years (18%)                  | 590    | -378   | -558   | -97    | 396    | 1,159  | 2,667  | 1,854  | 1,903  | 1,133  | 1,362  | 480    |

**Table 4L-3-9-1b. Qwest, Proposed Project ITP Spring Outflow 091224, Monthly Flow (cfs)**

| Statistic                                   | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10% Exceedance                              | 1,656  | 785    | 7,541  | 18,042 | 21,002 | 20,406 | 16,962 | 14,276 | 11,345 | 1,833  | 1,544  | 942    |
| 20% Exceedance                              | 1,104  | 43     | 2,696  | 11,978 | 13,403 | 14,147 | 13,256 | 8,696  | 6,053  | 1,370  | 1,074  | 540    |
| 30% Exceedance                              | 954    | -314   | 1,052  | 4,944  | 10,384 | 9,824  | 10,735 | 6,682  | 4,023  | 405    | 345    | 73     |
| 40% Exceedance                              | 758    | -1,270 | 410    | 3,633  | 6,504  | 7,045  | 8,316  | 5,451  | 2,641  | -366   | -449   | -97    |
| 50% Exceedance                              | 537    | -1,732 | -204   | 2,077  | 4,554  | 4,320  | 6,336  | 4,494  | 1,969  | -1,217 | -1,314 | -340   |
| 60% Exceedance                              | 324    | -2,556 | -1,215 | 847    | 2,939  | 2,809  | 5,119  | 3,656  | 1,620  | -1,962 | -2,654 | -582   |
| 70% Exceedance                              | -70    | -3,251 | -2,104 | -194   | 1,713  | 2,229  | 3,690  | 2,369  | 1,212  | -2,868 | -3,181 | -998   |
| 80% Exceedance                              | -537   | -3,676 | -3,173 | -1,014 | 769    | 1,551  | 2,720  | 1,999  | 962    | -3,189 | -3,469 | -1,368 |
| 90% Exceedance                              | -1,543 | -4,114 | -4,869 | -1,867 | -330   | 475    | 2,244  | 1,688  | 807    | -3,500 | -4,098 | -2,084 |
| Full Simulation Period Average <sup>a</sup> | 357    | -1,568 | 750    | 5,967  | 8,675  | 8,435  | 8,761  | 6,297  | 4,043  | -725   | -1,361 | -422   |
| Wet Water Years (32%)                       | 15     | -1,508 | 4,364  | 15,812 | 19,010 | 18,358 | 15,987 | 11,561 | 8,551  | 1,007  | -1,824 | -249   |
| Above Normal Water Years (9%)               | 924    | -2,395 | -1,715 | 6,384  | 8,946  | 8,705  | 8,341  | 5,389  | 3,744  | -1,770 | -3,199 | 772    |
| Below Normal Water Years (20%)              | 374    | -1,991 | -806   | 1,967  | 5,780  | 5,613  | 8,004  | 5,668  | 2,056  | -2,804 | -3,498 | -2,100 |
| Dry Water Years (21%)                       | 405    | -1,950 | -999   | -255   | 2,272  | 2,028  | 3,872  | 3,069  | 1,042  | -2,539 | -125   | -381   |
| Critical Water Years (18%)                  | 605    | -345   | -672   | -40    | 854    | 1,271  | 2,666  | 1,856  | 1,886  | 1,146  | 1,312  | 490    |

**Table 4L-3-9-1c. Qwest, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Flow (cfs)**

| Statistic                                   | Oct | Nov  | Dec  | Jan  | Feb  | Mar  | Apr | May  | Jun | Jul  | Aug  | Sep    |
|---|-----|------|------|------|------|------|-----|------|-----|------|------|--------|
| 10% Exceedance                              | 105 | 20   | 28   | 14   | -135 | -523 | -29 | -498 | 365 | -20  | -7   | -1,119 |
| 20% Exceedance                              | -14 | -31  | -6   | 102  | 92   | -109 | 122 | 4    | 633 | -79  | -109 | -378   |
| 30% Exceedance                              | 65  | -151 | -54  | 93   | 114  | 91   | 65  | -32  | 569 | -73  | -468 | -515   |
| 40% Exceedance                              | 42  | 29   | -86  | 243  | 372  | -150 | 35  | -56  | 413 | -147 | -522 | -226   |
| 50% Exceedance                              | 45  | -14  | 4    | 263  | 552  | 27   | 3   | -7   | 96  | -115 | -357 | -200   |
| 60% Exceedance                              | 138 | 72   | -312 | -190 | 737  | 138  | -29 | -1   | 395 | -187 | -408 | -221   |
| 70% Exceedance                              | 84  | 2    | -58  | -47  | 391  | 109  | 35  | -3   | 463 | -279 | -618 | -345   |
| 80% Exceedance                              | 41  | -2   | -5   | 119  | 639  | 85   | 2   | -51  | 395 | -141 | -403 | -203   |
| 90% Exceedance                              | 6   | -55  | 295  | 71   | 316  | 73   | 7   | -1   | 466 | -22  | -275 | -71    |
| Full Simulation Period Average <sup>a</sup> | 69  | 10   | -27  | 112  | 357  | -77  | -11 | -65  | 412 | -112 | -312 | -369   |
| Wet Water Years (32%)                       | 79  | 55   | -50  | 117  | 68   | -463 | -20 | -93  | 575 | -98  | -412 | -1,063 |
| Above Normal Water Years (9%)               | 186 | 8    | -146 | 186  | 410  | -182 | 11  | -120 | 679 | -417 | -653 | -623   |
| Below Normal Water Years (20%)              | 158 | -44  | -3   | 174  | 463  | 100  | -24 | -108 | 472 | -65  | -347 | -7     |
| Dry Water Years (21%)                       | -32 | -25  | 113  | 61   | 587  | 227  | -1  | -15  | 360 | -157 | -203 | 127    |
| Critical Water Years (18%)                  | 14  | 33   | -113 | 57   | 458  | 111  | -2  | 2    | -17 | 13   | -50  | 10     |

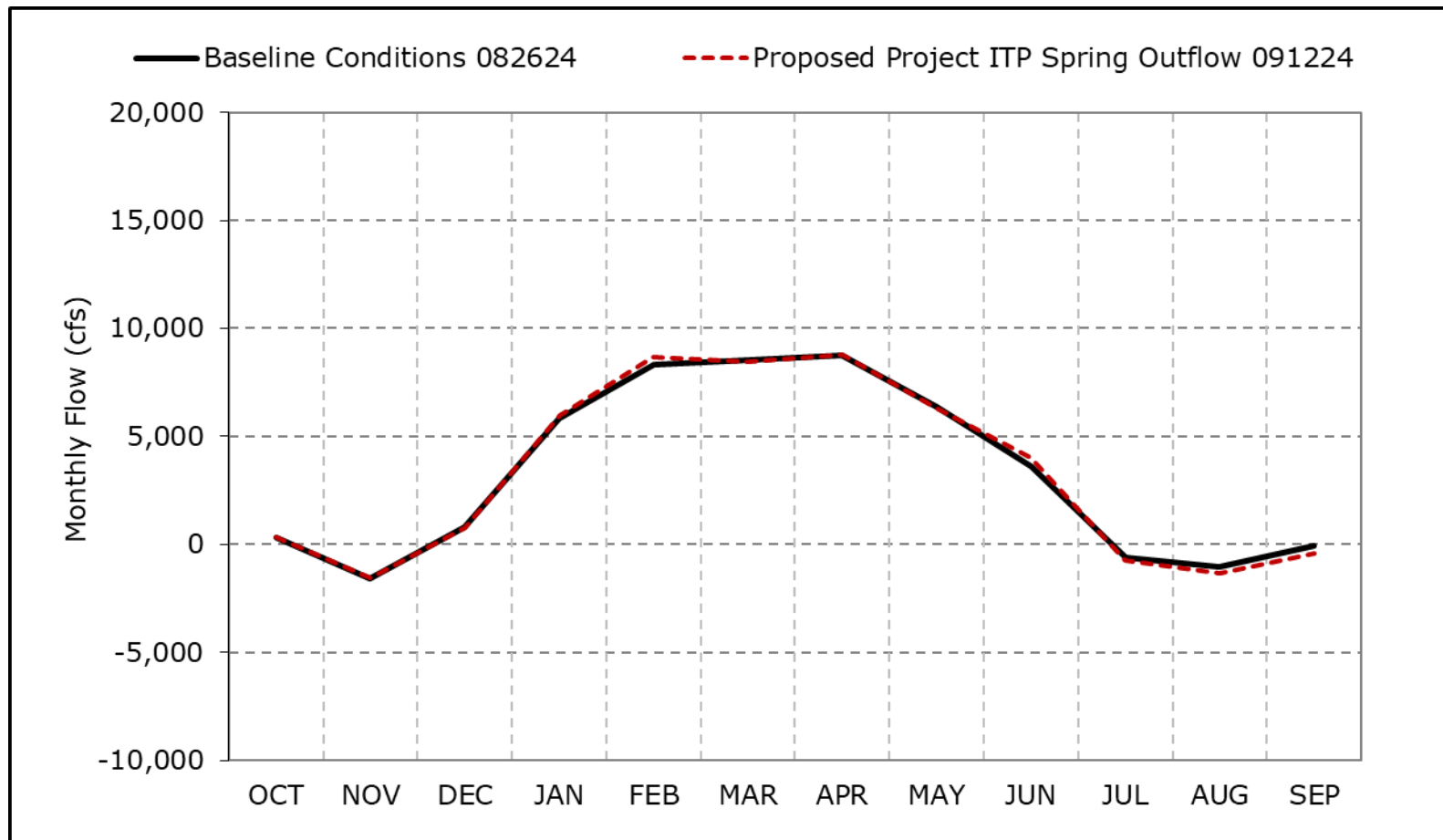
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-9a. Qwest, Long-Term Average Flow**



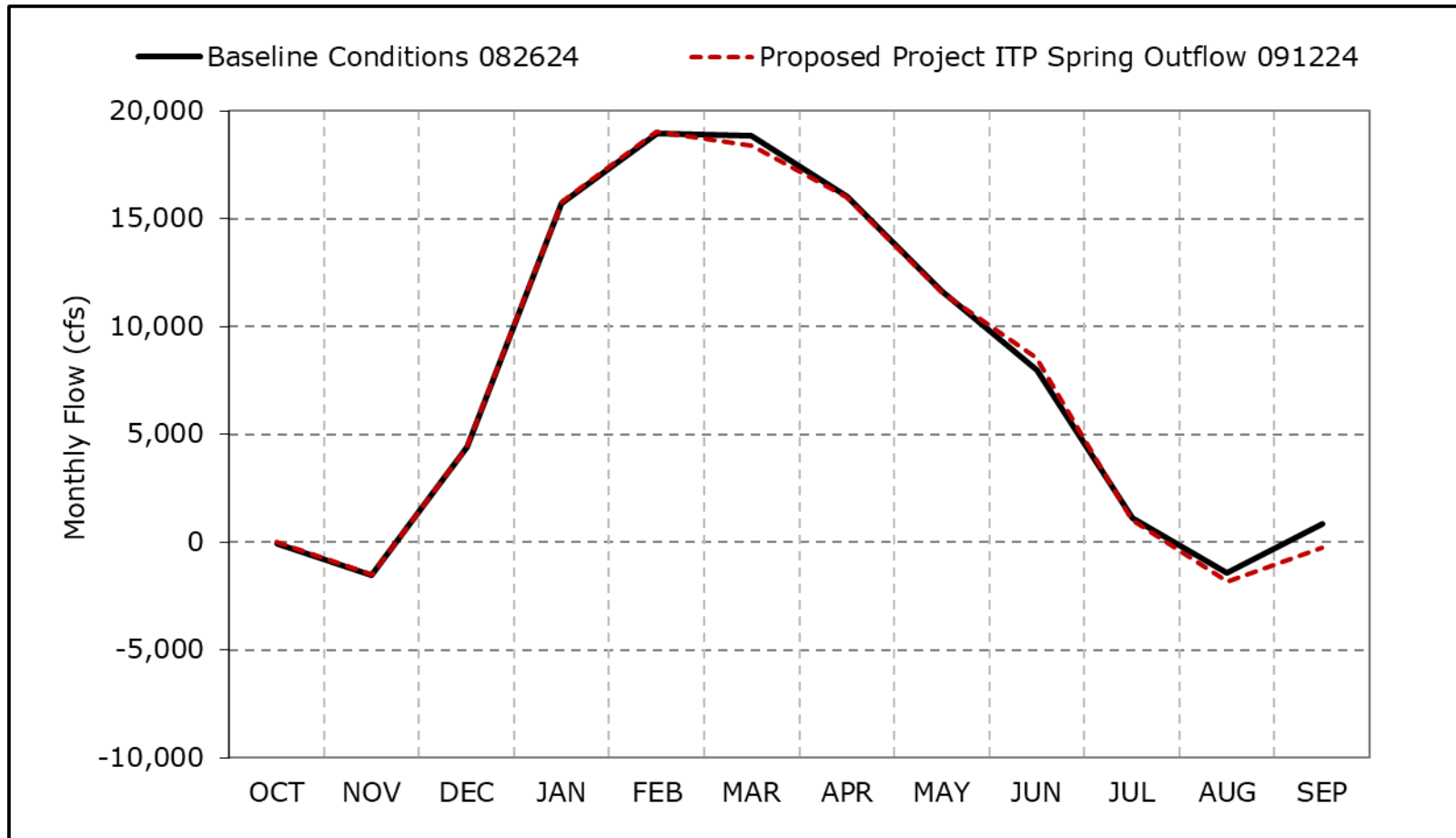
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-9b. Qwest, Wet Year Average Flow**

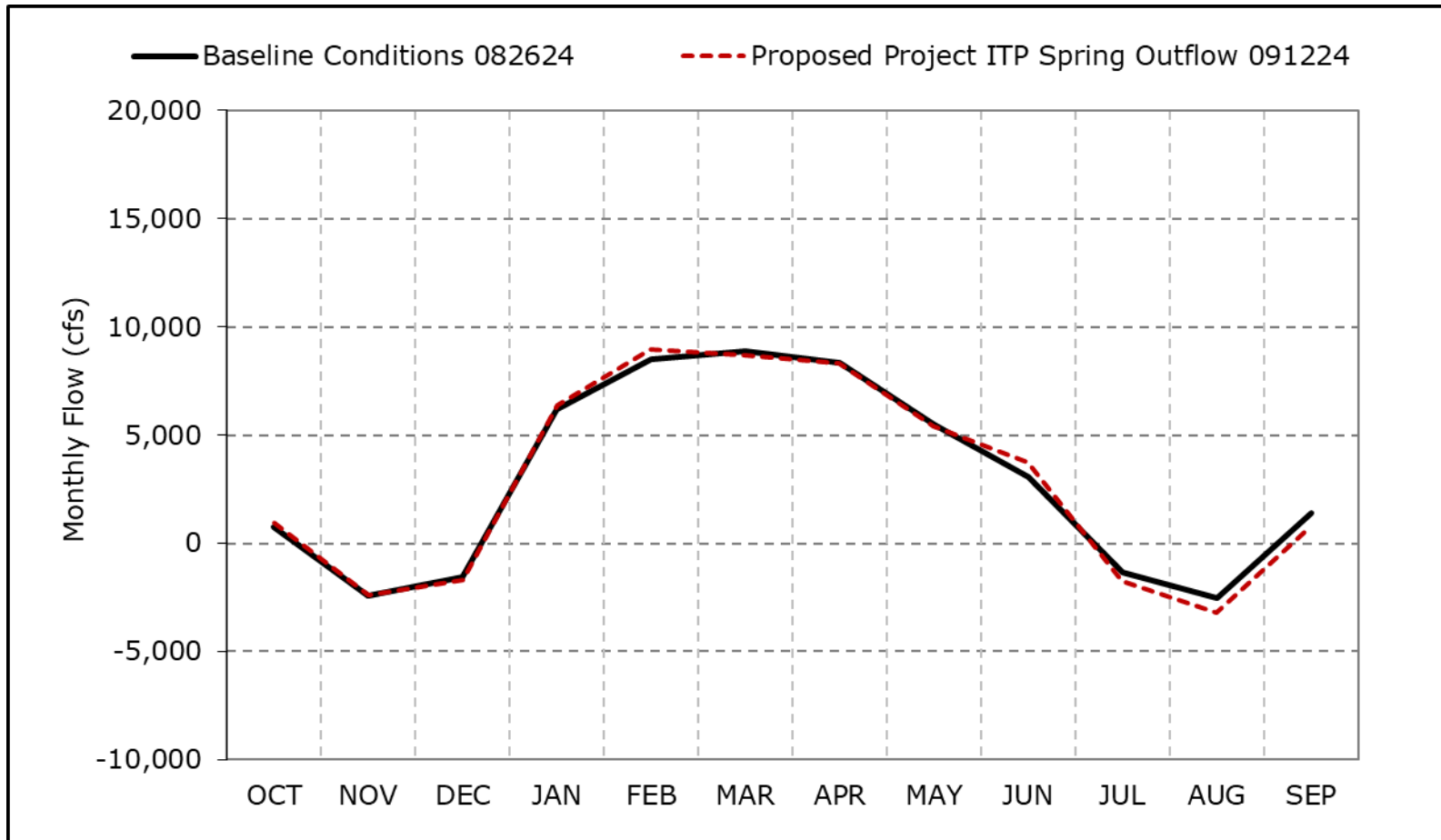


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9c. Qwest, Above Normal Year Average Flow**

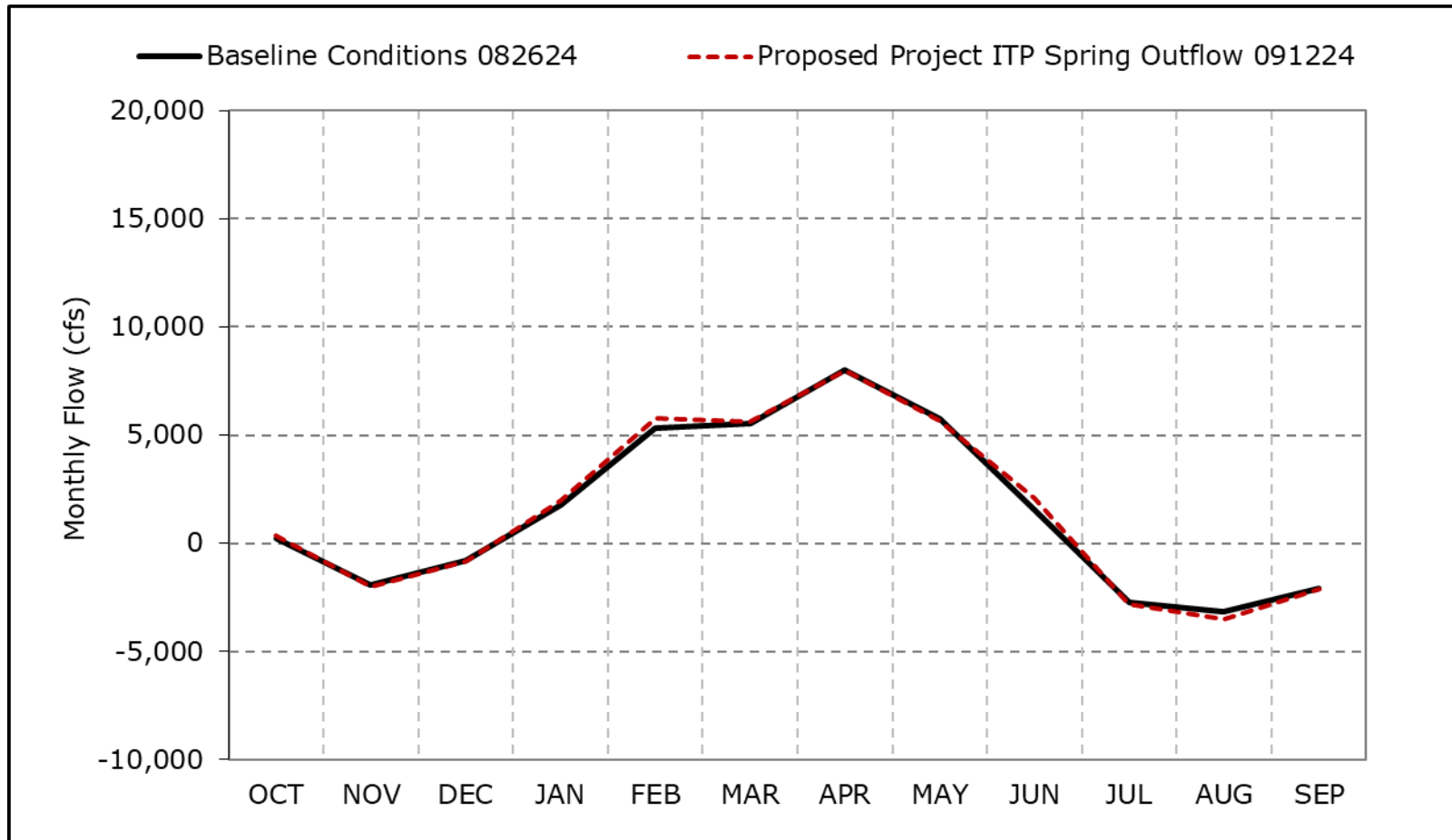


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9d. Qwest, Below Normal Year Average Flow**

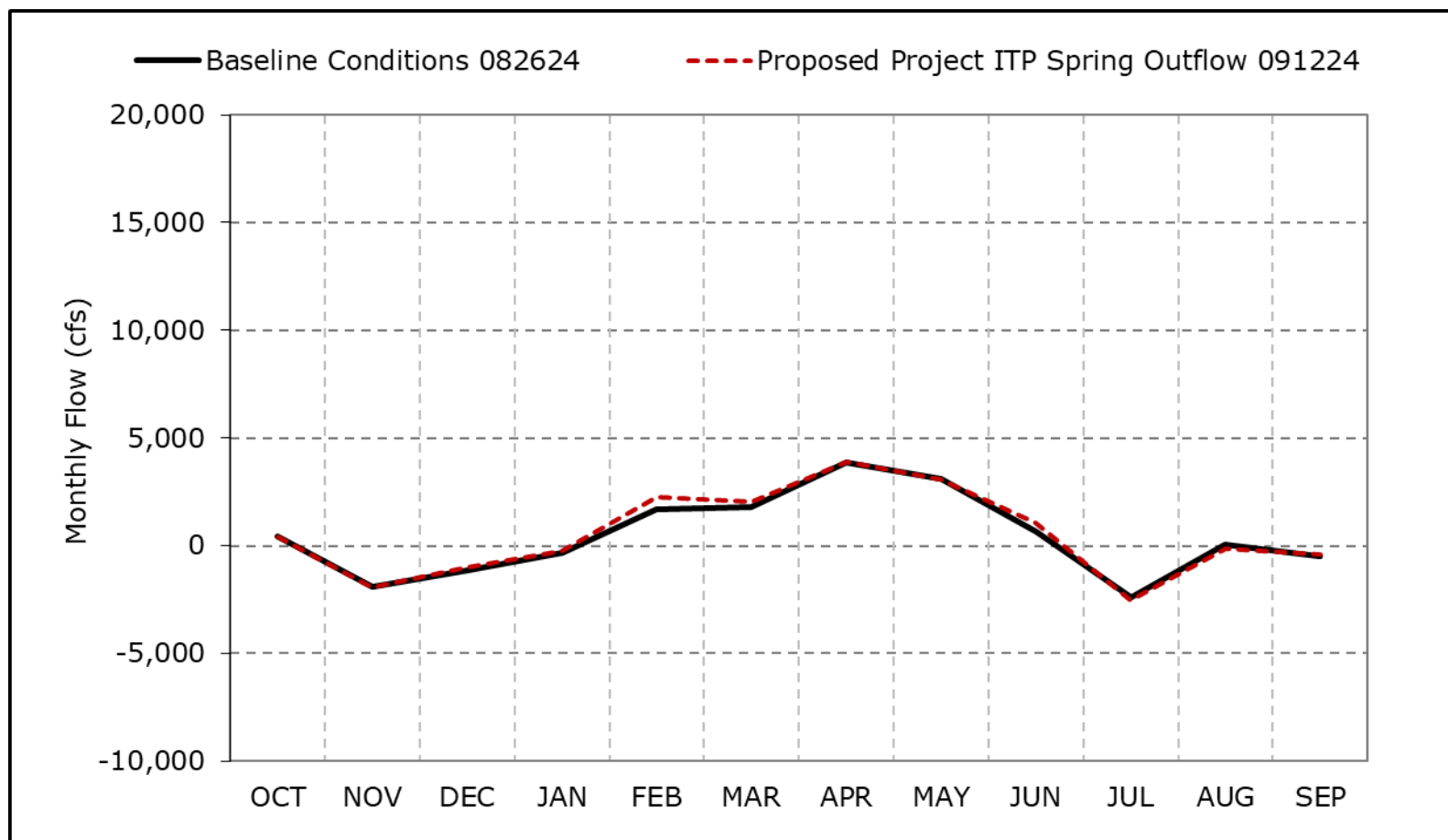


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9e. Qwest, Dry Year Average Flow**

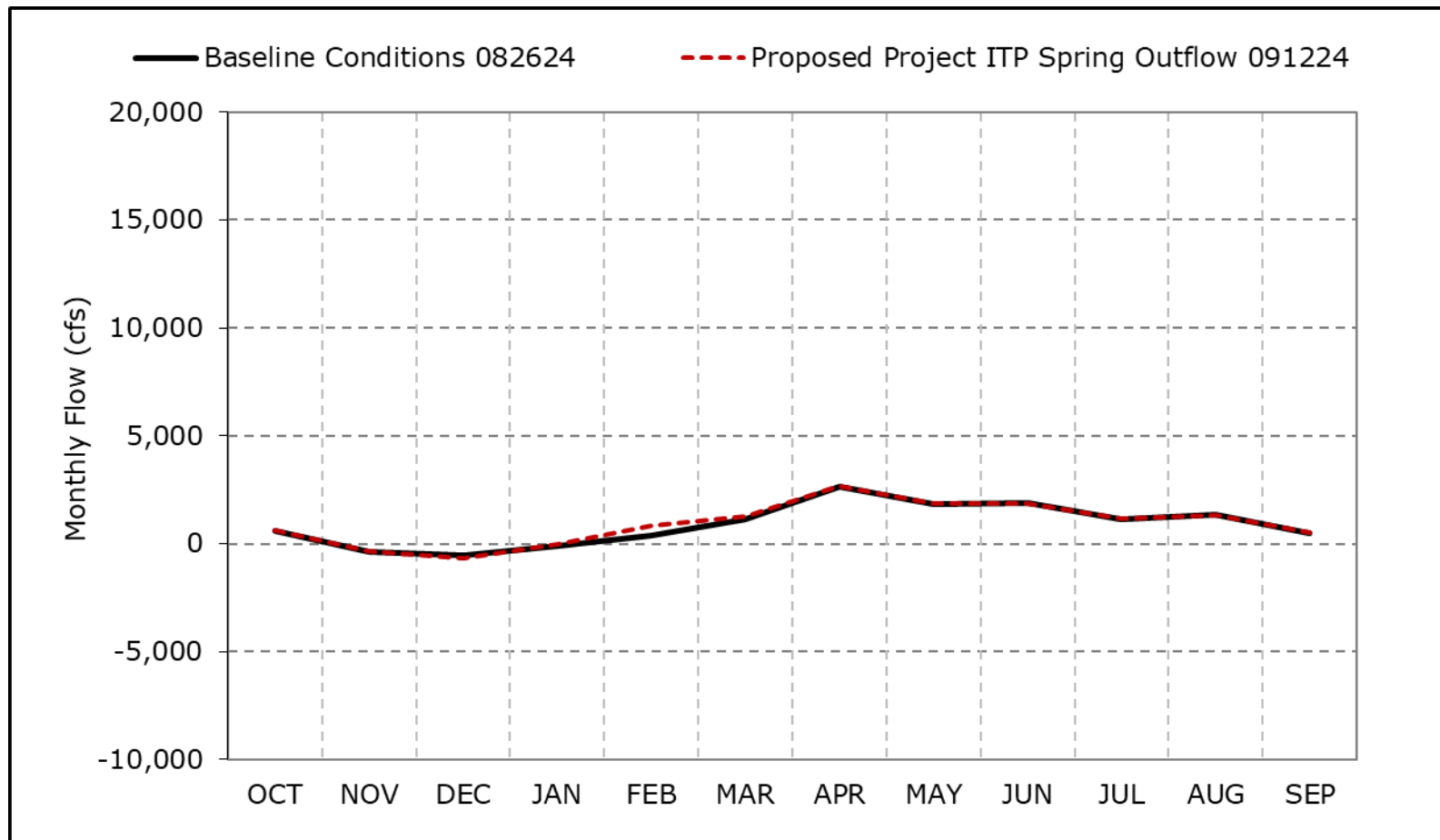


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9f. Qwest, Critical Year Average Flow**

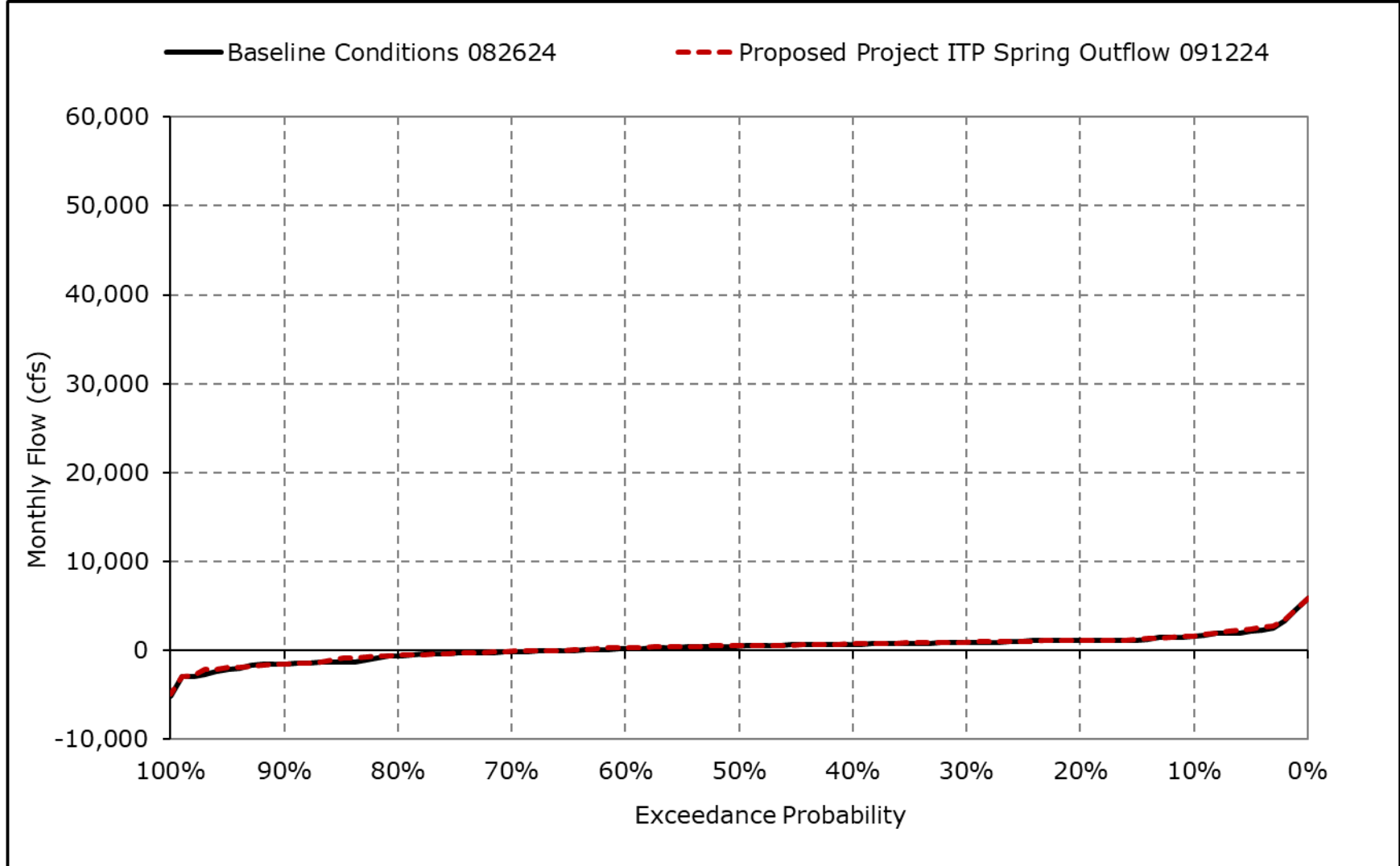


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

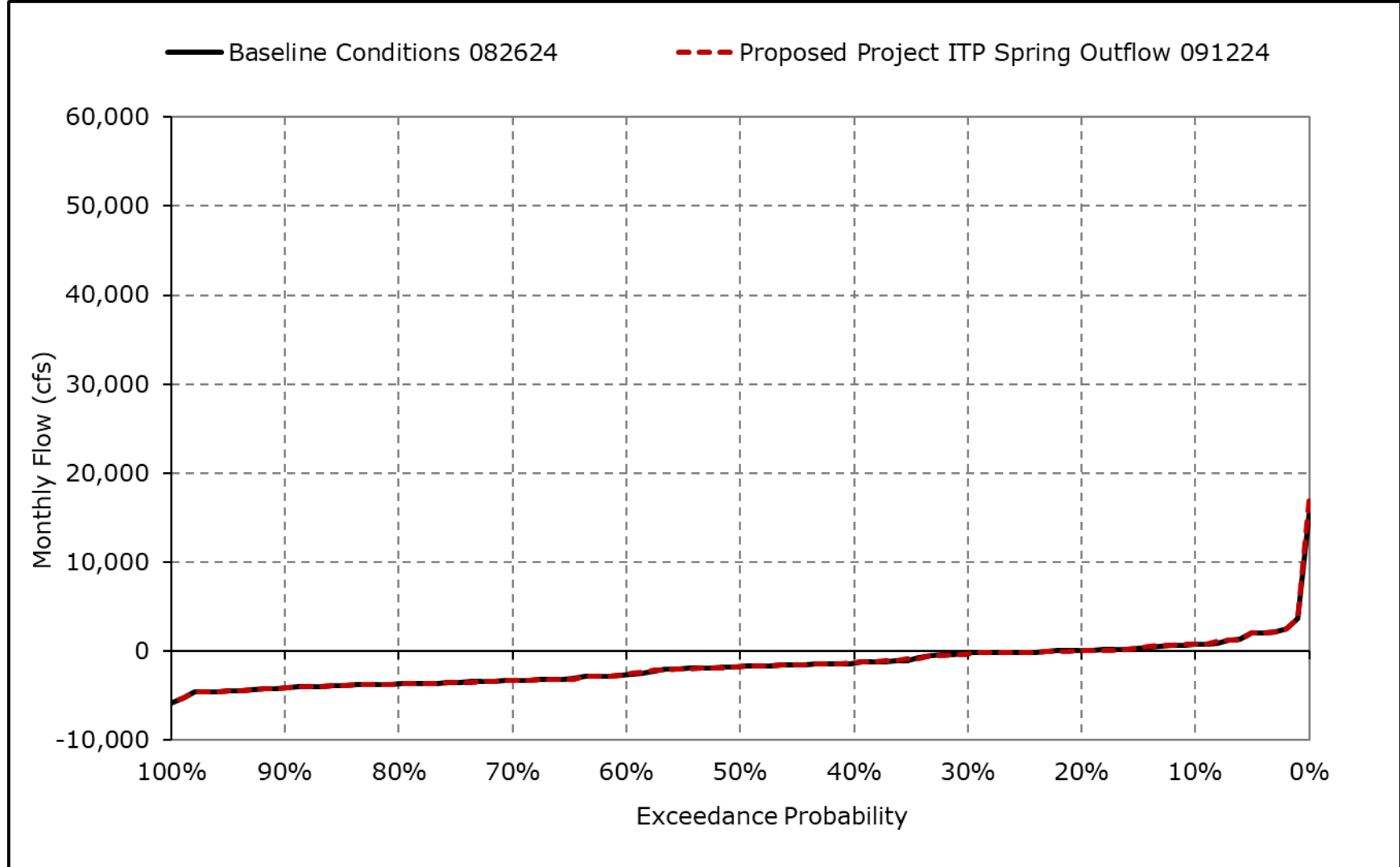
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9g. Qwest, October**



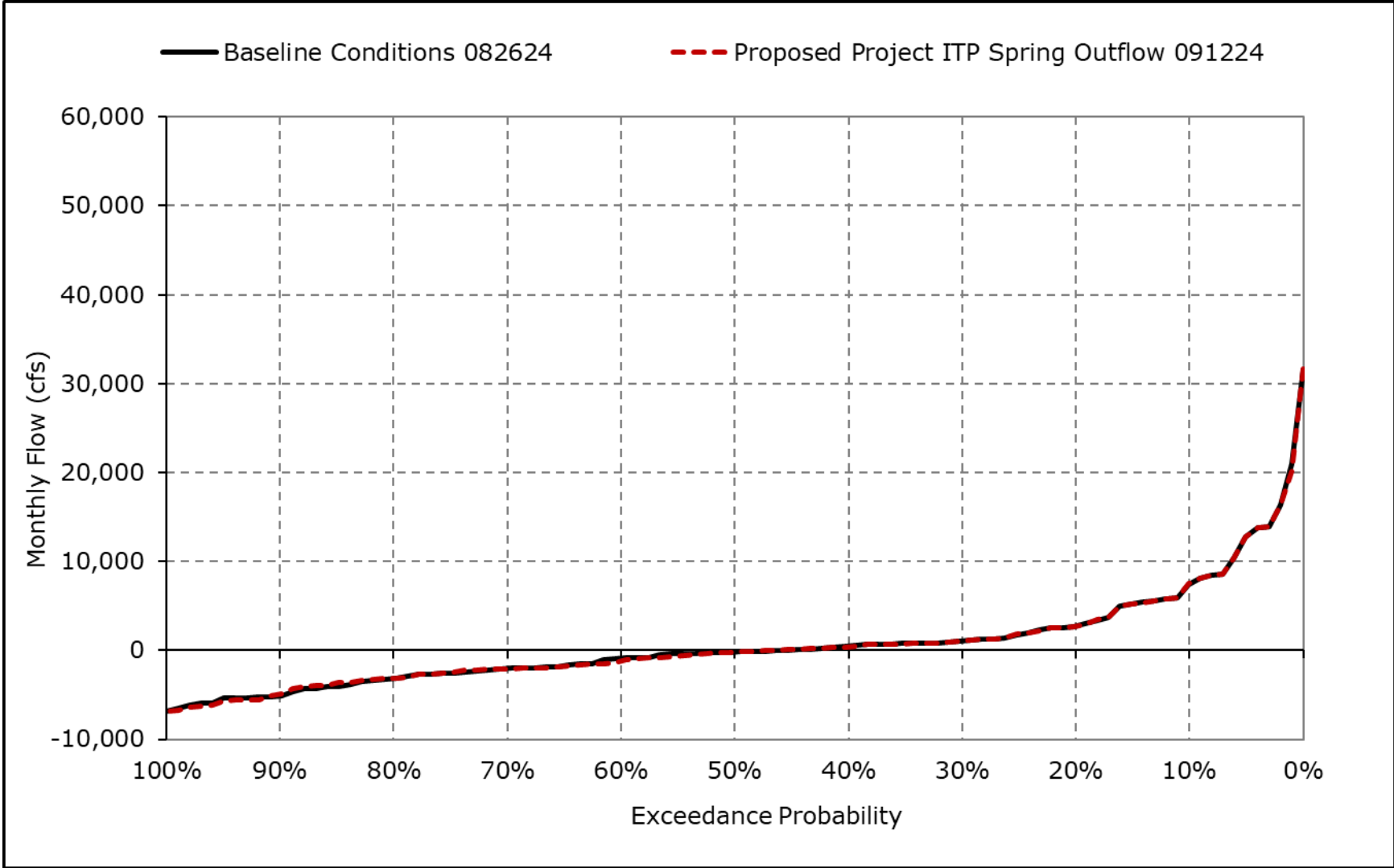
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9h. Qwest, November**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

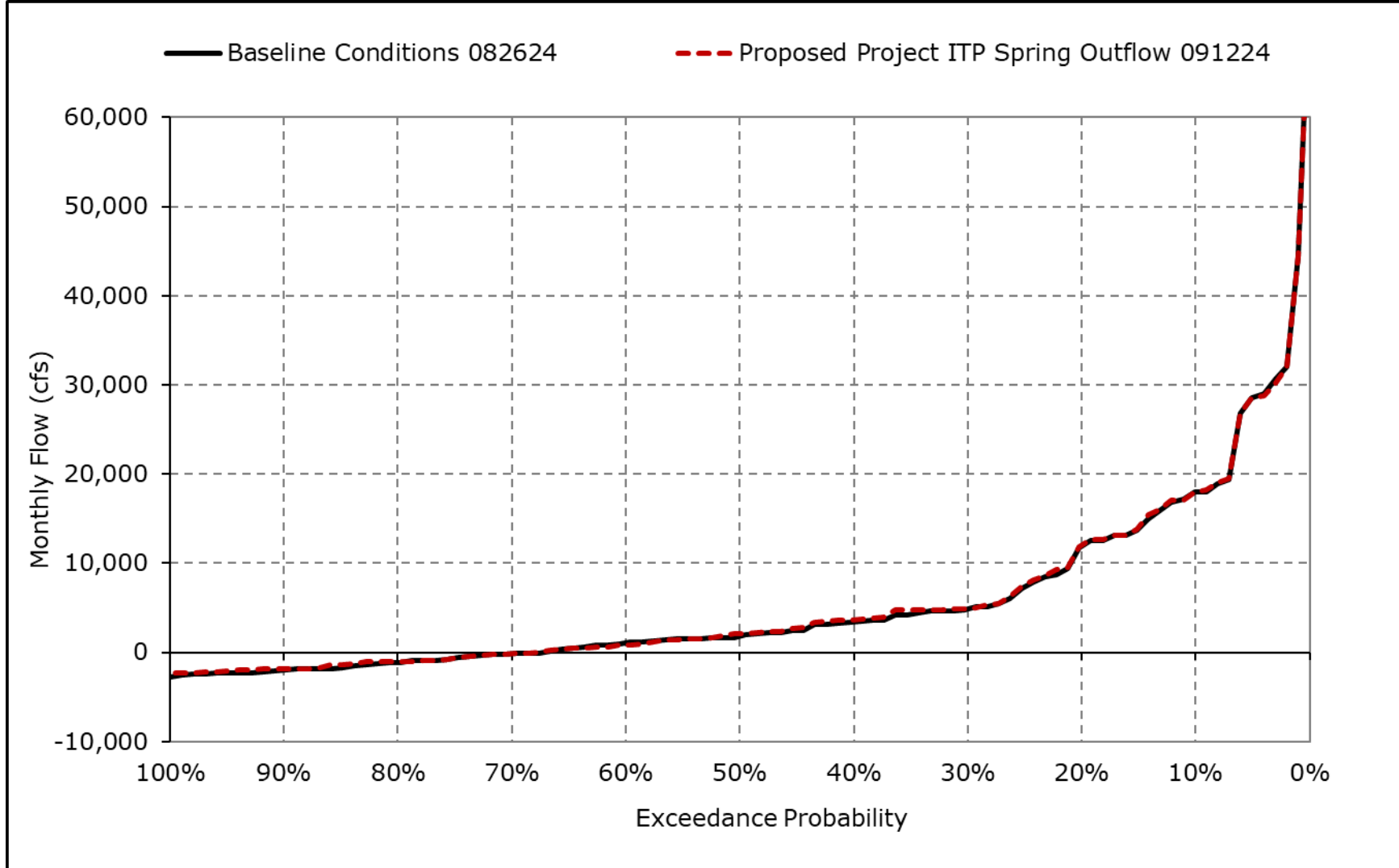
Figure 4L-3-9i. Qwest, December



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

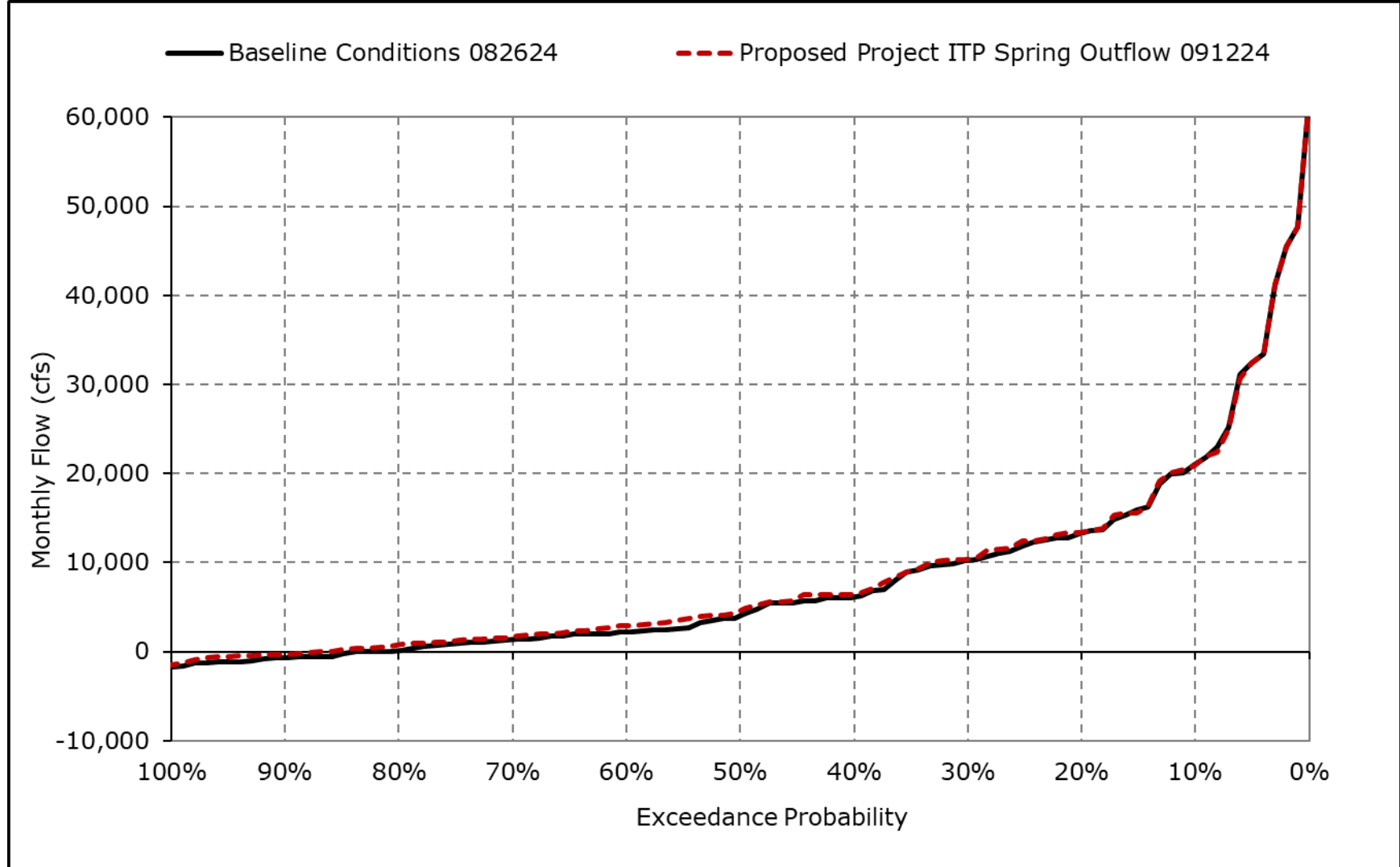


**Figure 4L-3-9j. Qwest, January**



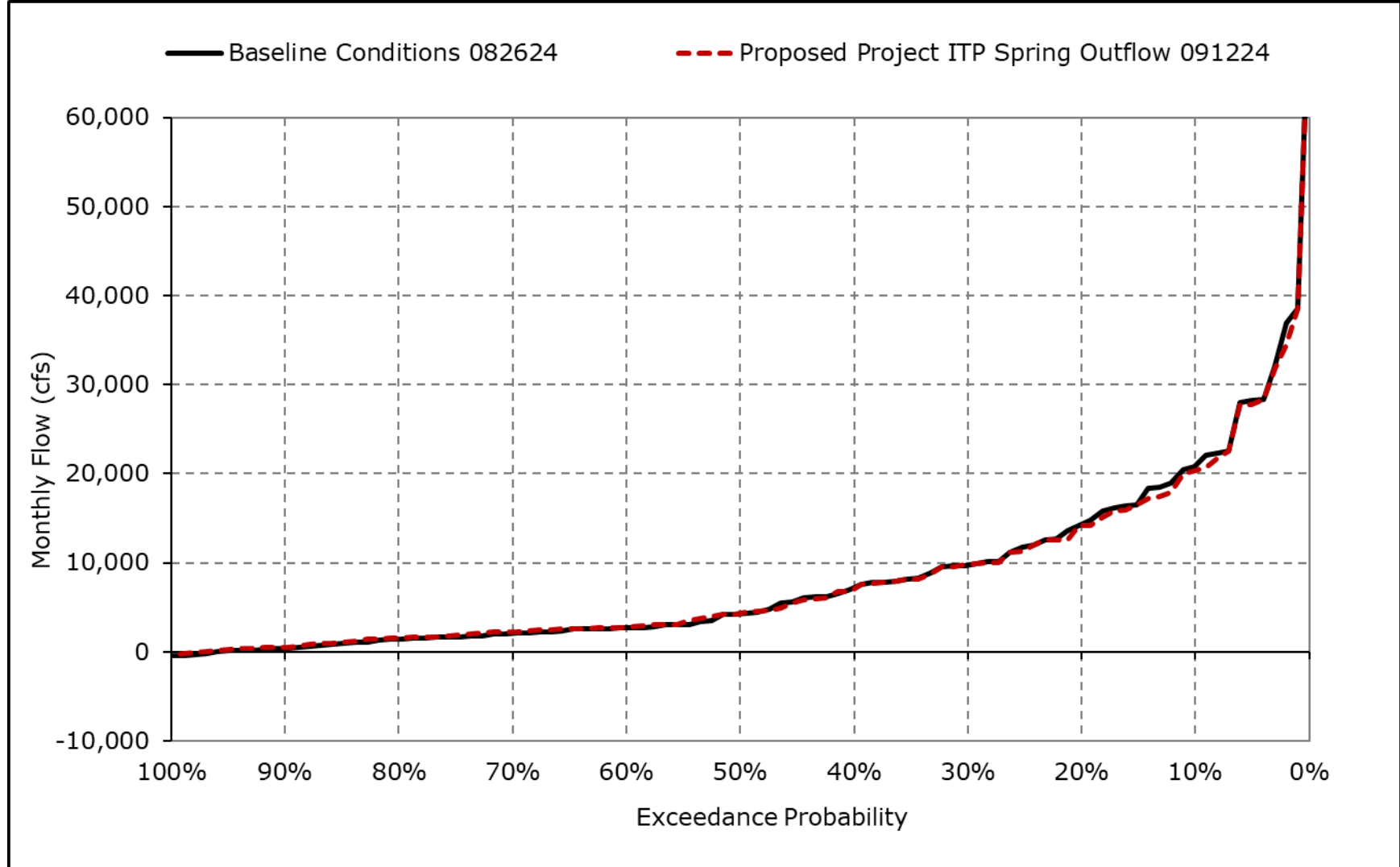
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9k. Qwest, February**



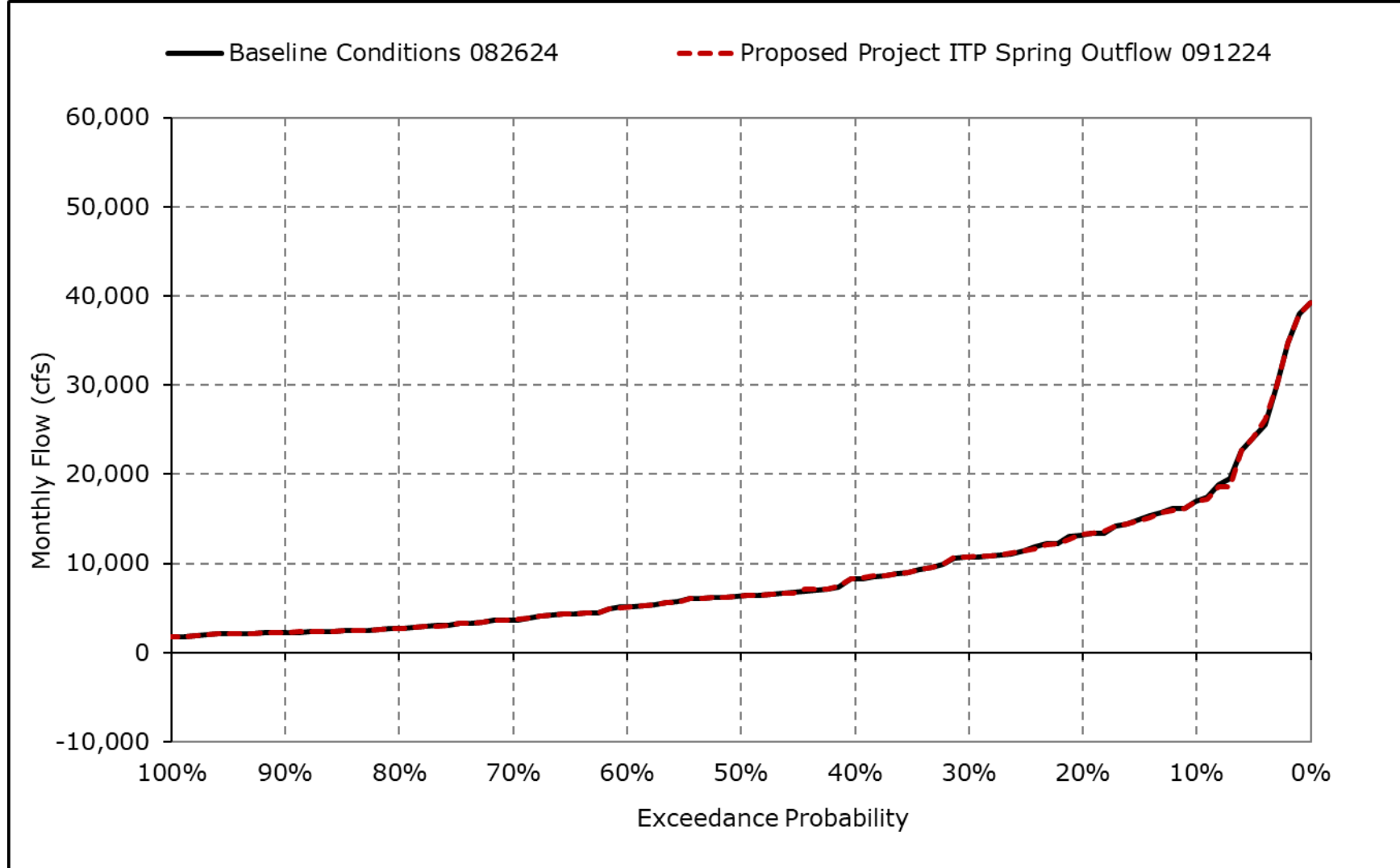
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9I. Qwest, March**



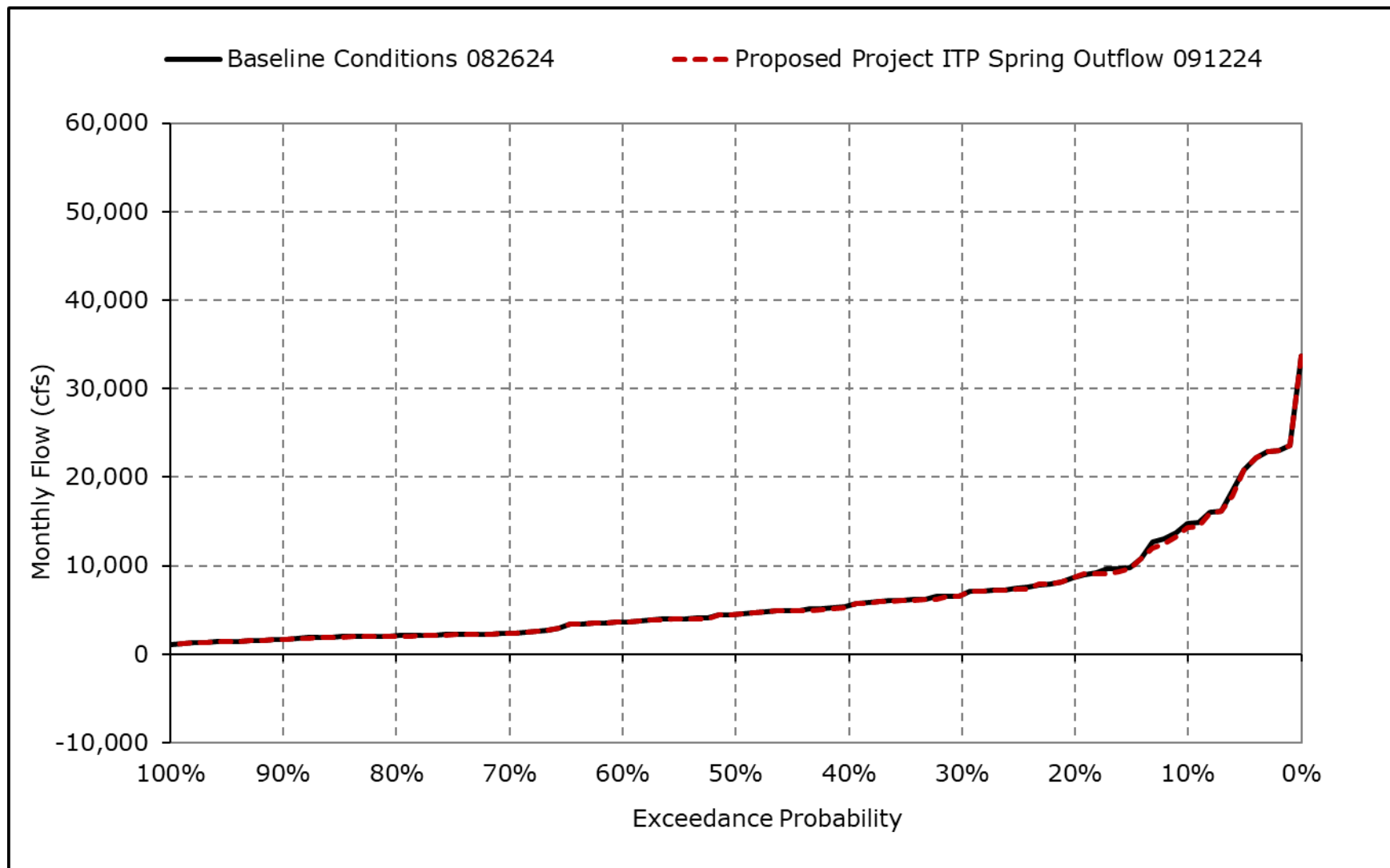
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9m. Qwest, April**



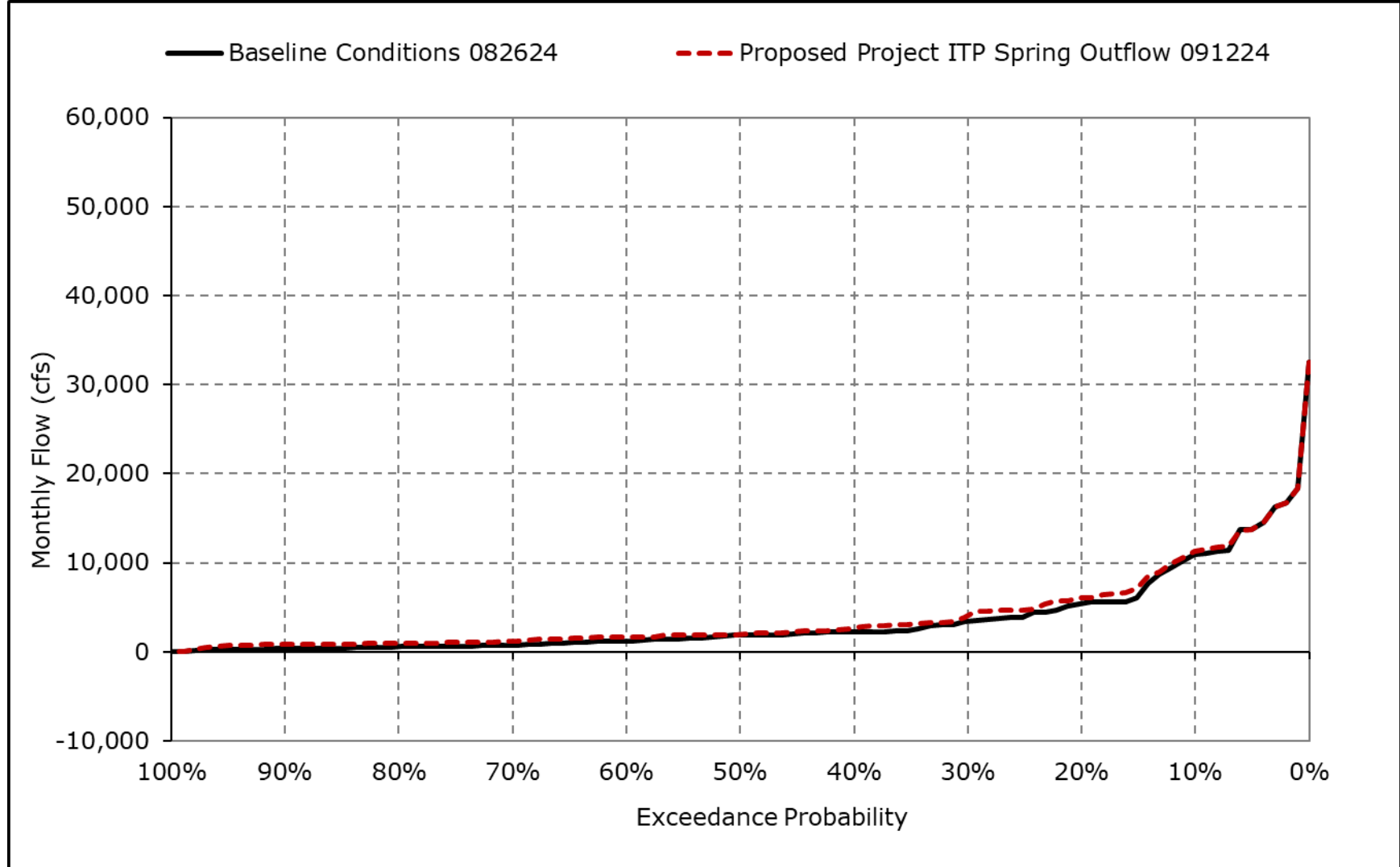
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9n. Qwest, May**



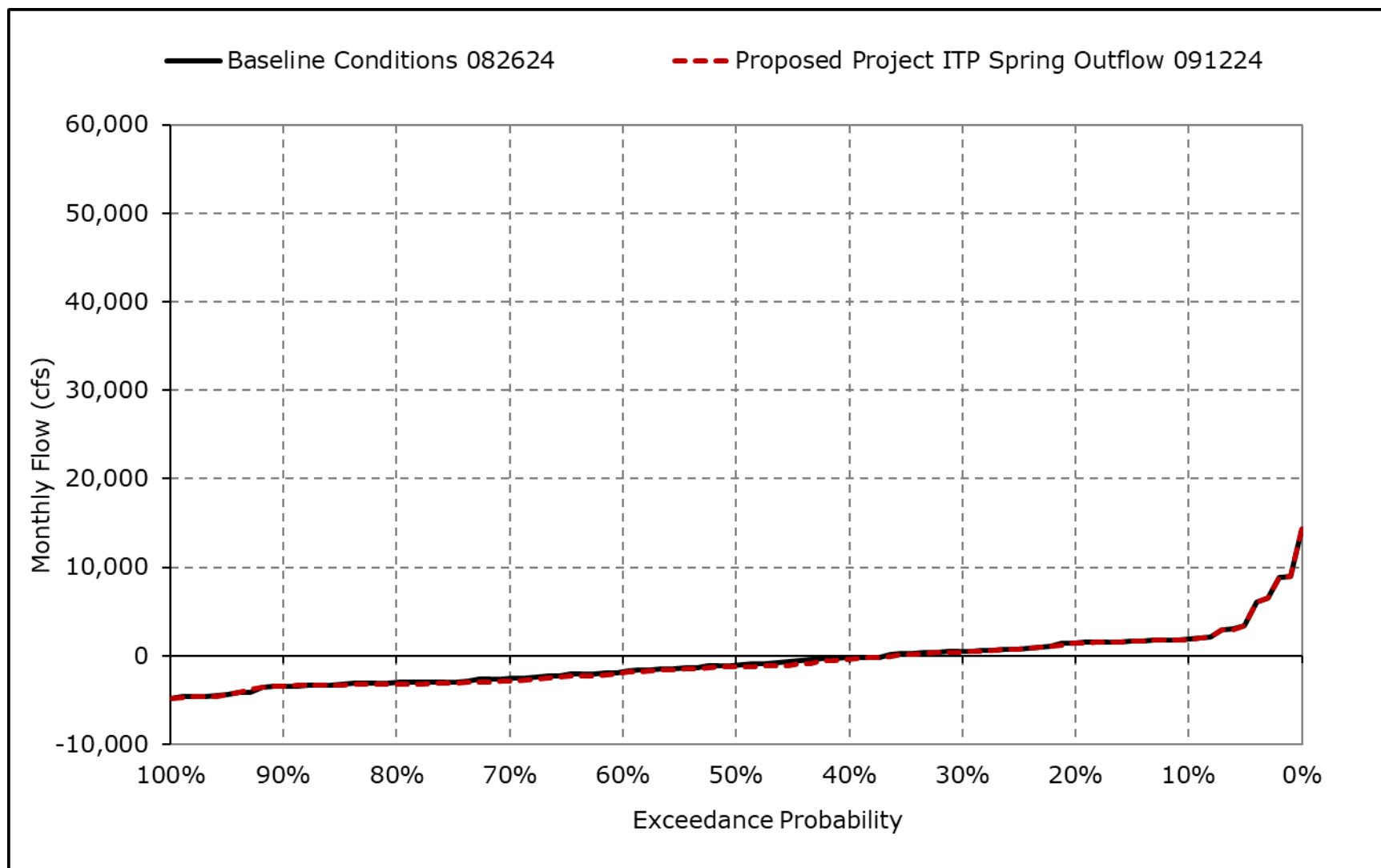
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9o. Qwest, June**



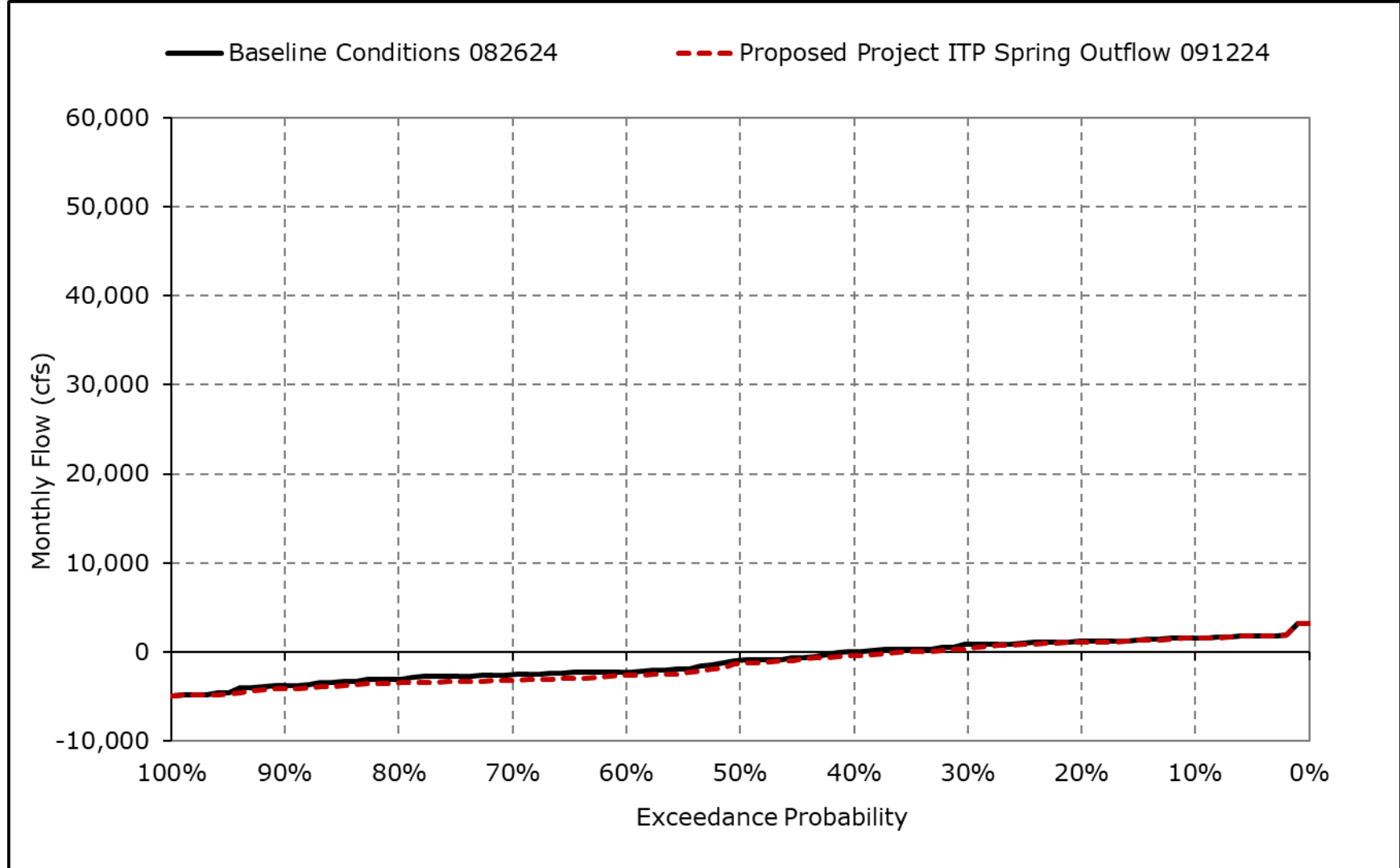
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-9p. Qwest, July**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

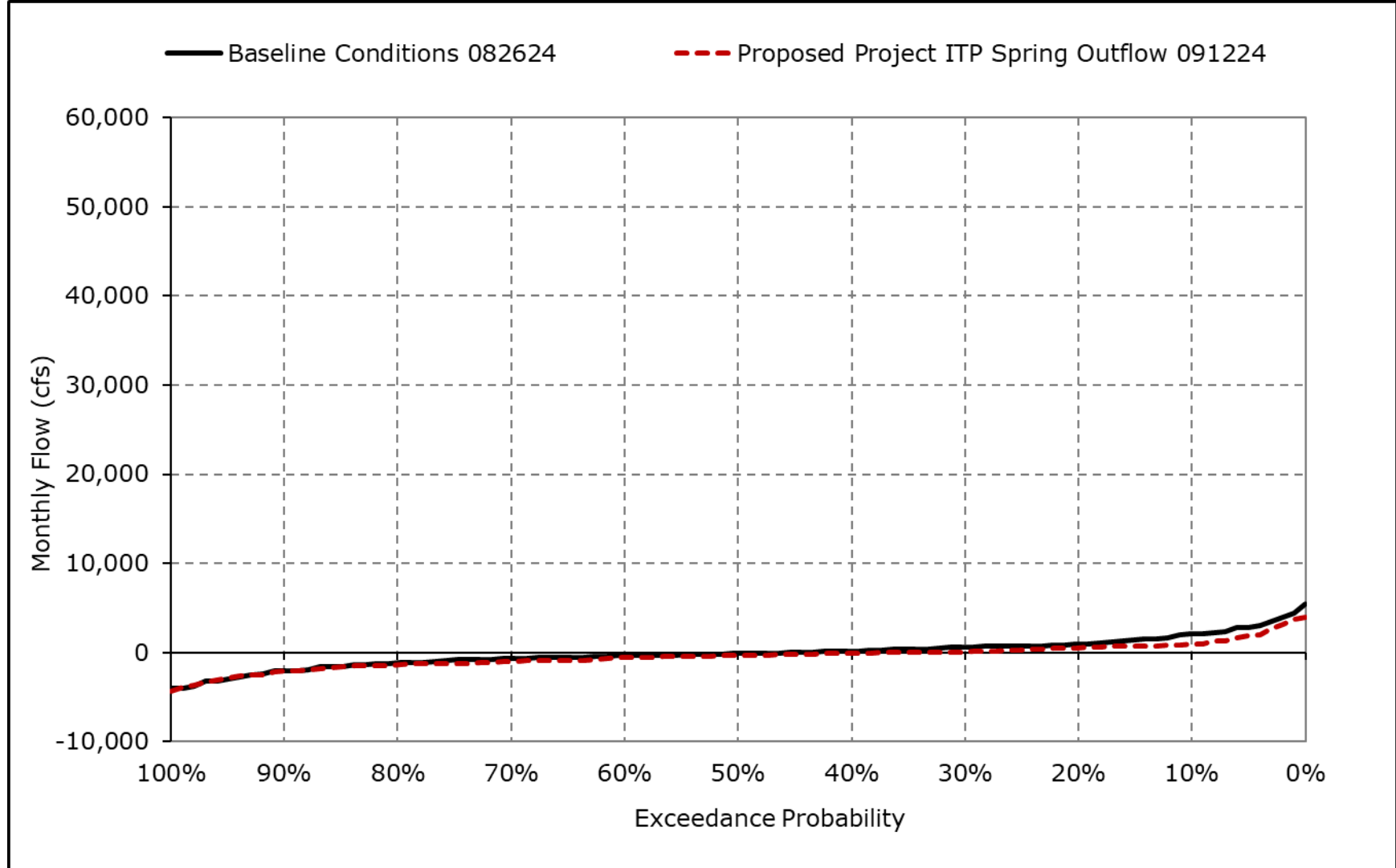
**Figure 4L-3-9q. Qwest, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.



**Figure 4L-3-9r. Qwest, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Table 4L-3-10-1a. Delta Outflow, Baseline Conditions 082624, Monthly Outflow (cfs)**

| Statistic                                   | Oct   | Nov    | Dec    | Jan     | Feb     | Mar     | Apr    | May    | Jun    | Jul    | Aug   | Sep    |
|---|-------|--------|--------|---------|---------|---------|--------|--------|--------|--------|-------|--------|
| 10% Exceedance                              | 8,438 | 13,624 | 59,011 | 112,525 | 128,285 | 113,467 | 67,792 | 53,491 | 30,424 | 11,561 | 7,017 | 10,313 |
| 20% Exceedance                              | 8,125 | 7,620  | 32,860 | 72,643  | 82,060  | 69,795  | 47,729 | 35,950 | 20,512 | 9,699  | 6,189 | 10,156 |
| 30% Exceedance                              | 7,969 | 6,523  | 20,116 | 39,101  | 59,783  | 52,002  | 30,353 | 24,404 | 12,184 | 9,053  | 5,659 | 10,000 |
| 40% Exceedance                              | 7,410 | 6,042  | 12,428 | 28,243  | 43,041  | 41,303  | 24,709 | 18,883 | 8,736  | 8,512  | 5,488 | 9,074  |
| 50% Exceedance                              | 4,834 | 5,708  | 8,699  | 20,615  | 30,591  | 28,115  | 19,003 | 15,082 | 7,277  | 8,104  | 4,445 | 4,063  |
| 60% Exceedance                              | 4,110 | 5,557  | 7,579  | 15,265  | 23,586  | 22,079  | 15,133 | 12,221 | 7,100  | 6,522  | 4,000 | 3,363  |
| 70% Exceedance                              | 4,000 | 5,121  | 6,728  | 12,146  | 17,910  | 17,542  | 12,270 | 10,627 | 6,856  | 5,078  | 3,979 | 3,000  |
| 80% Exceedance                              | 4,000 | 4,782  | 5,931  | 8,989   | 12,959  | 13,029  | 10,835 | 9,334  | 6,081  | 5,000  | 3,500 | 3,000  |
| 90% Exceedance                              | 3,000 | 4,500  | 5,126  | 7,694   | 10,210  | 9,626   | 9,551  | 6,727  | 4,000  | 4,000  | 3,000 | 3,000  |
| Full Simulation Period Average <sup>a</sup> | 6,352 | 7,865  | 21,002 | 42,437  | 52,812  | 47,134  | 30,428 | 22,855 | 13,987 | 8,027  | 5,119 | 6,521  |
| Wet Water Years (32%)                       | 7,745 | 11,099 | 39,990 | 89,212  | 105,597 | 93,358  | 58,766 | 41,598 | 27,036 | 11,668 | 7,242 | 11,223 |
| Above Normal Water Years (9%)               | 6,386 | 6,784  | 16,470 | 51,796  | 54,040  | 53,952  | 29,011 | 24,476 | 14,645 | 9,746  | 6,338 | 10,254 |
| Below Normal Water Years (20%)              | 6,331 | 6,484  | 12,969 | 22,072  | 35,101  | 31,308  | 22,225 | 18,703 | 8,338  | 8,053  | 4,286 | 3,845  |
| Dry Water Years (21%)                       | 5,797 | 6,817  | 12,536 | 13,473  | 22,336  | 19,338  | 13,514 | 11,380 | 6,903  | 5,165  | 3,941 | 3,321  |
| Critical Water Years (18%)                  | 4,530 | 5,411  | 8,318  | 11,023  | 13,594  | 11,564  | 9,606  | 6,725  | 5,000  | 4,004  | 3,033 | 3,002  |

**Table 4L-3-10-1b. Delta Outflow, Proposed Project ITP Spring Outflow 091224, Monthly Outflow (cfs)**

| Statistic                                   | Oct   | Nov    | Dec    | Jan     | Feb     | Mar     | Apr    | May    | Jun    | Jul    | Aug   | Sep    |
|---|-------|--------|--------|---------|---------|---------|--------|--------|--------|--------|-------|--------|
| 10% Exceedance                              | 8,453 | 13,506 | 58,514 | 111,651 | 127,799 | 113,558 | 67,478 | 53,042 | 31,319 | 10,817 | 6,159 | 10,999 |
| 20% Exceedance                              | 8,125 | 7,552  | 32,789 | 72,758  | 81,257  | 69,468  | 47,836 | 35,927 | 21,374 | 9,171  | 5,532 | 10,324 |
| 30% Exceedance                              | 7,813 | 6,542  | 20,130 | 39,414  | 59,571  | 51,470  | 30,293 | 24,151 | 13,154 | 8,978  | 5,375 | 10,075 |
| 40% Exceedance                              | 7,813 | 6,098  | 12,436 | 28,683  | 43,384  | 41,111  | 24,608 | 18,790 | 8,914  | 8,187  | 5,166 | 8,920  |
| 50% Exceedance                              | 4,948 | 5,776  | 8,766  | 21,107  | 31,251  | 28,526  | 19,121 | 15,019 | 7,308  | 7,605  | 4,000 | 4,249  |
| 60% Exceedance                              | 4,084 | 5,563  | 7,591  | 15,441  | 24,022  | 22,311  | 15,116 | 12,222 | 7,100  | 6,522  | 4,000 | 3,499  |
| 70% Exceedance                              | 4,000 | 5,116  | 6,785  | 11,116  | 18,692  | 17,949  | 12,267 | 10,634 | 6,856  | 5,021  | 3,500 | 3,008  |
| 80% Exceedance                              | 4,000 | 4,784  | 5,922  | 9,455   | 13,690  | 13,350  | 10,922 | 9,153  | 6,114  | 5,000  | 3,500 | 3,000  |
| 90% Exceedance                              | 3,000 | 4,500  | 5,151  | 7,750   | 10,386  | 9,411   | 9,539  | 6,729  | 4,000  | 4,000  | 3,000 | 3,000  |
| Full Simulation Period Average <sup>a</sup> | 6,387 | 7,872  | 20,995 | 42,522  | 53,023  | 46,971  | 30,405 | 22,743 | 14,239 | 7,850  | 4,866 | 6,556  |
| Wet Water Years (32%)                       | 7,767 | 11,155 | 39,959 | 89,312  | 105,455 | 92,772  | 58,715 | 41,501 | 27,561 | 11,555 | 6,889 | 10,985 |
| Above Normal Water Years (9%)               | 6,532 | 6,662  | 16,327 | 51,958  | 54,213  | 53,422  | 28,988 | 24,352 | 15,130 | 9,259  | 5,606 | 11,186 |
| Below Normal Water Years (20%)              | 6,419 | 6,429  | 13,068 | 22,156  | 35,433  | 31,455  | 22,209 | 18,376 | 8,532  | 7,716  | 4,289 | 3,837  |
| Dry Water Years (21%)                       | 5,749 | 6,827  | 12,545 | 13,537  | 22,753  | 19,484  | 13,519 | 11,342 | 6,913  | 5,025  | 3,591 | 3,458  |
| Critical Water Years (18%)                  | 4,570 | 5,464  | 8,284  | 11,066  | 14,073  | 11,628  | 9,590  | 6,742  | 5,000  | 4,004  | 3,029 | 3,002  |

**Table 4L-3-10-1c. Delta Outflow, Proposed Project ITP Spring Outflow 091224 minus Baseline Conditions 082624, Monthly Outflow (cfs)**

| Statistic                                   | Oct  | Nov  | Dec  | Jan    | Feb  | Mar  | Apr  | May  | Jun | Jul  | Aug  | Sep  |
|---|------|------|------|--------|------|------|------|------|-----|------|------|------|
| 10% Exceedance                              | 16   | -118 | -497 | -875   | -486 | 91   | -313 | -448 | 895 | -744 | -858 | 687  |
| 20% Exceedance                              | 0    | -68  | -71  | 114    | -803 | -326 | 107  | -24  | 862 | -528 | -658 | 168  |
| 30% Exceedance                              | -156 | 19   | 14   | 314    | -211 | -532 | -60  | -254 | 970 | -75  | -284 | 75   |
| 40% Exceedance                              | 403  | 56   | 8    | 440    | 343  | -191 | -102 | -93  | 179 | -325 | -322 | -154 |
| 50% Exceedance                              | 114  | 67   | 67   | 492    | 660  | 411  | 118  | -64  | 31  | -499 | -445 | 187  |
| 60% Exceedance                              | -25  | 6    | 11   | 177    | 436  | 232  | -17  | 1    | 0   | 0    | 0    | 136  |
| 70% Exceedance                              | 0    | -5   | 57   | -1,030 | 782  | 406  | -3   | 8    | 0   | -57  | -479 | 8    |
| 80% Exceedance                              | 0    | 2    | -9   | 466    | 732  | 321  | 87   | -181 | 34  | 0    | 0    | 0    |
| 90% Exceedance                              | 0    | 0    | 25   | 55     | 177  | -214 | -12  | 1    | 0   | 0    | 0    | 0    |
| Full Simulation Period Average <sup>a</sup> | 35   | 8    | -7   | 85     | 210  | -163 | -24  | -113 | 252 | -177 | -252 | 35   |
| Wet Water Years (32%)                       | 22   | 56   | -30  | 101    | -142 | -585 | -51  | -97  | 524 | -114 | -353 | -238 |
| Above Normal Water Years (9%)               | 146  | -122 | -143 | 161    | 173  | -530 | -23  | -125 | 485 | -487 | -732 | 931  |
| Below Normal Water Years (20%)              | 87   | -55  | 99   | 84     | 332  | 147  | -15  | -327 | 194 | -337 | 4    | -7   |
| Dry Water Years (21%)                       | -48  | 10   | 9    | 64     | 417  | 146  | 4    | -37  | 10  | -140 | -350 | 137  |
| Critical Water Years (18%)                  | 40   | 53   | -34  | 43     | 479  | 64   | -17  | 17   | 0   | 0    | -4   | 0    |

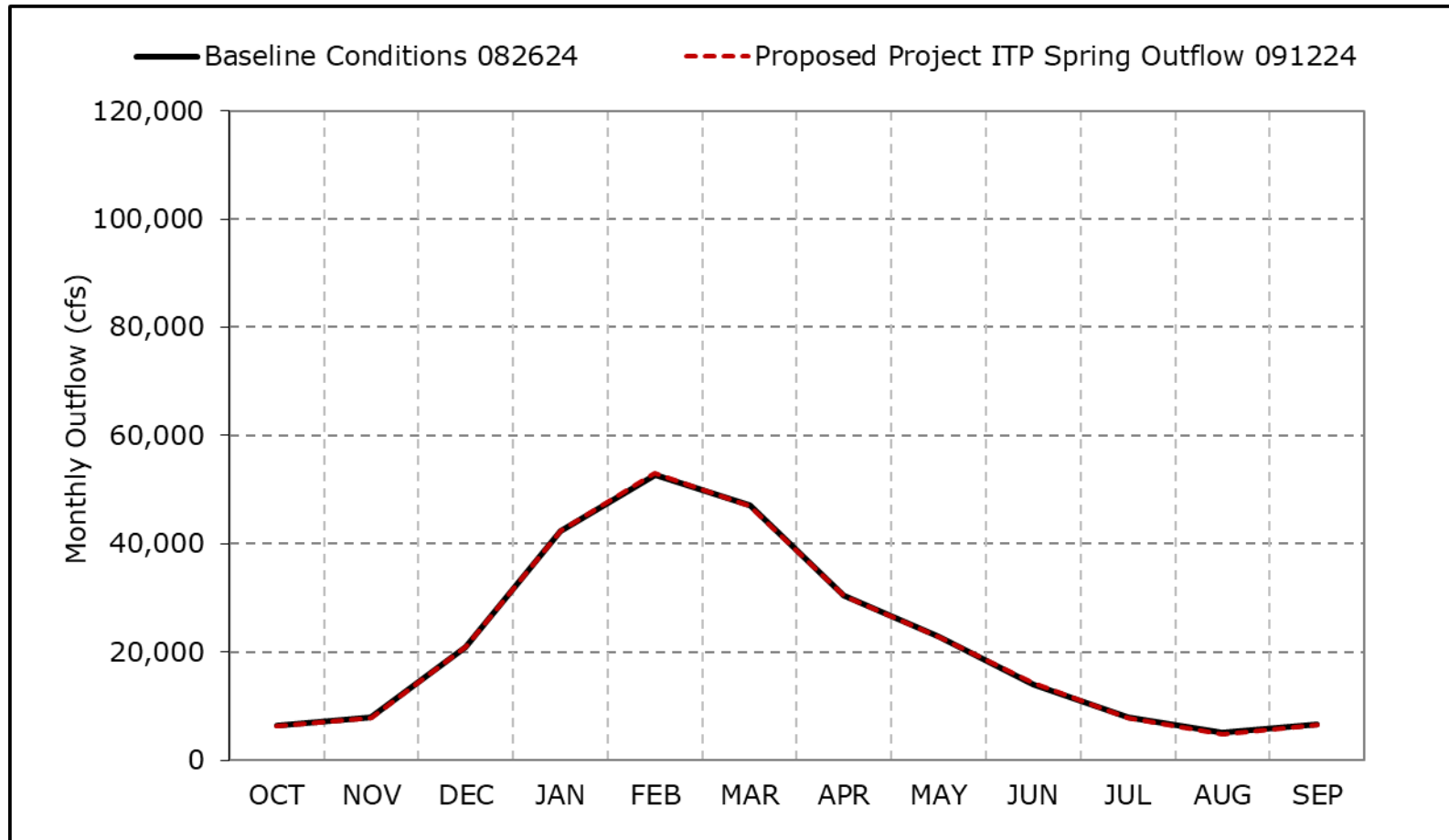
<sup>a</sup> Based on the 100-year simulation period.

\* All scenarios are simulated at current climate condition and 0 cm sea level rise.

\* Water Year Types defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\* Water Year Types results are displayed with water year - year type sorting.

**Figure 4L-3-10a. Delta Outflow, Long-Term Average Outflow**

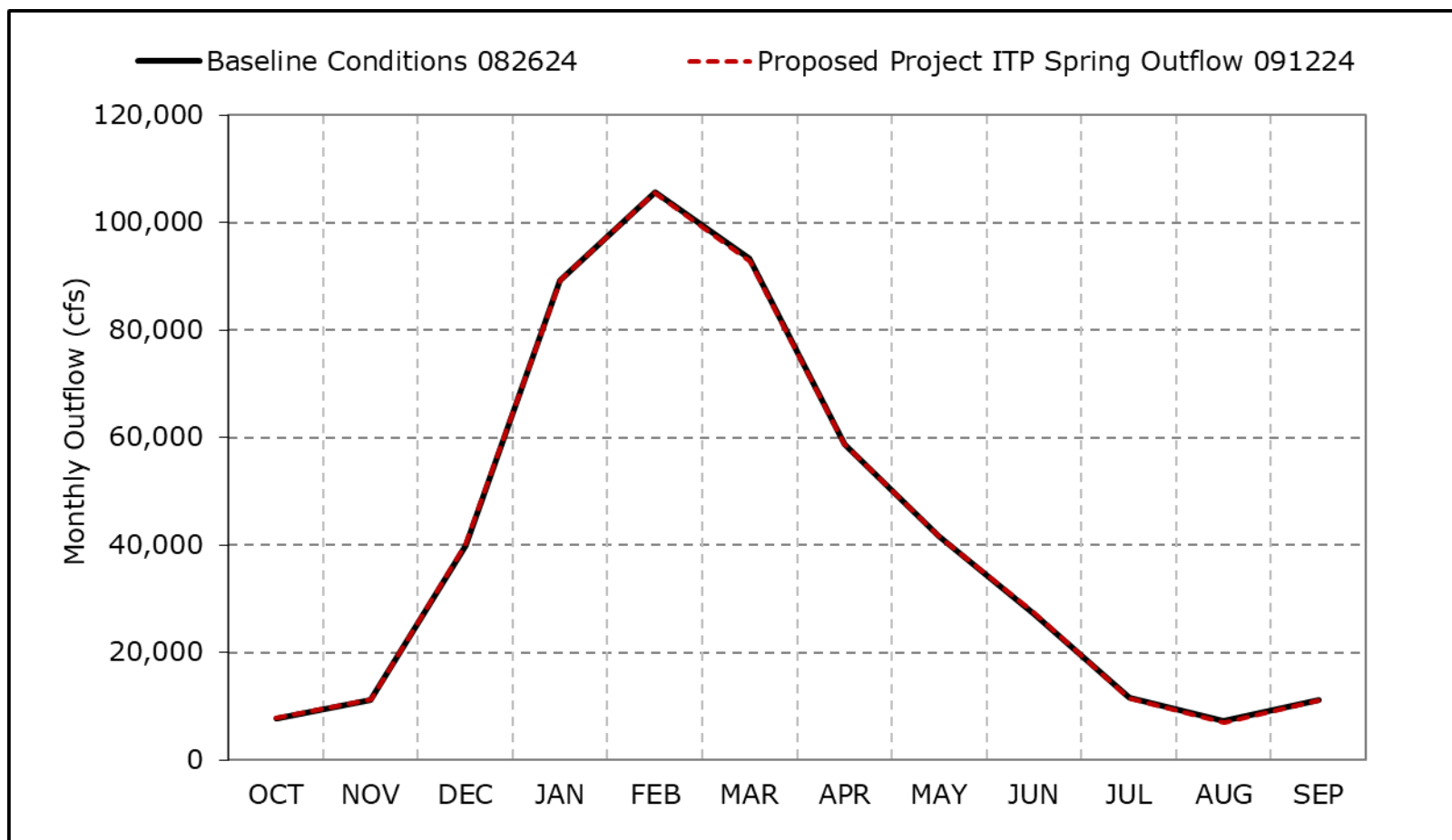


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10b. Delta Outflow, Wet Year Average Outflow**

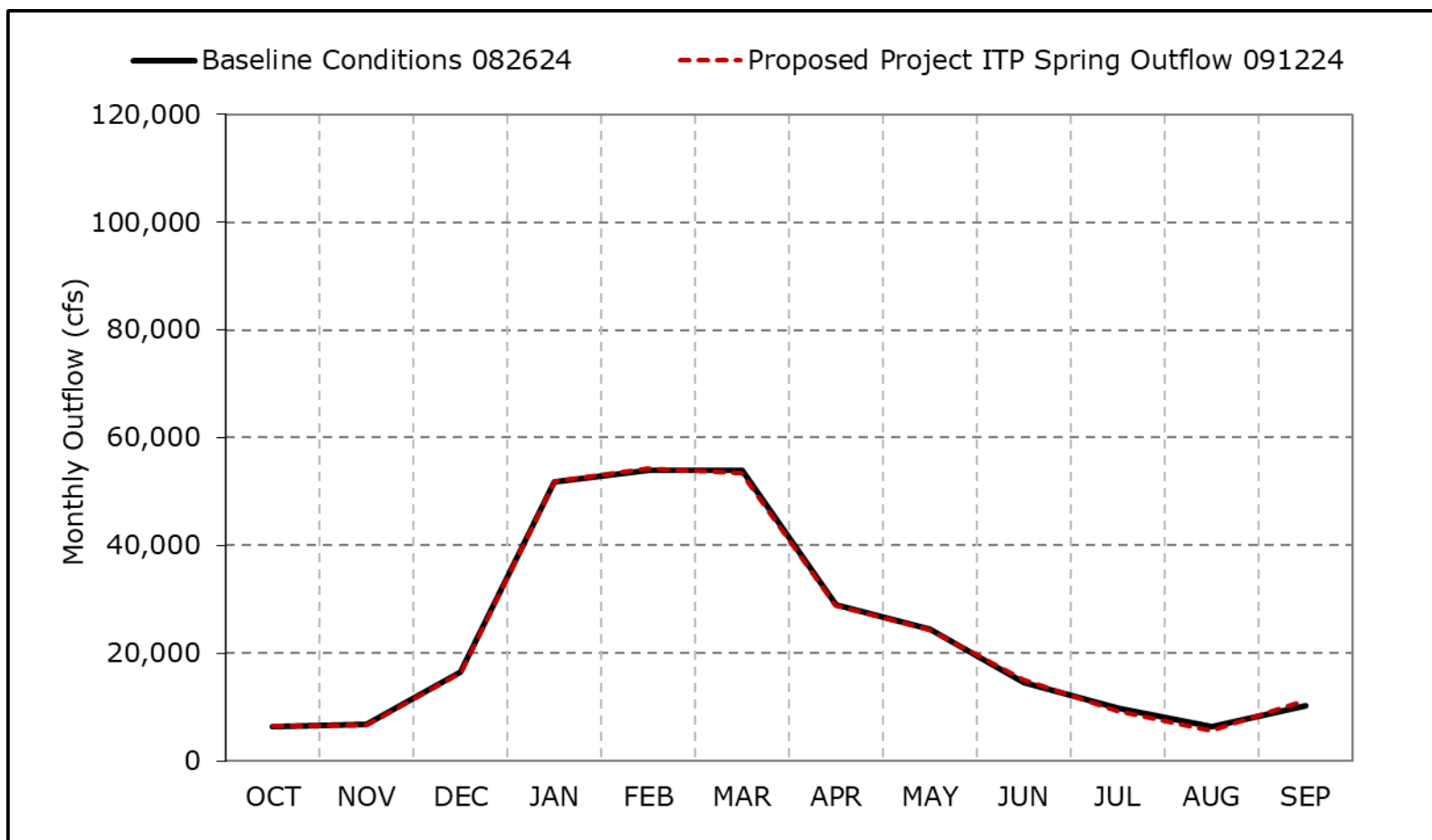


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10c. Delta Outflow, Above Normal Year Average Outflow**

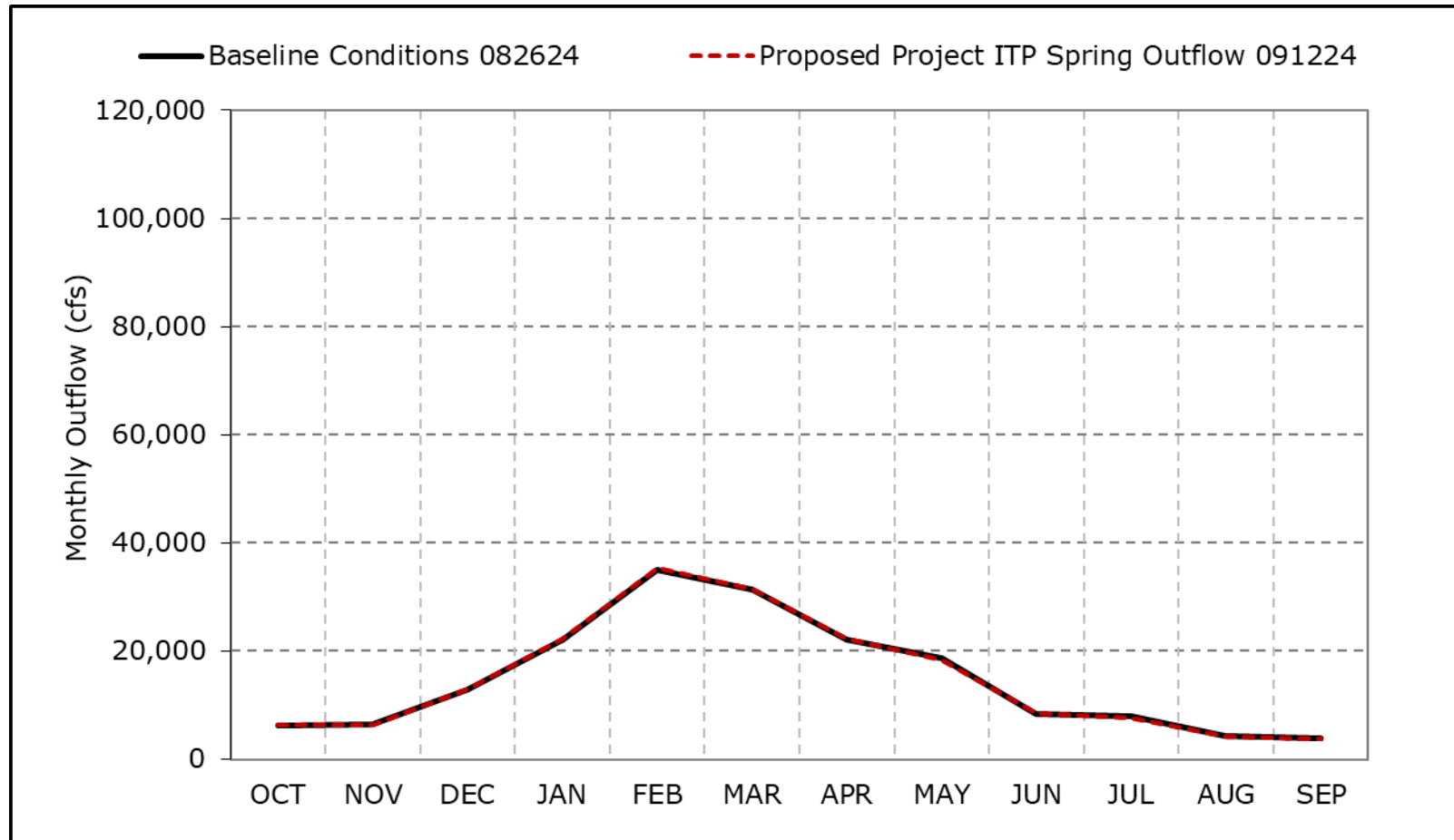


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10d. Delta Outflow, Below Normal Year Average Outflow**

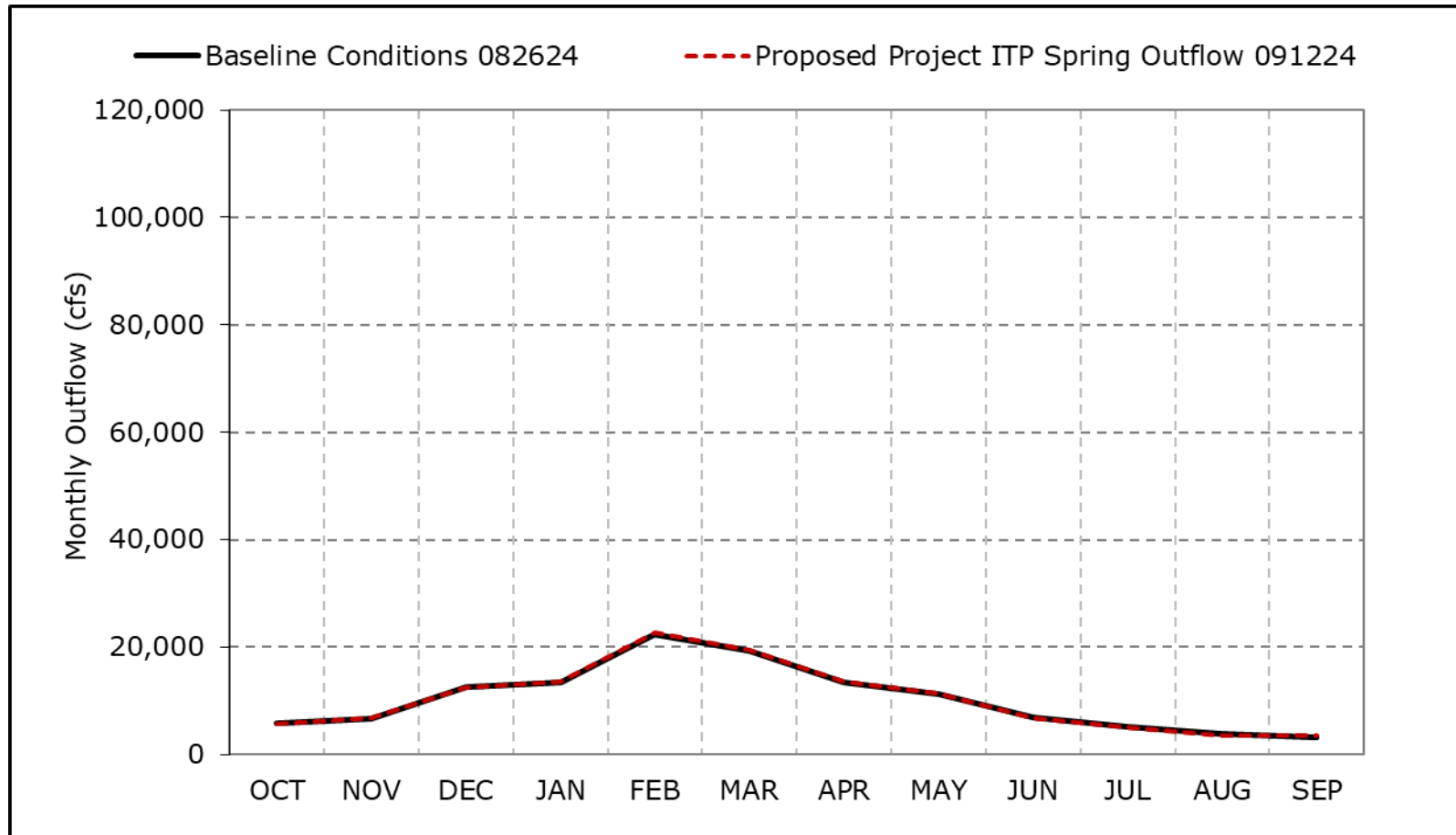


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10e. Delta Outflow, Dry Year Average Outflow**

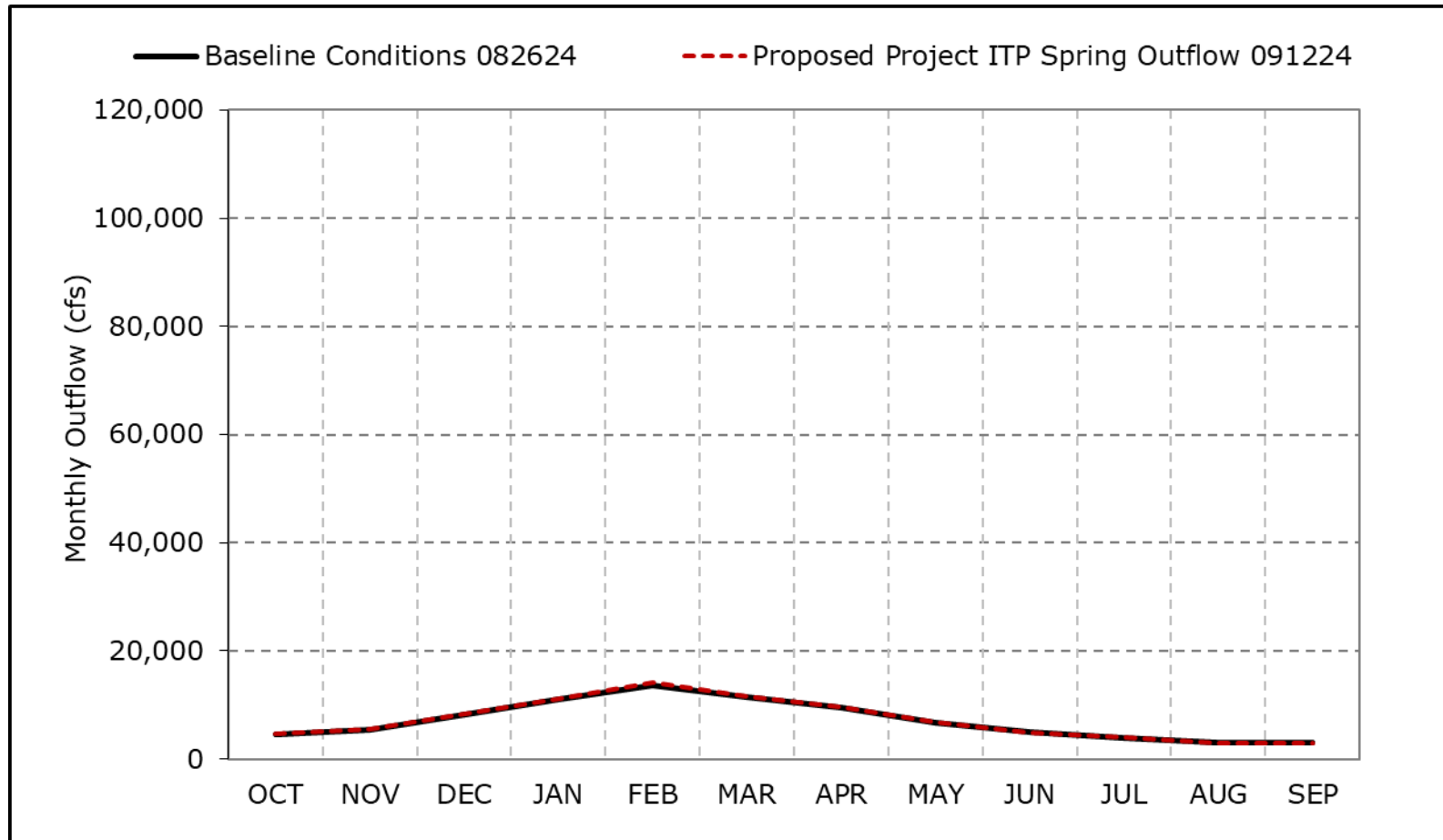


\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10f. Delta Outflow, Critical Year Average Outflow**



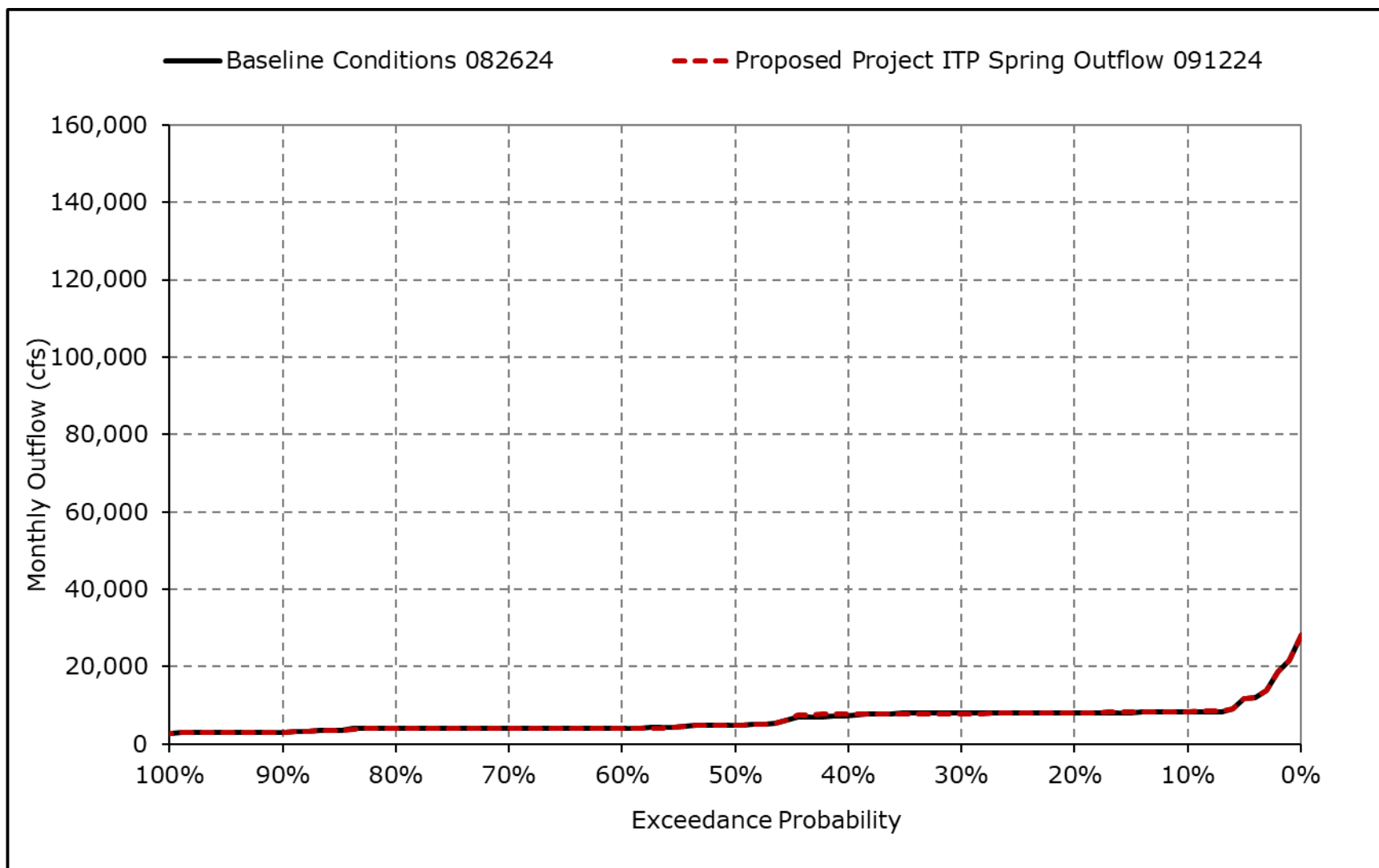
\*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

\*These results are displayed with water year - year type sorting.

\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

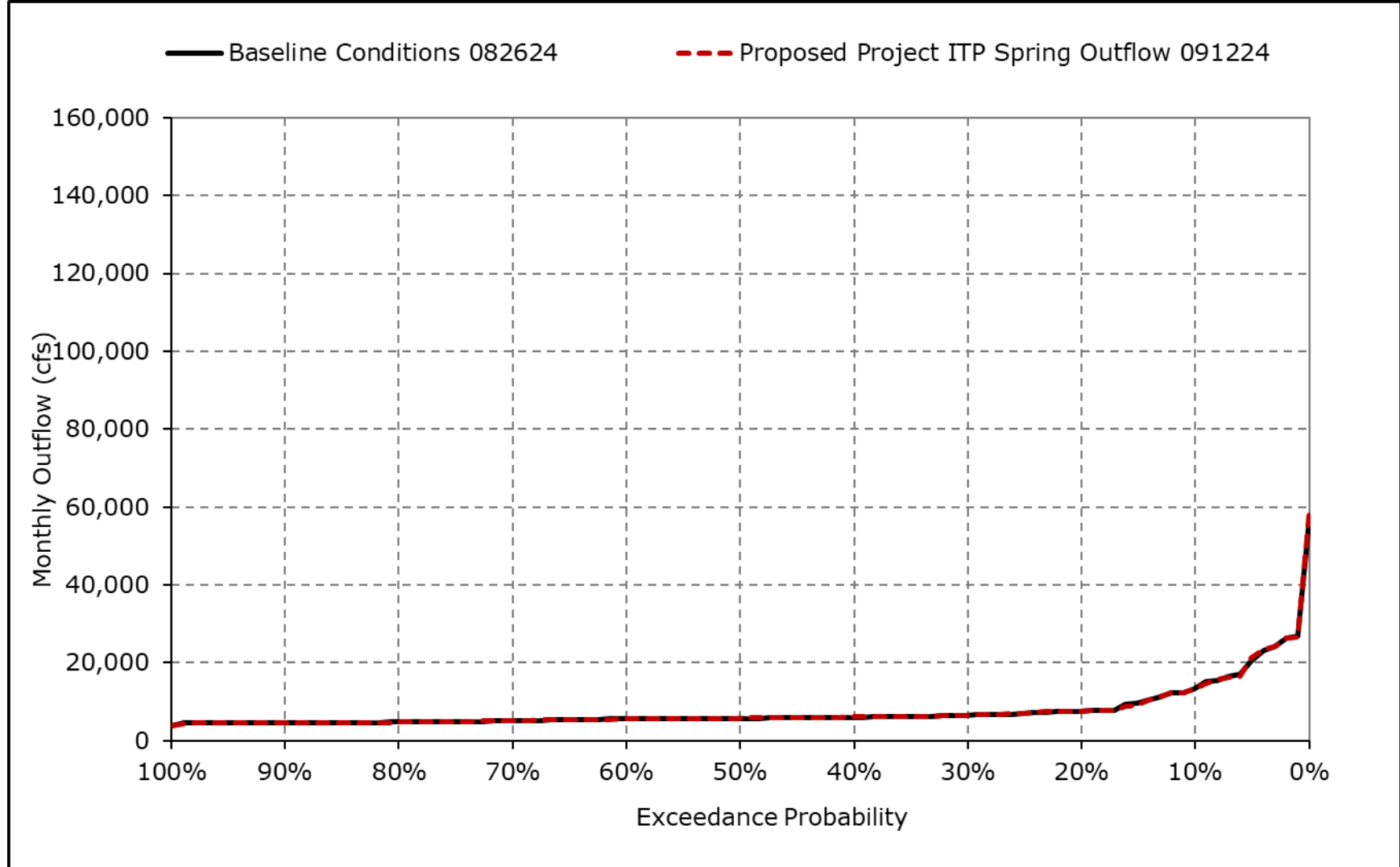


**Figure 4L-3-10g. Delta Outflow, October**



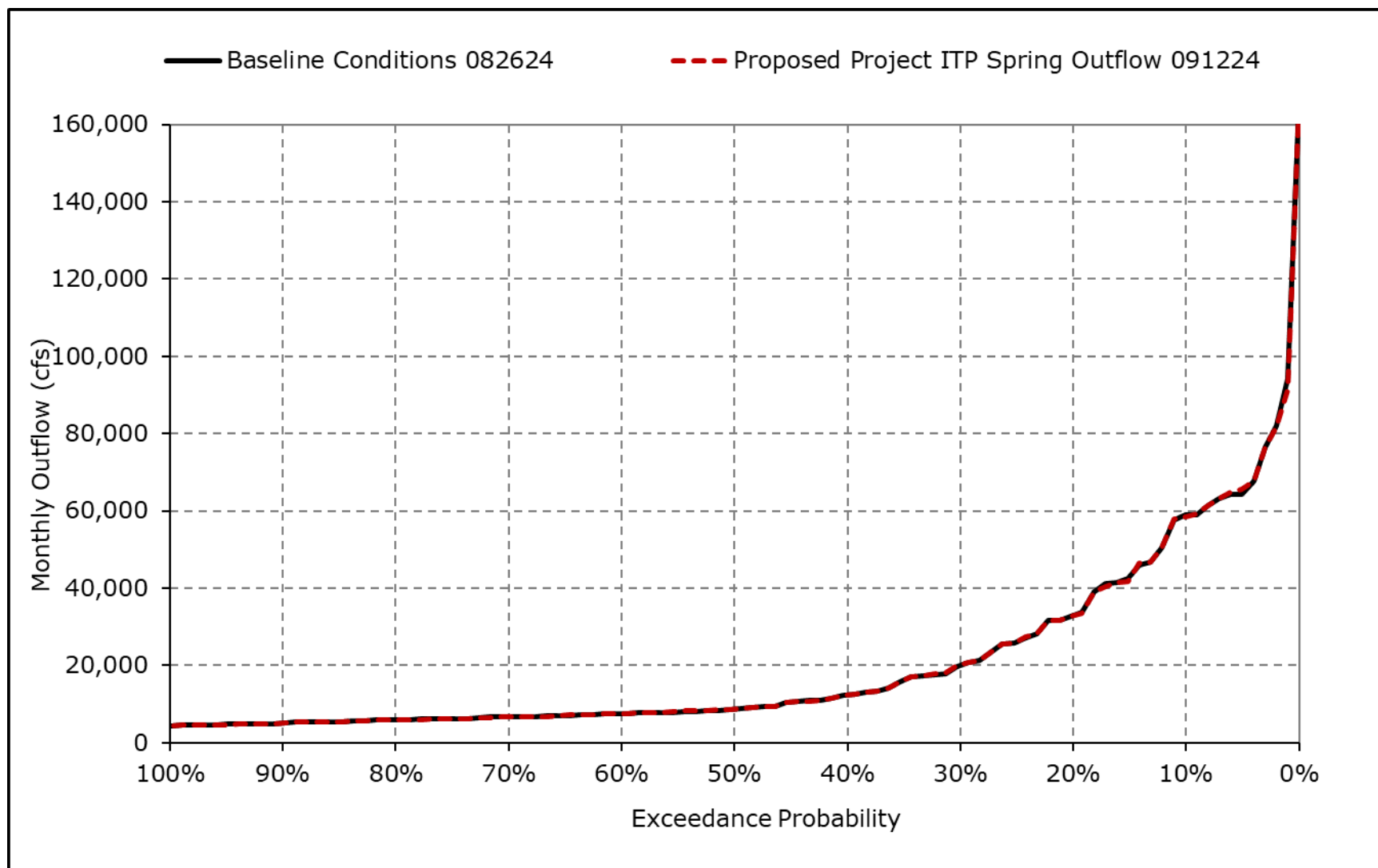
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10h. Delta Outflow, November**



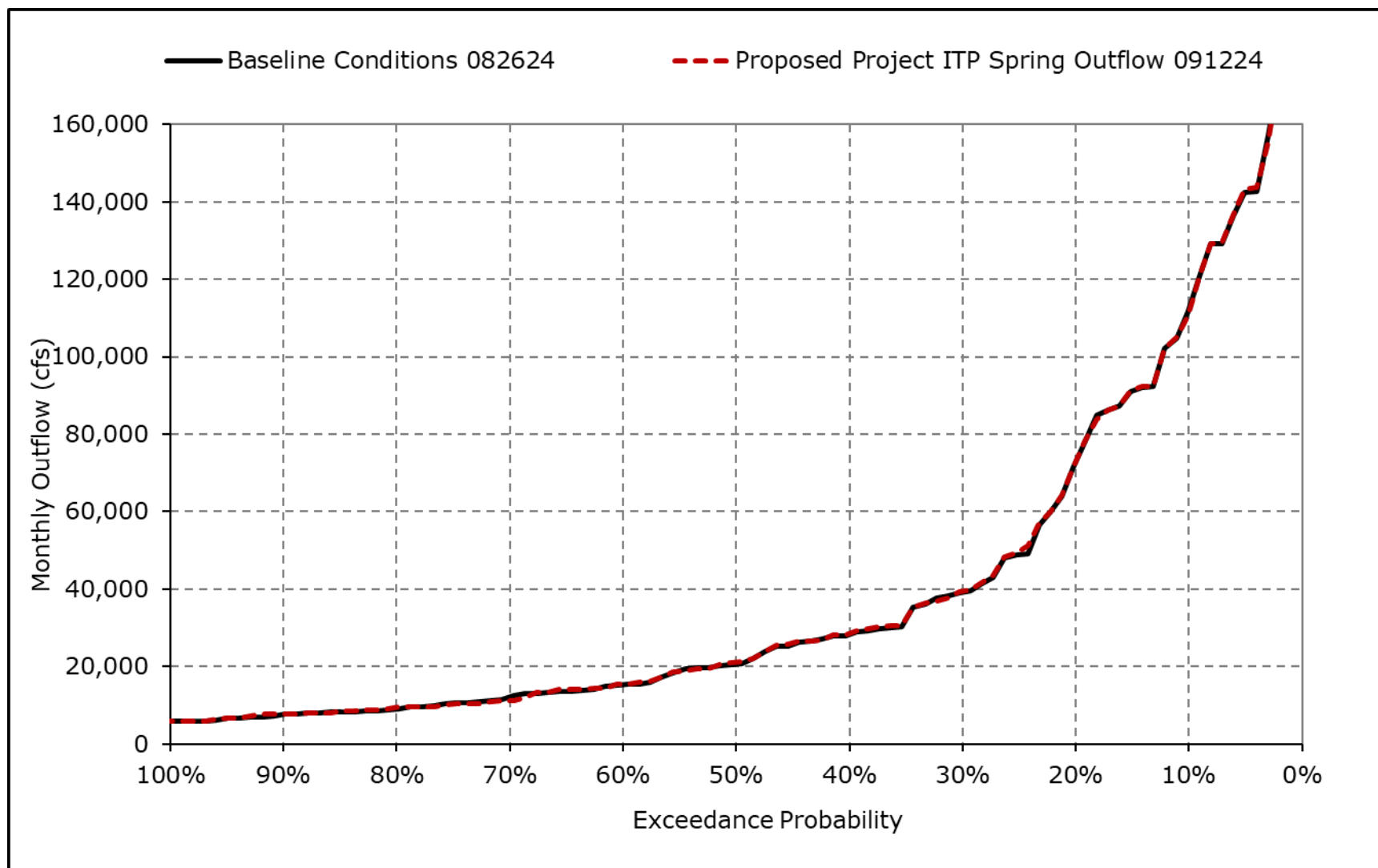
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10i. Delta Outflow, December**



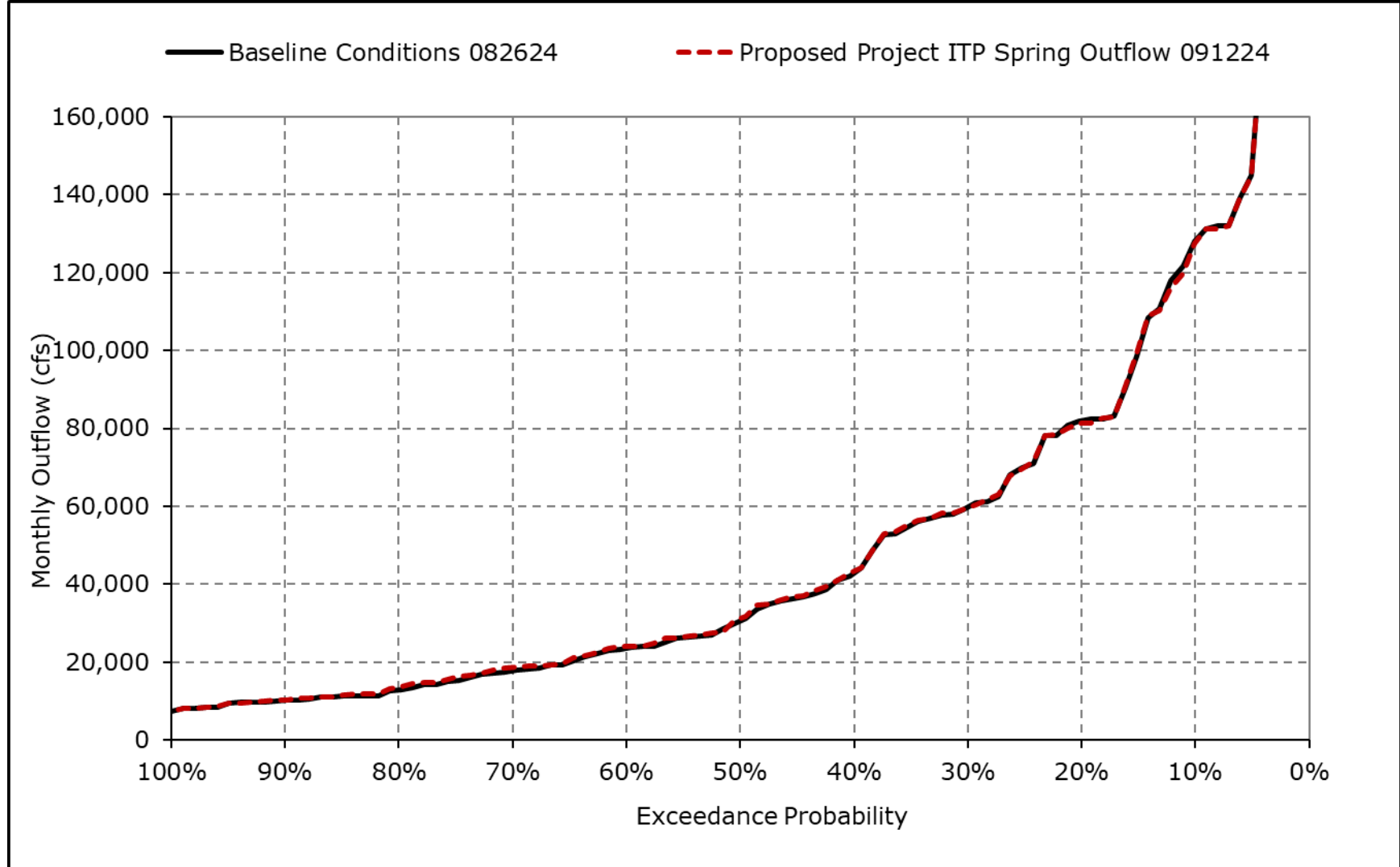
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10j. Delta Outflow, January**



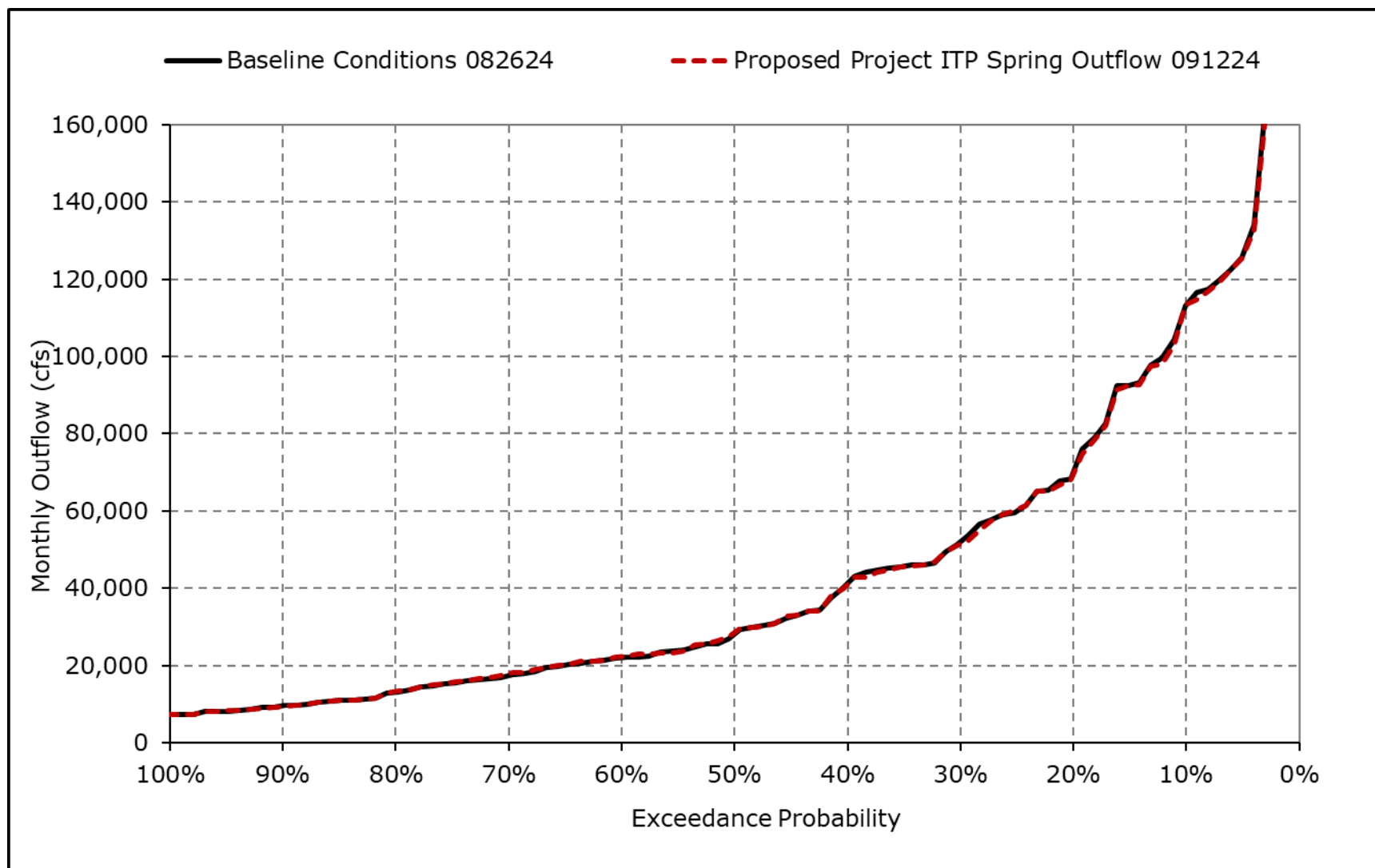
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10k. Delta Outflow, February**



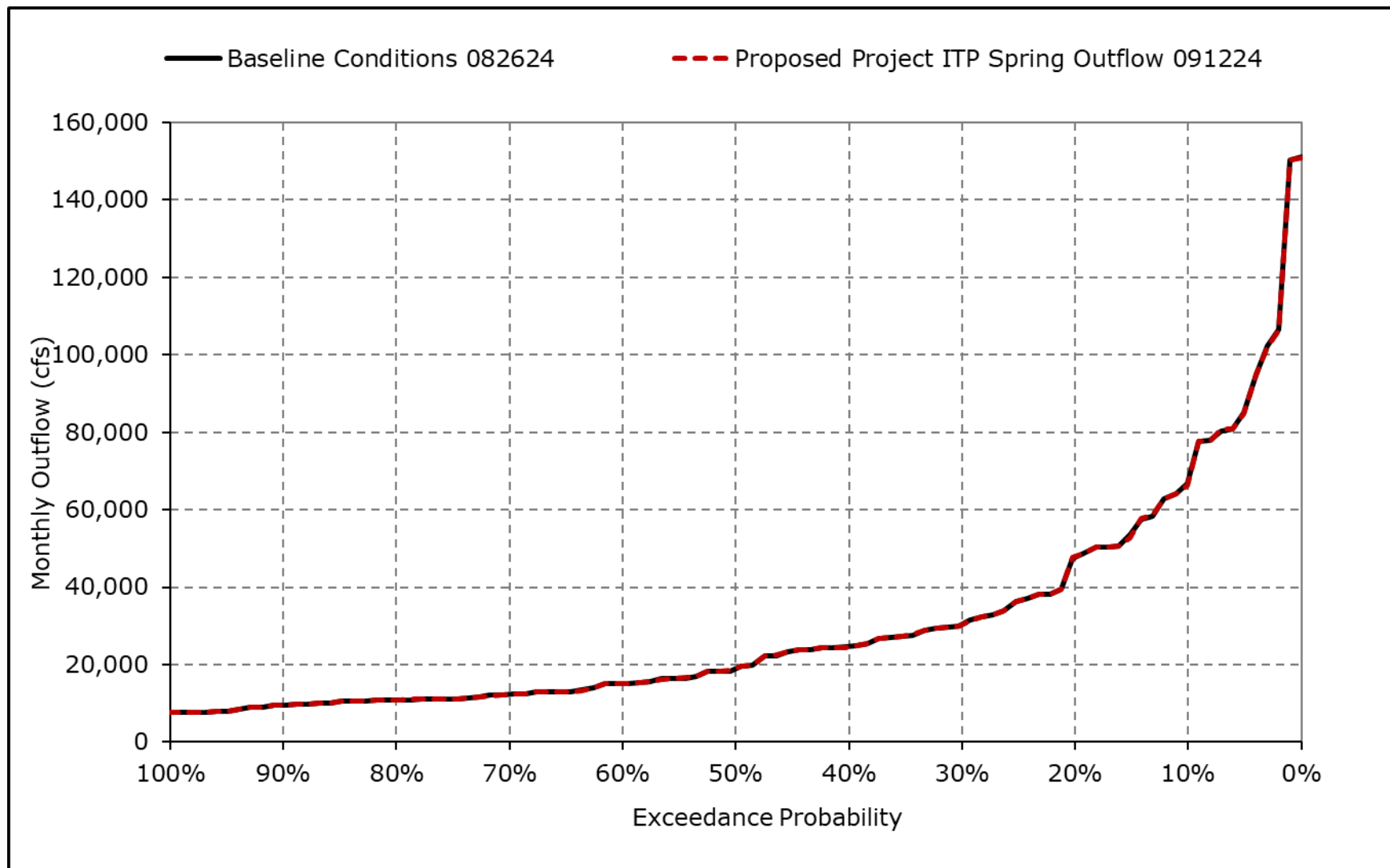
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10I. Delta Outflow, March**



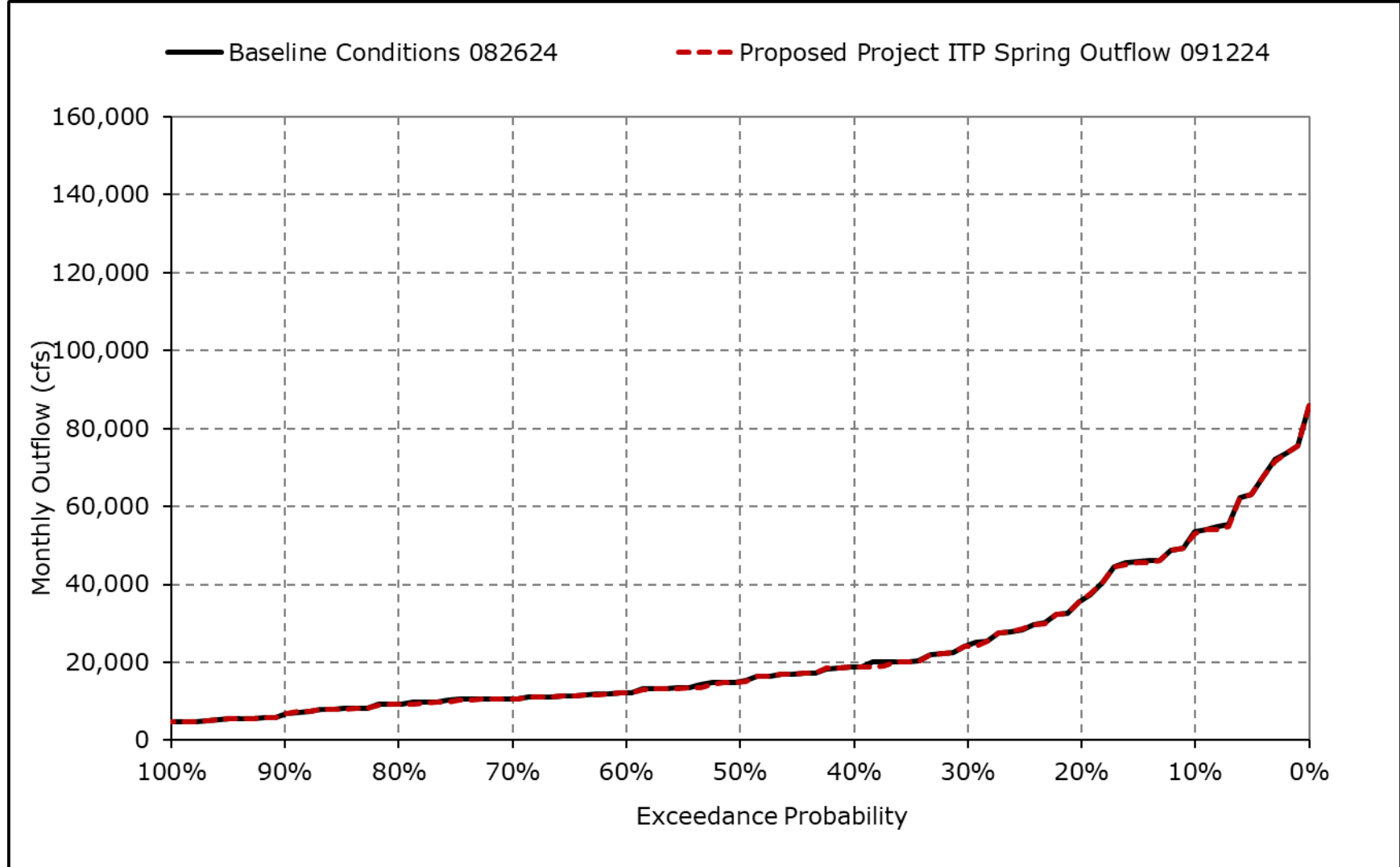
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10m. Delta Outflow, April**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

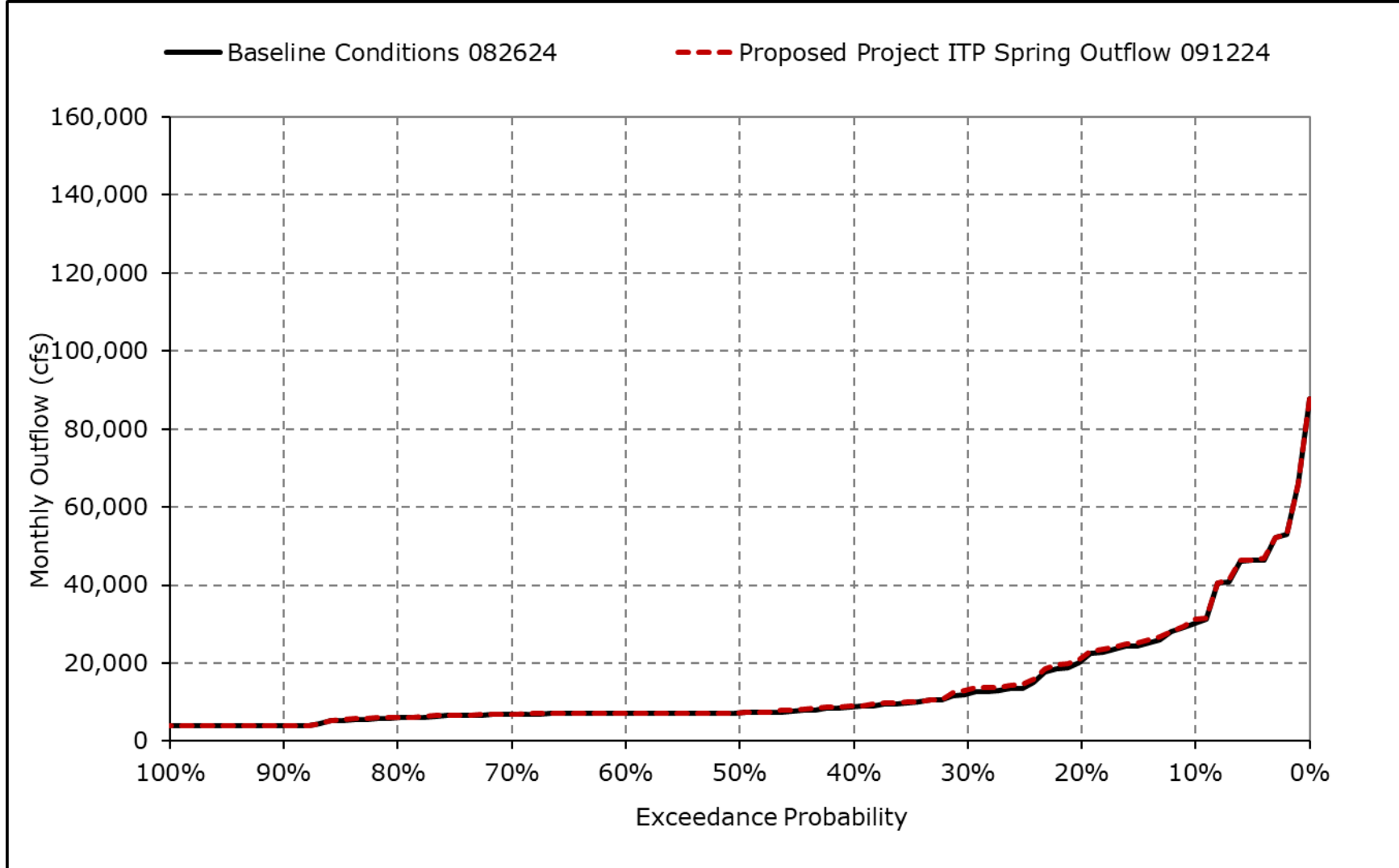
**Figure 4L-3-10n. Delta Outflow, May**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

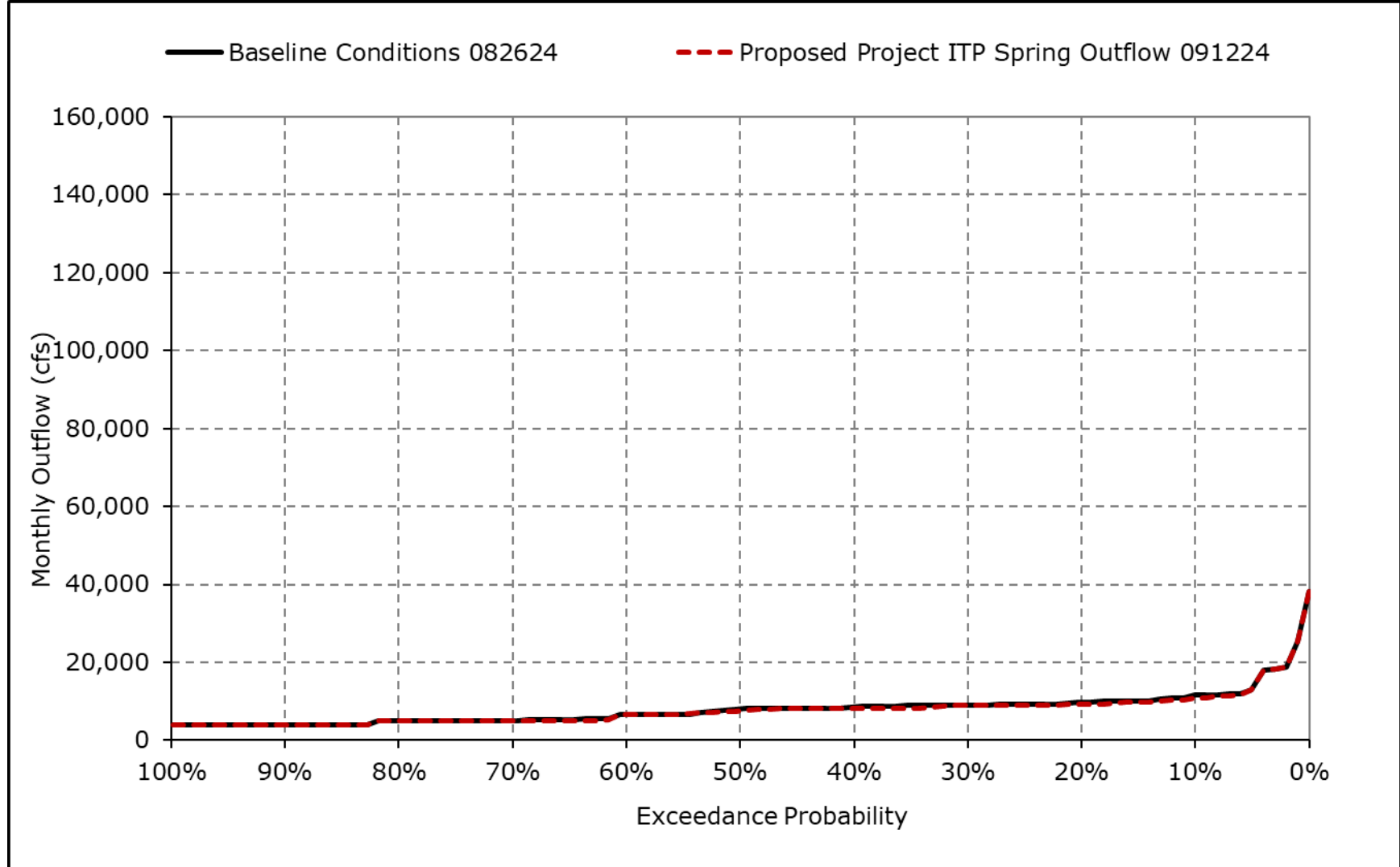


**Figure 4L-3-10o. Delta Outflow, June**



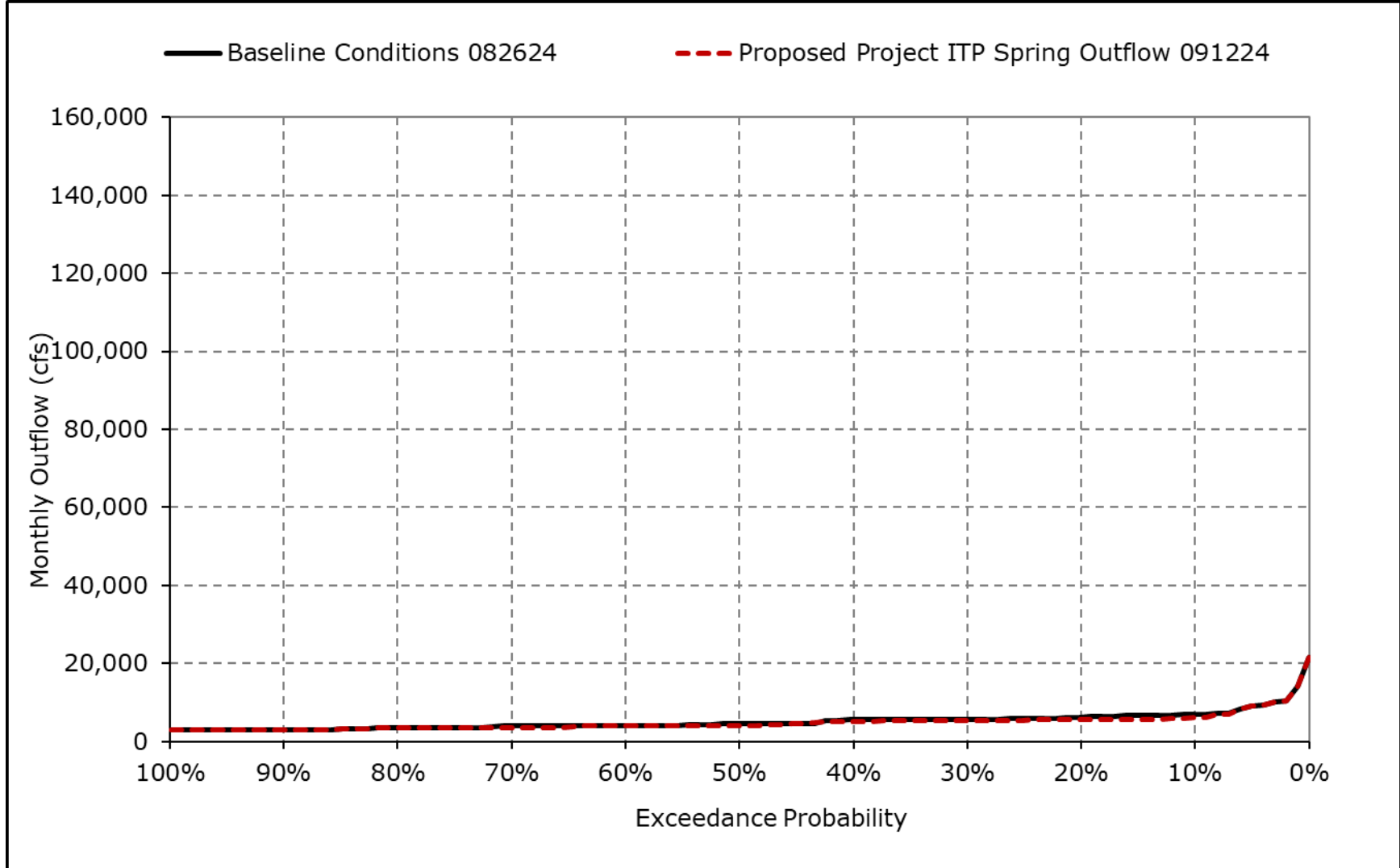
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10p. Delta Outflow, July**



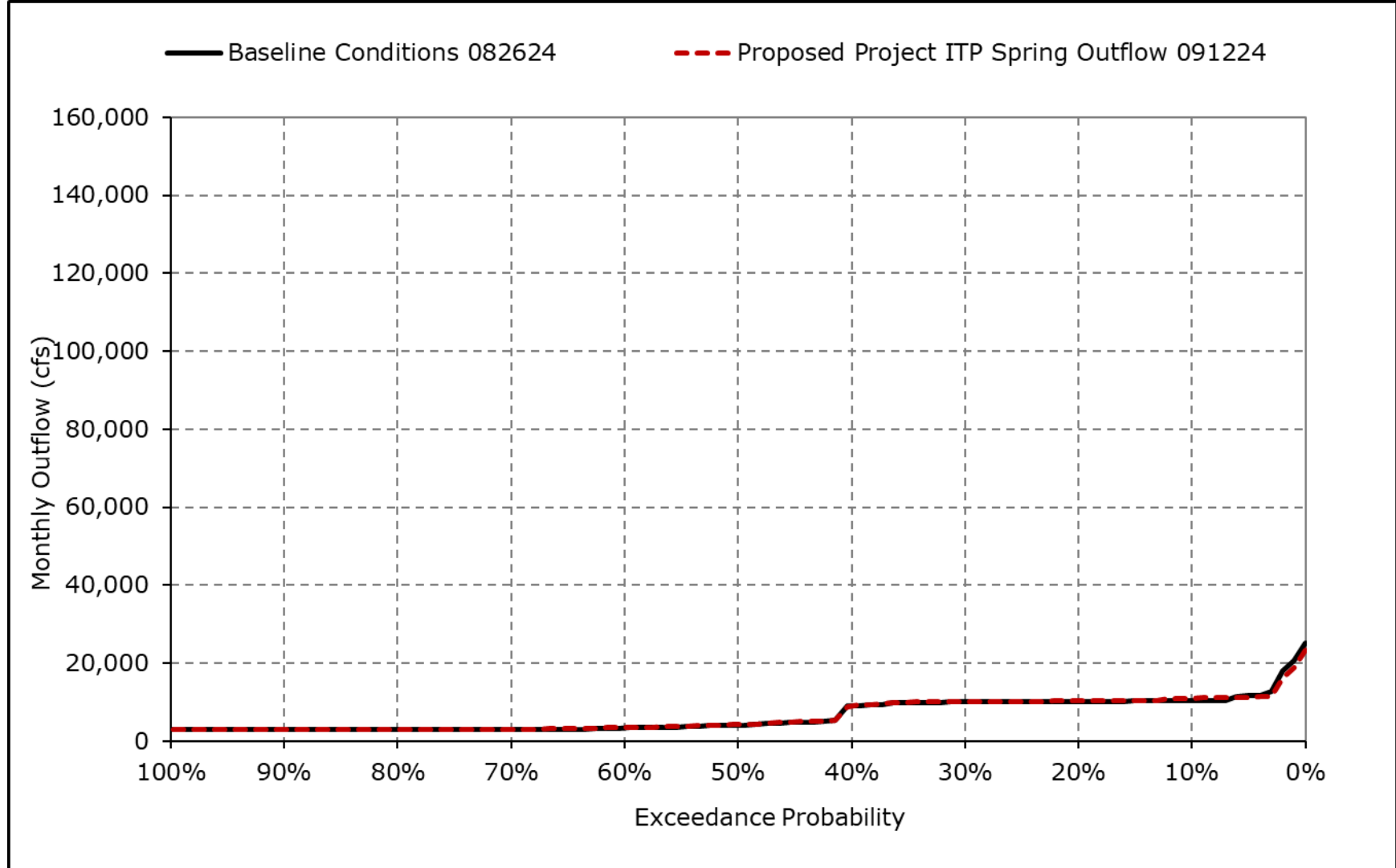
\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10q. Delta Outflow, August**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.

**Figure 4L-3-10r. Delta Outflow, September**



\*All scenarios are simulated at current climate condition and 0 cm sea level rise.