|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Period 1** | |  | **Period 2** | |  | **Period 3** | |  | **Units** |
|  | **R2** | **RMSE** | **RMSE/SD** | **R2** | **RMSE** | **RMSE/SD** | **R2** | **RMSE** | **RMSE/SD** |  |
| Ice Break | 0.92 | 1.35 | 0.21 | 0.78 | 3.46 | 0.44 | 0.88 | 5.76 | 0.53 | d |
| Ice Freeze | 0.76 | 1.05 | 0.40 | 0.29 | 4.48 | 0.78 | 0.44 | 5.93 | 0.72 | d |
| Temp 1 m | 0.94 | 1.77 | 0.24 | 0.93 | 1.44 | 0.26 | 0.88 | 2.07 | 0.35 | °C |
| Temp 4 m | 0.76 | 1.33 | 0.48 | 0.42 | 1.82 | 0.76 | 0.53 | 1.70 | 0.68 | °C |
| Temp 9 m | 0.39 | 0.31 | 0.77 | 0.21 | 0.33 | 0.89 | 0.20 | 0.58 | 0.89 | °C |
| O2 4 m | 0.01 | 3.57 | 0.97 | 0.00 | 5.08 | 0.99 | 0.00 | 4.67 | 0.99 | mg L-1 |
| DOC | 0.00 | 2.88 | 0.99 | 0.01 | 5.08 | 0.99 | 0.00 | 1.77 | 1.00 | mg L-1 |
| TDP | 0.00 | 4.90 | 0.99 | 0.01 | 3.64 | 1.00 | 0.00 | 3.69 | 1.00 | μg L-1 |
| PP | 0.07 | 19.75 | 0.95 | 0.06 | 21.23 | 0.97 | 0.01 | 10.47 | 0.99 | μg L-1 |

Thresholds for “good fit”

RMSE/SD < 0.7

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cumulative PP**  **Modeled/Observed** | **Mean** | **Median** | **SD** | **Minimum** | **Maximum** |
| Period 1 | 0.99 | 1.15 | 0.30 | 0.64 | 1.26 |
| Period 2 | 0.97 | 1.01 | 0.32 | 0.51 | 1.52 |
| Period 3 | 1.05 | 1.07 | 0.22 | 0.69 | 1.49 |

Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Period 1** | **Period 2** | **Period 3** |
| PAR\_sat | 5.1e-5 | 9.98e-5 | 6.05e-5 |
| w\_chl | 0.0326 | 0.0315 | 0.0481 |
| m\_twty | 0.0998 | 0.0885 | 0.0357 |
| g\_twty | 0.968 | 0.722 | 1.28 |
| P\_half | 31.2 | 24 | 8.95 |