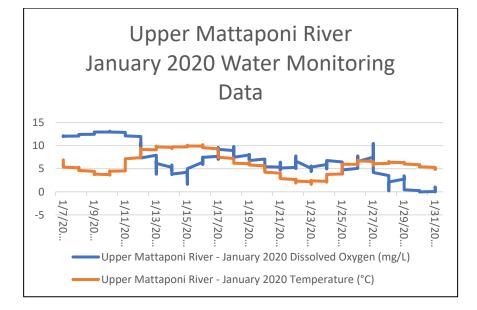
Mattaponi River 2020 Data

Upper Mattaponi

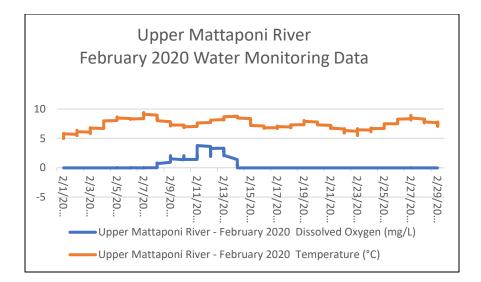
January 2020 monitoring data (295 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from -0.03 mg/L to 13.13 mg/L with an average of 6.68 mg/L. Water temperature ranged from 1.64 °C (34.95°F) to 10.2 °C (50.36°F) with an average of 6.0 °C (42.80°F).

| January 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 295 | 295 |
| Maximum | 13.13 mg/L | 10.2 C |
| Minimum | -0.03 mg/L | 1.64 C |
| Average | 6.68 mg/L | 6.0 °C |



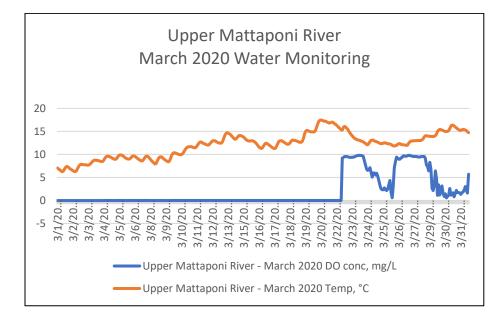
February 2020 monitoring data (348 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from -0.02 mg/L to 3.78 mg/L with an average of .38 mg/L. Water temperature ranged from 5.0°C (41.0°F) to 9.38°C (48.88°F) with an average of 7.37°C (42.27°F).

| February 2019 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 348 | 348 |
| Maximum | 3.78 mg/L | 9.38 C |
| Minimum | -0.02 mg/L | 5 C |
| Average | 0.38 mg/L | 7.37 C |



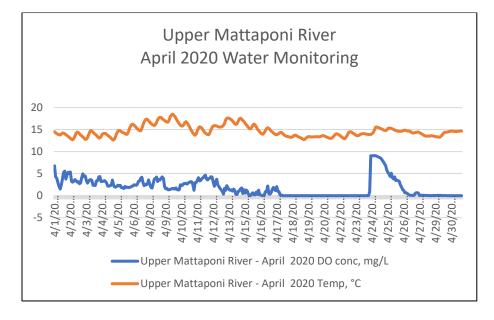
March 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from -0.03 mg/L to 9.9 mg/L with an average of 1.84 mg/L. Water temperature ranged from 2.24°C (36.03°F) to 17.48°C (63.46°F) with an average of 12.01°C (57.62°F).

| March 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 9.9 mg/L | 17.48°C |
| Minimum | -0.03 mg/L | 2.24°C |
| Average | 1.84 mg/L | 12.01°C |



April 2020 monitoring data (360 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from -0.02 mg/L to 9.09 mg/L with an average of 1.85 mg/L. Water temperature ranged from 12.62°C (54.72°F) to 18.52°C (65.34°F) with an average of 14.66°C (58.39°F).

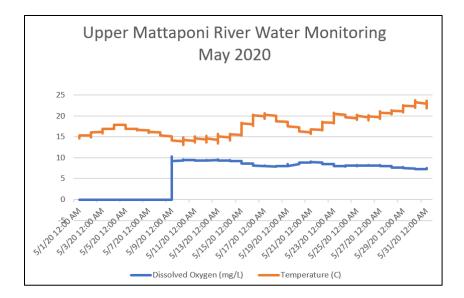
| April 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 360 | 360 |
| Maximum | 9.09 mg/L | 18.52°C |
| Minimum | -0.02 mg/L | 12.62°C |
| Average | 1.85 mg/L | 14.66°C |



May 2020 monitoring data (*372 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from 10.3 mg/L to -0.02 mg/L with an average of 6.14 mg/L. Water temperature ranged from 23.78°C (74.80°F) to 13.02°C (55.44°F) with an average of 17.62°C (63.72°F).

| May 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | *372 | 372 |
| Maximum | *10.3 mg/L | 23.78 °C |
| Minimum | *-0.02 mg/L | 13.02 °C |
| Average | *6.14 mg/L | 17.62 °C |

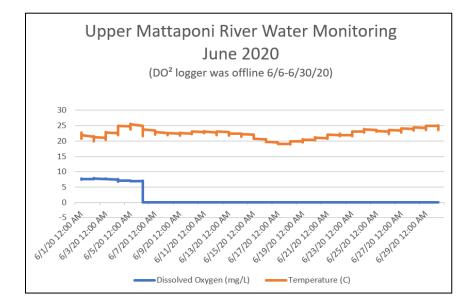
*Logger Malfunction: Dissolved oxygen measures were intermittent between 5/1/20-5/9/20.



June 2020 monitoring data (*360 dissolved oxygen and 360 temperature readings) logged dissolved oxygen levels ranging from 7.97 mg/L to -0.01 mg/L with an average of 1.32 mg/L. Water temperature ranged from 25.68°C (78.22°F) to 18.88°C (65.98°F) with an average of 22.19°C (71.94°F).

| June 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | *360 | 360 |
| Maximum | *7.97 mg/L | 25.68 °C |
| Minimum | *-0.01 mg/L | 18.88 °C |
| Average | *1.32 mg/L | 22.19 °C |

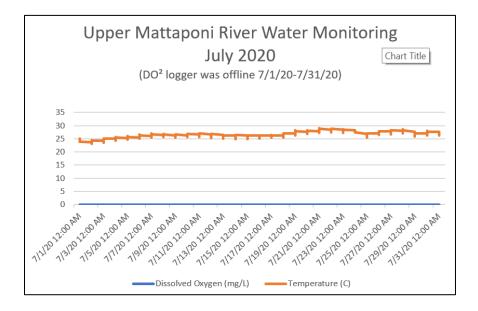
* Logger malfunction: Dissolved Oxygen was not measured 6/6/20 - 6/30/20.



July 2020 monitoring data (0 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 28.94°C (84.09°F) to 23.04°C (73.47°F) with an average of 26.35°C (79.43°F).

| July 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | *0 | 372 |
| Maximum | | 28.94 °C |
| Minimum | | 23.04 °C |
| Average | | 26.35 °C |

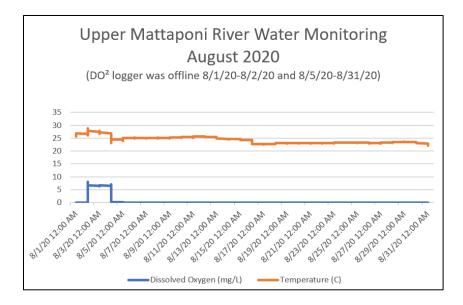
* Logger malfunction: Dissolved Oxygen was not measured 7/1/20 – 7/31/20.



August 2020 monitoring data (*372 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 28.76°C (83.77°F) to 22.06°C (71.71°F) with an average of 24.17°C (75.51°F).

| August 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | *372 | 372 |
| Maximum | *8.03 mg/L | 28.76 °C |
| Minimum | *0 mg/L | 22.06 °C |
| Average | *0.42 mg/L | 24.17 °C |

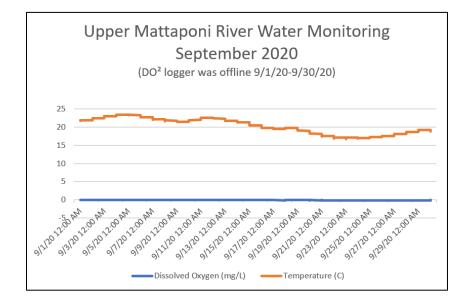
* Logger malfunction: Dissolved Oxygen was not measured 8/1/20-8/2/20 and 8/5–8/30/20.



September 2020 monitoring data (dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 23.46°C (74.23°F) to 16.68°C (62.02°F) with an average of 20.22°C (68.40°F).

| September 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | *0 | 360 |
| Maximum | | 23.46 °C |
| Minimum | | 16.68 °C |
| Average | | 20.22 °C |

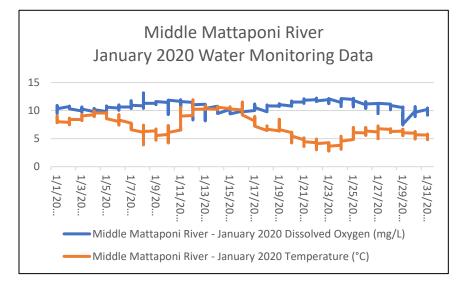
* Logger malfunction: Dissolved Oxygen was not measured 9/1/20-9/30/20.



Middle Mattaponi

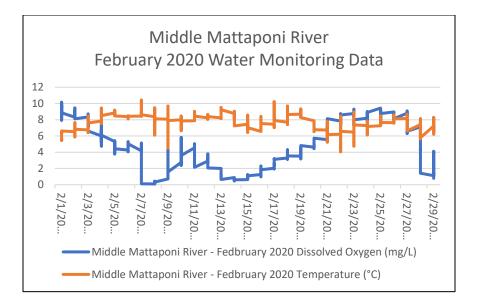
January 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 7.46 mg/L to 13.15 mg/L with an average of 10.77 mg/L. Water temperature ranged from 2.78°C (37.0°F) to 11.92°C (53.46°F) with an average of 7.2°C (44.96°F).

| January 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 13.15 mg/L | 11.92 °C |
| Minimum | 7.46 mg/L | 2.78 °C |
| Average | 10.77 mg/L | 7.2 °C |



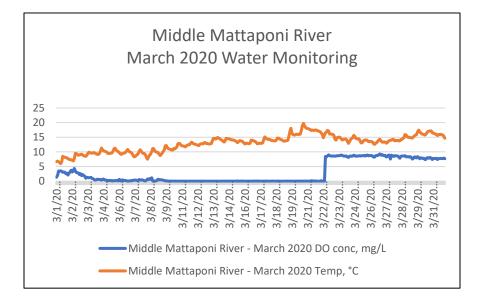
February 2020 monitoring data (348 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 0.09 mg/L to 10.15 mg/L with an average of 4.8 mg/L. Water temperature ranged from 4.06°C (39.31°F) to 10.42°C (50.76°F) with an average of 7.68°C (45.82°F).

| February 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 348 | 348 |
| Maximum | 10.15 mg/L | 10.42 °C |
| Minimum | 0.09 mg/L | 4.06 °C |
| Average | 4.8 mg/L | 7.68 °C |



March 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 0.0 mg/L to 9.31 mg/L with an average of 2.9 mg/L. Water temperature ranged from 6°C (42.8°F) to 19.72°C (67.86°F) with an average of 12.97°C (55.35°F).

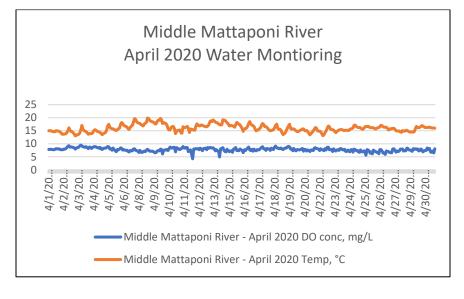
| March 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 9.31 mg/L | 19.72°C |
| Minimum | 0 mg/L | 6°C |
| Average | 2.9 mg/L | 12.97°C |



April 2020 monitoring data (360dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 4.25 mg/L to 9.5 mg/L with an average of 7.75 mg/L. Water

temperature ranged from 13.0°C (55.40°F) to 19.84°C (67.71°F) with an average of 15.98°C (60.76°F).

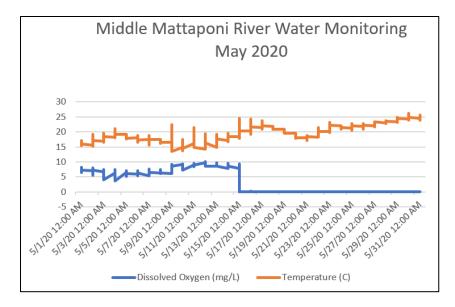
| April 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 360 | 360 |
| Maximum | 9.5 mg/L | 19.84°C |
| Minimum | 4.25 mg/L | 13°C |
| Average | 7.75 mg/L | 15.98°C |



May 2020 monitoring data (*372 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 26.26°C (79.27°F) to 13.58°C (56.44°F) with an average of 19.46°C (67.03°F).

| May 2020 | Dissolved | |
|------------------|-------------|-------------|
| | Oxygen | Temperature |
| Recorded Samples | *372 | 372 |
| Maximum | *9.99 mg/L | 26.26 °C |
| Minimum | *-0.01 mg/L | 13.58 °C |
| Average | *3.54 mg/L | 19.46 °C |

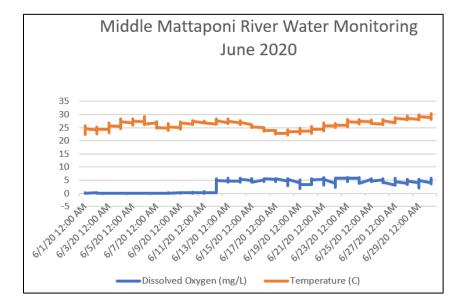
*Logger Malfunction: Dissolved oxygen was not measured 5/15/20 – 5/31/20.



June 2020 monitoring data (*360 dissolved oxygen and 360 temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 30.32°C (86.58°F) to 22.06°C (71.71°F) with an average of 26.07°C (78.93°F).

| June 2020 | Dissolved | |
|------------------|-------------|-------------|
| | Oxygen | Temperature |
| Recorded Samples | *360 | 360 |
| Maximum | *6.04 mg/L | 30.32 °C |
| Minimum | *-0.01 mg/L | 22.06 °C |
| Average | *3.54 mg/L | 26.07 °C |

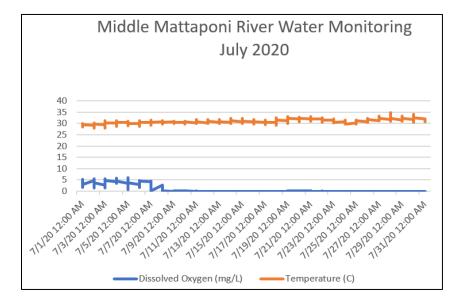
*Logger Malfunction: Intermittent dissolved oxygen measures 6/1/20-6/9/20.



July 2020 monitoring data (*372 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from mg/L to mg/L with an average of mg/L. Water temperature ranged from 34.9°C (94.82°F) to 27.86°C (82.15°F) with an average of 30.92°C (87.66°F).

| July 2020 | Dissolved | |
|------------------|------------|-------------|
| | Oxygen | Temperature |
| Recorded Samples | *372 | 372 |
| Maximum | *5.9 mg/L | 34.9 °C |
| Minimum | *0 mg/L | 27.86 °C |
| Average | *0.82 mg/L | 30.92 °C |

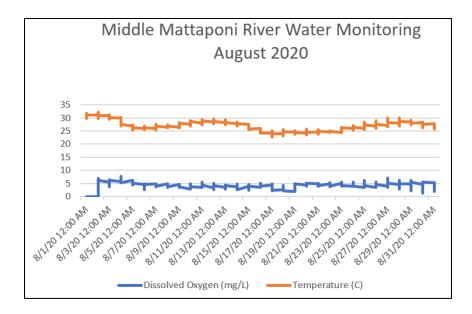
* Logger Malfunction: Intermittent dissolved oxygen measures 7/9/20-7/31/20.



August 2020 monitoring data (*372 dissolved oxygen and 372 temperature readings) logged dissolved oxygen levels ranging from 7.76mg/L to 0 mg/L with an average of 4.24 mg/L. Water temperature ranged from 32.18°C (89.92°F) to 22.7°C (72.86°F) with an average of 26.93°C (80.47°F).

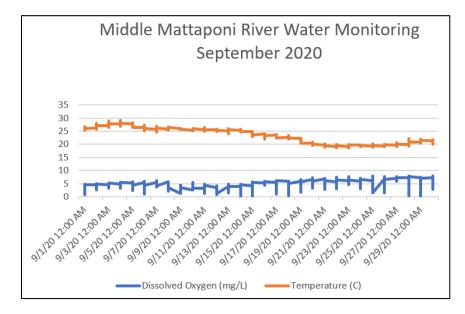
| August 2020 | Dissolved | |
|------------------|------------|-------------|
| | Oxygen | Temperature |
| Recorded Samples | *372 | 372 |
| Maximum | *7.76 mg/L | 32.18 °C |
| Minimum | *0 mg/L | 22.7 °C |
| Average | *4.24 mg/L | 26.93 °C |

* Logger Malfunction: Intermittent dissolved oxygen measures 8/1/20-8/2/20.



September 2020 monitoring data (360 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 8.03 mg/L to 0.07 mg/L with an average of 4.97 mg/L. Water temperature ranged from 29.22°C (84.6°F) to 18.54°C (65.37°F) with an average of 23.34°C (74.01°F).

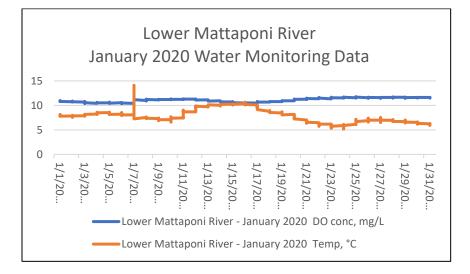
| September 2020 | Dissolved | |
|------------------|-----------|-------------|
| | Oxygen | Temperature |
| Recorded Samples | 360 | 360 |
| Maximum | 8.03 mg/L | 29.22°C |
| Minimum | 0.07 mg/L | 18.54 °C |
| Average | 4.97 mg/L | 23.34 °C |



Lower Mattaponi

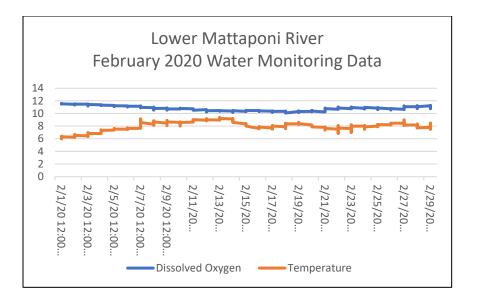
January 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 10.3 mg/L to 11.77 mg/L with an average of 11.10 mg/L. Water temperature ranged from 5.20°C (41.36°F) to 14.08°C (57.34°F) with an average of 7.81°C (46.06°F).

| January 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 11.77 mg/L | 14.08 °C |
| Minimum | 10.30 mg/L | 5.20 °C |
| Average | 11.10 mg/L | 7.81 °C |



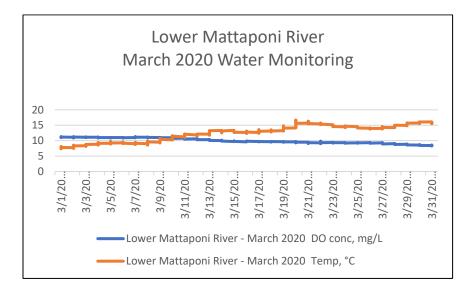
February 2020 monitoring data (348 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 10.01 mg/L to 11.60 mg/L with an average of 10.81 mg/L. Water temperature ranged from 5.98°C (42.76°F) to 9.36°C (48.85°F) with an average of 7.96°C (46.33°F).

| February 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 348 | 348 |
| Maximum | 11.60 | 9.36 |
| Minimum | 10.01 | 5.98 |
| Average | 10.81 | 7.96 |



March 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 8.31mg/L to 11.28 mg/L with an average of 9.99 mg/L. Water temperature ranged from 7.38°C (45.28°F) to 16.66°C (61.99°F) with an average of 12.39°C (54.30°F).

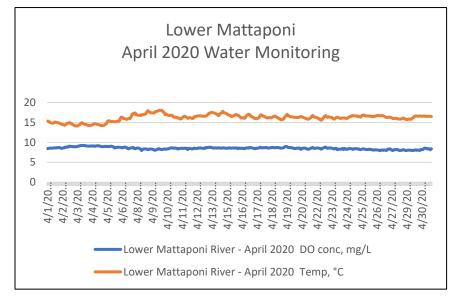
| March 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 11.28 mg/L | 16.66°C |
| Minimum | 8.31 mg/L | 7.38°C |
| Average | 9.99 mg/L | 12.39°C |



April 2020 monitoring data (360 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 7.91 mg/L to 9.21 mg/L with an average of 8.51 mg/L. Water

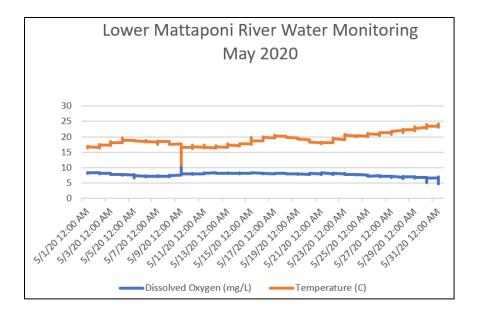
temperature ranged from 14.08°C (57.34°F) to 18.08°C (64.54°F) with an average of 16.18°C (61.12°F).

| April 2020 | Dissolved Oxygen | Temperature |
|------------------|------------------|-------------|
| Recorded Samples | 360 | 360 |
| Maximum | 9.21 mg/L | 18.08°C |
| Minimum | 7.91 mg/L | 14.08°C |
| Average | 8.51 mg/L | 16.18°C |



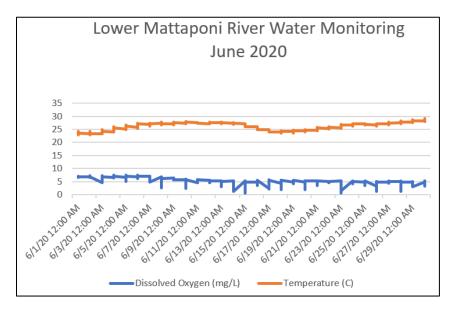
May 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 11.12 mg/L to 4.73 mg/L with an average of 7.65 mg/L. Water temperature ranged from 24.14°C (75.45°F) to 10.9°C (51.62°F) with an average of 19.03°C (66.25°F).

| May 2020 | Dissolved Oxygen | Temperature |
|------------------|---------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 11.12 mg/L | 24.14 |
| Minimum | 4.73 mg/L | 10.9 °C |
| Average | 7.65 mg/L | 19.03 °C |



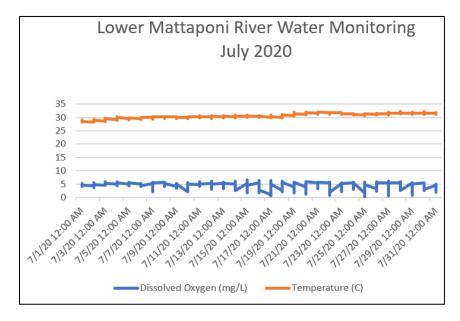
June 2020 monitoring data (360 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 7.52 mg/L to 0.45 mg/L with an average of 5.26 mg/L. Water temperature ranged from 29.2°C (84.56°F) to 22.94°C (73.29°F) with an average of 26.09°C (78.96°F).

| June 2020 | Dissolved Oxygen | Temperature |
|------------------|---------------------|-------------|
| Recorded Samples | 360 | 360 |
| Maximum | 7.52 mg/L | 29.2 °C |
| Minimum | 0.45 mg/L | 22.94 °C |
| Average | 5.26 mg/L | 26.09 °C |



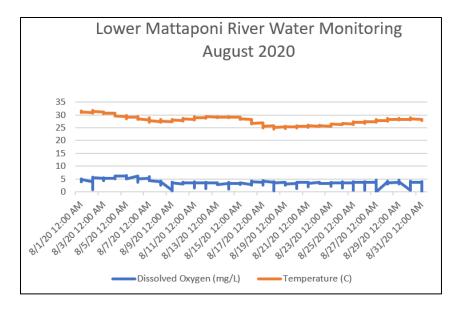
July 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 6.57 mg/L to 0.13 mg/L with an average of 4.66 mg/L. Water temperature ranged from 32.36°C (90.25°F) to 28.2°C (82.76°F) with an average of 30.49°C (86.88°F).

| July 2020 | Dissolved Oxygen | Temperature |
|------------------|---------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 6.57 mg/L | 32.36 °C |
| Minimum | 0.13 mg/L | 28.2 °C |
| Average | 4.66 mg/L | 30.49 °C |



August 2020 monitoring data (372 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 6.38 mg/L to 0 mg/L with an average of 3.74 mg/L. Water temperature ranged from 31.76°C (89.17°F) to 24.46°C (76.03°F) with an average of 27.88°C (82.18°F).

| August 2020 | Dissolved Oxygen | Temperature |
|------------------|---------------------|-------------|
| Recorded Samples | 372 | 372 |
| Maximum | 6.38 mg/L | 31.76 °C |
| Minimum | 0 mg/L | 24.46 °C |
| Average | 3.74 mg/L | 27.88 °C |



September 2020 monitoring data (360 dissolved oxygen and temperature readings) logged dissolved oxygen levels ranging from 6.54 mg/L to 0 mg/L with an average of 3.89 mg/L. Water temperature ranged from 29.4°C (84.92°F) to 19.96°C (67.93°F) with an average of 24.45°C (76.01°F).

| September 2020 | Dissolved Oxygen | Temperature |
|------------------|---------------------|-------------|
| Recorded Samples | 360 | 360 |
| Maximum | 6.54 mg/L | 29.4 °C |
| Minimum | 0 mg/L | 19.96 °C |
| Average | 3.89 mg/L | 24.45 °C |

