

Appendix F. Water Quality and Aquatic Life Data - Rio Grande, Conejos River, and Saguache Creek SMPs

This appendix contains the water quality and aquatic life datasets used in the Stream Management Plans.

Acronyms

BDL – Below Detection Limit

BLM AIM – Bureau of Land Management [Aquatic Assessment, Inventory, and Monitoring program](#)

MRP – Colorado Department of Public Health and Environment [Measurable Results Program](#)

RGHRP – Rio Grande Headwaters Restoration Project

RW – [River Watch of Colorado](#)

URGWA – Upper Rio Grande Watershed Assessment

Contents

| | |
|---|----|
| Acronyms..... | 1 |
| 1 Rio Grande, Conejos River, and Saguache Creek Water Quality Datasets..... | 2 |
| 1.1 Rio Grande SMP - Water Quality Data | 2 |
| 1.2 Conejos River SMP - Water Quality Data | 23 |
| 1.3 Saguache Creek SMP - Water Quality Data | 28 |
| 1.4 Supplemental SMP Water Quality Data | 34 |
| 2 Rio Grande, Conejos River, and Saguache Creek Aquatic Life Datasets..... | 36 |
| 2.1 Rio Grande SMP Aquatic Life Data | 36 |
| 2.2 Conejos River SMP Aquatic Life Data | 37 |
| 2.3 Saguache Creek SMP Aquatic Life Data..... | 38 |

1 Rio Grande, Conejos River, and Saguache Creek Water Quality Datasets

1.1 Rio Grande SMP - Water Quality Data

The tables below highlight any water quality impairments documented within a given Rio Grande SMP reach.

Table 1.1: Summary of dissolved metals results from the Upper Rio Grande Watershed Assessment (URGWA [SGM & Lotic Hydrological, 2018]).

| Rio Grande SMP Reach | URGWA Site ID | Abbreviation | Median As (µg/L) | Median Al (µg/L) | Median Cd (µg/L) | Median Mn (µg/L) | Median Pb (µg/L) | Median Zn (µg/L) | Number of Acute As Exceedances | Number of Chronic As Exceedances | Number of Acute Zn Exceedances | Number of Chronic Zn Exceedances | Median Zn Loading Rate (kg/year) |
|----------------------|---------------|--------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------|----------------------------------|--------------------------------|----------------------------------|----------------------------------|
| RG02 | URGA 02 | UT | 12.99 | 17.33 | 0.00 | 7.55 | BDL | 6.30 | 0 | 1 | 0 | 0 | |
| RG03 | URGA 03 | TM | 7.65 | 67.11 | 0.56 | 43.25 | 1.91 | 8.10 | 1 | 2 | 0 | 0 | 708 |
| RG03 | URGA 04 | BC | 8.99 | 167.31 | 0.73 | 10.16 | BDL | 4.09 | 1 | 3 | 0 | 1 | 638 |
| RG04 | URGA 06 | | | 31.98 | BDL | BDL | BDL | 8.62 | 0 | 1 | 0 | 0 | |
| RG05 | URGA 07 | MP | 7.58 | 44.91 | 0.68 | 12.90 | 2.79 | 18.10 | 2 | 3 | 2 | 0 | 10443 |
| RG06 | URGA 08 | WC | 15.47 | 17.20 | 1.06 | 50.92 | BDL | 31.90 | 0 | 1 | 1 | 0 | |
| RG07 | URGA 09 | WW | 5.07 | 56.31 | 0.73 | 17.24 | 1.41 | 54.83 | 1 | 2 | 3 | 4 | 37234 |
| RG08 | URGA 11 | EC | 8.54 | 20.20 | | 14.80 | BDL | 23.60 | 0 | 1 | 0 | 1 | |
| RG09 | URGA 14 | | | 10.71 | BDL | 27.00 | BDL | 17.40 | 0 | 1 | 0 | 0 | |
| RG09 | URGA 15 | DN | 8.91 | 148.24 | 1.20 | 10.61 | 1.95 | 22.22 | 1 | 2 | 0 | 1 | 8245 |

CO Reg. 36 Segment Codes Above chronic standard

RGRG02 RGRG04b

Above acute standard

RGRG04a

*This data applies to Rio Grande SMP reaches RG01 through RG09.

In addition to metals data, water temperature, nutrients, pH, conductivity, turbidity, total dissolved solids, total suspended solids, and dissolved oxygen were analyzed as part of the URGWA. Results showed that with the exception of turbidity and total suspended solids, all these parameters were within normal ranges and did not exceed state water quality standards. Elevated turbidity and total suspended solids were attributed to short-term wildfire impacts

Rio Grande SMP reaches RG01 through RG05 (CDPHE segment CORGRG02)

Table 1.2: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|-------------------|--|-------------------|-------------|--------------|
| RG-2 | Bridge Over Rio Grande On Airport Rd. | CDPHE HazWaste | 37.81687199 | -106.9148639 |
| 8155 | South Clear Creek Below Browns Lake SWA | WQCD | 37.83005 | -107.16323 |
| 134 | Rio Grande River Near Creede | WQCD | 37.81699 | -106.914935 |
| USGS- 08213500 | Rio Grande At Thirtymile Bridge, Nr Creede, Co. | USGS | 37.724722 | -107.2556094 |

Table 1.3: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 14 | 0 | 0.26 | N/A | N/A | No |
| Ag-T ug/L | 5 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 14 | 141 | N/A | N/A | N/A | No |
| Al-T ug/L | 5 | 472 | N/A | N/A | N/A | No |
| As-D ug/L | 14 | 1.07 | 340 | N/A | N/A | No |
| Cd-D ug/L | 14 | 0 | 0.6 | N/A | N/A | No |
| Cd-T ug/L | 5 | 0 | N/A | 5 | 10 | No |
| Cu-D ug/L | 14 | 0.97 | 4.38 | N/A | N/A | No |
| Hg-T ug/L | 1 | 0 | N/A | 2 | N/A | No |
| Mn-D ug/L | 14 | 158.15 | 2008.55 | 50 | N/A | No |
| Ni-D ug/L | 14 | 1.45 | 171.09 | N/A | N/A | No |
| NO2-T mg/L | 1 | 0 | N/A | 1 | 10 | No |
| NO3-T mg/L | 1 | 0 | N/A | 10 | 100 | No |
| NO5-T mg/L | 9 | 0.21 | N/A | 10 | 100 | No |
| Pb-D ug/L | 14 | 0.40 | 17.31 | N/A | N/A | No |
| Pb-T ug/L | 5 | 0 | N/A | 50 | 100 | No |
| pH min | 8 | 7.76 | 6.5 | 5 | N/A | No |
| pH max | 8 | 8.5 | 9 | 9 | N/A | No |
| Se-D ug/L | 14 | 0.06 | 18.4 | N/A | N/A | No |
| U-D ug/L | 9 | 0.24 | N/A | N/A | N/A | No |
| Zn-D ug/L | 14 | 2.86 | 54.21 | N/A | N/A | No |

Table 1.4: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 12 | 0.01 | N/A | N/A | 0 | No |
| Ag-T ug/L | 4 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 12 | 67.0 | N/A | N/A | 74.53 | Yes; Aquatic Life |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Al-T ug/L | 4 | N/A | N/A | N/A | 186 | No |
| NH3 mg/L | 9 | 13.96 | N/A | N/A | 0.08 | No |
| As-D ug/L | 12 | 150 | N/A | N/A | 0.75 | No |
| As-T ug/L | 12 | N/A | 0.02 | 100 | 1.09 | Yes; Water Supply |
| Be-D ug/L | 4 | N/A | N/A | N/A | 0 | No |
| Be-T ug/L | 4 | N/A | 4 | 100 | 0 | No |
| Cd-D ug/L | 12 | 0.17 | N/A | N/A | 0 | No |
| Cd-T ug/L | 4 | N/A | 5 | 10 | 0 | No |
| Cl- mg/L | 1 | N/A | 250 | N/A | 0.24 | No |
| Cu-D ug/L | 12 | 3.24 | N/A | N/A | 0.09 | No |
| Cu-T ug/L | 4 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 9 | N/A | 3 | 3 | 7.34 | No |
| Fe-D ug/L | 12 | N/A | 300 | N/A | 290.77 | No |
| Fe-T ug/L | 12 | 1000 | N/A | N/A | 677.5 | No |
| Hard. mg/L | 13 | N/A | N/A | N/A | 30.42 | No |
| Hg-T ug/L | 1 | 0.01 | 2 | N/A | 0 | No |
| Mn-D ug/L | 12 | 1109.73 | 50 | N/A | 44.56 | No |
| Mn-T ug/L | 4 | N/A | N/A | 200 | 32.28 | No |
| Mo-D ug/L | 8 | N/A | N/A | N/A | 1.24 | No |
| Mo-T ug/L | 8 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 12 | 19 | N/A | N/A | 0 | No |
| Ni-T ug/L | 4 | N/A | 100 | 200 | 0 | No |
| NO2-T mg/L | 1 | N/A | 1 | 10 | 0 | No |
| NO3-T mg/L | 1 | N/A | 10 | 100 | 0 | No |
| NO5-T mg/L | 8 | N/A | 10 | 100 | 0.07 | No |
| Pb-D ug/L | 12 | 0.67 | N/A | N/A | 0.1 | No |
| Pb-T ug/L | 4 | N/A | 50 | 100 | 0 | No |
| pH min | N/A | N/A | 5 | N/A | 7.89 | No |
| pH max | N/A | N/A | 9 | N/A | 8.4 | No |
| Se-D ug/L | 12 | 4.6 | N/A | N/A | 0.01 | No |
| Se-T ug/L | 4 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 9 | N/A | 250 | N/A | 5.12 | No |
| U-D ug/L | 8 | N/A | N/A | N/A | 0.22 | No |
| U-T ug/L | 8 | N/A | 30 | N/A | 0.12 | No |
| Zn-D ug/L | 12 | 41.06 | N/A | N/A | 2.85 | No |
| Zn-T ug/L | 4 | N/A | 5000 | 2000 | 0 | No |

Table 1.5: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 10 | 2.01 | 0.22 | No |
| Total Phosphorous (mg/L) | 10 | 0.11 | 0.075 | No |

Table 1.: Water temperature standards at Mouth of the Rio Grande Box Canyon

| Season | MWAT | DM |
|--------------|------|------|
| April – Oct. | 17 | 21.7 |
| Nov. – March | 9.0 | 13.0 |

Table 1.: Assessment of water temperature attainment at Mouth of the Rio Grande Box Canyon

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | 1 | 0 |
| Summer | 0 | 0 |

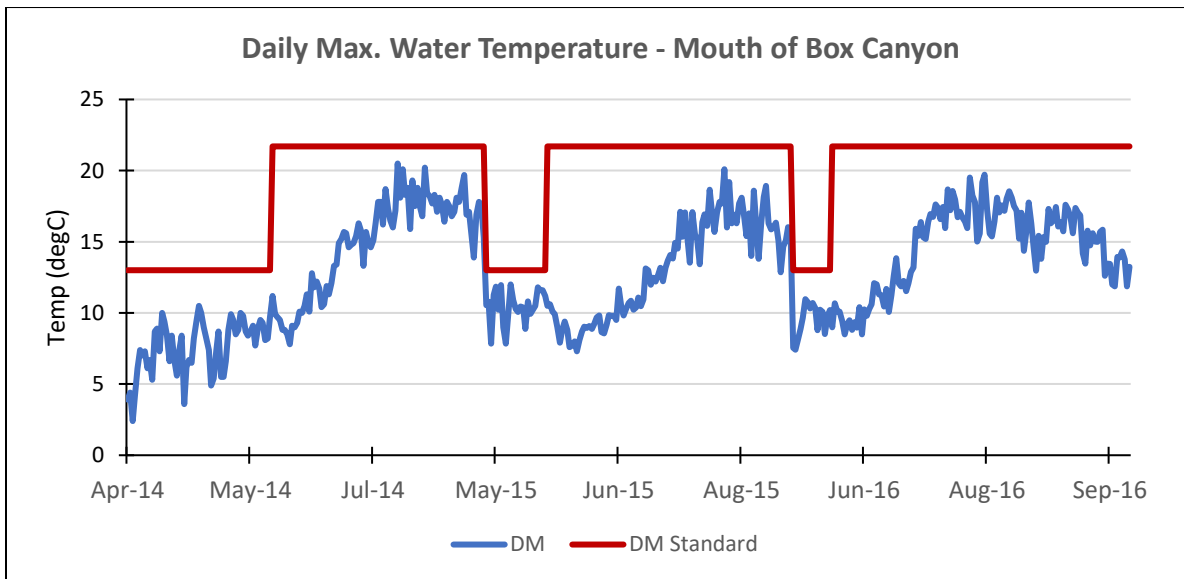


Figure 1.: Daily maximum water temperature and corresponding seasonal standards at Mouth of the Rio Grande Box Canyon

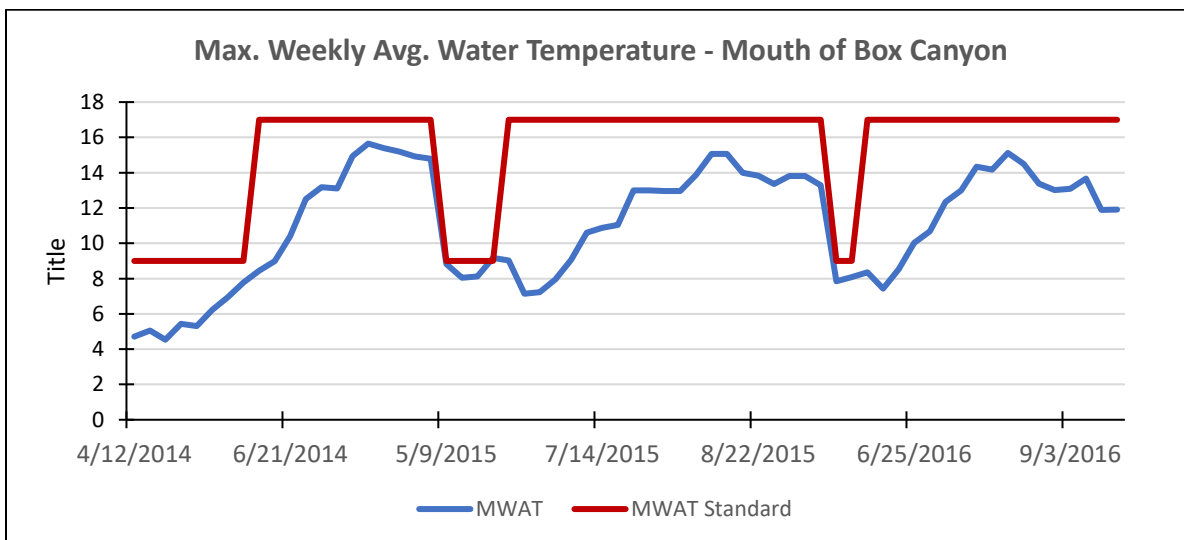


Figure 1.: Maximum weekly average water temperature and corresponding seasonal standards at the Mouth of the Rio Grande Box Canyon

Table 1.: Water temperature standards at Marshall Park

| Season | MWAT | DM |
|--------------|------|------|
| April – Oct. | 17 | 21.7 |
| Nov. – March | 9.0 | 13.0 |

Table 1.: Assessment of water temperature attainment at Marshall Park

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | 3 | 0 |
| Summer | 2 | 0 |

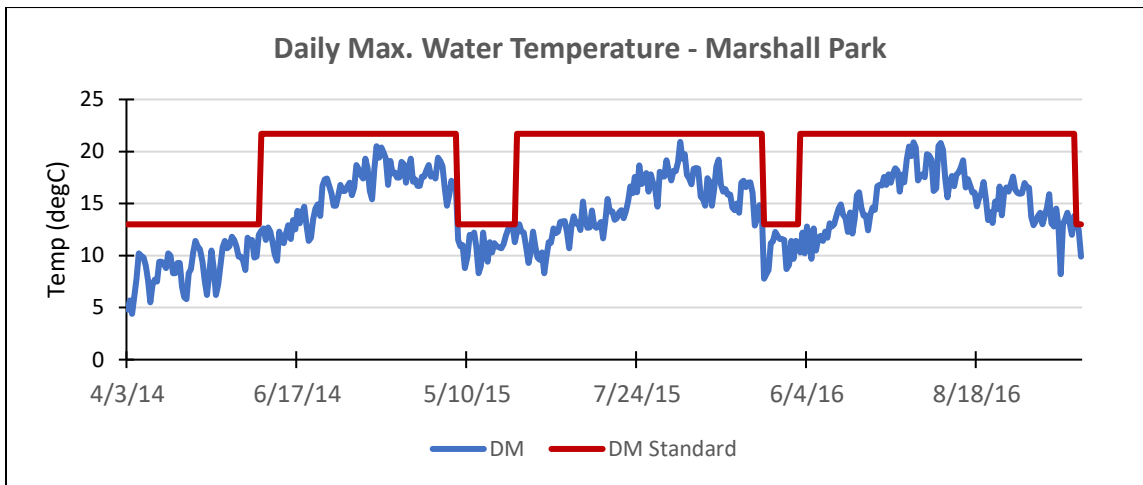


Figure 1.: Daily maximum water temperature and corresponding seasonal standards at Marshall Park

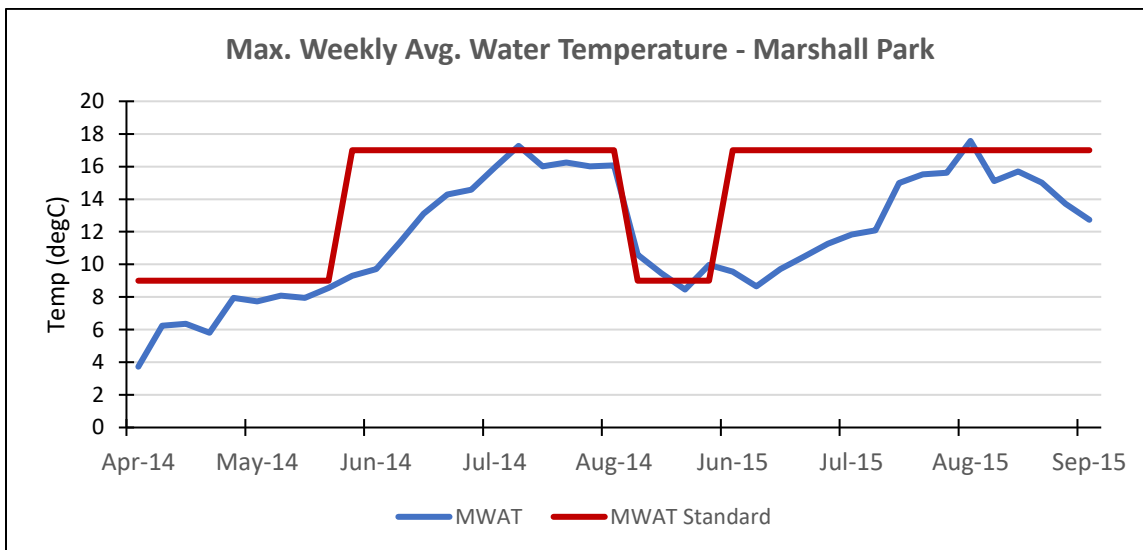


Figure 1.: Maximum weekly average water temperature and corresponding seasonal standards at Marshall Park

Rio Grande SMP reaches RG06 through RG08 (CDPHE segment CORGRG04a)

Table 1.6: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--|----------------|-------------|--------------|
| RG-9 | Bridge Over Rio Grande On Hwy 149 At Wagon Wheel Gap | CDPHE HazWaste | 37.76622631 | -106.8309151 |
| 653 | Rio Grande at Hwy 149 | RW | 37.6765 | -106.6538 |
| RG-4 | Bridge Over Rio Grande On Hwy 149 At Wason | CDPHE HazWaste | 37.82178374 | -106.8896889 |
| 135 | Rio Grande Near Wagon Wheel Gap | WQCD | 37.766423 | -106.831078 |
| 8103 | Rio Grande At Wagon Wheel Gap - North Bank | WQCD | 37.775233 | -106.832358 |
| 8104K | Rio Grande at Hwy 149 | WQCD | 37.8219666 | -106.8897 |
| RG-8 | Bridge Over Rio Grande On Hwy 149 at Canyon | CDPHE HazWaste | 37.77755415 | -106.8365815 |

Table 1.7: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 8 | 0 | 0.31 | N/A | N/A | No |
| Ag-T ug/L | 4 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 9 | 160 | N/A | N/A | N/A | No |
| Al-T ug/L | 5 | 457.6 | N/A | N/A | N/A | No |
| As-D ug/L | 9 | 1.09 | 340 | N/A | N/A | No |
| Cd-D ug/L | 9 | 0.54 | varies | N/A | N/A | No |
| Cd-T ug/L | 5 | 0.58 | N/A | 5 | 10 | No |
| Cu-D ug/L | 9 | 0.54 | 4.79 | N/A | N/A | No |
| Hg-T ug/L | 1 | 0 | N/A | 2 | N/A | No |
| Mn-D ug/L | 9 | 32.53 | 2072.48 | 50 | N/A | No |
| Ni-D ug/L | 8 | 0 | 185.26 | N/A | N/A | No |
| NO5-T mg/L | 4 | 0.07 | N/A | 10 | 100 | No |
| Pb-D ug/L | 9 | 0.67 | 19.23 | N/A | N/A | No |
| Pb-T ug/L | 5 | 2.28 | N/A | 50 | 100 | No |
| pH min | 3 | 7.52 | 6.5 | 5 | N/A | No |
| pH max | 3 | 8.36 | 9 | 9 | N/A | No |
| Se-D ug/L | 9 | 0 | 18.4 | N/A | N/A | No |
| U-D ug/L | 4 | 0.13 | N/A | N/A | N/A | No |
| Zn-D ug/L | 9 | 169.67 | varies | 5000 | 2000 | No |

Table 1.8: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 8 | 0.01 | N/A | N/A | 0 | No |
| Ag-T ug/L | 4 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 9 | N/A | N/A | N/A | 63.84 | No |
| Al-T ug/L | 5 | N/A | N/A | N/A | 105 | No |
| NH3 mg/L | 4 | 10.59 | N/A | N/A | 0.02 | No |
| As-D ug/L | 9 | 150 | N/A | N/A | 1.1 | No |
| As-T ug/L | 7 | N/A | 0.02 | 100 | 0 | No |
| Be-D ug/L | 4 | N/A | N/A | N/A | 0 | No |
| Be-T ug/L | 4 | N/A | 4 | 100 | 0 | No |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Cd-D ug/L | 9 | varies | N/A | N/A | 0.39 | No |
| Cd-T ug/L | 5 | N/A | 5 | 10 | 0.4 | No |
| Cl- mg/L | 2 | N/A | 250 | N/A | 0.65 | No |
| Cu-D ug/L | 9 | 3.51 | N/A | N/A | 0 | No |
| Cu-T ug/L | 5 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 4 | N/A | 3 | 3 | 8.25 | No |
| Fe-D ug/L | 9 | N/A | 300 | N/A | 144.8 | No |
| Fe-T ug/L | 7 | 1000 | N/A | N/A | 244 | No |
| Hard. mg/L | 9 | N/A | N/A | N/A | 33.42 | No |
| Hg-T ug/L | 1 | 0.01 | 2 | N/A | 0 | No |
| Mn-D ug/L | 9 | N/A | 50 | N/A | 23.4 | No |
| Mn-T ug/L | 5 | N/A | N/A | 200 | 35.5 | No |
| Mo-D ug/L | 2 | N/A | N/A | N/A | 0 | No |
| Mo-T ug/L | 3 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 8 | 20.58 | N/A | N/A | 0 | No |
| Ni-T ug/L | 4 | N/A | 100 | 200 | 0 | No |
| NO5-T mg/L | 4 | N/A | 10 | 100 | 0.03 | No |
| Pb-D ug/L | 9 | 0.74 | N/A | N/A | 0.65 | No |
| Pb-T ug/L | 5 | N/A | 50 | 100 | 1.96 | No |
| pH min | N/A | N/A | 5 | N/A | 7.61 | No |
| pH max | N/A | N/A | 9 | N/A | 8.1 | No |
| Se-D ug/L | 9 | 4.6 | N/A | N/A | 0 | No |
| Se-T ug/L | 5 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 4 | N/A | 250 | N/A | 8.78 | No |
| U-D ug/L | 4 | N/A | N/A | N/A | 0.11 | No |
| U-T ug/L | 4 | N/A | 30 | N/A | 0.04 | No |
| Zn-D ug/L | 9 | 44.73 | N/A | N/A | 107.7 | Yes, Aquatic Life |
| Zn-T ug/L | 5 | N/A | 5000 | 2000 | 81.9 | No |

Table 1.9: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 2 | 2.01 | 0.37 | No |
| Total Phosphorous (mg/L) | 3 | 0.11 | 0.042 | No |

Table 1.: Water temperature standards

| Season | MWAT | DM |
|--------------|------|------|
| April – Oct. | 18.3 | 23.9 |
| Nov. – March | 9.0 | 13.0 |

Table 1.: Assessment of water temperature attainment

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | N/A | N/A |
| Summer | 0 | 0 |

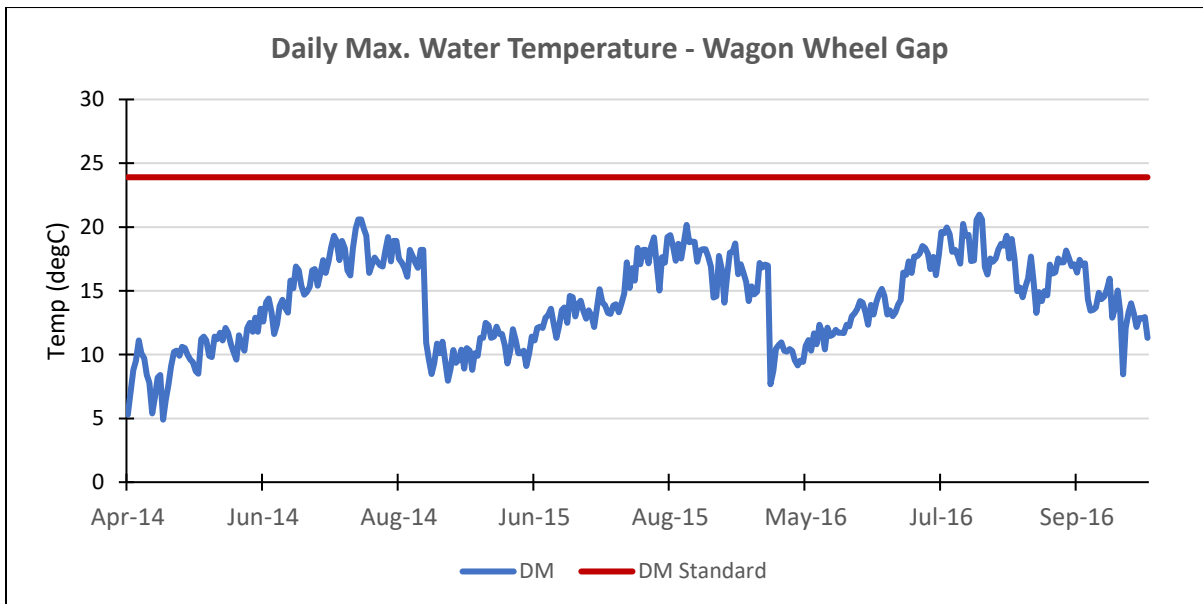


Figure 1.: Daily maximum water temperature and corresponding seasonal standards at Wagon Wheel Gap

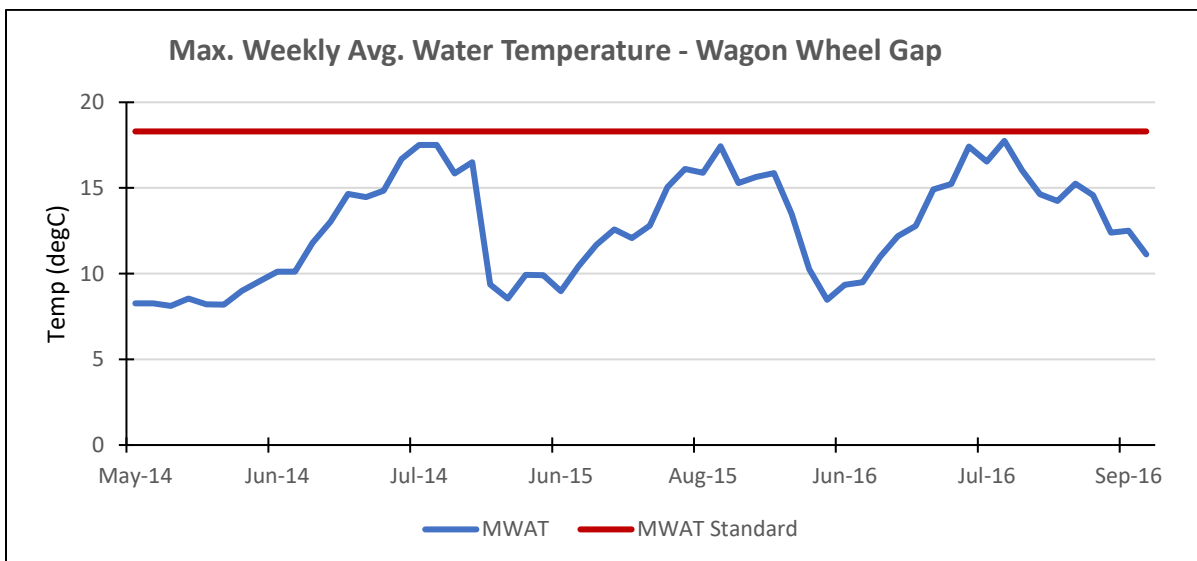


Figure 1.: Maximum weekly average water temperature and corresponding seasonal standards at Wagon Wheel Gap

Rio Grande SMP reach RG09 (CDPHE segment CORGRG04b_D)

Table 1.10: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--|------|-------------|--------------|
| 8101 | Rio Grande R Near Del Norte | WQCD | 37.688797 | -106.459829 |
| 136 | Rio Grande At 3 West | RW | 37.62400731 | -106.2042332 |
| 134 | Rio Grande At 112 Br | RW | 37.685249 | -106.3507485 |
| 8101A | Rio Grande River At Hwy 112 In Del Norte | WQCD | 37.68521333 | -106.3511533 |
| 137 | Rio Grande At Gun | RW | 37.60935874 | -106.1493552 |
| 133 | Rio Grande At State Br | RW | 37.68879695 | -106.4598929 |
| 133 | Rio Grande At State Br | RW | 37.68879695 | -106.4598929 |

Table 1.11: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 10 | 0 | 0.67 | N/A | N/A | No |
| Ag-T ug/L | 10 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 94 | 240 | N/A | N/A | N/A | No |
| Al-T ug/L | 90 | 2504 | N/A | N/A | N/A | No |
| As-D ug/L | 94 | 0.91 | 340 | N/A | N/A | No |
| Cd-D ug/L | 94 | 0.66 | 0.97 | N/A | N/A | No |
| Cd-T ug/L | 90 | 1.23 | N/A | 5 | 10 | No |
| Cu-D ug/L | 94 | 6.40 | 7.35 | N/A | N/A | No |
| Mn-D ug/L | 94 | 171.60 | 2411.7 | 50 | N/A | No |
| Ni-D ug/L | 10 | 2 | 272.26 | N/A | N/A | No |
| NO5-T mg/L | 23 | 0.37 | N/A | 10 | 100 | No |
| Pb-D ug/L | 94 | 15.30 | 31.93 | N/A | N/A | No |
| Pb-T ug/L | 90 | 20.15 | N/A | 50 | 100 | No |
| pH min | 0 | N/A | 6.5 | 5 | N/A | N/A |
| pH max | 0 | N/A | 9 | 9 | N/A | N/A |
| Se-D ug/L | 94 | 0.08 | 18.4 | N/A | N/A | No |
| U-D ug/L | 10 | 0.36 | N/A | N/A | N/A | No |
| Zn-D ug/L | 94 | 156.70 | 89.33 | N/A | N/A | Yes; Aquatic Life (6) |

Table 1.12: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 10 | 0.02 | N/A | N/A | 0 | No |
| Ag-T ug/L | 10 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 81 | N/A | N/A | N/A | 37 | No |
| Al-T ug/L | 77 | N/A | N/A | N/A | 336.5 | No |
| NH3 mg/L | 17 | 15.28 | N/A | N/A | 0.03 | No |
| As-D ug/L | 81 | 150 | N/A | N/A | 0 | No |
| As-T ug/L | 80 | N/A | 0.02 | 100 | 0 | No |
| Cd-D ug/L | 81 | 0.26 | N/A | N/A | 0.3 | Yes; Aquatic Life |
| Cd-T ug/L | 77 | N/A | 5 | 10 | 0.24 | No |
| Cl- mg/L | 14 | N/A | 250 | N/A | 1.89 | No |
| Cu-D ug/L | 81 | 5.18 | N/A | N/A | 1.7 | No |
| Cu-T ug/L | 77 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 10 | N/A | 3 | 3 | 7.75 | No |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Fe-D ug/L | 81 | N/A | 300 | N/A | 119 | No |
| Fe-T ug/L | 82 | 1000 | N/A | N/A | 412 | No |
| Hard. mg/L | 82 | N/A | N/A | N/A | 52.68 | No |
| Mn-D ug/L | 81 | 1332.47 | 50 | N/A | 55.7 | Yes; Water Supply |
| Mn-T ug/L | 77 | N/A | N/A | 200 | 65.85 | No |
| Mo-D ug/L | 6 | N/A | N/A | N/A | 0 | No |
| Mo-T ug/L | 9 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 10 | 30.24 | N/A | N/A | 0 | No |
| Ni-T ug/L | 10 | N/A | 100 | 200 | 0 | No |
| NO5-T mg/L | 23 | N/A | 10 | 100 | 0.04 | No |
| Pb-D ug/L | 81 | 1.24 | N/A | N/A | 4.7 | Yes; Aquatic Life |
| Pb-T ug/L | 77 | N/A | 50 | 100 | 5 | No |
| pH min | 0 | N/A | 5 | N/A | 7.94 | No |
| pH max | 0 | N/A | 9 | N/A | 8.35 | No |
| Se-D ug/L | 81 | 4.6 | N/A | N/A | 0 | No |
| Se-T ug/L | 77 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 23 | N/A | 250 | N/A | 14.83 | No |
| U-D ug/L | 10 | N/A | N/A | N/A | 0.18 | No |
| U-T ug/L | 10 | N/A | 30 | N/A | 0.11 | No |
| Zn-D ug/L | 81 | 67.66 | N/A | N/A | 63.9 | No |
| Zn-T ug/L | 77 | N/A | 5000 | 2000 | 39.6 | No |

Table 1.13: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 7 | 2.01 | 0.3 | No |
| Total Phosphorous (mg/L) | 23 | 0.11 | 0.063 | No |

Table 1.14: Water temperature standards

| Season | MWAT | DM |
|--------------|------|------|
| April – Oct. | 18.3 | 23.9 |
| Nov. – March | 9.0 | 13.0 |

Table 1.15: Assessment of water temperature attainment

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | 0 | 0 |
| Summer | 9 | 1 |

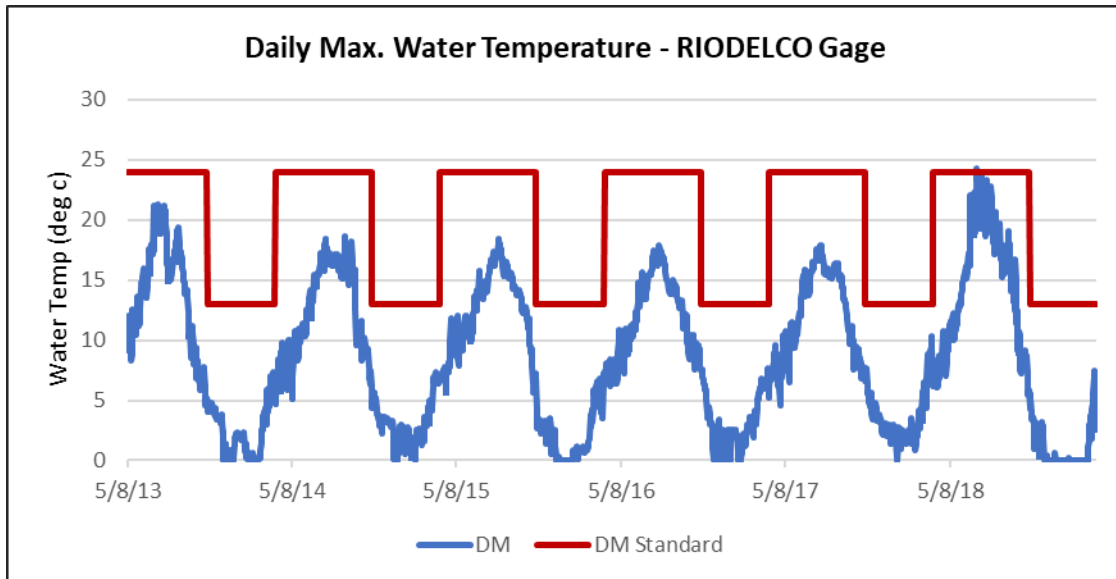


Figure 1.1: Daily maximum water temperature and corresponding seasonal standards at the Rio Grande Near Del Norte streamgage

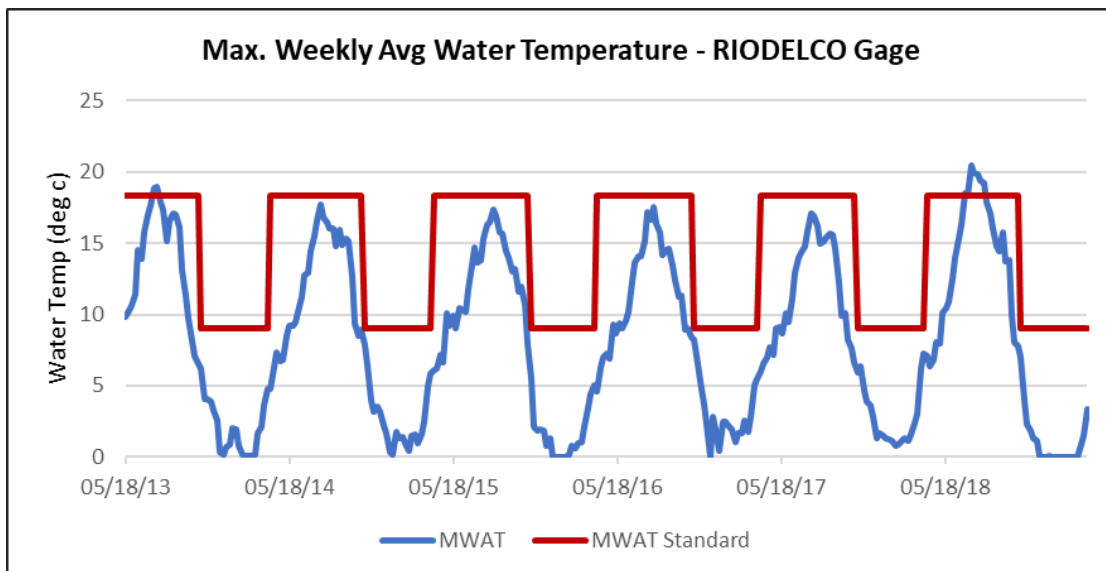


Figure 1.2: Maximum weekly average water temperature and corresponding seasonal standards at the Rio Grande Near Del Norte streamgage

Rio Grande SMP reaches RG10 and RG11 (CDPHE segment CORGRG04b_B)

Table 1.14: water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|------------------------------|-----|-------------|--------------|
| 137 | Rio Grande At Gunbarrel Road | RW | 37.60935874 | -106.1493552 |
| 136 | Rio Grande at 3 West | RW | 37.62400731 | -106.2042332 |

Table 1.15: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Al-D ug/L | 33 | 56.50 | N/A | N/A | N/A | No |
| Al-T ug/L | 32 | 2394 | N/A | N/A | N/A | No |
| As-D ug/L | 33 | <0 | 340 | N/A | N/A | No |
| Cd-D ug/L | 33 | 0.47 | 0.77 | N/A | N/A | No |
| Cd-T ug/L | 32 | 1.23 | N/A | 5 | 10 | No |
| Cu-D ug/L | 33 | 7.50 | 5.71 | N/A | N/A | Yes; Aquatic Life (2) |
| Mn-D ug/L | 33 | 81.20 | 2205.64 | 50 | N/A | No |
| NO5-T mg/L | 3 | 0.37 | N/A | 10 | 100 | No |
| Pb-D ug/L | 33 | 31 | 23.7 | N/A | N/A | No |
| Pb-T ug/L | 32 | 33.80 | N/A | 50 | 100 | No |
| pH min | 10 | 7.83 | 6.5 | 5 | N/A | No |
| pH max | 10 | 8.51 | 9 | 9 | N/A | No |
| Se-D ug/L | 33 | <0 | 18.4 | N/A | N/A | No |
| Zn-D ug/L | 33 | 137.80 | 70 | N/A | N/A | No |

Table 1.16: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Al-D ug/L | 33 | N/A | N/A | N/A | 35.6 | No |
| Al-T ug/L | 32 | N/A | N/A | N/A | 315.5 | No |
| As-D ug/L | 33 | 150 | N/A | N/A | 0 | No |
| As-T ug/L | 32 | N/A | 0.02 | 100 | 0 | No |
| Cd-D ug/L | 33 | 0.21 | N/A | N/A | 0.42 | Yes; Aquatic Life |
| Cd-T ug/L | 32 | N/A | 5 | 10 | 0.31 | No |
| Cl- mg/L | 3 | N/A | 250 | N/A | 1.1 | No |
| Cu-D ug/L | 33 | 4.12 | N/A | N/A | 1.24 | No |
| Cu-T ug/L | 32 | N/A | 1000 | 200 | 0 | No |
| Fe-D ug/L | 33 | N/A | 300 | N/A | 118.2 | No |
| Fe-T ug/L | 32 | 1000 | N/A | N/A | 375.5 | No |
| Hard. mg/L | 32 | N/A | N/A | N/A | 40.29 | No |
| Mn-D ug/L | 33 | 1218.62 | 50 | N/A | 42.9 | No |
| Mn-T ug/L | 32 | N/A | N/A | 200 | 51.45 | No |
| NO5-T mg/L | 3 | N/A | 10 | 100 | 0.26 | No |
| Pb-D ug/L | 33 | 0.92 | N/A | N/A | 4.76 | Yes; Aquatic Life |
| Pb-T ug/L | 32 | N/A | 50 | 100 | 5.65 | No |
| pH min | 10 | N/A | 5 | N/A | 7.94 | No |
| pH max | 10 | N/A | 9 | N/A | 8.35 | No |
| Se-D ug/L | 33 | 4.6 | N/A | N/A | 0 | No |
| Se-T ug/L | 32 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 3 | N/A | 250 | N/A | 11.73 | No |
| Zn-D ug/L | 33 | 53.02 | N/A | N/A | 73.42 | Yes; Aquatic Life |
| Zn-T ug/L | 32 | N/A | 5000 | 2000 | 61.8 | No |

Table 1.17: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | N/A | 2.01 | N/A | N/A |
| Total Phosphorous (mg/L) | 3 | 0.11 | 0.087 | No |

Rio Grande SMP reach RG12 (CDPHE segment CORGRG04c)

Table 1.18: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--|------|-------------|--------------|
| 138 | Rio Grande at 3 East | RW | 37.58272832 | -106.0940173 |
| 138 | Rio Grande at 3 East | RW | 37.58272832 | -106.0940173 |
| 8307A | Rio Grande At N Cr 3E Near Monte Vista | WQCD | 37.58279667 | -106.0956767 |
| 8307 | Rio Grande at Rio Grande-Alamosa County Line | WQCD | 37.570322 | -106.040368 |

Table 1.19: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 9 | 0 | 0.55 | N/A | N/A | No |
| Ag-T ug/L | 9 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 49 | 160 | N/A | N/A | N/A | No |
| Al-T ug/L | 41 | 9880 | N/A | N/A | N/A | No |
| As-D ug/L | 49 | 0.98 | 340 | N/A | N/A | No |
| Cd-D ug/L | 49 | 0.46 | 1.41 | N/A | N/A | No |
| Cd-T ug/L | 41 | 1.72 | N/A | 5 | 10 | No |
| Cu-D ug/L | 49 | 1.60 | 6.54 | N/A | N/A | No |
| Mn-D ug/L | 49 | 223.50 | 2315 | 50 | N/A | No |
| Ni-D ug/L | 9 | 0 | 245.38 | N/A | N/A | No |
| NO5-T mg/L | 15 | 0.37 | N/A | 10 | 100 | No |
| Pb-D ug/L | 49 | 12.9 | 27.86 | N/A | N/A | No |
| Pb-T ug/L | 41 | 52.60 | N/A | 50 | 100 | No |
| pH min | 9 | 7.42 | 6.5 | 5 | N/A | No |
| pH max | 9 | 8.14 | 9 | 9 | N/A | No |
| Se-D ug/L | 49 | 0 | 18.4 | N/A | N/A | No |
| U-D ug/L | 9 | 0.33 | N/A | N/A | N/A | No |
| Zn-D ug/L | 49 | 376.80 | 79.89 | N/A | N/A | Yes; Aquatic Life |

Table 1.20: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 9 | 0.09 | N/A | N/A | 0 | No |
| Ag-T ug/L | 9 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 48 | N/A | N/A | N/A | 49.55 | No |
| Al-T ug/L | 41 | N/A | N/A | N/A | 288 | No |
| NH3 mg/L | 14 | 11.87 | N/A | N/A | 0.06 | No |
| As-D ug/L | 48 | 150 | N/A | N/A | 0 | No |
| As-T ug/L | 47 | N/A | 0.02 | 100 | 0 | Yes, Water Supply |
| Cd-D ug/L | 48 | 0.24 | N/A | N/A | 0.3 | Yes, Aquatic Life |
| Cd-T ug/L | 41 | N/A | 5 | 10 | 0.39 | No |
| Cl- mg/L | 6 | N/A | 250 | N/A | 1.3 | No |
| Cu-D ug/L | 48 | 4.66 | N/A | N/A | 0 | No |
| Cu-T ug/L | 41 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 9 | N/A | 3 | 3 | 7.48 | No |
| Fe-D ug/L | 48 | N/A | 300 | N/A | 188.75 | No |
| Fe-T ug/L | 48 | 1000 | N/A | N/A | 539.5 | No |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Hard. mg/L | 48 | N/A | N/A | N/A | 46.59 | No |
| Mn-D ug/L | 48 | 1279.04 | 50 | N/A | 102.57 | Yes; Water Supply |
| Mn-T ug/L | 41 | N/A | N/A | 200 | 93.9 | No |
| Mo-D ug/L | 6 | N/A | N/A | N/A | 0.45 | No |
| Mo-T ug/L | 9 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 9 | 27.25 | N/A | N/A | 0 | No |
| Ni-T ug/L | 9 | N/A | 100 | 200 | 0 | No |
| NO5-T mg/L | 14 | N/A | 10 | 100 | 0.11 | No |
| Pb-D ug/L | 48 | 1.09 | N/A | N/A | 5.4 | Yes; Aquatic Life |
| Pb-T ug/L | 41 | N/A | 50 | 100 | 5.9 | No |
| pH min | 9 | N/A | 5 | N/A | 7.63 | No |
| pH max | 9 | N/A | 9 | N/A | 8.03 | No |
| Se-D ug/L | 48 | 4.6 | N/A | N/A | 0 | No |
| Se-T ug/L | 41 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 14 | N/A | 250 | N/A | 8.56 | No |
| U-D ug/L | 9 | N/A | N/A | N/A | 0.26 | No |
| U-T ug/L | 9 | N/A | 30 | N/A | 0.13 | No |
| Zn-D ug/L | 48 | 60.51 | N/A | N/A | 64.44 | Yes; Aquatic Life |
| Zn-T ug/L | 41 | N/A | 5000 | 2000 | 62.5 | No |

Table 1.21: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 9 | 2.01 | 0.39 | No |
| Total Phosphorous (mg/L) | 3 | 0.11 | 0.075 | No |

Rio Grande SMP reaches RG13 and RG14 (CDPHE segment CORGRG12)

Table 1.22: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|--------------------|--|------|-----------|-------------|
| CO0044458-UPSTREAM | Rio Grande at Alamosa u/s of CO0044458 Alamosa | WQCD | 37.480698 | -105.878097 |
| 8305 | Rio Grande at Alamosa | WQCD | 37.47563 | -105.86647 |

Table 1.23: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|-----------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 21 | 0 | 0.95 | N/A | N/A | No |
| Al-D ug/L | 21 | 190 | N/A | N/A | N/A | No |
| NH3 mg/L | 21 | 0.048 | 8.11 | N/A | N/A | No |
| As-D ug/L | 21 | 1.6 | 340 | N/A | N/A | No |
| As-T ug/L | 21 | 4.4 | N/A | N/A | 100 | No |
| Cd-D ug/L | 21 | 0.17 | 1.86 | N/A | N/A | No |
| Chloride-T mg/L | 21 | 4.2 | N/A | N/A | N/A | No |
| Cu-D ug/L | 21 | 8.5 | 8.85 | N/A | N/A | No |
| DO-D mg/L | 21 | 5.92 | 5 | 3 | 3 | No |
| Fe-D ug/L | 21 | 270 | N/A | N/A | N/A | No |
| Fe-T ug/L | 16 | 1700 | N/A | N/A | N/A | No |
| Hardness mg/L | 12 | 92 | N/A | N/A | N/A | No |
| Mn-D ug/L | 21 | 620 | 2575.66 | N/A | N/A | No |
| Mo-D ug/L | 21 | 2.5 | N/A | N/A | N/A | No |
| Mo-T ug/L | 15 | 0 | N/A | N/A | 160 | No |
| Ni-D ug/L | 21 | 0 | 321.76 | N/A | N/A | No |
| NO5-T mg/L | 21 | 0.3 | N/A | N/A | 100 | No |
| Pb-D ug/L | 21 | 2 | 39.72 | N/A | N/A | No |
| pH min-D ug/L | 20 | 7.36 | 6.50 | N/A | N/A | No |
| pH max-D ug/L | 20 | 8.14 | 9 | N/A | N/A | No |
| Se-D ug/L | 21 | 0.07 | 18.40 | N/A | N/A | No |
| SO4-T mg/L | 21 | 16 | N/A | N/A | N/A | No |
| Temp(s) C | 57 | 29.78 | 28.6 | N/A | N/A | DM exceeded 1 in 57 |
| Temp(w) C | 57 | 10.5 | 14.3 | N/A | N/A | No |
| U-D ug/L | 21 | 0.63 | N/A | N/A | N/A | No |
| Zn-D ug/L | 21 | 34 | 106.90 | N/A | N/A | No |

Table 1.24: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 21 | 0.15 | N/A | N/A | 0 | No |
| Al-D ug/L | 21 | N/A | N/A | N/A | 39 | No |
| NH3 mg/L | 21 | 14.10 | N/A | N/A | 0.018 | No |
| As-D ug/L | 21 | 7.60 | N/A | N/A | 0.87 | No |
| As-T ug/L | 21 | N/A | N/A | 100 | 1.85 | No |
| Cd-D ug/L | 21 | 0.30 | N/A | N/A | 0.129 | No |
| Chloride-T mg/L | 21 | N/A | N/A | N/A | 1.6 | No |
| Cu-D ug/L | 21 | 6.13 | N/A | N/A | 8.5 | No |
| DO-D mg/L | 21 | N/A | 3 | 3 | 7.65 | No |
| Fe-D ug/L | 21 | N/A | N/A | N/A | 185 | No |
| Fe-T ug/L | 16 | 1000 | N/A | N/A | 745 | No |
| Hardness mg/L | 12 | N/A | N/A | N/A | 53 | No |
| Mn-D ug/L | 21 | 1423.05 | N/A | N/A | 74 | No |
| Mo-D ug/L | 21 | N/A | N/A | N/A | 1.7 | No |
| Mo-T ug/L | 15 | N/A | N/A | 160 | 0 | No |
| Ni-D ug/L | 21 | 35.74 | N/A | N/A | 0 | No |
| NO5-T mg/L | 21 | N/A | N/A | 100 | 0.17 | No |
| Pb-D ug/L | 21 | 1.55 | N/A | N/A | 0.75 | No |
| pH ug/L | 20 | N/A | N/A | N/A | 7.73 | No |
| Se-D ug/L | 21 | 4.60 | N/A | N/A | 0.064 | No |
| SO4-T mg/L | 21 | N/A | N/A | N/A | 8.1 | No |
| U-D ug/L | 21 | N/A | N/A | N/A | 0.345 | No |
| Zn-D ug/L | 21 | 80.97 | N/A | N/A | 7.15 | No |

Table 1.21: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 45 | 2.01 | 0.30 | No |
| Total Phosphorous (mg/L) | 55 | 0.11 | 0.096 | No |

Rio Grande SMP reach RG15 (CDPHE segment CORGRG12)

Table 1.22: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--|------|----------|------------|
| 8303 | RIO GRANDE R. NR ALAMOSA-CONEJOS COUNTY LINE ON NAT'L WILDLIFE REFUGE | WQCD | 37.36929 | -105.76733 |

Table 1.23: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|-----------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 1 | 0 | 0.95 | N/A | N/A | No |
| Al-D ug/L | 1 | 14 | N/A | N/A | N/A | No |
| As-D ug/L | 1 | 1.6 | 340 | N/A | N/A | No |
| As-T ug/L | 1 | 2.1 | N/A | N/A | 100 | Yes; chronic std |
| Cd-D ug/L | 1 | 0 | 1.86 | N/A | N/A | No |
| Chloride-T mg/L | 1 | 4.2 | N/A | N/A | N/A | No |
| Cu-D ug/L | 1 | 0 | 8.85 | N/A | N/A | No |
| DO-D mg/L | 1 | 6.65 | 5 | 3 | 3 | No |
| Fe-D ug/L | 1 | 120 | N/A | N/A | N/A | No |
| Fe-T ug/L | 1 | 760 | N/A | N/A | N/A | No |
| Hardness mg/L | 1 | 76 | N/A | N/A | N/A | No |
| Mn-D ug/L | 1 | 48 | 2575.66 | N/A | N/A | No |
| Mo-D ug/L | 1 | 2.7 | N/A | N/A | N/A | No |
| Mo-T ug/L | 1 | 5 | N/A | N/A | 160 | No |
| Ni-D ug/L | 1 | 0 | 321.76 | N/A | N/A | No |
| Pb-D ug/L | 1 | 0.47 | 39.72 | N/A | N/A | No |
| pH min-D ug/L | 1 | 7.79 | 6.50 | N/A | N/A | No |
| pH max-D ug/L | 1 | 7.79 | 9 | N/A | N/A | No |
| Se-D ug/L | 1 | 0 | 18.40 | N/A | N/A | No |
| SO4-T mg/L | 1 | 13 | N/A | N/A | N/A | No |
| Temp(s) C | 1 | 19.1 | 28.6 | N/A | N/A | No |
| Temp(w) C | 1 | N/A | 14.3 | N/A | N/A | N/A |
| U-D ug/L | 1 | 0.56 | N/A | N/A | N/A | No |
| Zn-D ug/L | 1 | 4.5 | 106.90 | N/A | N/A | No |

Table 1.21: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 1 | 2.01 | 0.20 | No |
| Total Phosphorous (mg/L) | 1 | 0.11 | 0.1 | No |

Rio Grande SMP reaches RG16 and RG17 (CDPHE segments CORGRG12 and CORGRG13)

Table 1.18: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|---|-----------------------------|-----------|-------------|
| 764.6 | Rio Grande abv NM-CO border at Lobatos Bridge | NM Environmental Dept./SWQB | 37.078540 | -105.757003 |
| 4171 | Rio Grande - At 142 Br | River Watch | 37.180550 | -105.729866 |

Table 1.19: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 44 | 0.7 | 0.55 | N/A | N/A | No |
| Al-D ug/L | 46 | 770 | N/A | N/A | N/A | No |
| Al-T ug/L | 10 | 1700 | N/A | N/A | N/A | No |
| As-D ug/L | 48 | 5 | 340 | N/A | N/A | No |
| Cd-D ug/L | 45 | 0.6 | 1.41 | N/A | N/A | No |
| Fe-D ug/L | 50 | 400 | 1000 | N/A | N/A | No |
| Hg-D ug/L | 12 | 0.0001 | N/A | 2 | N/A | No |
| Cu-D ug/L | 47 | 6 | 6.54 | N/A | N/A | No |
| Mn-D ug/L | 56 | 250 | 2315 | 50 | N/A | No |
| Mo-D ug/L | 42 | 7 | N/A | N/A | N/A | No |
| Ni-D ug/L | 47 | 2.7 | 245.38 | N/A | N/A | No |
| NO5-T mg/L | 21 | 0.3 | N/A | 10 | 100 | No |
| Pb-D ug/L | 54 | 2 | 27.86 | N/A | N/A | No |
| pH min | 59 | 7.6 | 6.5 | 5 | N/A | No |
| pH max | 59 | 9.09 | 9 | 9 | N/A | No |
| Se-D ug/L | 52 | 0.29 | 18.4 | N/A | N/A | No |
| U-D ug/L | 46 | 2 | N/A | N/A | N/A | No |
| Zn-D ug/L | 45 | 11 | 79.89 | N/A | N/A | No |

Table 1.20: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 44 | 0.16 | N/A | N/A | 0.0001 | No |
| Al-D ug/L | 46 | N/A | N/A | N/A | 21.9 | No |
| Al-T ug/L | 10 | N/A | N/A | N/A | 990 | No |
| NH3 mg/L | 41 | 11.87 | N/A | N/A | 0.01 | No |
| As-D ug/L | 48 | 150 | N/A | N/A | 2.1 | No |
| Cd-D ug/L | 45 | 0.24 | N/A | N/A | 0.001 | No |
| Cd-T ug/L | 45 | N/A | 5 | 10 | 0.0001 | No |
| Cu-D ug/L | 47 | 4.66 | N/A | N/A | 0.0001 | No |
| DO mg/L | 57 | N/A | 3 | 3 | 9.4 | No |
| Fe-D ug/L | 50 | N/A | 300 | N/A | 95.35 | No |
| Fe-T ug/L | 17 | 1000 | N/A | N/A | 900 | No |
| Hard. mg/L | 56 | N/A | N/A | N/A | 57.7 | No |
| Mn-D ug/L | 56 | 1279.04 | 50 | N/A | 31.2 | No |
| Mo-D ug/L | 42 | N/A | N/A | N/A | 1.73 | No |
| Ni-D ug/L | 47 | 27.25 | N/A | N/A | 0.45 | No |
| NO5-T mg/L | 21 | N/A | 10 | 100 | 0.01 | No |
| Pb-D ug/L | 54 | 1.09 | N/A | N/A | 0.118 | No |
| pH median | 59 | N/A | 5, 9 | N/A | 8.46 | No |
| Se-D ug/L | 52 | 4.6 | N/A | N/A | 0.07 | No |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| SO4-T mg/L | 50 | N/A | 250 | N/A | 14.65 | No |
| U-D ug/L | 46 | N/A | N/A | N/A | 0.63 | No |
| Zn-D ug/L | 45 | 60.51 | N/A | N/A | 0.0001 | No |

Table 1.21: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 15 | 2.01 | 0.221 | No |
| Total Phosphorous (mg/L) | 58 | 0.11 | 0.099 | No |

Reach RG17 Water Temperature

Table 1.23: Water temperature standards

| Season | MWAT | DM |
|--------------|------|------|
| March – Nov. | 27.5 | 28.6 |
| Dec. – Feb. | 13.8 | 14.3 |

Table 1.24: Assessment of water temperature attainment

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | 0 | 0 |
| Summer | 0 | 0 |

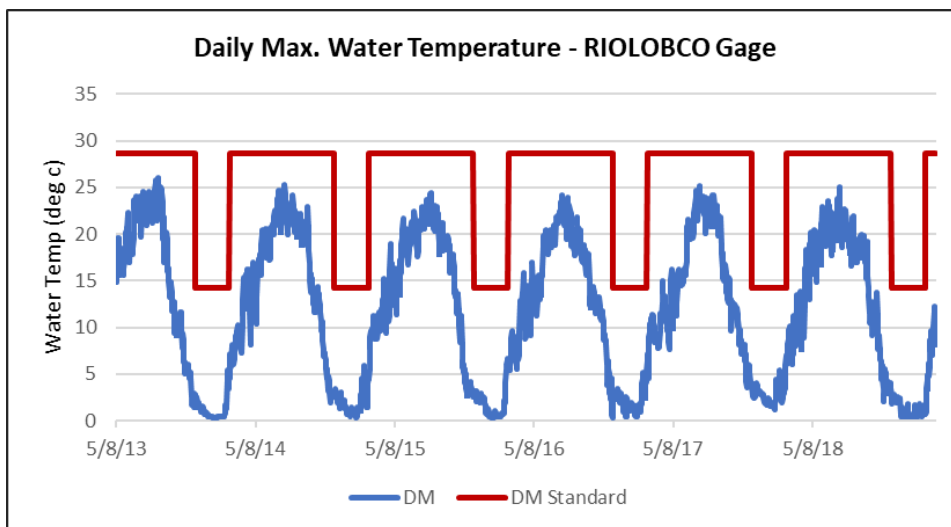


Figure 1.: Daily maximum water temperature and corresponding seasonal standards at the Rio Grande Near Lobatos streamgage

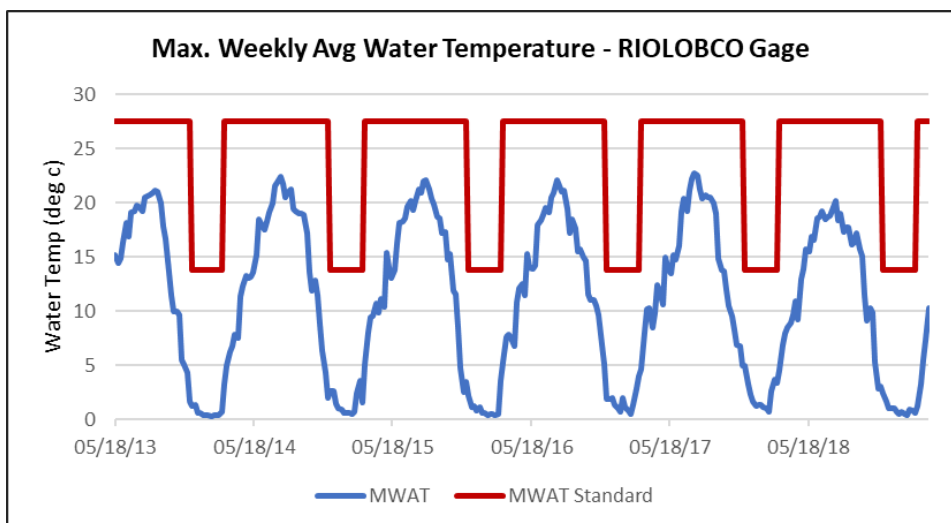


Figure 1.: Maximum weekly average water temperature and corresponding seasonal standards at the Rio Grande Near Lobatos streamgage

1.2 Conejos River SMP - Water Quality Data

The tables below highlight any water quality impairments documented within a given Conejos River SMP reach.

Conejos River SMP reaches CR01 through CR05 (CDPHE segment CORGAL14a)

Unpublished data collected by EPA showed that all metals concentrations within this segment were below standards with the exception of arsenic. Samples collected both upstream and downstream of the Glacier/Chilkat abandoned mine site showed arsenic exceeds the standard downstream of the mine but not upstream, suggesting the mine is the source of elevated arsenic. Tributaries to the Conejos River, such as La Manga Creek, also exhibit elevated arsenic.

Table 2.1: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--------------------------------|------|-----------|------------|
| 8715 | La Manga Creek Above Elk Creek | WQCD | 37.116933 | -106.37783 |

Table 2.2: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard (acute) | Water supply standard (acute) | Agriculture standard (acute) | Exceeding acute standard? |
|------------|--------------|---------------------|-------------------------------|-------------------------------|------------------------------|---------------------------|
| Ag-D ug/L | 4 | 0 | 0.61 | N/A | N/A | No |
| Ag-T ug/L | 4 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 4 | 160 | N/A | N/A | N/A | No |
| Al-T ug/L | 4 | 0 | 0 | N/A | N/A | No |
| As-D ug/L | 4 | 0.89 | 340 | N/A | N/A | No |
| Cd-D ug/L | 4 | 0 | 0.92 | N/A | N/A | No |
| Cu-D ug/L | 4 | 0 | 6.93 | N/A | N/A | No |
| Mn-D ug/L | 4 | 4.10 | 2362.2 | 50 | N/A | No |
| Ni-D ug/L | 4 | 0 | 258.29 | N/A | N/A | No |
| NO5-T mg/L | 4 | 0.54 | N/A | 10 | 100 | No |
| Pb-D ug/L | 4 | 0.05 | 29.8 | N/A | N/A | No |
| pH min | 3 | 7.91 | 6.5 | 5 | N/A | No |
| pH max | 3 | 8.11 | 9 | 9 | N/A | No |
| Se-D ug/L | 4 | 0 | 18.4 | N/A | N/A | No |
| U-D ug/L | 4 | 0 | N/A | N/A | N/A | No |
| Zn-D ug/L | 4 | 2.90 | 84.41 | N/A | N/A | No |

Table 2.3: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|-----------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| Ag-D ug/L | 4 | 0.02 | N/A | N/A | 0 | No |
| Ag-T ug/L | 4 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 4 | N/A | N/A | N/A | 151 | No |
| Al-T ug/L | 4 | 0 | N/A | N/A | 84.5 | No |
| NH3 mg/L | 4 | 11.39 | N/A | N/A | 0.02 | No |

| Parameter | # of samples | Aquatic life standard (chronic) | Water supply standard (chronic) | Agriculture standard (chronic) | Median of samples measured | Exceeding chronic standard? |
|------------|--------------|---------------------------------|---------------------------------|--------------------------------|----------------------------|-----------------------------|
| As-D ug/L | 4 | 150 | N/A | N/A | 0.49 | No |
| As-T ug/L | 4 | N/A | 0.02 | 100 | 0.52 | Yes, Chronic Water Supply |
| Cd-D ug/L | 4 | 0.25 | N/A | N/A | 0 | No |
| Cd-T ug/L | 4 | N/A | 5 | 10 | 0 | No |
| Cl- mg/L | 1 | N/A | 250 | N/A | 0.87 | No |
| Cu-D ug/L | 4 | 4.91 | N/A | N/A | 0 | No |
| Cu-T ug/L | 4 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 3 | N/A | 3 | 3 | 7.9 | No |
| Fe-D ug/L | 4 | N/A | 300 | N/A | 198.5 | No |
| Fe-T ug/L | 4 | 1000 | N/A | N/A | 395 | No |
| Hard. mg/L | 4 | N/A | N/A | N/A | 49.5 | No |
| Mn-D ug/L | 4 | 1305.12 | 50 | N/A | 4.06 | No |
| Mn-T ug/L | 4 | N/A | N/A | 200 | 4 | No |
| Mo-D ug/L | 4 | N/A | N/A | N/A | 0 | No |
| Mo-T ug/L | 4 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 4 | 28.69 | N/A | N/A | 0 | No |
| Ni-T ug/L | 4 | N/A | 100 | 200 | 0 | No |
| NO5-T mg/L | 4 | N/A | 10 | 100 | 0.24 | No |
| Pb-D ug/L | 4 | 1.16 | N/A | N/A | 0.03 | No |
| Pb-T ug/L | 4 | N/A | 50 | 100 | 0 | No |
| pH min | N/A | N/A | 5 | N/A | 7.92 | No |
| pH max | N/A | N/A | 9 | N/A | 8.06 | No |
| Se-D ug/L | 4 | 4.6 | N/A | N/A | 0 | No |
| Se-T ug/L | 4 | N/A | 50 | 20 | 0 | No |
| SO4-T mg/L | 4 | N/A | 250 | N/A | 1.36 | No |
| Temp(s) C | N/A | N/A | N/A | N/A | N/A | No |
| Temp(w) C | N/A | N/A | N/A | N/A | N/A | No |
| U-D ug/L | 4 | N/A | N/A | N/A | 0 | No |
| U-T ug/L | 4 | N/A | 30 | N/A | 0 | No |
| Zn-D ug/L | 4 | 63.93 | N/A | N/A | 1.59 | No |
| Zn-T ug/L | 4 | N/A | 5000 | 2000 | 0 | No |

Table 2.4: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 4 | 2.01 | 0.3 | No |
| Total Phosphorous (mg/L) | 4 | 0.11 | 0.065 | No |

Conejos River SMP reaches CR06 through CR08 (CDPHE segment CORGAL14b)

Table 2.5: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|---------------------------------|------|----------|------------|
| 8704K | CONEJOS RIVER @ HWY 17 @ FR 250 | WQCD | 37.1285 | -106.35705 |

Table 2.6: Assessment of attainment of acute or one-day standards

| Parameter | # Samples (chronic, acute) | Max. measured value | Median of samples measured | Aquatic Life (Chronic) | Aquatic Life (Acute) | Water Supply | Agriculture (TREC) | Exceeding Standard? |
|---------------|----------------------------|---------------------|----------------------------|------------------------|----------------------|--------------|--------------------|---------------------|
| Ag-D ug/l | 3 | 0 | 0 | 0 | 0.11 | N/A | N/A | No |
| Ag-T ug/l | 3 | 0 | 0 | N/A | N/A | 100 | N/A | No |
| NH3 mg/l | 3 | 0 | 0 | 4.31 | 17.01 | N/A | N/A | No |
| Cd-D ug/l | 3 | 0 | 0 | 0.12 | 0.39 | N/A | N/A | No |
| Cd-T ug/l | 3 | 0 | 0 | N/A | N/A | 5 | 10 | No |
| Cu-D ug/l | 3 | 0 | 0 | 2.14 | 2.77 | N/A | N/A | No |
| Cu-T ug/l | 3 | 0 | 0 | N/A | N/A | 1000 | 200 | No |
| DO-D mg/l | 3 | 10 | 8.849 | N/A | 7 | 3 | 3 | No |
| Fe-D ug/l | 3 | 77 | 63.8 | N/A | N/A | 300 | N/A | No |
| Fe-T ug/l | 3 | 800 | 63 | 1000 | N/A | N/A | N/A | No |
| Hardness mg/l | 3 | 32 | 18.7 | N/A | N/A | N/A | N/A | No |
| Mn-D ug/l | 3 | 9 | 8.7 | 943.68 | 1708.02 | 50 | N/A | No |
| Mn-T ug/l | 3 | 0 | 8 | N/A | N/A | N/A | 200 | No |
| NO5-T mg/l | 3 | 0 | 0 | N/A | N/A | 10 | 100 | No |
| Pb-D ug/l | 3 | 0 | 0 | 0.39 | 10 | N/A | N/A | No |
| Pb-T ug/l | 3 | 0 | 0 | N/A | N/A | 50 | 100 | No |
| pH min | 3 | 7.23 | 7.386 | N/A | 6.5 | 5 | N/A | No |
| pH max | 3 | 7.95 | 7.89 | N/A | 9 | 9 | N/A | No |
| Se-D ug/l | 3 | 0 | 0 | 4.6 | 18.4 | N/A | N/A | No |
| Se-T ug/l | 3 | 0 | 0 | N/A | N/A | 50 | 20 | No |
| SO4-T mg/l | 3 | 4 | 3 | N/A | N/A | 250 | N/A | No |
| Temp(s) C | 2 | 12.59 | N/A | N/A | 23.8 | N/A | N/A | No DM exceedances |
| Temp(w) C | 1 | 2.49 | N/A | N/A | 13 | N/A | N/A | No DM exceedances |
| Zn-D ug/l | 3 | 0 | 0 | 26.38 | 34.83 | N/A | N/A | No |
| Zn-T ug/l | 3 | 0 | 0 | N/A | N/A | 5000 | 2000 | No |

Table 2.7: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | N/A | 2.01 | N/A | N/A |
| Total Phosphorous (mg/L) | 3 | 0.11 | 0.062 | No |

Conejos River SMP reaches CR09 through CR10 (CDPHE segment CORGAL15)

Table 2.8: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|--|------|------------|--------------|
| 8704 | CONEJOS RIVER AT COUNSELORS CABIN, NEAR MOGOTE | WQCD | 37.0605556 | -106.0966667 |

Table 2.9: Assessment of attainment of acute or one-day standards

| Parameter | # Samples (chronic, acute) | Max. measured value | Median of samples measured | Aquatic Life (Chronic) | Aquatic Life (Acute) | Water Supply | Agriculture (TREC) | Exceeding Standard? |
|---------------|----------------------------|---------------------|----------------------------|------------------------|----------------------|--------------|--------------------|---------------------|
| Ag-D ug/l | 8 | 0 | 0 | 0.01 | 0.22 | N/A | N/A | No |
| Ag-T ug/l | 8 | 0 | 0 | N/A | N/A | 100 | N/A | No |
| NH3 mg/l | 8 | 0.036 | 0.0309 | 3.97 | 12.4 | N/A | N/A | No |
| As-D ug/l | 3 | 0 | 0 | 150 | 340 | N/A | N/A | No |
| As-T ug/l | 3 | 0 | 0 | N/A | N/A | 0.02 | 100 | No |
| Cd-D ug/l | 8 | 0 | 0 | 0.16 | 0.55 | N/A | N/A | No |
| Cd-T ug/l | 8 | 0 | 0 | N/A | N/A | 5 | 10 | No |
| Cu-D ug/l | 8 | 0 | 0 | 2.98 | 4 | N/A | N/A | No |
| Cu-T ug/l | 8 | 0 | 0 | N/A | N/A | 1000 | 200 | No |
| DO-D mg/l | 8 | 10.93 | 9.0815 | N/A | 7 | 3 | 3 | No |
| Fe-D ug/l | 8 | 260 | 147.4 | N/A | N/A | 300 | N/A | No |
| Fe-T ug/l | 8 | 3400 | 190 | 1000 | N/A | N/A | N/A | No |
| Hardness mg/l | 8 | 41 | 27.62 | N/A | N/A | N/A | N/A | No |
| Mn-D ug/l | 8 | 11 | 9.9 | 1074.6 | 1944.98 | 50 | N/A | No |
| Mn-T ug/l | 8 | 0 | 7 | N/A | N/A | N/A | 200 | No |
| NO5-T mg/l | 8 | 0 | 0 | N/A | N/A | 10 | 100 | No |
| Pb-D ug/l | 8 | 0 | 0 | 0.61 | 15.53 | N/A | N/A | No |
| Pb-T ug/l | 8 | 0 | 0 | N/A | N/A | 50 | 100 | No |
| pH min | 8 | 7.4 | 7.67 | N/A | 6.5 | 5 | N/A | No |
| pH max | 8 | 8.13 | 7.989 | N/A | 9 | 9 | N/A | No |
| Se-D ug/l | 8 | 0 | 0 | 4.6 | 18.4 | N/A | N/A | No |
| Se-T ug/l | 8 | 0 | 0 | N/A | N/A | 50 | 20 | No |
| SO4-T mg/l | 8 | 4 | 3 | N/A | N/A | 250 | N/A | No |
| Temp(s) C | 4 | 17.85 | N/A | N/A | 23.8 | N/A | N/A | No DM exceedances |
| Temp(w) C | 4 | 4.16 | N/A | N/A | 13 | N/A | N/A | No DM exceedances |
| Zn-D ug/l | 8 | 0 | 0 | 37.61 | 49.66 | N/A | N/A | No |
| Zn-T ug/l | 8 | 0 | 0 | N/A | N/A | 5000 | 2000 | No |

Table 2.10: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | N/A | 2.01 | N/A | N/A |
| Total Phosphorous (mg/L) | 8 | 0.11 | 0.04 | No |

Conejos River SMP reaches CR11 (CDPHE segment CORGAL16)

Table 2.11: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|-----------------------------|------|------------|--------------|
| 8700 | CONEJOS RIVER NEAR LASAUSES | WQCD | 37.3002778 | -105.7472222 |

Table 2.12: Assessment of attainment of acute or one-day standards

| Parameter | # Samples (chronic, acute) | Max. measured value | Median of samples measured | Aquatic Life (Chronic) | Aquatic Life (Acute) | Water Supply | Agriculture (TREC) | Exceeding Standard? |
|---------------|----------------------------|---------------------|----------------------------|------------------------|----------------------|--------------|--------------------|---------------------------|
| Ag-D ug/L | 5, 5 | 0 | 0 | 0.07 | 0.48 | N/A | N/A | No |
| Ag-T ug/L | 5, 5 | 0 | 0 | N/A | N/A | N/A | N/A | No |
| Al-D ug/L | 5, 5 | 120 | 72.60 | N/A | N/A | N/A | N/A | No |
| Al-T ug/L | 5, 5 | 0 | 36 | | | N/A | N/A | No |
| NH3 mg/L | 5, 0 | 0.19 | 0.10 | 11.45 | 8.91 | N/A | N/A | No |
| As-D ug/L | 5, 5 | 1.70 | 1.34 | 7.60 | 340 | N/A | N/A | Yes, Chronic Water Supply |
| As-T ug/L | 5, NA | 2.30 | 2 | N/A | N/A | N/A | 100 | No |
| Cd-D ug/L | 5, 5 | 0 | 0 | 0.22 | 1.31 | N/A | N/A | No |
| Cd-T ug/L | 5, 0 | 0 | 0 | N/A | N/A | N/A | 10 | No |
| Cu-D ug/L | 5, 5 | 0 | 0 | 4.35 | 6.07 | N/A | N/A | No |
| Cu-T ug/L | 5, NA | 0 | 0 | N/A | N/A | N/A | 200 | No |
| DO-D mg/L | 5, 0 | 9.77 | 7.87 | N/A | 5 | 3 | 3 | No |
| Fe-D ug/L | 5, 0 | 220 | 208 | N/A | N/A | N/A | N/A | No |
| Fe-T ug/L | 5, 0 | 1800 | 880 | 1000 | N/A | N/A | N/A | No |
| Hardness mg/L | 5, 0 | 49 | 43 | N/A | N/A | N/A | N/A | No |
| Mn-D ug/L | 5, 5 | 40 | 37 | N/A | N/A | N/A | N/A | No |
| Mn-T ug/L | 5, NA | 0 | 23 | N/A | N/A | N/A | 200 | No |
| Mo-D ug/L | 5, 0 | 1.90 | 1.72 | N/A | N/A | N/A | N/A | No |
| Mo-T ug/L | 5, 0 | 0 | 0 | N/A | N/A | N/A | 160 | No |
| Ni-D ug/L | 5, 5 | 0 | 0 | 25.47 | 229.29 | N/A | N/A | No |
| Ni-T ug/L | 5, NA | 0 | 0 | N/A | N/A | N/A | 200 | No |
| NO5-T mg/L | 5, 5 | 0.19 | 0.02 | N/A | N/A | N/A | 100 | No |
| Pb-D ug/L | 5, 5 | 0.12 | 0.10 | 0.99 | 25.48 | N/A | N/A | No |
| Pb-T ug/L | 5, 0 | 0 | 0.06 | N/A | N/A | N/A | 100 | No |
| pH min | N/A, 5 | 7.67 | 7.75 | N/A | 6.50 | N/A | N/A | No |
| pH max | N/A, 5 | 8.35 | 8.25 | N/A | 9 | N/A | N/A | No |
| Se-D ug/L | 5, 5 | 0.07 | 0.03 | 4.60 | 18.40 | N/A | N/A | No |
| Se-T ug/L | 5, NA | 0 | 0 | N/A | N/A | N/A | 20 | No |
| SO4-T mg/L | 5, 0 | 8.80 | 6.28 | N/A | N/A | N/A | N/A | No |
| U-D ug/L | 5, 5 | 0.45 | 0.34 | N/A | N/A | N/A | N/A | No |
| U-T ug/L | 5, NA | 0 | 0.17 | N/A | N/A | N/A | N/A | No |
| Zn-D ug/L | 5, 5 | 2.70 | 1.08 | 56.25 | 74.27 | N/A | N/A | No |
| Zn-T ug/L | 5, NA | 0 | 0 | N/A | N/A | N/A | 2000 | No |

Table 2.13: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 5 | 2.01 | 0.12 | N/A |
| Total Phosphorous (mg/L) | 6 | 0.11 | 0.06 | No |

1.3 Saguache Creek SMP - Water Quality Data

The tables below highlight any water quality impairments documented within a given Saguache Creek SMP reach.

Saguache Creek SMP reaches SC01-SC02 (CDPHE segment CORGCB12a)

Table 3.1: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|---|------|-----------|-------------|
| 8641 | Johns Creek Above South Fork Saguache Creek | WQCD | 38.003716 | -106.655968 |
| 8639 | Middle Saguache Creek at Stone Cellar | WQCD | 38.014052 | -106.699135 |
| 8638 | North Fork Saguache Creek at Mouth | WQCD | 38.019726 | -106.681783 |

Table 3.2: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard | Water supply standard | Agriculture standard | Exceeding standard? |
|-----------|--------------|---------------------|-----------------------|-----------------------|----------------------|---------------------|
| Ag-D ug/L | 3 | 0.182 | 0.62 | N/A | N/A | No |
| Al-D ug/L | 3 | 318 | N/A | N/A | N/A | No |
| As-D ug/L | 3 | 3.43 | 340 | N/A | N/A | No |
| Cd-D ug/L | 3 | 0 | 0.93 | N/A | N/A | No |
| Cu-D ug/L | 3 | 0 | 7 | N/A | N/A | No |
| Mn-D ug/L | 3 | 19.7 | 2370.43 | 50 | N/A | No |
| Ni-D ug/L | 3 | 0 | 260.58 | N/A | N/A | No |
| Pb-D ug/L | 3 | 0 | 30.15 | N/A | N/A | No |
| pH min | 3 | 7.4 | 6.5 | 5 | N/A | No |
| pH max | 3 | 8.3 | 9 | 9 | N/A | No |
| Se-D ug/L | 3 | 0 | 18.4 | N/A | N/A | No |
| U-D ug/L | 3 | 0 | N/A | N/A | N/A | No |
| Zn-D ug/L | 3 | 2.1 | 85.22 | N/A | N/A | No |

Table 3.3: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard | Water supply standard | Agriculture standard | Median of samples measured | Exceeding standard? |
|-----------|--------------|-----------------------|-----------------------|----------------------|----------------------------|---------------------|
| Al-D ug/L | 3 | N/A | N/A | N/A | 68.7 | No |
| As-D ug/L | 3 | 150 | N/A | N/A | 0.49 | No |
| As-T ug/L | 3 | N/A | 0.02 | 100 | 0.78 | Yes; Water Supply |
| Cd-D ug/L | 3 | 0.25 | N/A | N/A | 0 | No |
| Cl- mg/L | 3 | N/A | 250 | N/A | 0.59 | No |
| Cu-D ug/L | 3 | 4.95 | N/A | N/A | 0 | No |
| DO-D mg/L | 3 | N/A | 3 | 3 | 8.6 | No |
| Fe-D ug/L | 3 | N/A | 300 | N/A | 162 | No |
| Fe-T ug/L | 3 | 1000 | N/A | N/A | 598 | No |

| Parameter | # of samples | Aquatic life standard | Water supply standard | Agriculture standard | Median of samples measured | Exceeding standard? |
|------------|--------------|-----------------------|-----------------------|----------------------|----------------------------|---------------------|
| Hard. mg/L | 3 | N/A | N/A | N/A | 34.9 | No |
| Mn-D ug/L | 3 | 1309.67 | 50 | N/A | 10.1 | No |
| Mo-T ug/L | 3 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 3 | 28.94 | N/A | N/A | 0 | No |
| Pb-D ug/L | 3 | 1.17 | N/A | N/A | 0 | No |
| pH min | 3 | N/A | 5 | N/A | 7.7 | No |
| pH max | 3 | N/A | 9 | N/A | 7.7 | No |
| Se-D ug/L | 3 | 4.6 | N/A | N/A | 0 | No |
| SO4-T mg/L | 3 | N/A | 250 | N/A | 2.8 | No |
| U-D ug/L | 3 | N/A | N/A | N/A | 0 | No |
| Zn-D ug/L | 3 | 64.54 | N/A | N/A | 2.1 | No |

Table 3.4: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 3 | 2.01 | 0.288 | N/A |
| Total Phosphorous (mg/L) | 3 | 0.11 | 0.079 | Yes |

Saguache Creek SMP reach SC03 (CDPHE segment CORGCB12b)

Table 3.5: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------------|----------------------------------|------|------------|-------------|
| USGS-08227000 | Saguache Creek Near Saguache, Co | USGS | 38.1633329 | -106.290583 |
| 8635 | Saguache Creek Near Saguache | WQCD | 38.1633333 | -106.29 |

Table 3.6: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard | Water supply standard | Agriculture standard | Exceeding standard? |
|------------|--------------|---------------------|-----------------------|-----------------------|----------------------|---------------------|
| Ag-D ug/L | 4 | 0 | 0.62 | N/A | N/A | No |
| Ag-T ug/L | 4 | 0 | N/A | 100 | N/A | No |
| Al-D ug/L | 4 | 260 | N/A | N/A | N/A | No |
| Al-T ug/L | 4 | 0 | 0 | N/A | N/A | No |
| As-D ug/L | 20 | 2 | 340 | N/A | N/A | No |
| Cd-D ug/L | 4 | 0 | 0.93 | N/A | N/A | No |
| Cd-T ug/L | 4 | 0 | N/A | 5 | 10 | No |
| Cu-D ug/L | 4 | 0 | 7 | N/A | N/A | No |
| Mn-D ug/L | 4 | 13 | 2370.43 | 50 | N/A | No |
| Ni-D ug/L | 4 | 0 | 260.58 | N/A | N/A | No |
| NO2-T mg/L | 12 | 0.02 | N/A | 1 | 10 | No |
| NO3-T mg/L | 16 | 0.27 | N/A | 10 | 100 | No |
| NO5-T mg/L | 4 | 0.06 | N/A | 10 | 100 | No |
| Pb-D ug/L | 4 | 0 | 30.15 | N/A | N/A | No |
| pH min | 21 | 7.30 | 6.5 | 5 | N/A | No |
| pH max | 21 | 8.40 | 9 | 9 | N/A | No |
| Se-D ug/L | 20 | 2.40 | 18.4 | N/A | N/A | No |
| U-D ug/L | 4 | 0.42 | N/A | N/A | N/A | No |
| Zn-D ug/L | 4 | 21 | 85.22 | N/A | N/A | No |

Table 3.7: Assessment of attainment of chronic or 30-day standards

| Parameter | # of samples | Aquatic life standard | Water supply standard | Agriculture standard | Median of samples measured | Exceeding standard? |
|--------------|--------------|-----------------------|-----------------------|----------------------|----------------------------|---------------------|
| Ag-D ug/L | 4 | 0.02 | N/A | N/A | 0 | No |
| Ag-T ug/L | 4 | N/A | 100 | N/A | 0 | No |
| Al-D ug/L | 4 | N/A | N/A | N/A | 179 | No |
| Al-T ug/L | 4 | 0 | N/A | N/A | 75.5 | No |
| NH3 mg/L | 14 | 9.61 | N/A | N/A | 0.02 | No |
| As-D ug/L | 20 | 150 | N/A | N/A | 1.73 | No |
| As-T ug/L | 20 | N/A | 0.02 | 100 | 1.3 | Yes; Water Supply |
| Boron-T ug/L | 16 | N/A | N/A | 750 | 7 | No |

| Parameter | # of samples | Aquatic life standard | Water supply standard | Agriculture standard | Median of samples measured | Exceeding standard? |
|------------|--------------|-----------------------|-----------------------|----------------------|----------------------------|----------------------|
| Cd-D ug/L | 4 | 0.25 | N/A | N/A | 0 | No |
| Cd-T ug/L | 4 | N/A | 5 | 10 | 0 | No |
| Cl- mg/L | 16 | N/A | 250 | N/A | 1.15 | No |
| Cu-D ug/L | 4 | 4.95 | N/A | N/A | 0 | No |
| Cu-T ug/L | 4 | N/A | 1000 | 200 | 0 | No |
| DO-D mg/L | 20 | N/A | 3 | 3 | 8.17 | No |
| Fe-D ug/L | 20 | N/A | 300 | N/A | 204.5 | No |
| Fe-T ug/L | 4 | 1000 | N/A | N/A | 1350 | Yes; Aquatic Life |
| Hard. mg/L | 20 | N/A | N/A | N/A | 50.02 | No |
| Mn-D ug/L | 4 | 1309.67 | 50 | N/A | 11.65 | No |
| Mn-T ug/L | 4 | N/A | N/A | 200 | 9.95 | No |
| Mo-T ug/L | 4 | N/A | 210 | 160 | 0 | No |
| Ni-D ug/L | 4 | 28.94 | N/A | N/A | 0 | No |
| Ni-T ug/L | 4 | N/A | 100 | 200 | 0 | No |
| NO2-T mg/L | 12 | N/A | 1 | 10 | 0 | No |
| NO3-T mg/L | 16 | N/A | 10 | 100 | 0.09 | No |
| NO5-T mg/L | 4 | N/A | 10 | 100 | 0 | No |
| Pb-D ug/L | 4 | 1.17 | N/A | N/A | 0 | No |
| Pb-T ug/L | 4 | N/A | 50 | 100 | 0 | No |
| pH min | N/A | N/A | 5 | N/A | 7.6 | No |
| pH max | N/A | N/A | 9 | N/A | 8.2 | No |
| Se-D ug/L | 20 | 4.6 | N/A | N/A | 0.12 | No |
| Se-T ug/L | 20 | N/A | 50 | 20 | 0.08 | No |
| SO4-T mg/L | 20 | N/A | 250 | N/A | 6.54 | No |
| U-D ug/L | 4 | N/A | N/A | N/A | 0.38 | No |
| U-T ug/L | 4 | N/A | 30 | N/A | 0.29 | No |
| Zn-D ug/L | 4 | 64.54 | N/A | N/A | 16.95 | No |
| Zn-T ug/L | 4 | N/A | 5000 | 2000 | 12 | No |

Table 3.8: Assessment of nutrient attainment

| Parameter | # of samples | Aquatic life standard (chronic) | Median of samples measured | Exceeding standard? |
|--------------------------|--------------|---------------------------------|----------------------------|---------------------|
| Total Nitrogen (mg/L) | 13 | 2.01 | 0.42 | N/A |
| Total Phosphorous (mg/L) | 20 | 0.11 | 0.13 | Yes |

Saguache Creek SMP reach SC03 - Water Temperature

Table 3.9: Water temperature standards

| Season | MWAT | DM |
|--------------|------|------|
| April – Oct. | 18.3 | 23.9 |
| Nov. – March | 9.0 | 13.0 |

Table 3.10: Assessment of water temperature attainment

| Season | Number of Exceedances (MWAT) | Number of Exceedances (DM) |
|--------|------------------------------|----------------------------|
| Winter | 0 | 0 |
| Summer | 26 | 37 |

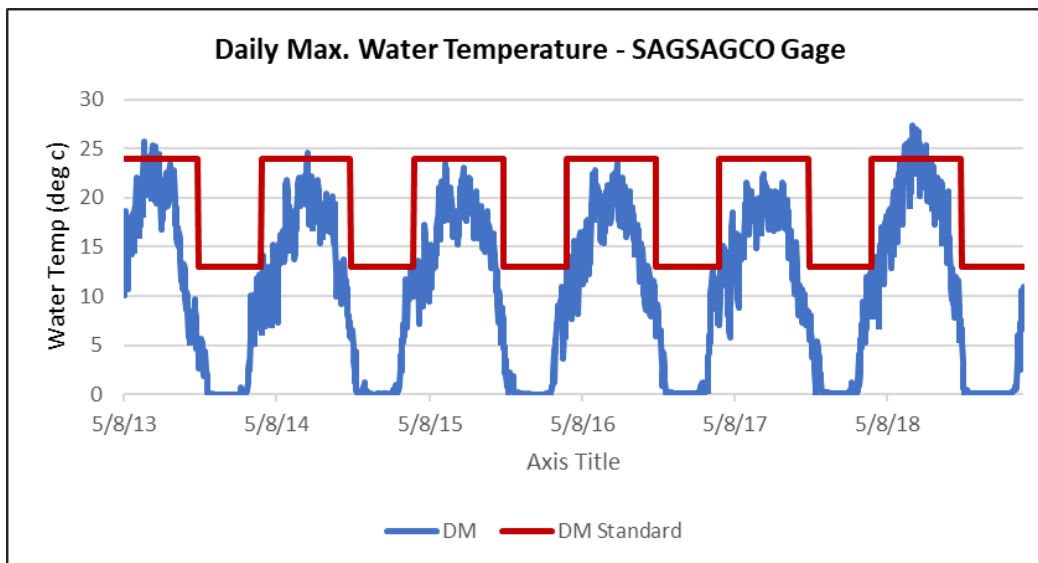


Figure 2.1: Daily maximum water temperature and corresponding seasonal standards at the Saguache Creek Near Saguache, Co streamgage

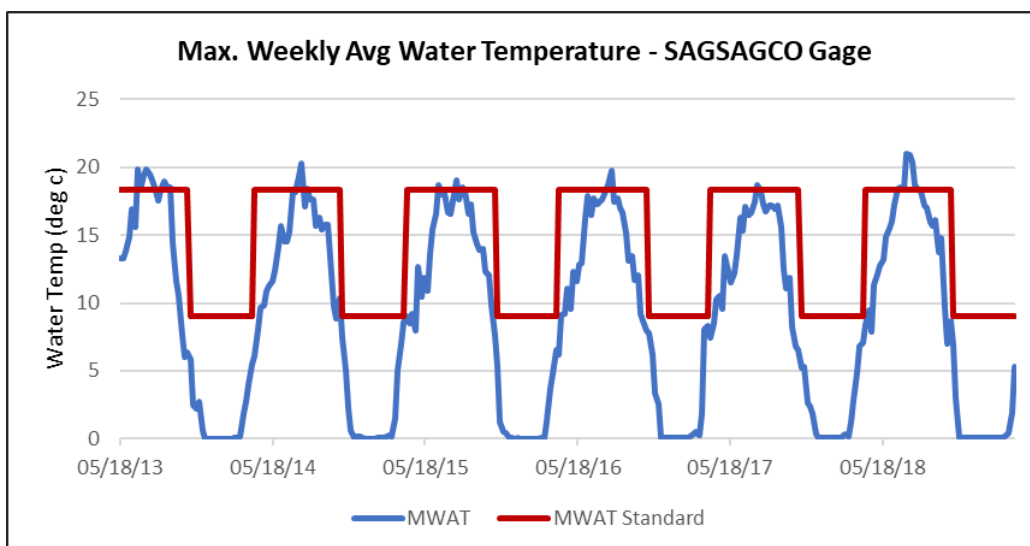


Figure 2.2: Maximum weekly average water temperature and corresponding seasonal standards at the Saguache Creek Near Saguache, Co streamgage

Saguache Creek SMP reach SC04 (CDPHE segment CORGCB12c)

Table 3.11: Water quality sampling site information

| Site ID | Site description | Org | Latitude | Longitude |
|---------|---------------------------------|----------|-----------|-------------|
| 352 | Saguache Creek at County Road Z | CORIVWCH | 38.088149 | -106.180433 |

Table 3.12: Assessment of attainment of acute or one-day standards

| Parameter | # of samples | Max. measured value | Aquatic life standard | Water supply standard | Agriculture standard | Exceeding standard? |
|-----------|--------------|---------------------|-----------------------|-----------------------|----------------------|----------------------|
| Al-D ug/L | 1 | 7 | N/A | N/A | N/A | No |
| Al-T ug/L | 1 | 764 | 0 | N/A | N/A | No |
| As-D ug/L | 1 | 0 | 340 | N/A | N/A | No |
| As-T ug/L | 1 | 0 | N/A | 0.02 | 100 | No |
| Cd-D ug/L | 1 | 1.06 | 0.93 | N/A | N/A | Yes; Aquatic Life |
| Cd-T ug/L | 1 | 2.32 | N/A | 5 | 10 | No |
| Cu-D ug/L | 1 | 1.5 | 7 | N/A | N/A | No |
| Fe-T ug/L | 1 | 1049 | 1000 | N/A | N/A | Yes; Aquatic Life |
| Mn-D ug/L | 1 | 22 | 2370.43 | 50 | N/A | No |
| Pb-D ug/L | 1 | 9 | 30.15 | N/A | N/A | No |
| pH min | 1 | 7.56 | 6.5 | 5 | N/A | No |
| pH max | 1 | 7.91 | 9 | 9 | N/A | No |
| Se-D ug/L | 1 | 0 | 18.4 | N/A | N/A | No |
| Zn-D ug/L | 1 | 0 | 85.22 | N/A | N/A | No |

1.4 Supplemental SMP Water Quality Data

Table 4.1: Rio Grande Headwaters Restoration Project supplemental data

| SMP Reach | Latitude | Longitude | Date | pH | Conductivity (mg/L) | Water Temperature (deg C) | DO (mg/L) |
|-----------|----------|-----------|-----------|------------------|---------------------|---------------------------|-----------|
| RG02 | 37.75452 | -107.4129 | 9/26/2018 | 7.8 | 50 | 8.0 | 7.35 |
| RG02 | 37.75452 | -107.4129 | 4/17/2019 | 7.1 | 60 | 8.6 | 7.4 |
| RG03 | 37.77122 | -107.1448 | 9/26/2018 | 7.6 | 50 | 12.0 | 8.16 |
| RG03 | 37.77122 | -107.1448 | 4/17/2019 | 7.2 | 50 | 8.8 | 8.12 |
| RG04 | 37.72713 | -107.0197 | 8/17/2018 | 8.1 | 60 | 15.0 | 7.2 |
| RG04 | 37.72713 | -107.0197 | 4/17/2019 | 7.8 | 40 | 9.1 | 8.01 |
| RG07 | 37.75352 | -106.7681 | 8/17/2018 | 8.1 | 40 | 16.0 | 7.5 |
| RG07 | 37.75352 | -106.7681 | 4/17/2019 | 7.9 | 40 | 9.3 | 7.98 |
| RG09 | 37.68909 | -106.4558 | 8/17/2018 | 8.2 | 40 | 18.0 | 7.9 |
| RG09 | 37.68909 | -106.4558 | 4/17/2019 | 7.9 | 50 | 9.5 | 7.9 |
| RG11 | 37.62918 | -106.2173 | 8/17/2018 | 8.9 | 50 | 19.0 | 7.1 |
| RG11 | 37.62918 | -106.2173 | 4/29/2019 | 7.8 | 60 | 9.5 | 7.79 |
| RG12 | 37.58062 | -106.0799 | 8/17/2018 | 8.2 | 60 | 18.0 | 7.1 |
| RG12 | 37.58062 | -106.0799 | 4/29/2019 | 8.1 | 50 | 9.8 | 7.84 |
| RG13 | 37.52529 | -105.939 | 8/17/2018 | 7.8 | 100 | 25.0 | 6.8 |
| RG13 | 37.52529 | -105.939 | 4/29/2019 | 7.9 | 80 | 10.5 | 7.9 |
| RG15 | 37.42989 | -105.7897 | 8/17/2018 | 8.3 | 190 | 18.0 | 7.2 |
| RG15 | 37.42989 | -105.7897 | 4/29/2019 | 8.0 | 150 | 10.8 | 7.4 |
| RG16 | 37.30344 | -105.7358 | 8/24/2018 | 8.6 | 190 | 17.0 | 7.3 |
| RG17 | 37.14374 | -105.7442 | 8/15/2018 | 8.6 | 170 | 23.0 | 6.8 |
| CR01 | 37.35348 | -106.5229 | 8/22/2018 | 9.3 | 60 | 13.0 | 8.8 |
| CR01 | 37.35348 | -106.5229 | 4/30/2019 | 8.1 | 50 | 8.8 | 8.12 |
| CR03 | 37.32554 | -106.474 | 8/22/2018 | 8.8 | 60 | 13.0 | 8.4 |
| CR03 | 37.32554 | -106.474 | 4/30/2019 | 7.5 | 40 | 9.0 | 8.19 |
| CR04 | 37.26104 | -106.4704 | 8/22/2018 | 8.3 | 90 | 13.0 | 8.6 |
| CR04 | 37.26104 | -106.4704 | 4/30/2019 | 7.8 | 80 | 8.9 | 8.08 |
| CR05 | 37.16964 | -106.443 | 8/21/2018 | 8.5 | 60 | 20.0 | 7.8 |
| CR05 | 37.16964 | -106.443 | 4/30/2019 | 7.7 | 50 | 9.5 | 7.98 |
| CR05 | 37.13089 | -106.3903 | 8/21/2018 | 8.2 | 60 | 21.0 | 8.2 |
| CR05 | 37.13089 | -106.3903 | 4/30/2019 | 7.8 | 50 | 9.9 | 8.01 |
| CR06 | 37.0986 | -106.3093 | 8/21/2018 | 8.8 | 40 | 19.0 | 7.7 |
| CR06 | 37.0986 | -106.3093 | 4/30/2019 | 8.0 | 40 | 10.2 | 7.9 |
| CR08 | 37.05079 | -106.1526 | 8/21/2018 | 8.3 | 40 | 19.0 | 7.7 |
| CR08 | 37.05079 | -106.1526 | 4/30/2019 | 8.6 | 30 | 10.6 | 7.87 |
| CR09 | 37.10123 | -106.0107 | 8/15/2018 | 8.1 | 30 | 20.0 | 7.5 |
| CR09 | 37.10123 | -106.0107 | 4/30/2019 | 8.4 | 30 | 10.8 | 7.92 |
| CR10 | 37.13415 | -105.923 | 9/24/2018 | Dry, not sampled | N/A | N/A | N/A |
| CR10 | 37.13415 | -105.923 | 4/30/2019 | 8.2 | 50 | 10.9 | 7.84 |
| CR11 | 37.1941 | -105.8857 | 9/24/2018 | Dry, not sampled | N/A | N/A | N/A |
| CR11 | 37.29717 | -105.7981 | 7/31/2018 | 8.3 | 70 | 20.0 | 7.6 |
| CR11 | 37.29717 | -105.7981 | 4/30/2019 | 8.1 | 60 | 11.1 | 7.8 |
| SC01 | 38.01642 | -106.6475 | 10/1/2018 | 7.9 | 40 | 12.0 | 8.2 |
| SC02 | 38.07283 | -106.521 | 10/1/2018 | 8.1 | 40 | 12.0 | 7.2 |
| SC02 | 38.07283 | -106.521 | 4/27/2019 | 7.8 | 40 | 7.2 | 8.34 |
| SC03 | 38.12995 | -106.4566 | 10/1/2018 | 7.6 | 50 | 12.0 | 7 |

| SMP Reach | Latitude | Longitude | Date | pH | Conductivity (mg/L) | Water Temperature (deg C) | DO (mg/L) |
|-----------|----------|-----------|-----------|-----|---------------------|---------------------------|-----------|
| SC03 | 38.12995 | -106.4566 | 4/27/2019 | 7.4 | 40 | 8.3 | 8.45 |
| SC03 | 38.16328 | -106.2901 | 9/23/2018 | 7.5 | 60 | 11.2 | 7.2 |
| SC03 | 38.16328 | -106.2901 | 4/27/2019 | 7.9 | 40 | 8.4 | 8.52 |
| SC03 | 38.16328 | -106.2901 | 4/27/2019 | 7.1 | 40 | 8.5 | 8.47 |
| SC04 | 38.10974 | -106.2279 | 9/24/2018 | 8.4 | 60 | 11.4 | 7.24 |
| SC04 | 38.10974 | -106.2279 | 4/27/2019 | 8.0 | 50 | 8.8 | 8.6 |
| SC05 | 38.07481 | -106.1531 | 9/24/2018 | 7.9 | 70 | 11.0 | 6.86 |
| SC05 | 38.07481 | -106.1531 | 4/27/2019 | 7.7 | 50 | 9.0 | 8.4 |

Table 4.2: Rio Grande Natural Area River Condition Assessment supplemental data

| SMP Reach | Date | pH | Water Temperature (deg C) | Turbidity (NTU) |
|-----------|--------|------|---------------------------|-----------------|
| RG17 | May-14 | 8.48 | 9.6 | 9.2 |
| RG17 | May-14 | 8.4 | 12.3 | 10.9 |

Table 4.3: BLM Aquatic Assessment, Inventory, and Monitoring (AIM) Program supp.

| SMP Reach | Date | pH | Water Temperature (deg C) | Latitude | Longitude | Total Nitrogen (mg/L) | Total Phosphorous (mg/L) | Specific Conductance (μS/cm) |
|-----------|--------|------|---------------------------|----------|------------|-----------------------|--------------------------|------------------------------|
| RG16 | Sep-16 | 7.91 | 25.2 | 37.21935 | -105.74532 | 0.3609 | 0.1094 | 215.9 |
| RG17 | Sep-16 | 8.54 | 25.3 | 37.01342 | -105.74118 | 0.4472 | 0.1239 | 242.9 |
| RG17 | Sep-16 | 8.19 | 15.5 | 37.30267 | -105.73241 | 0.511 | 0.1401 | 235.5 |
| RG17 | Sep-16 | 8.2 | 15 | 37.18023 | -105.72992 | 0.4595 | 0.1096 | 250.5 |
| CR11 | Sep-16 | 6.97 | 18.4 | 37.29742 | -105.79783 | 0.1224 | 0.0436 | 108.4 |

2 Rio Grande, Conejos River, and Saguache Creek Aquatic Life Datasets

The tables below summarize macroinvertebrate and trout biomass data for each SMP reach.

2.1 Rio Grande SMP Aquatic Life Data

| Rio Grande SMP | | Metrics | | | | | Reach Rating | |
|----------------|-----------------|-----------|------------------------------|-------------------------|------------------------------|----------------------------|-------------------------|--------------|
| SMP Reach | MMI Data Source | MMI Score | Avg MMI Score | Overall MMI Rating | Trout (lbs/acre) | Trout Rating | Overall Score | Reach Rating |
| RG01 | See RG02 | See RG02 | 74.3 (inferred from RG02) | B+ (inferred from RG02) | N/A | N/A | 88 (inferred from RG02) | B+ |
| RG02 | RGHRP | 84.8 | 74.3 | B+ | N/A | N/A | 88 | B+ |
| | URGWA | 63.8 | | | | | | |
| RG03 | URGWA | 40.5 | 50.8 | C | N/A | N/A | 75 | C |
| | URGWA | 61.1 | | | | | | |
| RG04 | RGHRP | 93 | 78.0 | B+ | N/A | N/A | 88 | B+ |
| | URGWA | 63 | | | | | | |
| RG05 | See RG06 | See RG06 | 84.4 (inferred from RG06) | A- (inferred from RG06) | N/A | N/A | 91 | A- |
| RG06 | URGWA | 84.4 | 84.4 | A- | N/A | N/A | 91 | A- |
| RG07 | RGHRP | 60.3 | 67.0 | B- | 62.8 | A | 88 | B+ |
| | URGWA | 73.6 | | | | | | |
| RG08 | See RG07 | See RG07 | 67 (inferred from RG07) | B- (inferred from RG07) | 62.8 (inferred from RG07) | 88 (inferred from RG07) | 88 (inferred from RG07) | B+ |
| RG09 | MRP | 75.5 | 74.9 | B+ | >60.0 | A | 91.5 | A- |
| | MRP | 77.2 | | | | | | |
| | MRP | 78.7 | | | | | | |
| | URGWA | 68.3 | | | | | | |
| RG10 | N/A | N/A | N/A | N | 133.6 | A | 95 | A |
| RG11 | RGHRP | 88.2 | 84.2 | A- | N/A | N/A | 91 | A- |
| | MRP | 80.1 | | | | | | |
| RG12 | RGHRP | 72.7 | 72.7 | B | N/A | N/A | 85 | B |
| RG13 | MRP | 42.3 | 53.3 | C | N/A | N/A | 75 | C |
| | RGHRP | 64.3 | | | | | | |
| RG14 | See RG13 | See RG13 | 53.3 (inferred from RG13) | C (inferred from RG13) | N/A | N/A | 75 (inferred from RG13) | C |
| RG15 | RGHRP | 58.3 | 58.3 | C+ | N/A | N/A | 78 | C+ |
| RG16 | RGHRP | 56.3 | 56.3 | C | N/A | N/A | 75 | C |
| RG17 | RGHRP | 19.6 | 30.6 | F+ | N/A | N/A | 55 | F+ |
| | BLM AIM | 47.6 | | | | | | |
| | BLM AIM | 24.5 | | | | | | |

2.2 Conejos River SMP Aquatic Life Data

| Conejos River SMP | | Metrics | | | | | Reach Rating | |
|-------------------|-----------------|------------------------------|------------------------------|-------------------------|------------------------------|------------------------|------------------------------|--------------|
| SMP Reach | MMI Data Source | MMI Score | Avg MMI Score | Overall MMI Rating | Trout (lbs/acre) | Trout Rating | Overall Rating | Reach Rating |
| CR01 | RGHRP | 40.5 | 40.5 | D- | 59.2 (inferred from CR02) | B+ | 75 | C |
| CR02 | See CR01 | 40.5 (inferred from CR01) | 40.5 (inferred from CR01) | D- (inferred from CR01) | 59.2 | B+ | 75 | C |
| CR03 | RGHRP | 72.2 | 72.2 | B | N/A | N/A | 85 | B |
| CR04 | RGHRP | 55.8 | 55.8 | C | N/A | N/A | 75 | C |
| CR05 | RGHRP | 85.5 | 82.8 | A- | 42.8 | B | 88 | B+ |
| | RGHRP | 80.1 | | | | | | |
| CR06 | RGHRP | 57.8 | 69.0 | B- | >60 | A | 89.5 | A- |
| | WQCD | 80.1 | | | | | | |
| CR07 | See CR06 | See CR06 | 69.0 (inferred from CR06) | B- (inferred from CR06) | >60 (inferred from CR06) | A (inferred from CR06) | 89.5 (inferred from CR06) | A- |
| CR08 | RGHRP | 84.6 | 84.8 | A- | N/A | N/A | 91 | A- |
| | WQCD | 84.9 | | | | | | |
| CR09 | RGHRP | 76.5 | 76.5 | B+ | N/A | N/A | 88 | B+ |
| CR10 | See RCR11 | 72.9 (inferred from CR11) | 72.9 (inferred from CR11) | B (inferred from CR11) | N/A | N/A | N/A | B- |
| CR11 | RGHRP | 72.9 | 72.9 | B | N/A | N/A | 85 | B |

2.3 Saguache Creek SMP Aquatic Life Data

| Saguache Creek SMP | | Metrics | | | Reach Rating | |
|--------------------|-----------------|-----------|---------------|--------------------|----------------|--------------|
| SMP Reach | MMI Data Source | MMI Score | Avg MMI Score | Overall MMI Rating | Overall Rating | Reach Rating |
| SC01 | RGHRP | 76.5 | 76.5 | B+ | B+ | B+ |
| SC02 | RGHRP | 89 | 89 | A | A | A |
| SC03 | RGHRP | 92 | 77 | B+ | B+ | B+ |
| | MRP | 61.9 | | | | |
| SC04 | RGHRP | 68.5 | 68.5 | B- | B- | B- |
| SC05 | RGHRP | 52.2 | 52.2 | C | C | C |