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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Upper River PCA loading coefficients | | | | | | | | |
|  | PC1 | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 | PC8 |
| temp | 0.4178376 | -0.0192912 | 0.0451253 | -0.283197 | 0.15178629 | -0.3729621 | 0.40585264 | 0.64493919 |
| spCond | 0.3949838 | 0.25782878 | 0.19661627 | -0.1170487 | 0.08122414 | 0.01195844 | 0.53166425 | -0.660111 |
| pH | 0.38273925 | -0.2256074 | -0.2265988 | 0.45837776 | 0.54234157 | 0.48668653 | 0.03383819 | 0.09492951 |
| ODO | 0.20845666 | -0.6654835 | -0.3244457 | 0.07154773 | -0.0829319 | -0.5276109 | -0.085142 | -0.3328563 |
| turb | 0.38696132 | 0.21298327 | -0.2379878 | -0.5840389 | 0.1895871 | 0.08441384 | -0.5939892 | -0.1061472 |
| fDOM | 0.34558704 | -0.0261324 | 0.75151627 | 0.31170625 | -0.0086811 | -0.1918841 | -0.4251149 | 0.01821052 |
| CHL | 0.39414962 | -0.2054388 | -0.0258008 | -0.0619371 | -0.7562691 | 0.45661797 | 0.05648189 | 0.11960716 |
| NO3 | -0.2343771 | -0.5925667 | 0.42498609 | -0.4987699 | 0.24776974 | 0.30508038 | 0.08652416 | -0.0509633 |
| % var explained | 0.63 | 0.19 | 0.07 | 0.02 | 0.01 | 0.01 | 0 | 0 |

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| Delta PCA loading Coefficients | | | | | | | | |
|  | PC1 | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 | PC8 |
| temp | 0.38390791 | 0.19212093 | -0.4850719 | 0.16102366 | 0.12221662 | -0.6513889 | 0.28038398 | -0.1913668 |
| spCond | 0.4303755 | 0.23344475 | 0.2402141 | -0.0673104 | -0.1654723 | -0.2048259 | -0.783196 | -0.1237586 |
| pH | -0.1233127 | 0.64155112 | -0.0608765 | -0.151612 | 0.70300145 | 0.19194168 | -0.0938027 | 0.08162358 |
| ODO | -0.1055284 | 0.6442627 | -0.169401 | -0.102628 | -0.6750112 | 0.12167554 | 0.17239572 | 0.18545845 |
| turb | -0.4288929 | 0.08094166 | 0.04498892 | 0.71315018 | 0.01370806 | -0.3016351 | -0.2438972 | 0.38501252 |
| fDOM | 0.32671301 | 0.12502296 | 0.70348281 | -0.0269481 | 0.06953837 | -0.2237096 | 0.41680166 | 0.39167388 |
| CHL | -0.4090216 | 0.2107817 | 0.41932398 | 0.06327466 | -0.052901 | -0.2075654 | 0.14304168 | -0.7362699 |
| NO3 | 0.42785536 | 0.12377238 | 0.04307119 | 0.65016068 | 0.00297763 | 0.54587471 | 0.12569473 | -0.2515331 |
| % var explained | 0.53 | 0.24 | 0.12 | 0.05 | 0.03 | 0.01 | 0.01 | 0 |

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| Whole River PCA loading coefficients | | | | | | | | |
|  | PC1 | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 | PC8 |
| temp | 0.38047044 | -0.0449982 | 0.26443332 | 0.47589097 | -0.4886051 | 0.08189008 | -0.5494785 | 0.09722467 |
| spCond | 0.39375834 | 0.04263592 | 0.06287359 | 0.29244193 | -0.015391 | 0.34170619 | 0.50850313 | -0.6148868 |
| pH | 0.26054087 | -0.7317125 | 0.22734501 | 0.14312726 | 0.4568959 | -0.338639 | 0.02146757 | 0.0255535 |
| ODO | -0.3202187 | -0.4941319 | 0.41695044 | -0.3390455 | -0.4095793 | 0.41588957 | 0.15382325 | 0.010641 |
| turb | 0.35695626 | -0.2390688 | -0.4914464 | -0.2374268 | -0.550996 | -0.3578278 | 0.27777531 | 0.0934921 |
| fDOM | 0.39367305 | 0.11726544 | 0.06701069 | -0.0183209 | 0.17549825 | 0.39874447 | 0.31262806 | 0.73410569 |
| CHL | 0.37759188 | -0.120147 | -0.270177 | -0.5220671 | 0.2198675 | 0.39630159 | -0.4882962 | -0.2315375 |
| NO3 | 0.32373323 | 0.36228088 | 0.61772397 | -0.4725538 | -0.0422029 | -0.3805227 | 0.04524298 | -0.1021463 |
| % var explained | 0.78 | 0.12 | 0.06 | 0.02 | 0.01 | 0.01 | 0 | 0 |