

Cumberland County Stream Team Data Interpretation Workbook



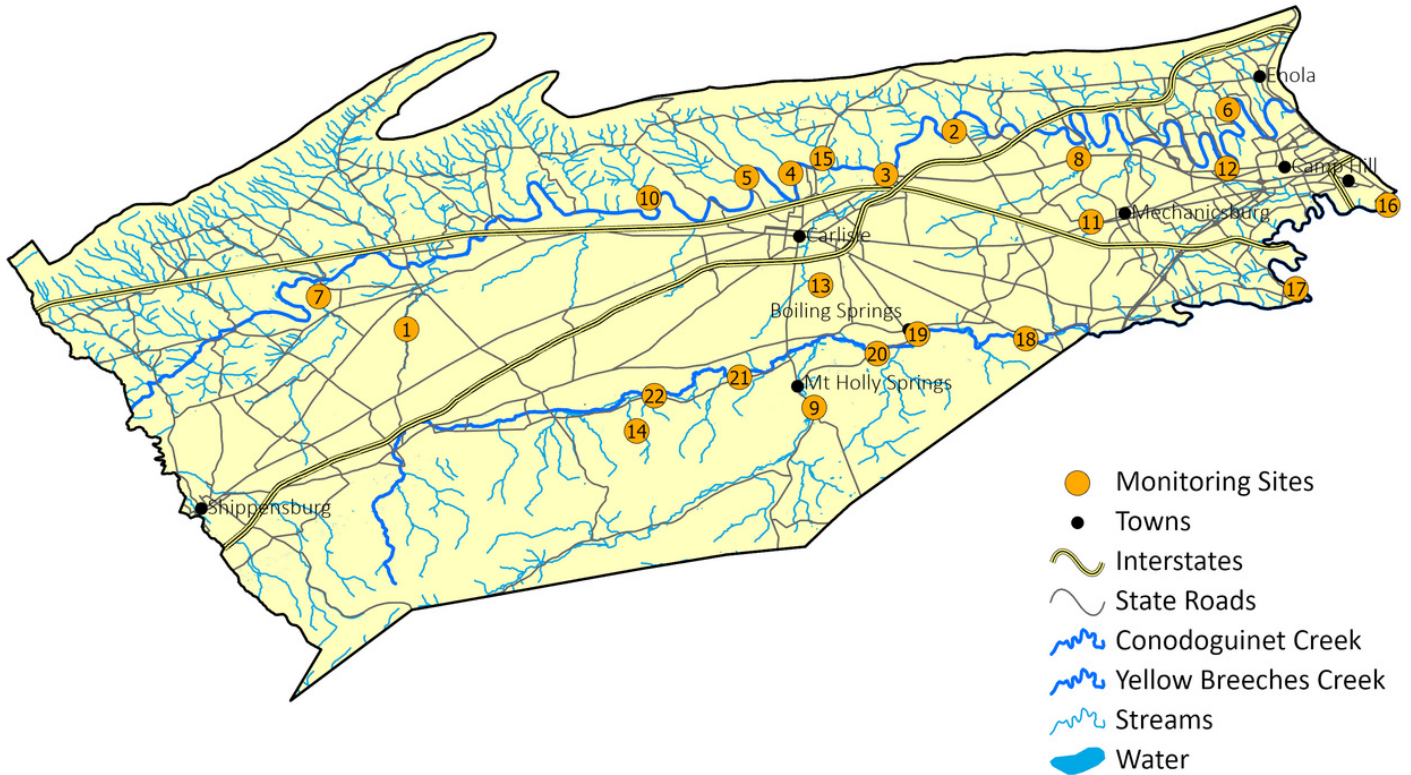
Dickinson

Stream Team | streamteam@dickinson.edu
Alliance for Aquatic Resource Monitoring (ALLARM)
dickinson.edu/ALLARM | [@ALLARMwater](https://www.instagram.com/ALLARMwater) | 717.245.1565

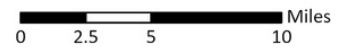


Monitoring Site Locations

Monitoring Site Locations Cumberland County Stream Team



 Alliance for Aquatic Resource Monitoring
 Dickinson College
www.dickinson.edu/ALLARM
 Data sources: ALLARM, PA DOT, USDA/NRCS, USGS
 Map updated: February 2024

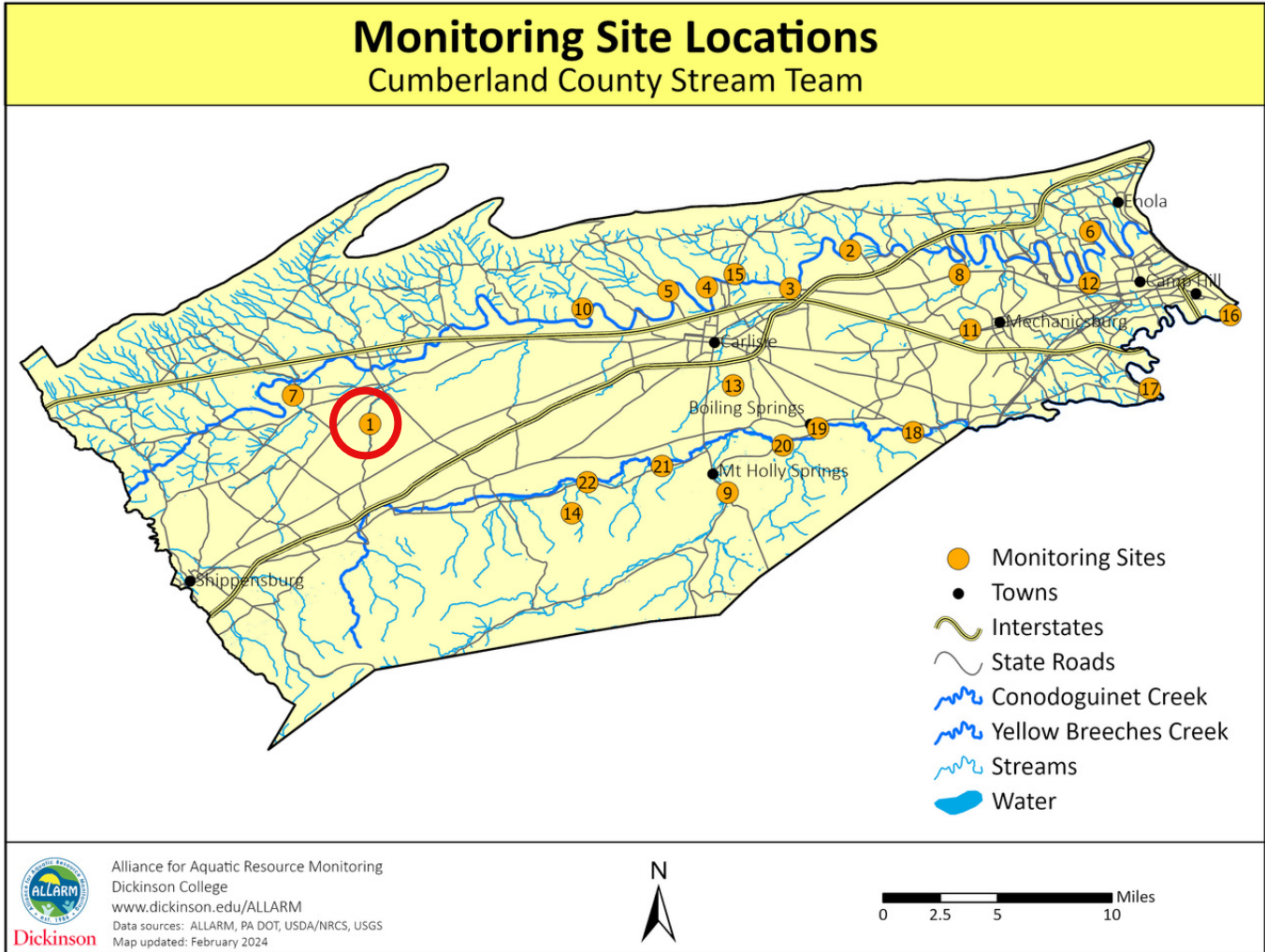


| Site Number | Name | Site ID |
|-------------|----------------------|---------------|
| 1 | Big Spring Creek | BIGSPRCRE3.45 |
| 2 | Scott Farm bridge | CONCRE27.96 |
| 3 | LeTort Falls Park | CONCRE32.47 |
| 4 | Creekview Park | CONCRE35.82 |
| 5 | North Middleton Park | CONCRE39.03 |
| 6 | Acri Meadow Park | CONCRE6.09 |
| 7 | Green Spring Creek | GRESPCRE0.16 |
| 8 | Hogestown Run | HOGRUN0.98 |
| 9 | Holly Preserve | MOUCRE2.65 |
| 10 | Opossum Creek | OPOCRE0.19 |
| 11 | Trindle Spring Run | TRISPRRUN5.03 |

| Site Number | Name | Site ID |
|-------------|-------------------------------|------------------|
| 12 | Orrs Bridge Spring | UNTCONCRE8.8 |
| 13 | LeTort Headwaters | UNTLETSPRRUN0.65 |
| 14 | Kings Gap Run | UNTYELBREC1.25 |
| 15 | Wertz Run | WERRUN0.34 |
| 16 | New Cumberland Borough Park | YELBREC0.85 |
| 17 | Lower Allen Community Park | YELBREC13.63 |
| 18 | Yellow Breeches Creek | YELBREC23.6 |
| 19 | Behind Children's Lake | YELBREC32.32 |
| 20 | South Middleton Township Park | YELBREC34.93 |
| 21 | Barnitz Mill | YELBREC36.90 |
| 22 | Yellow Breeches Fishing Spot | YELBREC40.75 |

Big Spring Creek (BIGSPRCRE 3.45)

Monitor(s): Don Horn & Paul Christman



Site information:

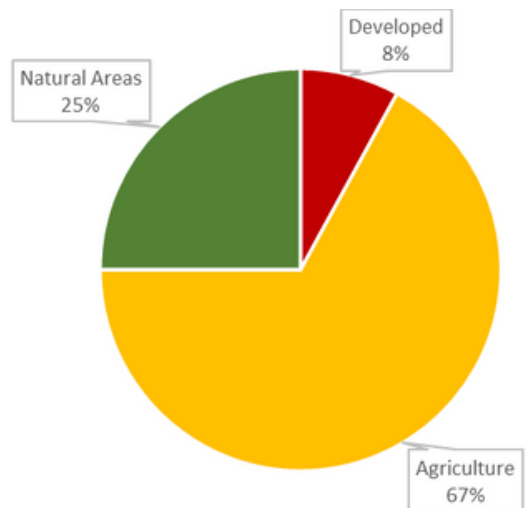
Drains: 7 mi²

Impaired: Yes, aquatic life (organic enrichment, siltation)

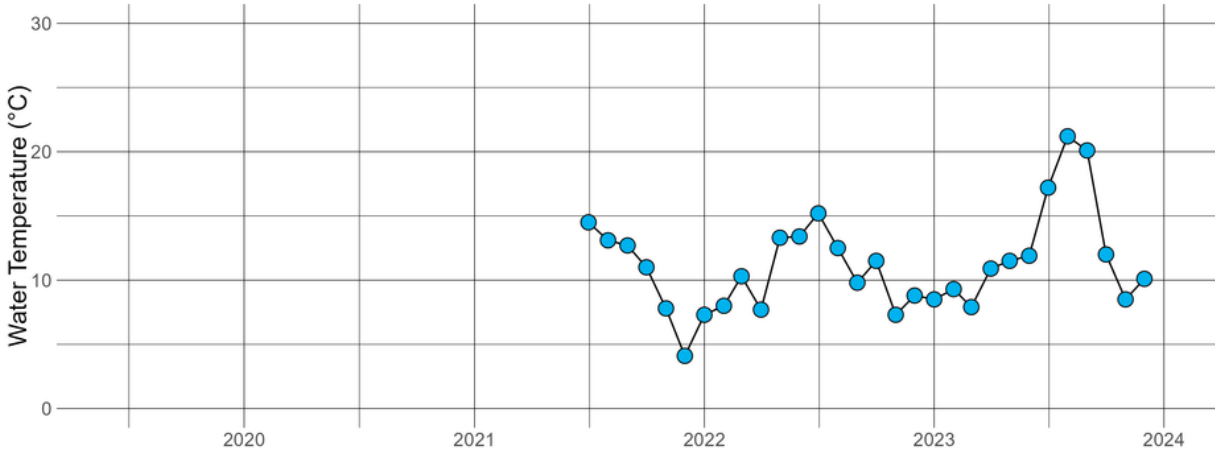
Designation: Cold water fishes (CWF)

Geology: 100% Calcareous

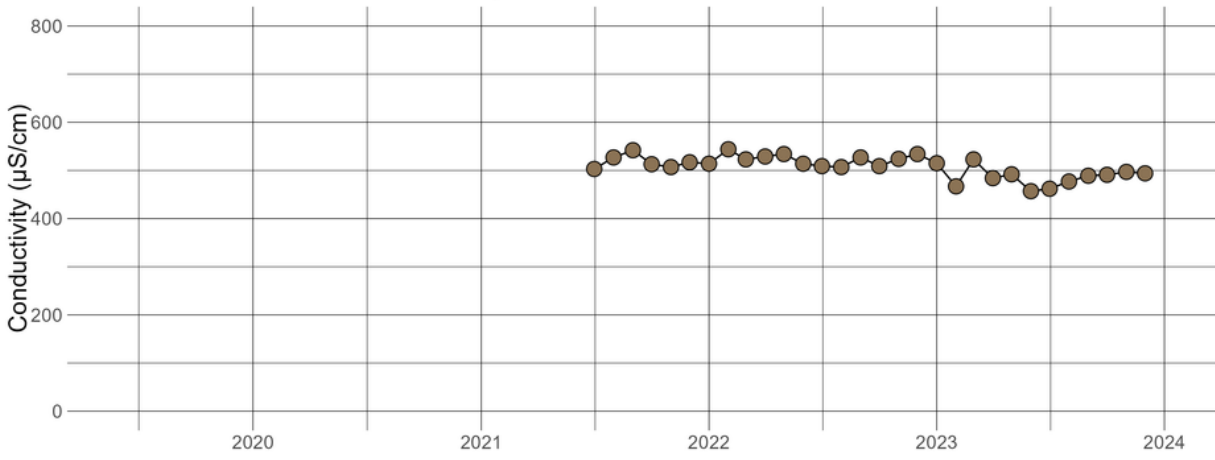
Land Use



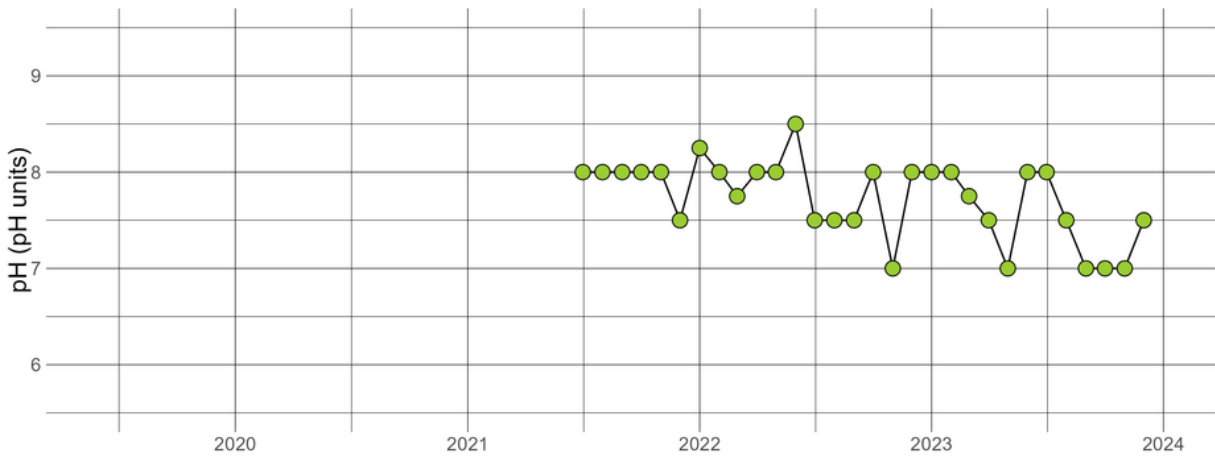
BIGSPRCRE3.45 - Water Temperature



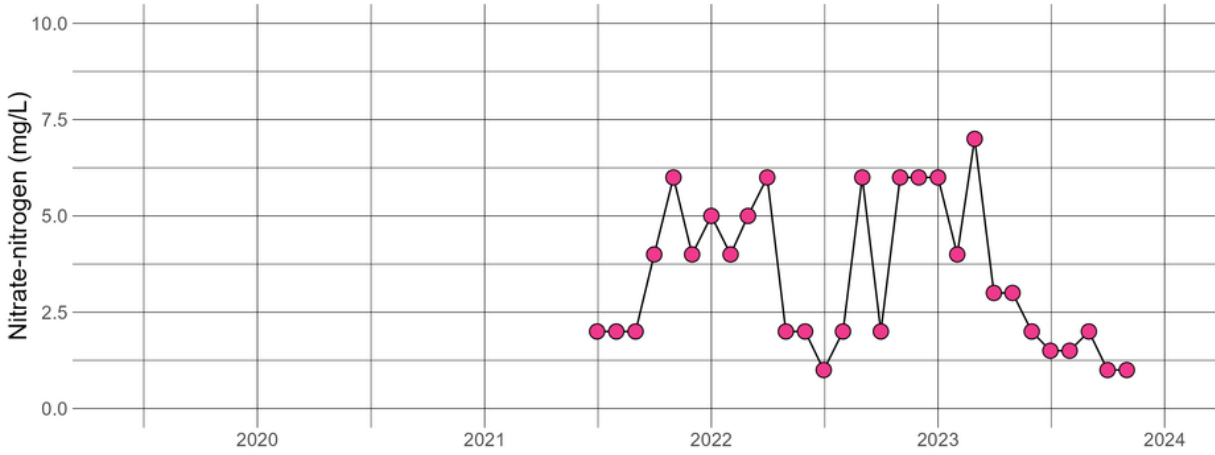
BIGSPRCRE3.45 - Conductivity



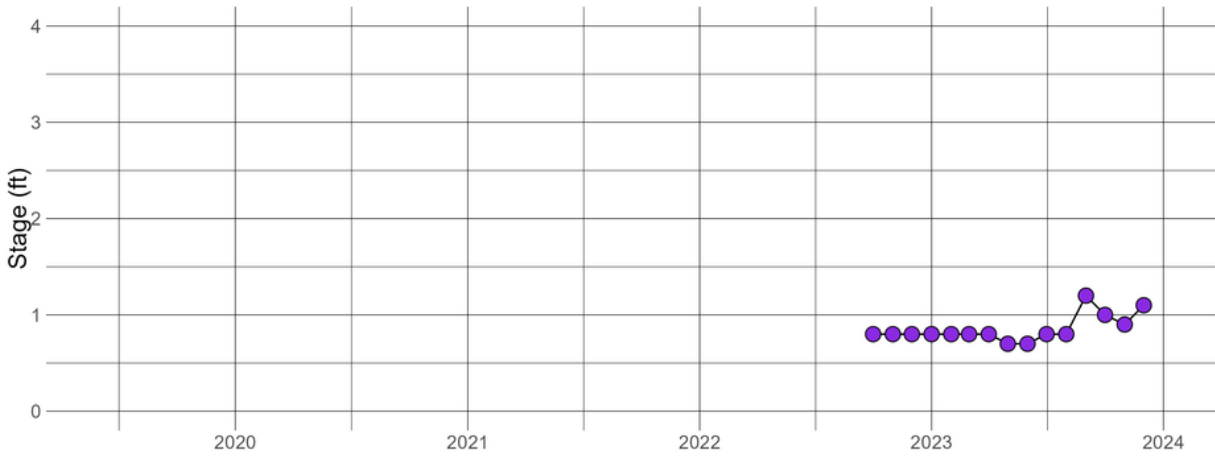
BIGSPRCRE3.45 - pH



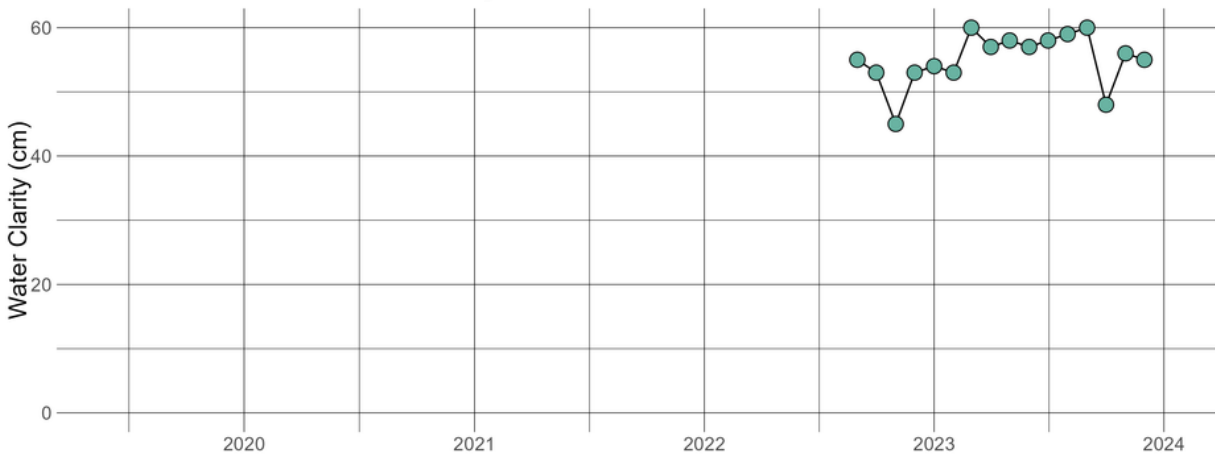
BIGSPRCRE3.45 - Nitrate-nitrogen



BIGSPRCRE3.45 - Stage



BIGSPRCRE3.45 - Water Clarity



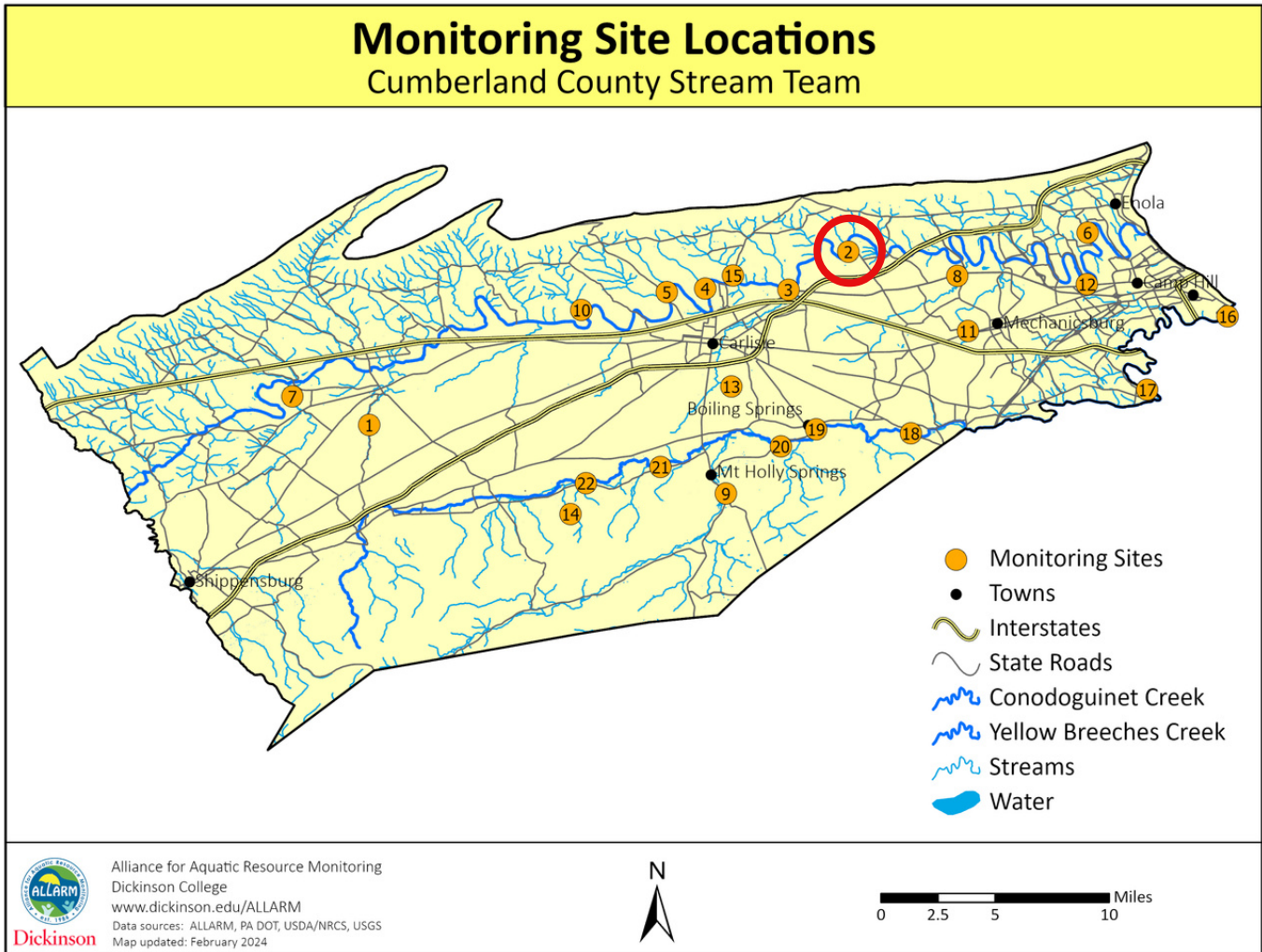
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jul-21 | 503 | 2 | 8 | | | 14.5 |
| Aug-21 | 527 | 2 | 8 | | | 13.1 |
| Sep-21 | 542 | 2 | 8 | | | 12.7 |
| Oct-21 | 513 | 4 | 8 | | | 11 |
| Nov-21 | 507 | 6 | 8 | | | 7.8 |
| Dec-21 | 517 | 4 | 7.5 | | | 4.1 |
| Jan-22 | 514 | 5 | 8.25 | | | 7.3 |
| Feb-22 | 544 | 4 | 8 | | | 8 |
| Mar-22 | 523 | 5 | 7.75 | | | 10.3 |
| Apr-22 | 529 | 6 | 8 | | | 7.7 |
| May-22 | 534 | 2 | 8 | | | 13.3 |
| Jun-22 | 514 | 2 | 8.5 | | | 13.4 |
| Jul-22 | 509 | 1 | 7.5 | | | 15.2 |
| Aug-22 | 507 | 2 | 7.5 | | | 12.5 |
| Sep-22 | 527 | 6 | 7.5 | | 55 | 9.8 |
| Oct-22 | 509 | 2 | 8 | 0.8 | 53 | 11.5 |
| Nov-22 | 524 | 6 | 7 | 0.8 | 45 | 7.3 |
| Dec-22 | 534 | 6 | 8 | 0.8 | 53 | 8.8 |
| Jan-23 | 515 | 6 | 8 | 0.8 | 54 | 8.5 |
| Feb-23 | 467 | 4 | 8 | 0.8 | 53 | 9.3 |
| Mar-23 | 523 | 7 | 7.75 | 0.8 | 60 | 7.9 |
| Apr-23 | 484 | 3 | 7.5 | 0.8 | 57 | 10.9 |
| May-23 | 492 | 3 | 7 | 0.7 | 58 | 11.5 |
| Jun-23 | 457 | 2 | 8 | 0.7 | 57 | 11.9 |
| Jul-23 | 462 | 1.5 | 8 | 0.8 | 58 | 17.2 |
| Aug-23 | 477 | 1.5 | 7.5 | 0.8 | 59 | 21.2 |
| Sep-23 | 489 | 2 | 7 | 1.2 | 60 | 20.1 |
| Oct-23 | 491 | 1 | 7 | 1 | 48 | 12 |
| Nov-23 | 497 | 1 | 7 | 0.9 | 56 | 8.5 |
| Dec-23 | 494 | | 7.5 | 1.1 | 55 | 10.1 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 457 | 544 | 87 | 508 | 511 |
| Nitrate-Nitrogen | 1 | 7 | 6 | 3.4 | 3 |
| pH | 7 | 8.5 | 1.5 | 7.7 | 8 |
| Stage | 0.7 | 1.2 | 0.5 | 0.85 | 0.8 |
| Water Clarity | 45 | 60 | 15 | 55 | 56 |
| Water Temp. | 4.1 | 21 | 17 | 11 | 11 |

Conodoguinet at Scott Farm bridge (CONCRE 27.96)

Monitor(s): Jane & Randy Greber



Site information:

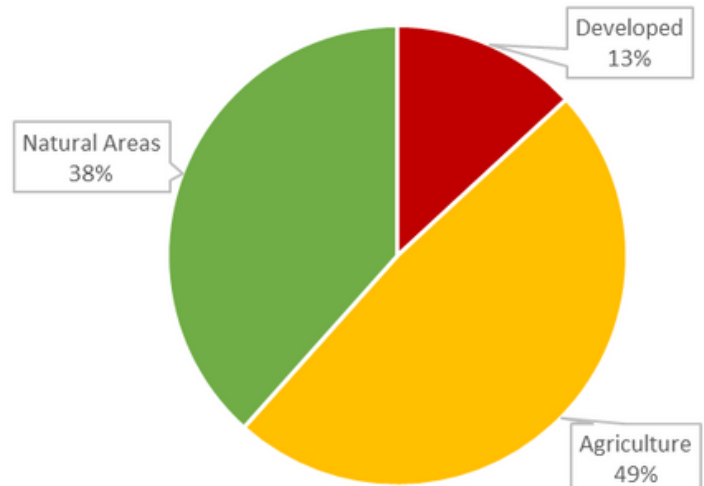
Drains: 426 mi²

Impaired: Yes, aquatic Life

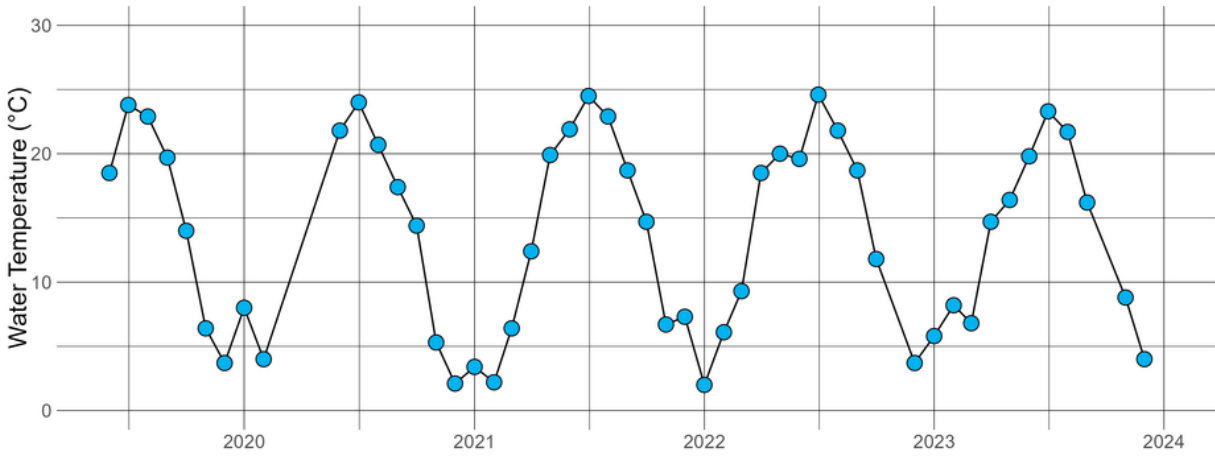
Designation: Warm water fishes (WWF)

Geology: 35% Calcareous, 65% Non-calcareous

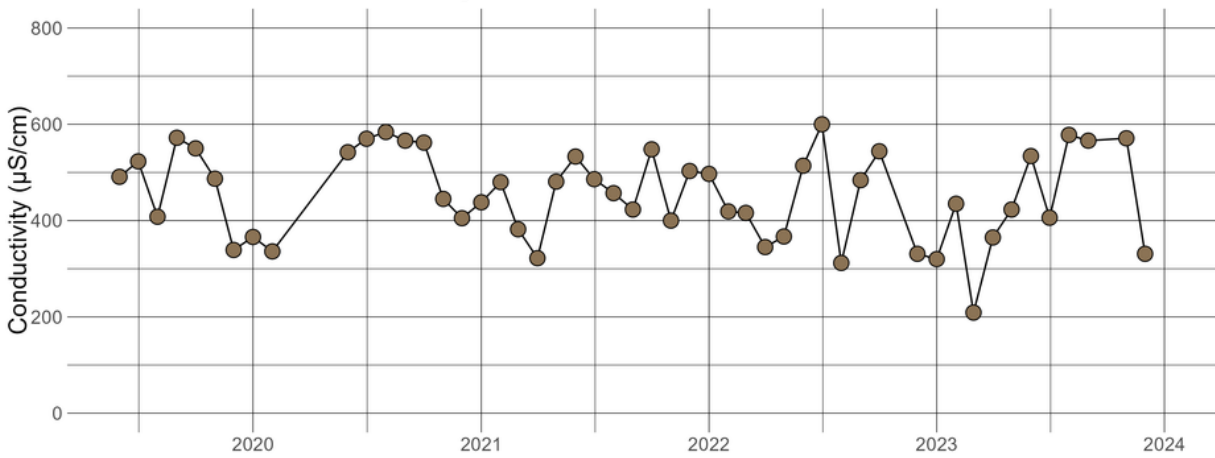
Land Use



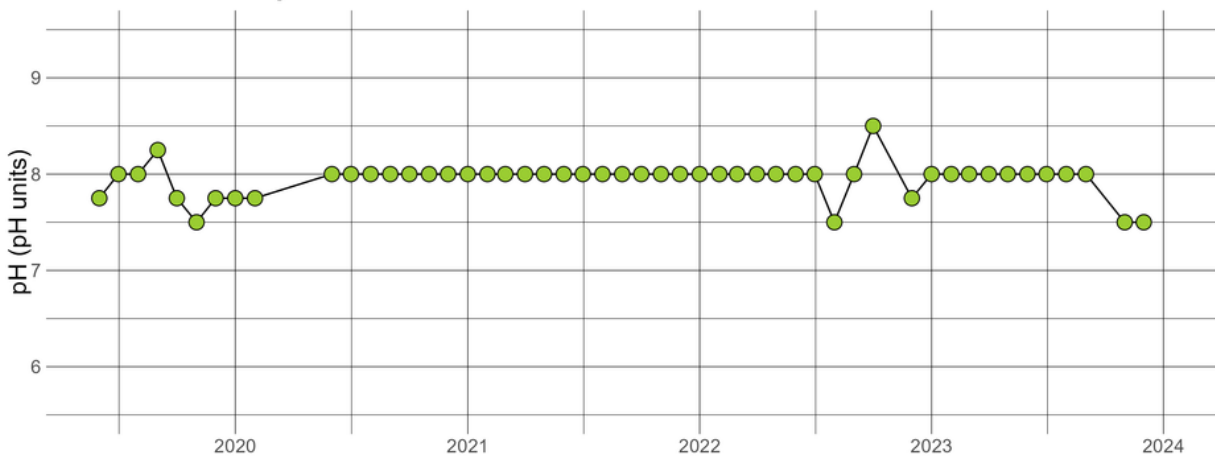
CONCRE27.96 - Water Temperature



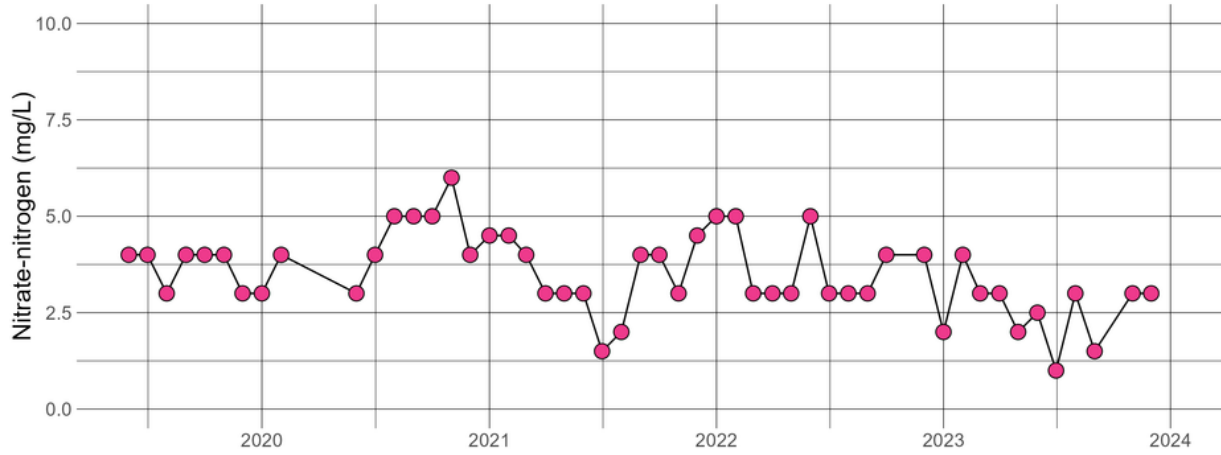
CONCRE27.96 - Conductivity



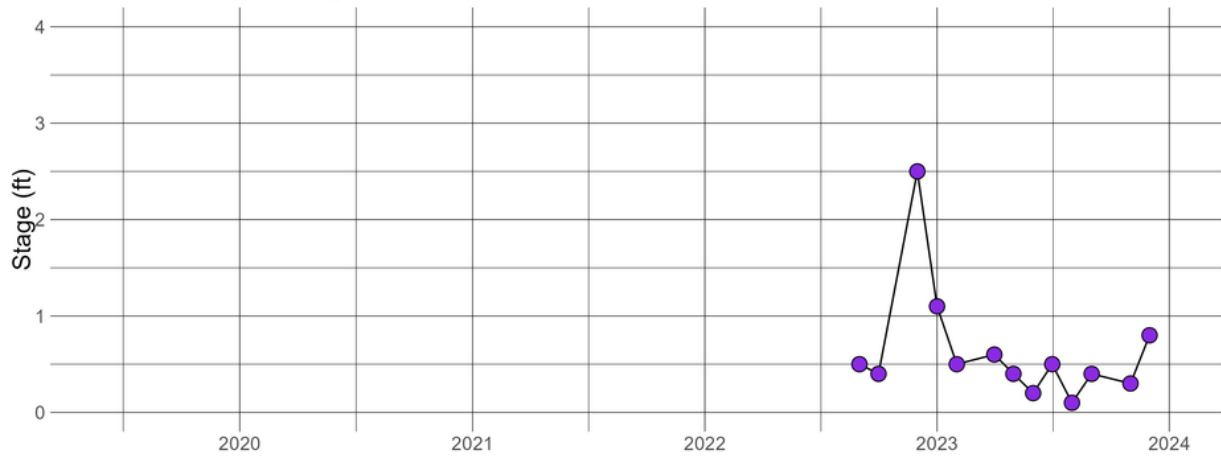
CONCRE27.96 - pH



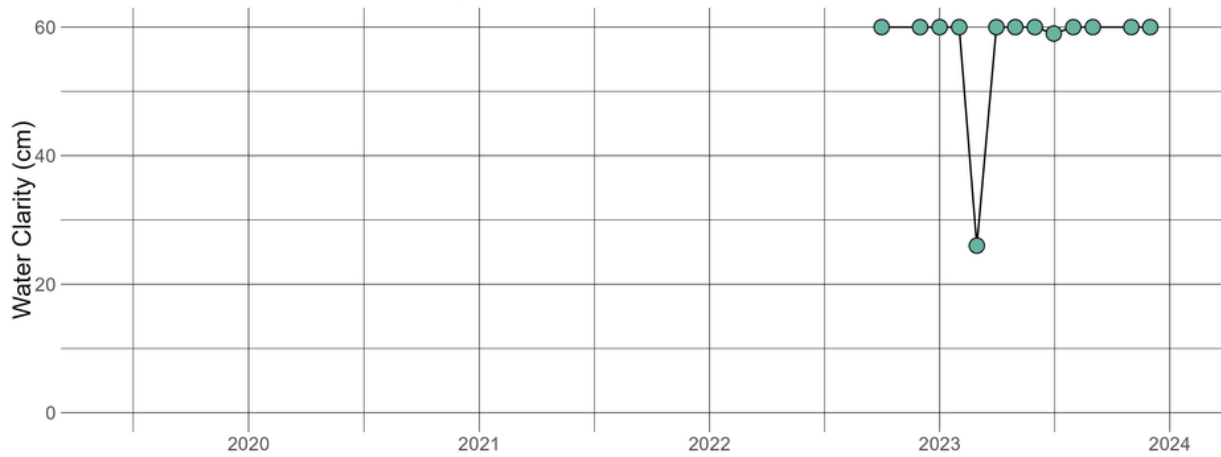
CONCRE27.96 - Nitrate-nitrogen



CONCRE27.96 - Stage



CONCRE27.96 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jun-19 | 491 | 4 | 7.75 | | | 18.5 |
| Jul-19 | 523 | 4 | 8 | | | 23.8 |
| Aug-19 | 408 | 3 | 8 | | | 22.9 |
| Sep-19 | 572 | 4 | 8.25 | | | 19.7 |
| Oct-19 | 550 | 4 | 7.75 | | | 14 |
| Nov-19 | 487 | 4 | 7.5 | | | 6.4 |
| Dec-19 | 339 | 3 | 7.75 | | | 3.7 |
| Jan-20 | 366 | 3 | 7.75 | | | 8 |
| Feb-20 | 336 | 4 | 7.75 | | | 4 |
| Mar-20 | | | | | | |
| Apr-20 | | | | | | |
| May-20 | | | | | | |
| Jun-20 | 542 | 3 | 8 | | | 21.8 |
| Jul-20 | 570 | 4 | 8 | | | 24 |
| Aug-20 | 584 | 5 | 8 | | | 20.7 |
| Sep-20 | 566 | 5 | 8 | | | 17.4 |
| Oct-20 | 562 | 5 | 8 | | | 14.4 |
| Nov-20 | 445 | 6 | 8 | | | 5.3 |
| Dec-20 | 405 | 4 | 8 | | | 2.1 |
| Jan-21 | 438 | 4.5 | 8 | | | 3.4 |
| Feb-21 | 480 | 4.5 | 8 | | | 2.2 |
| Mar-21 | 382 | 4 | 8 | | | 6.4 |
| Apr-21 | 322 | 3 | 8 | | | 12.4 |
| May-21 | 481 | 3 | 8 | | | 19.9 |
| Jun-21 | 533 | 3 | 8 | | | 21.9 |
| Jul-21 | 486 | 1.5 | 8 | | | 24.5 |
| Aug-21 | 457 | 2 | 8 | | | 22.9 |
| Sep-21 | 423 | 4 | 8 | | | 18.7 |
| Oct-21 | 548 | 4 | 8 | | | 14.7 |
| Nov-21 | 400 | 3 | 8 | | | 6.7 |
| Dec-21 | 503 | 4.5 | 8 | | | 7.3 |
| Jan-22 | 497 | 5 | 8 | | | 2 |
| Feb-22 | 419 | 5 | 8 | | | 6.1 |
| Mar-22 | 416 | 3 | 8 | | | 9.3 |
| Apr-22 | 345 | 3 | 8 | | | 18.5 |
| May-22 | 367 | 3 | 8 | | | 20 |
| Jun-22 | 514 | 5 | 8 | | | 19.6 |
| Jul-22 | 600 | 3 | 8 | | | 24.6 |
| Aug-22 | 312 | 3 | 7.5 | | | 21.8 |
| Sep-22 | 484 | 3 | 8 | 0.5 | | 18.7 |
| Oct-22 | 544 | 4 | 8.5 | 0.4 | 60 | 11.8 |
| Nov-22 | | | | | | |
| Dec-22 | 331 | 4 | 7.75 | 2.5 | 60 | 3.7 |

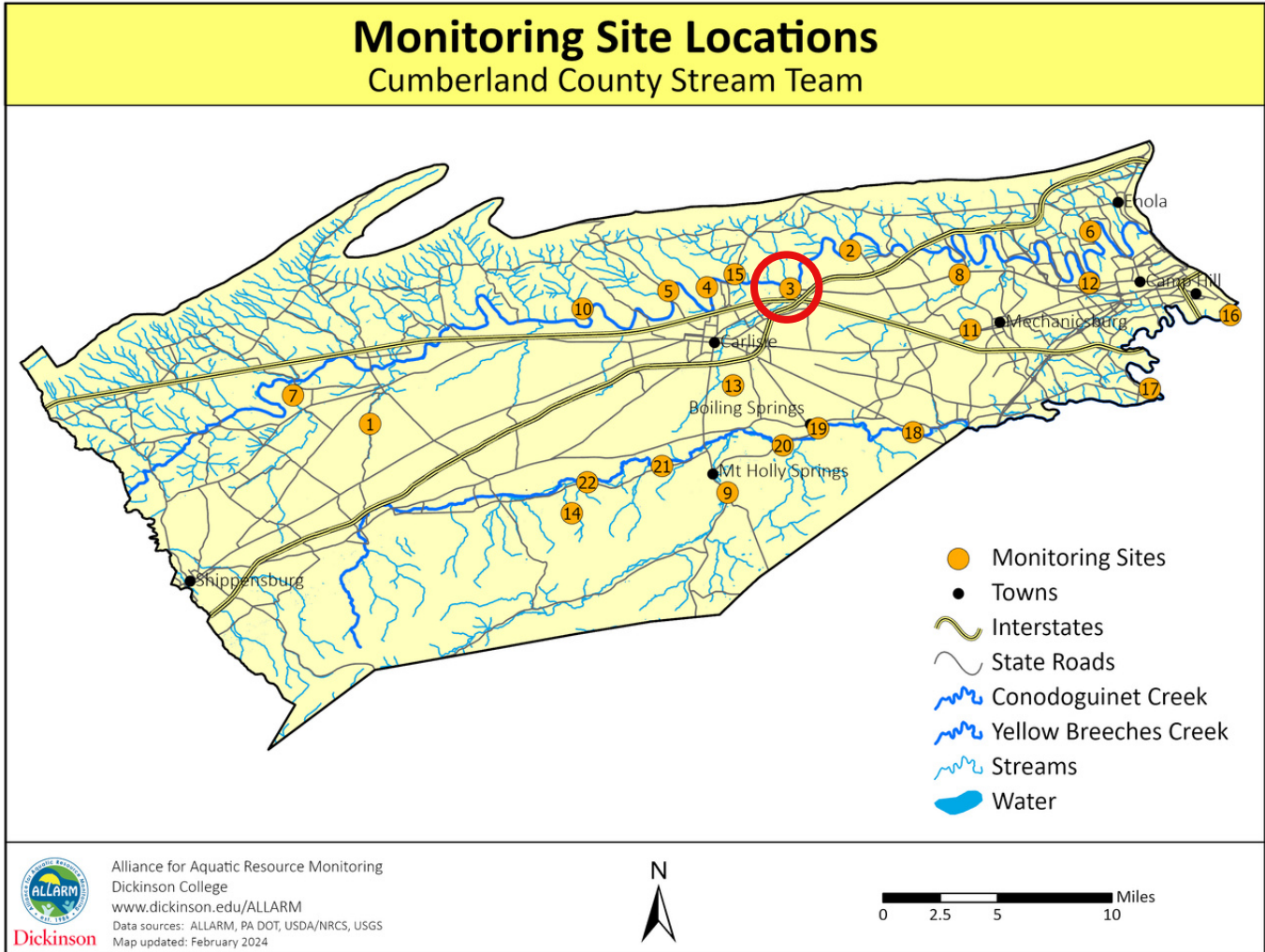
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|-----|-------|---------|--------|
| Jan-23 | 320 | 2 | 8 | 1.1 | 60 | 5.8 |
| Feb-23 | 435 | 4 | 8 | 0.5 | 60 | 8.2 |
| Mar-23 | 209 | 3 | 8 | | 26 | 6.8 |
| Apr-23 | 365 | 3 | 8 | 0.6 | 60 | 14.7 |
| May-23 | 423 | 2 | 8 | 0.4 | 60 | 16.4 |
| Jun-23 | 534 | 2.5 | 8 | 0.2 | 60 | 19.8 |
| Jul-23 | 406 | 1 | 8 | 0.5 | 59 | 23.3 |
| Aug-23 | 578 | 3 | 8 | 0.1 | 60 | 21.7 |
| Sep-23 | 566 | 1.5 | 8 | 0.4 | 60 | 16.2 |
| Oct-23 | | | | | | |
| Nov-23 | 571 | 3 | 7.5 | 0.3 | 60 | 8.8 |
| Dec-23 | 331 | 3 | 7.5 | 0.8 | 60 | 4 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 209 | 600 | 391 | 455 | 468 |
| Nitrate-Nitrogen | 1 | 6 | 5 | 3.5 | 3 |
| pH | 7.5 | 8.5 | 1 | 7.9 | 8 |
| Stage | 0.1 | 2.5 | 2.4 | 0.64 | 0.5 |
| Water Clarity | 26 | 60 | 34 | 57 | 60 |
| Water Temp. | 2 | 25 | 23 | 14 | 15 |

Conodoguinet at LeTort Falls Park (CONCRE 32.47)

Monitor(s): Yencha Family



Site information:

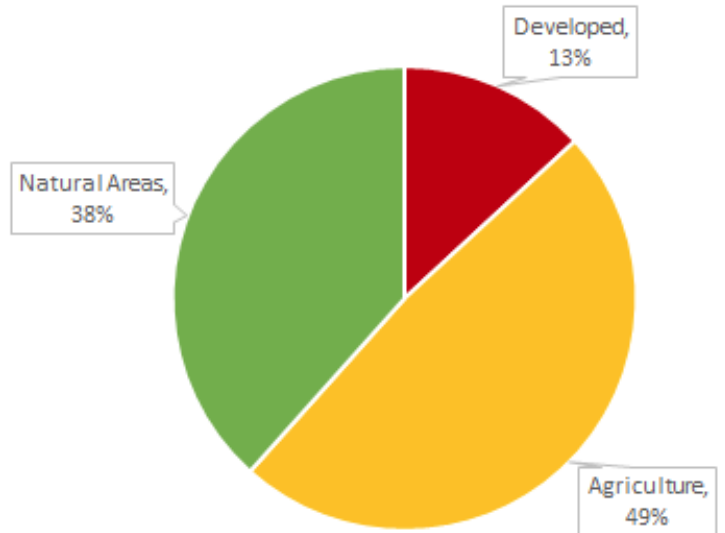
Drains: 420 mi²

Impaired: Yes, aquatic life

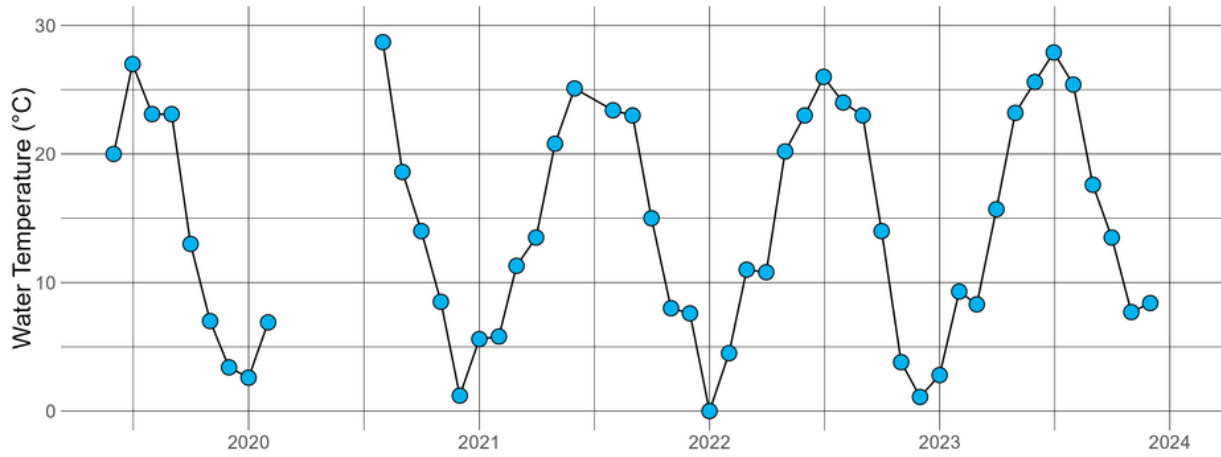
Designation: Warm water fishes(WWF)

Geology: 36% Calcareous, 64% Non-calcareous

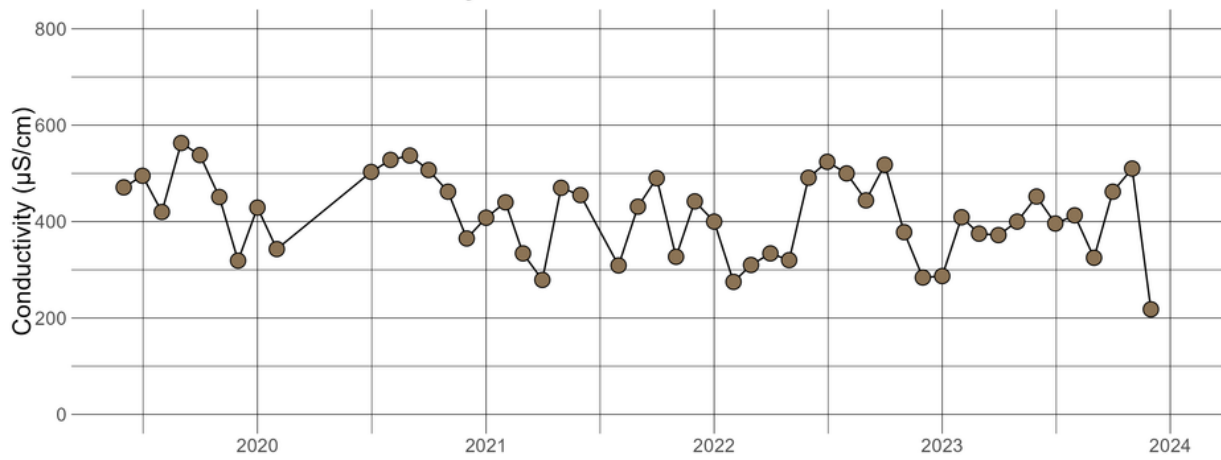
Land Use



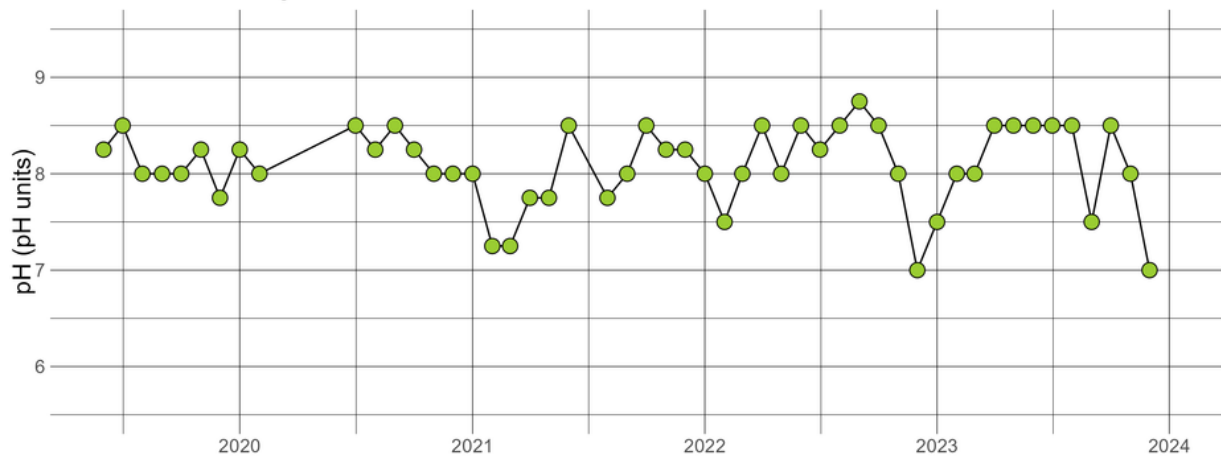
CONCRE32.47 - Water Temperature



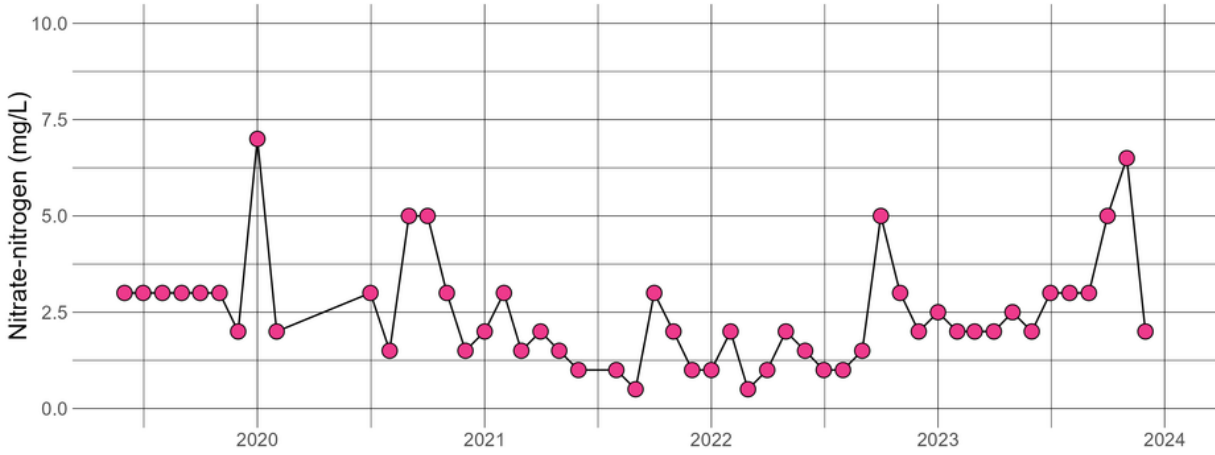
CONCRE32.47 - Conductivity



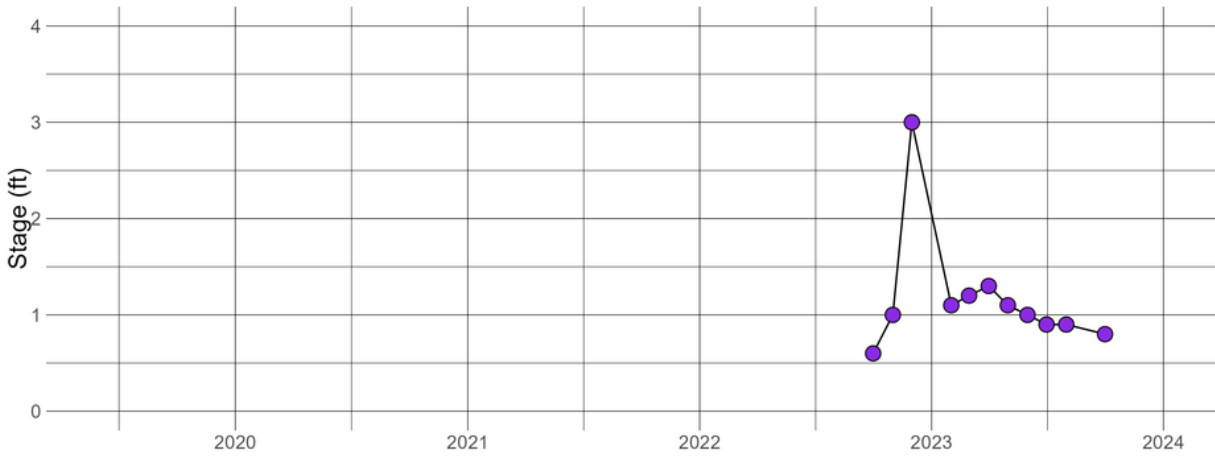
CONCRE32.47 - pH



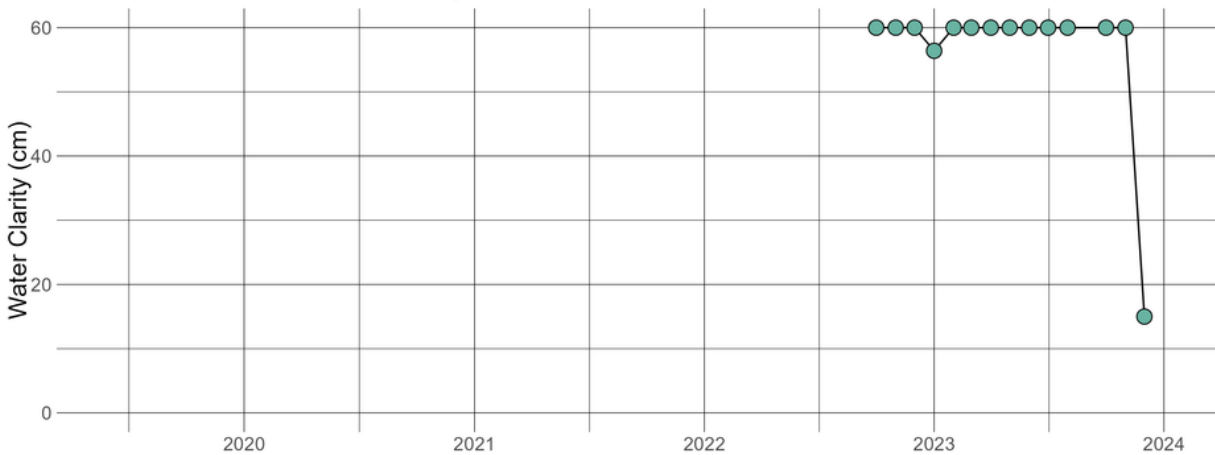
CONCRE32.47 - Nitrate-nitrogen



CONCRE32.47 - Stage



CONCRE32.47 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jun-19 | 471 | 3 | 8.25 | | | 20 |
| Jul-19 | 495 | 3 | 8.5 | | | 27 |
| Aug-19 | 420 | 3 | 8 | | | 23.1 |
| Sep-19 | 563 | 3 | 8 | | | 23.1 |
| Oct-19 | 538 | 3 | 8 | | | 13 |
| Nov-19 | 451 | 3 | 8.25 | | | 7 |
| Dec-19 | 319 | 2 | 7.75 | | | 3.4 |
| Jan-20 | 429 | 7 | 8.25 | | | 2.6 |
| Feb-20 | 343 | 2 | 8 | | | 6.9 |
| Jul-20 | 503 | 3 | 8.5 | | | 30.1 |
| Aug-20 | 528 | 1.5 | 8.25 | | | 28.7 |
| Sep-20 | 537 | 5 | 8.5 | | | 18.6 |
| Oct-20 | 507 | 5 | 8.25 | | | 14 |
| Nov-20 | 462 | 3 | 8 | | | 8.5 |
| Dec-20 | 365 | 1.5 | 8 | | | 1.2 |
| Jan-21 | 408 | 2 | 8 | | | 5.6 |
| Feb-21 | 440 | 3 | 7.25 | | | 5.8 |
| Mar-21 | 334 | 1.5 | 7.25 | | | 11.3 |
| Apr-21 | 279 | 2 | 7.75 | | | 13.5 |
| May-21 | 470 | 1.5 | 7.75 | | | 20.8 |
| Jun-21 | 455 | 1 | 8.5 | | | 25.1 |
| Aug-21 | 309 | 1 | 7.75 | | | 23.4 |
| Sep-21 | 431 | 0.5 | 8 | | | 23 |
| Oct-21 | 490 | 3 | 8.5 | | | 15 |
| Nov-21 | 327 | 2 | 8.25 | | | 8 |
| Dec-21 | 442 | 1 | 8.25 | | | 7.6 |
| Jan-22 | 400 | 1 | 8 | | | 0 |
| Feb-22 | 275 | 2 | 7.5 | | | 4.5 |
| Mar-22 | 310 | 0.5 | 8 | | | 11 |
| Apr-22 | 334 | 1 | 8.5 | | | 10.8 |
| May-22 | 320 | 2 | 8 | | | 20.2 |
| Jun-22 | 491 | 1.5 | 8.5 | | | 23 |
| Jul-22 | 524 | 1 | 8.25 | | | 26 |
| Aug-22 | 500 | 1 | 8.5 | | | 24 |
| Sep-22 | 444 | 1.5 | 8.75 | | | 23 |
| Oct-22 | 518 | 5 | 8.5 | 0.6 | 60 | 14 |
| Nov-22 | 378 | 3 | 8 | 1 | 60 | 3.8 |
| Dec-22 | 284 | 2 | 7 | 3 | 60 | 1.1 |

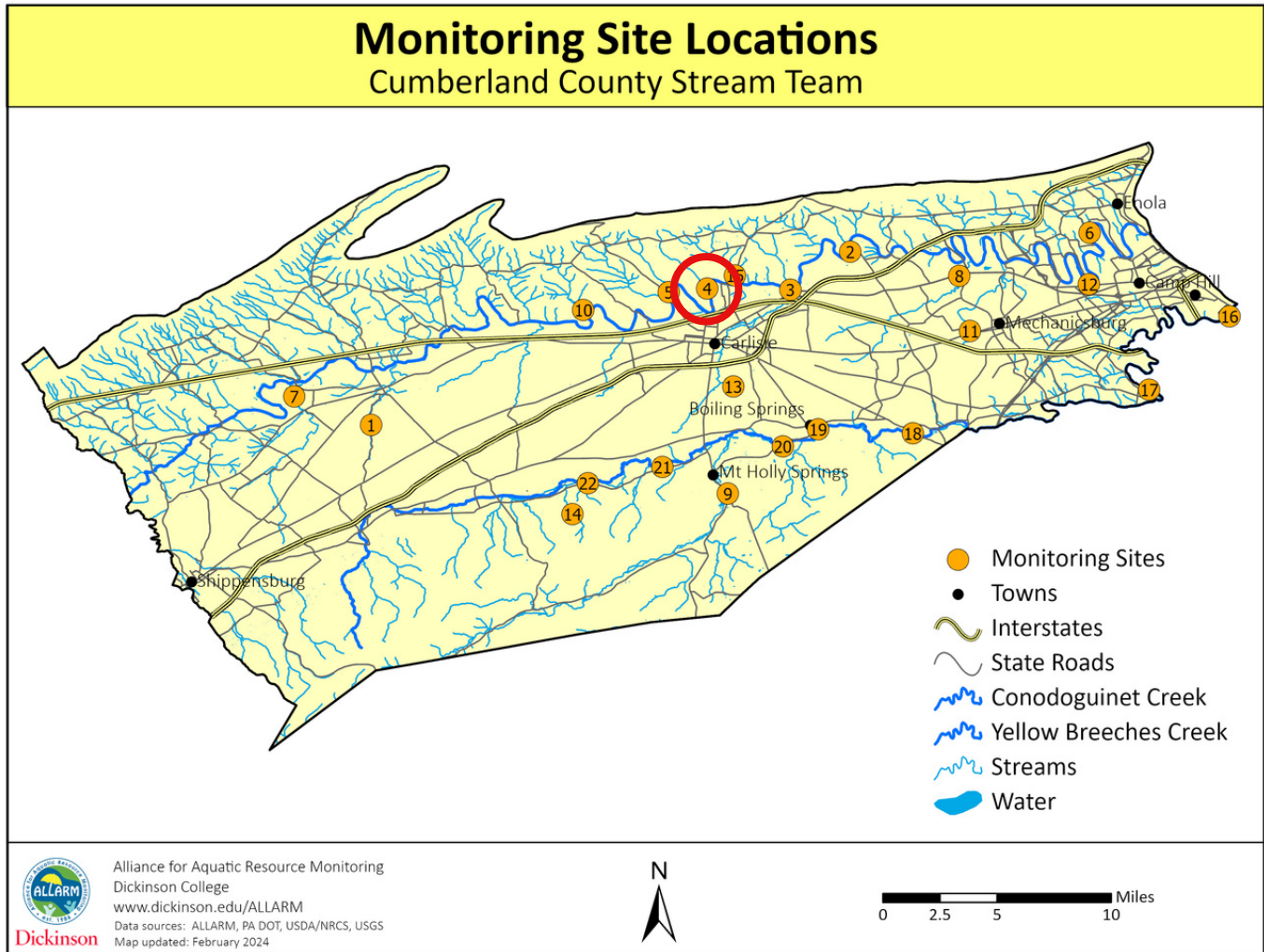
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|-----|-------|---------|--------|
| Jan-23 | 287 | 2.5 | 7.5 | #NUM! | 56.4 | 2.8 |
| Feb-23 | 409 | 2 | 8 | 1.1 | 60 | 9.3 |
| Mar-23 | 375 | 2 | 8 | 1.2 | 60 | 8.3 |
| Apr-23 | 372 | 2 | 8.5 | 1.3 | 60 | 15.7 |
| May-23 | 400 | 2.5 | 8.5 | 1.1 | 60 | 23.2 |
| Jun-23 | 452 | 2 | 8.5 | 1 | 60 | 25.6 |
| Jul-23 | 396 | 3 | 8.5 | 0.9 | 60 | 27.9 |
| Aug-23 | 413 | 3 | 8.5 | 0.9 | 60 | 25.4 |
| Sep-23 | 325 | 3 | 7.5 | | | 17.6 |
| Oct-23 | 462 | 5 | 8.5 | 0.8 | 60 | 13.5 |
| Nov-23 | 510 | 6.5 | 8 | | 60 | 7.7 |
| Dec-23 | 218 | 2 | 7 | | 15 | 8.4 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 218 | 563 | 345 | 414 | 424 |
| Nitrate-Nitrogen | 0.5 | 7 | 6.5 | 2.5 | 2 |
| pH | 7 | 8.8 | 1.8 | 8.1 | 8 |
| Stage | 0.6 | 3 | 2.4 | 1.2 | 1 |
| Water Clarity | 15 | 60 | 45 | 57 | 60 |
| Water Temp. | 0 | 30 | 30 | 15 | 14 |

Conodoguinet at Creekview Park (CONCRE 35.82)

Monitor(s): Inactive, previously Susan Boling & Mark White



Site information:

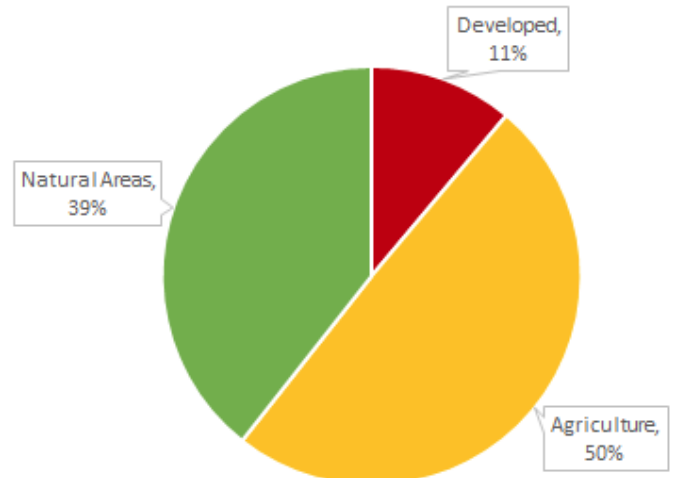
Drains: 382 mi²

Impaired: Yes, aquatic life

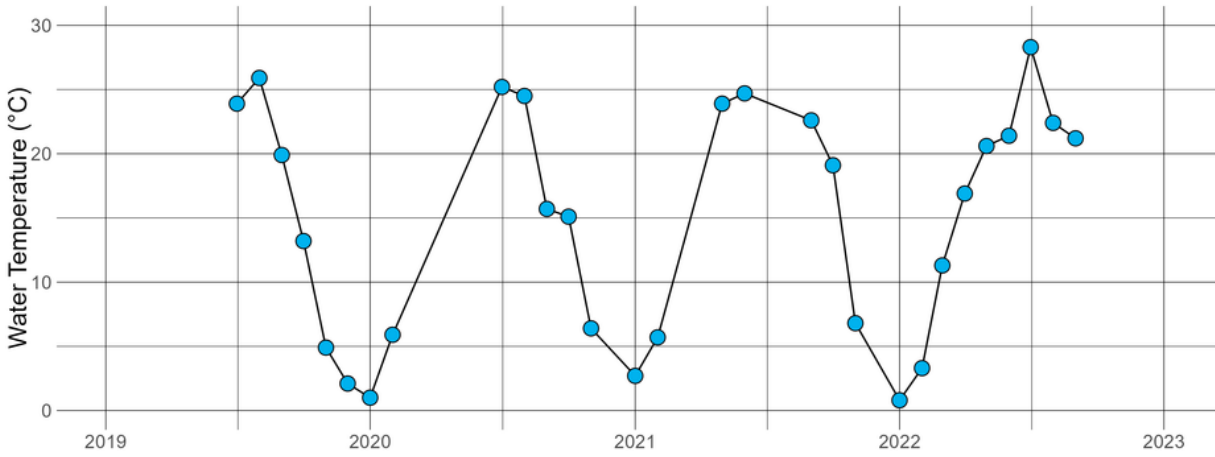
Designation: Warm Water Fishes (WWF)

Geology: 34% Calcareous, 66% Non-calcareous

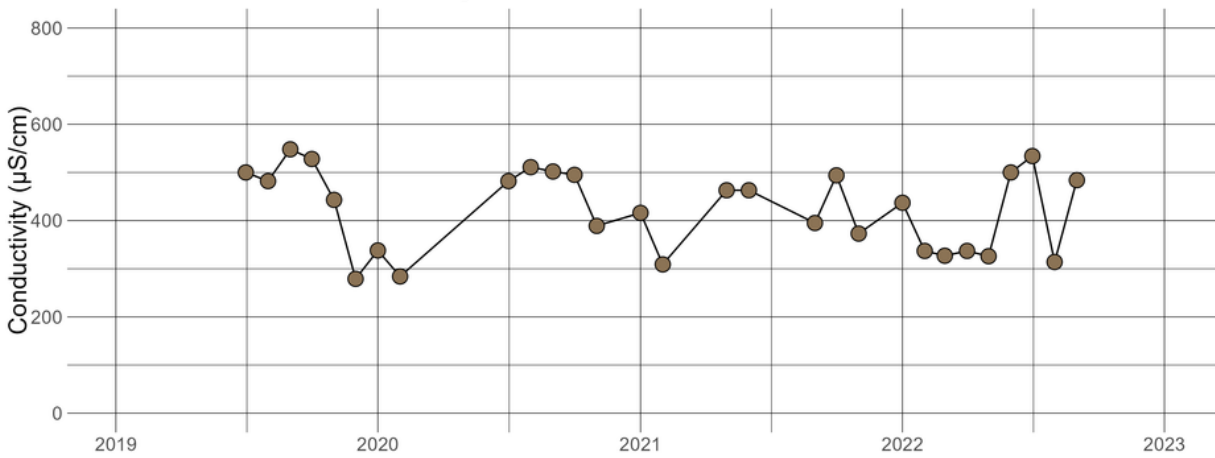
Land Use



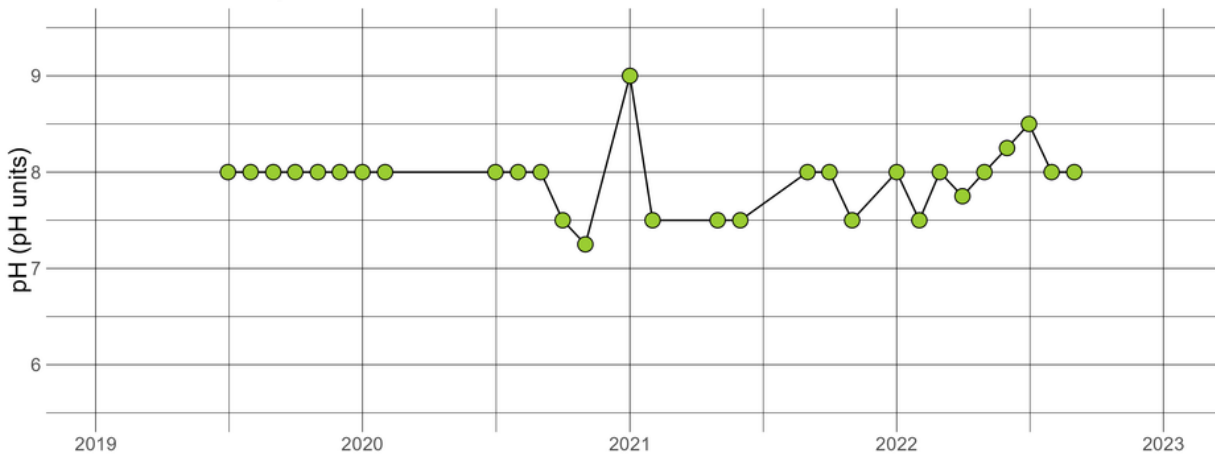
CONCRE35.82 - Water Temperature



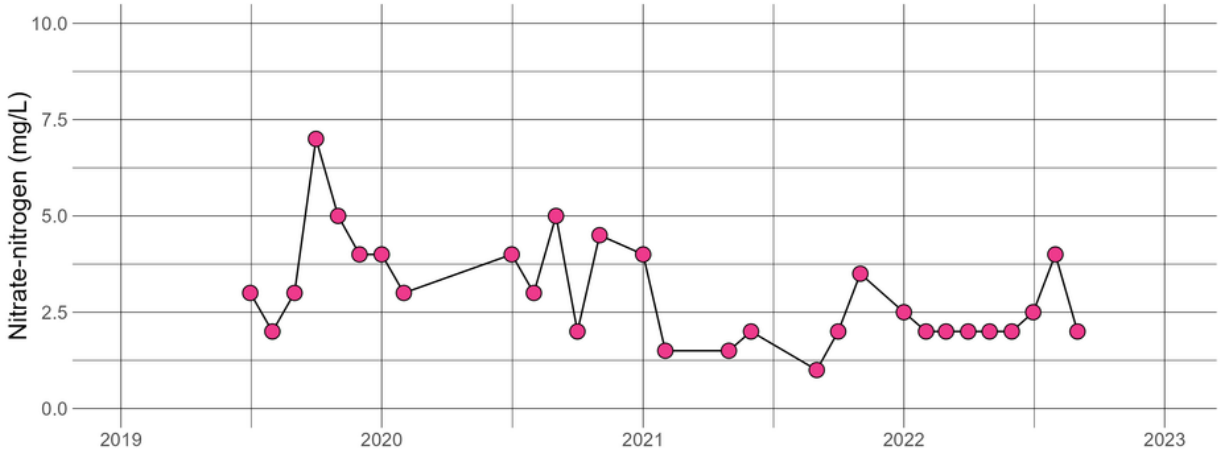
CONCRE35.82 - Conductivity



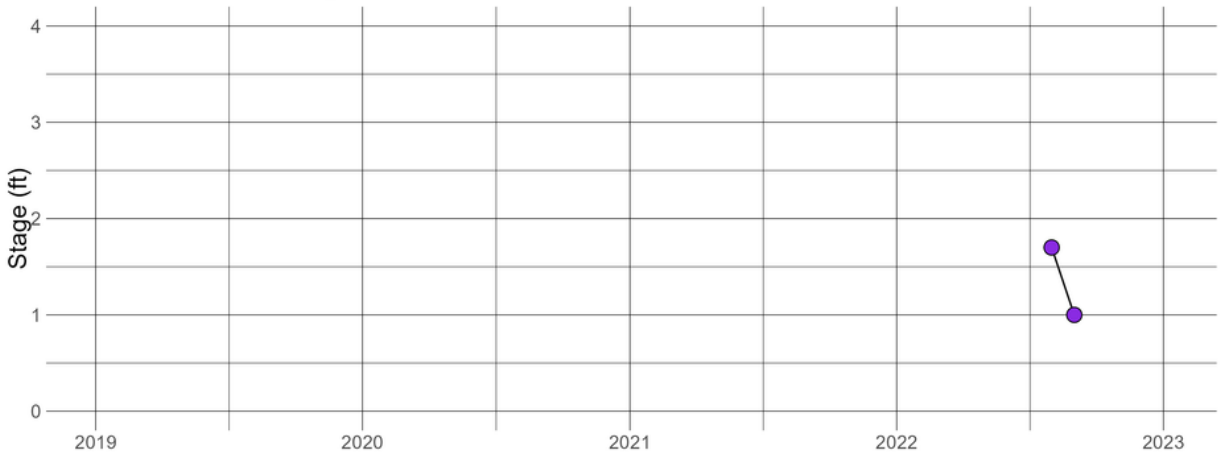
CONCRE35.82 - pH



CONCRE35.82 - Nitrate-nitrogen



CONCRE35.82 - Stage



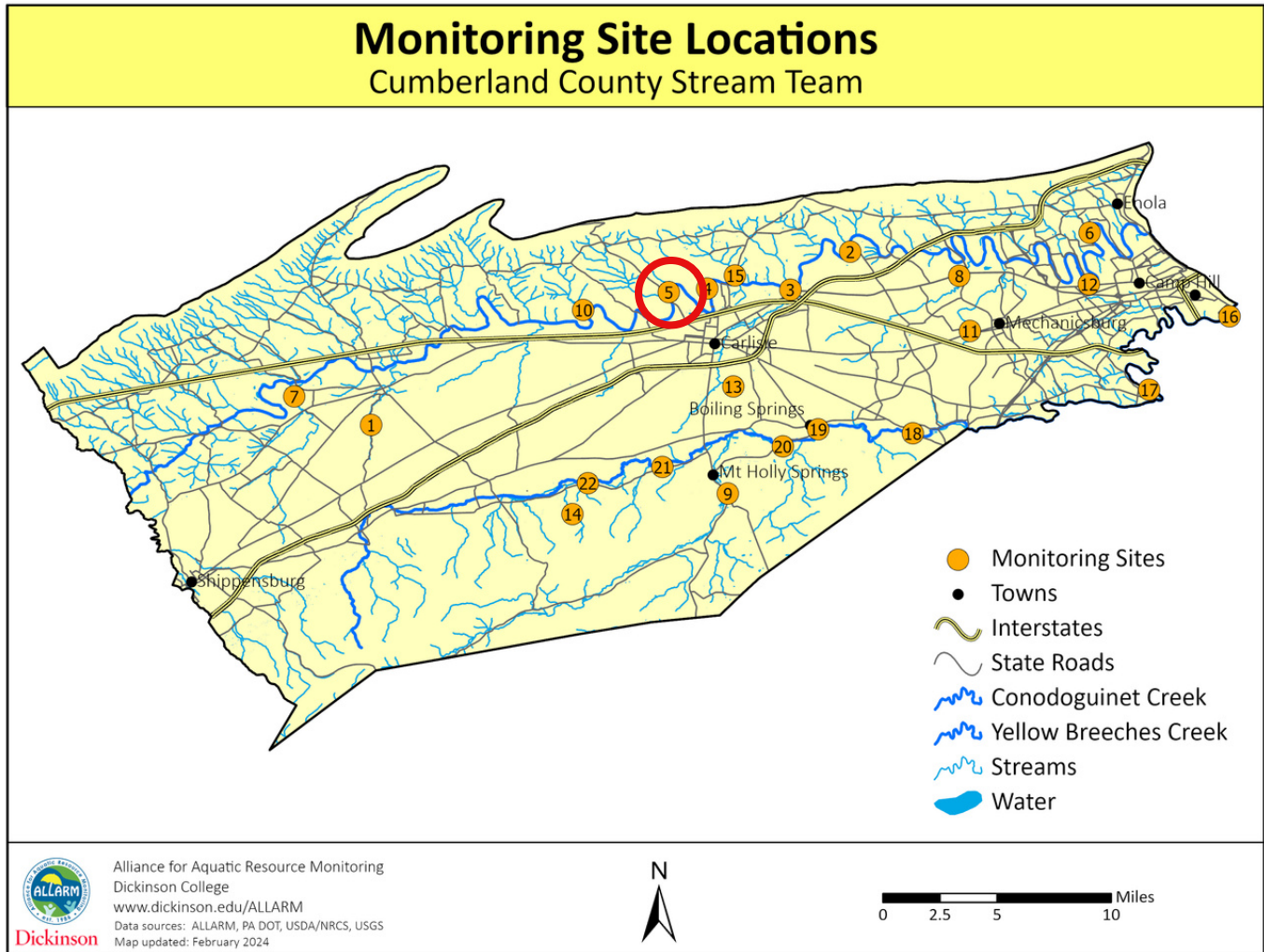
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | watemp |
|--------|-----|---------|------|-------|--------|
| Jul-19 | 500 | 3 | 8 | | 23.9 |
| Aug-19 | 482 | 2 | 8 | | 25.9 |
| Sep-19 | 548 | 3 | 8 | | 19.9 |
| Oct-19 | 528 | 7 | 8 | | 13.2 |
| Nov-19 | 443 | 5 | 8 | | 4.9 |
| Dec-19 | 279 | 4 | 8 | | 2.1 |
| Jan-20 | 338 | 4 | 8 | | 1 |
| Feb-20 | 284 | 3 | 8 | | 5.9 |
| Jul-20 | 482 | 4 | 8 | | 25.2 |
| Aug-20 | 511 | 3 | 8 | | 24.5 |
| Sep-20 | 502 | 5 | 8 | | 15.7 |
| Oct-20 | 495 | 2 | 7.5 | | 15.1 |
| Nov-20 | 389 | 4.5 | 7.25 | | 6.4 |
| Jan-21 | 416 | 4 | 9 | | 2.7 |
| Feb-21 | 309 | 1.5 | 7.5 | | 5.7 |
| May-21 | 463 | 1.5 | 7.5 | | 23.9 |
| Jun-21 | 463 | 2 | 7.5 | | 24.7 |
| Sep-21 | 395 | 1 | 8 | | 22.6 |
| Oct-21 | 494 | 2 | 8 | | 19.1 |
| Nov-21 | 373 | 3.5 | 7.5 | | 6.8 |
| Jan-22 | 437 | 2.5 | 8 | | 0.8 |
| Feb-22 | 337 | 2 | 7.5 | | 3.3 |
| Mar-22 | 327 | 2 | 8 | | 11.3 |
| Apr-22 | 337 | 2 | 7.75 | | 16.9 |
| May-22 | 326 | 2 | 8 | | 20.6 |
| Jun-22 | 500 | 2 | 8.25 | | 21.4 |
| Jul-22 | 534 | 2.5 | 8.5 | | 28.3 |
| Aug-22 | 314 | 4 | 8 | 1.7 | 22.4 |
| Sep-22 | 484 | 2 | 8 | 1 | 21.2 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 279 | 548 | 269 | 424 | 443 |
| Nitrate-Nitrogen | 1 | 7 | 6 | 3 | 2.5 |
| pH | 7.2 | 9 | 1.8 | 7.9 | 8 |
| Stage | 1 | 1.7 | 0.7 | 1.4 | 1.4 |
| Water Temp. | 0.8 | 28 | 28 | 15 | 17 |

Conodoguinet at North Middleton Park (CONCRE 39.03)

Monitor(s): Inactive, previously Vern Graham & Joel Warner



Site information:

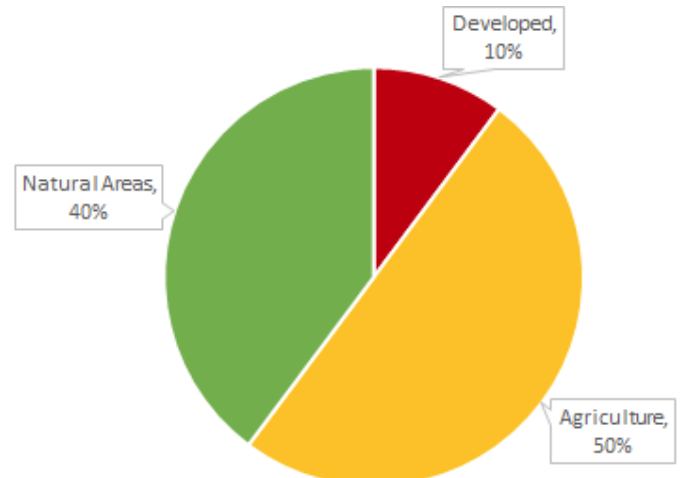
Drains: 368 mi²

Impaired: Yes, aquatic life

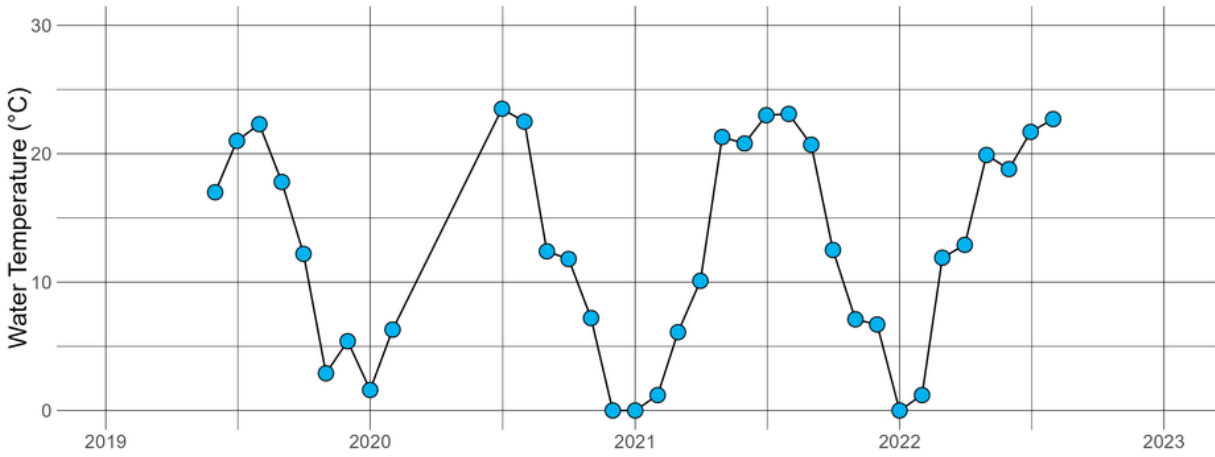
Designation: Warm Water Fishes (WWF)

Geology: 34% Calcareous, 66% Non-calcareous

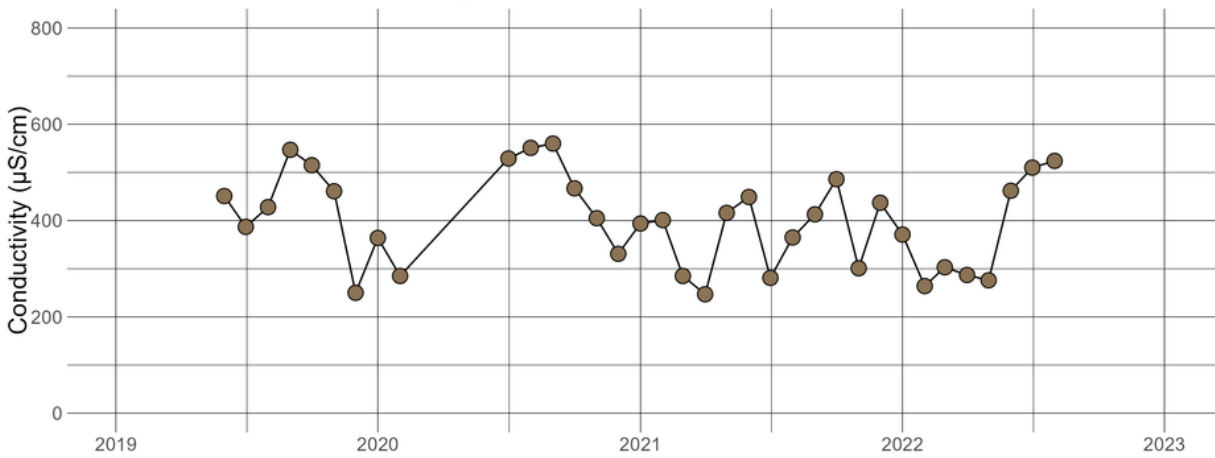
Land Use



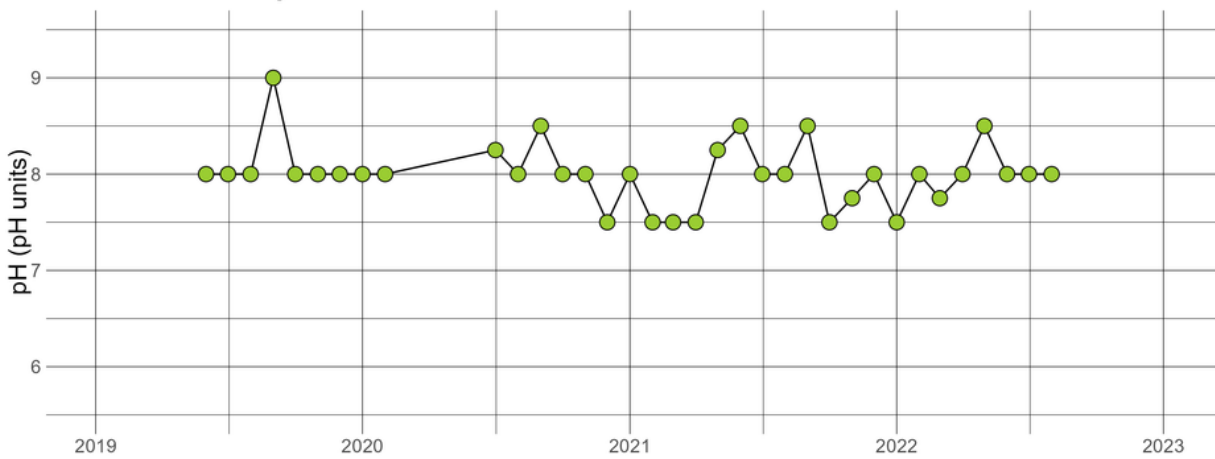
CONCRE39.03 - Water Temperature



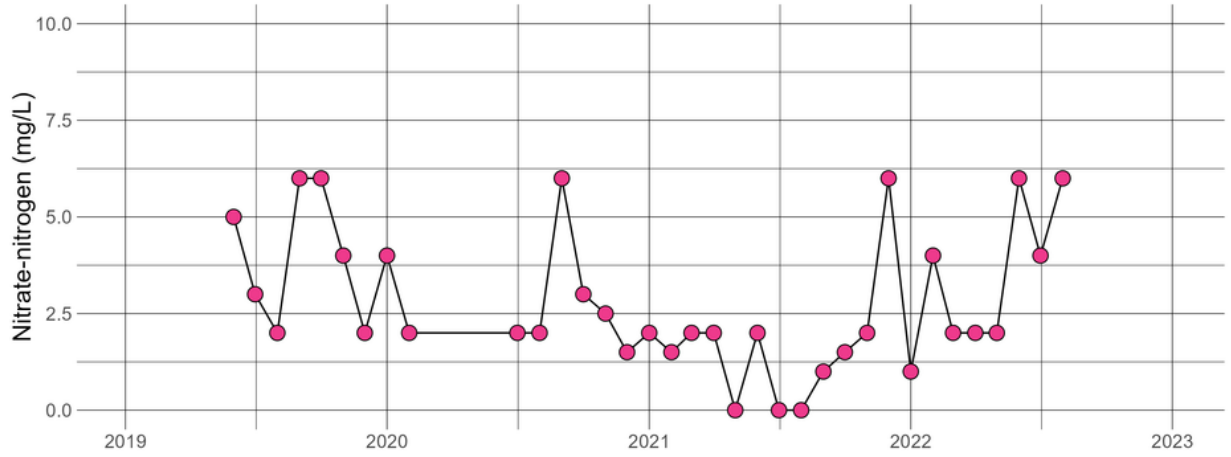
CONCRE39.03 - Conductivity



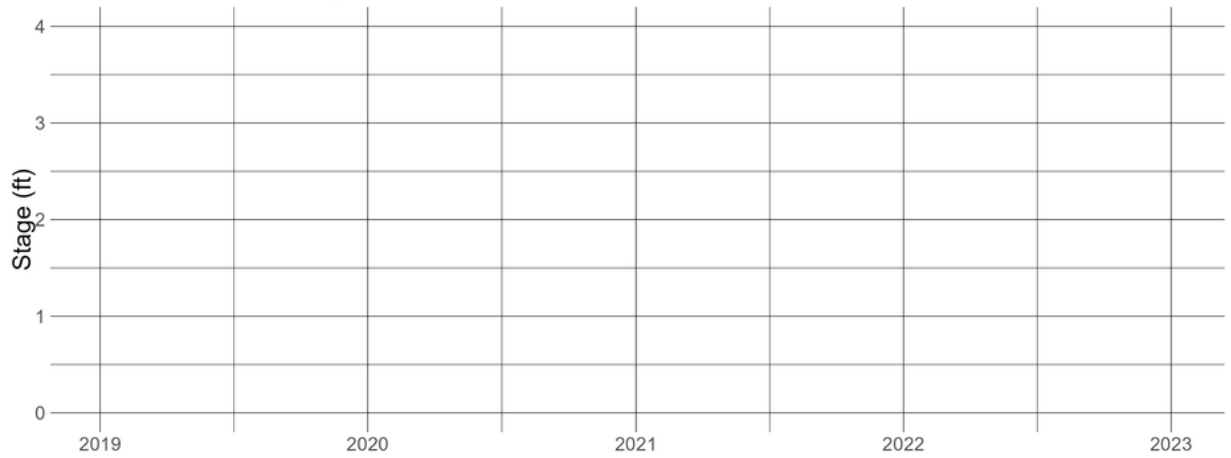
CONCRE39.03 - pH



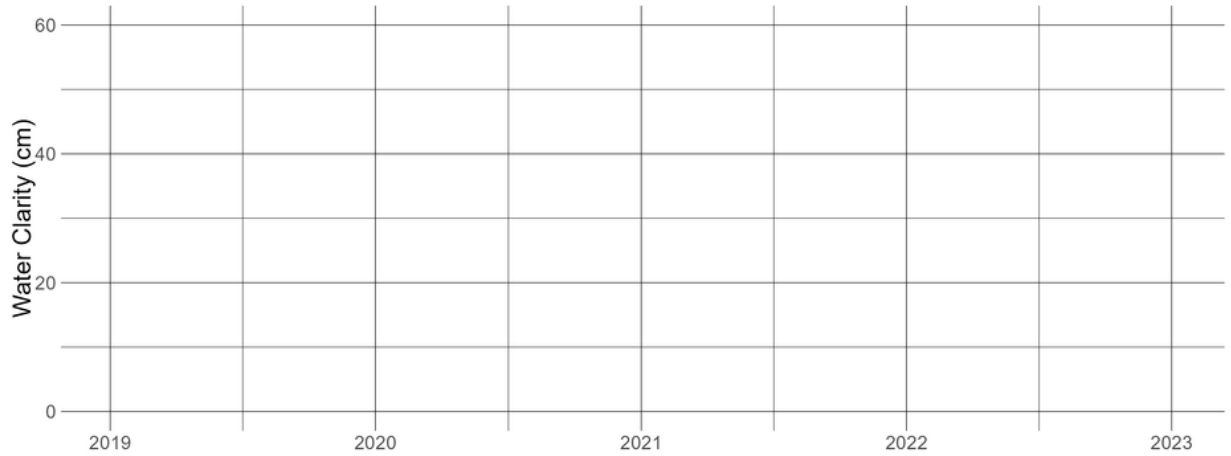
CONCRE39.03 - Nitrate-nitrogen



CONCRE39.03 - Stage



CONCRE39.03 - Water Clarity



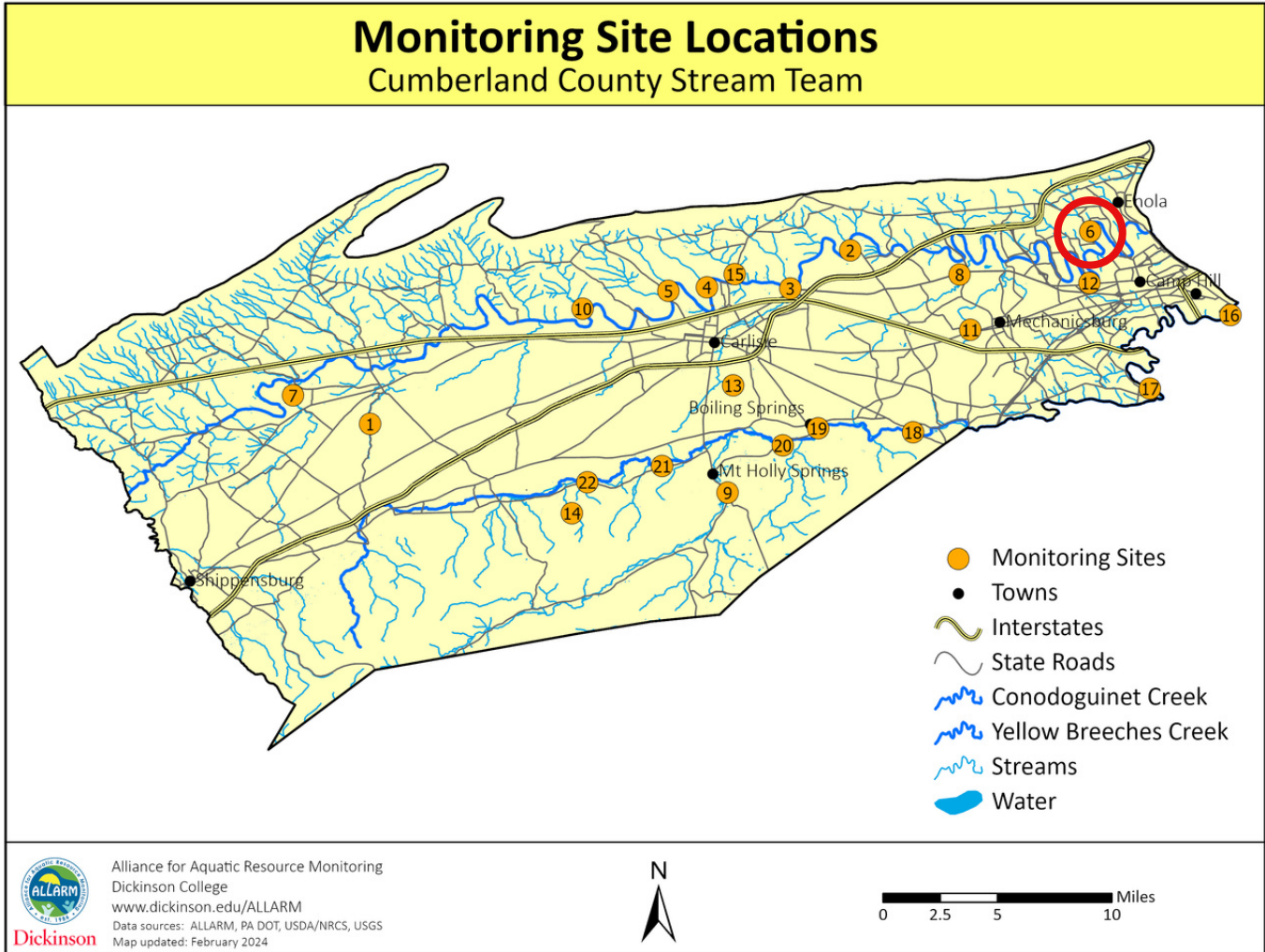
Raw Data and Summary Statistics

| date | con | nitrate | ph | watemp |
|--------|-----|---------|------|--------|
| Jun-19 | 451 | 5 | 8 | 17 |
| Jul-19 | 387 | 3 | 8 | 21 |
| Aug-19 | 428 | 2 | 8 | 22.3 |
| Sep-19 | 547 | 6 | 9 | 17.8 |
| Oct-19 | 515 | 6 | 8 | 12.2 |
| Nov-19 | 461 | 4 | 8 | 2.9 |
| Dec-19 | 250 | 2 | 8 | 5.4 |
| Jan-20 | 364 | 4 | 8 | 1.6 |
| Feb-20 | 285 | 2 | 8 | 6.3 |
| Jul-20 | 529 | 2 | 8.25 | 23.5 |
| Aug-20 | 551 | 2 | 8 | 22.5 |
| Sep-20 | 560 | 6 | 8.5 | 12.4 |
| Oct-20 | 467 | 3 | 8 | 11.8 |
| Nov-20 | 405 | 2.5 | 8 | 7.2 |
| Dec-20 | 331 | 1.5 | 7.5 | 0 |
| Jan-21 | 394 | 2 | 8 | 0 |
| Feb-21 | 401 | 1.5 | 7.5 | 1.2 |
| Mar-21 | 285 | 2 | 7.5 | 6.1 |
| Apr-21 | 247 | 2 | 7.5 | 10.1 |
| May-21 | 416 | 0 | 8.25 | 21.3 |
| Jun-21 | 449 | 2 | 8.5 | 20.8 |
| Jul-21 | 281 | 0 | 8 | 23 |
| Aug-21 | 365 | 0 | 8 | 23.1 |
| Sep-21 | 413 | 1 | 8.5 | 20.7 |
| Oct-21 | 486 | 1.5 | 7.5 | 12.5 |
| Nov-21 | 301 | 2 | 7.75 | 7.1 |
| Dec-21 | 437 | 6 | 8 | 6.7 |
| Jan-22 | 371 | 1 | 7.5 | 0 |
| Feb-22 | 264 | 4 | 8 | 1.2 |
| Mar-22 | 303 | 2 | 7.75 | 11.9 |
| Apr-22 | 287 | 2 | 8 | 12.9 |
| May-22 | 276 | 2 | 8.5 | 19.9 |
| Jun-22 | 462 | 6 | 8 | 18.8 |
| Jul-22 | 510 | 4 | 8 | 21.7 |
| Aug-22 | 524 | 6 | 8 | 22.7 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 247 | 560 | 313 | 400 | 405 |
| Nitrate-Nitrogen | 0 | 6 | 6 | 2.8 | 2 |
| pH | 7.5 | 9 | 1.5 | 8 | 8 |
| Water Temp. | 0 | 24 | 24 | 13 | 12 |

Conodoguinet at Acri Meadow Park (CONCRE 6.09)

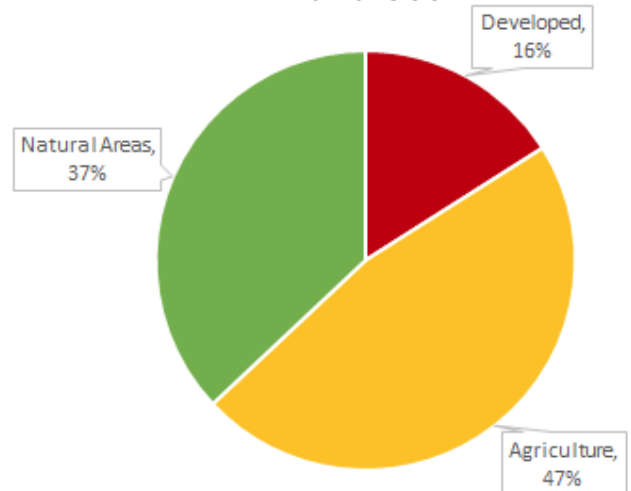
Monitor(s): Greg John



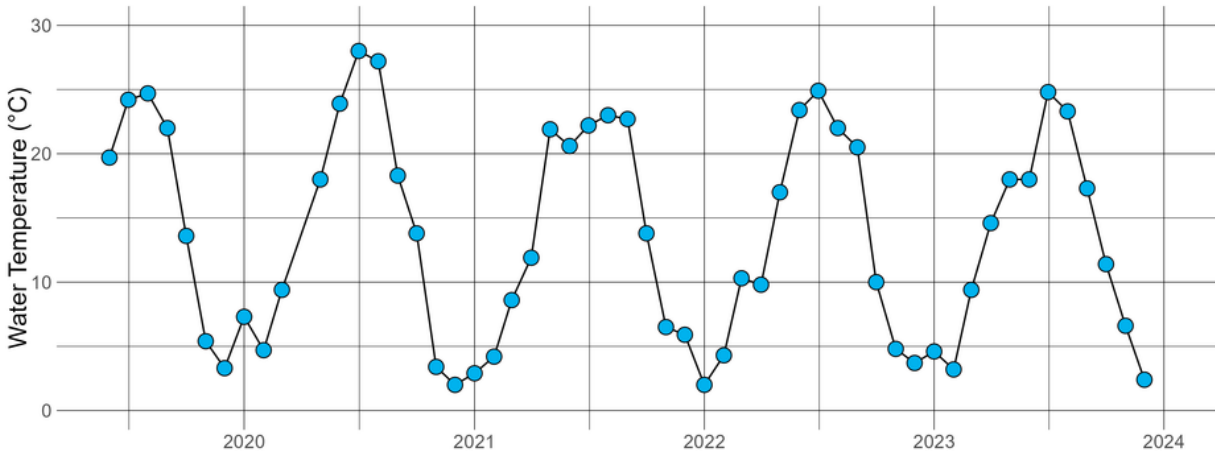
Site information:

Drains: 494 mi²
 Impaired: Yes, aquatic life
 Designation: Warm Water Fishes (WWF)
 Geology: 39% Calcareous, 61% Non-calcareous

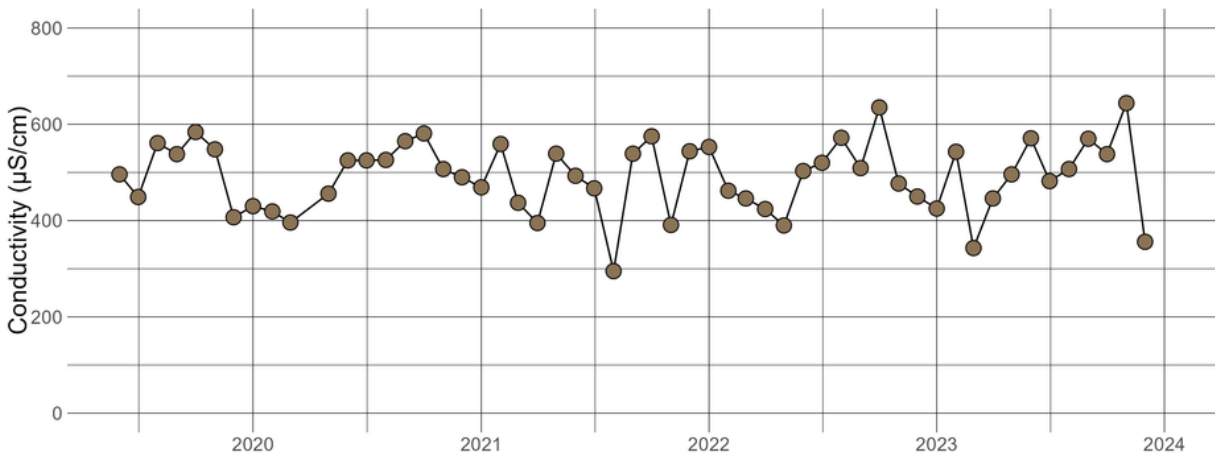
Land Use



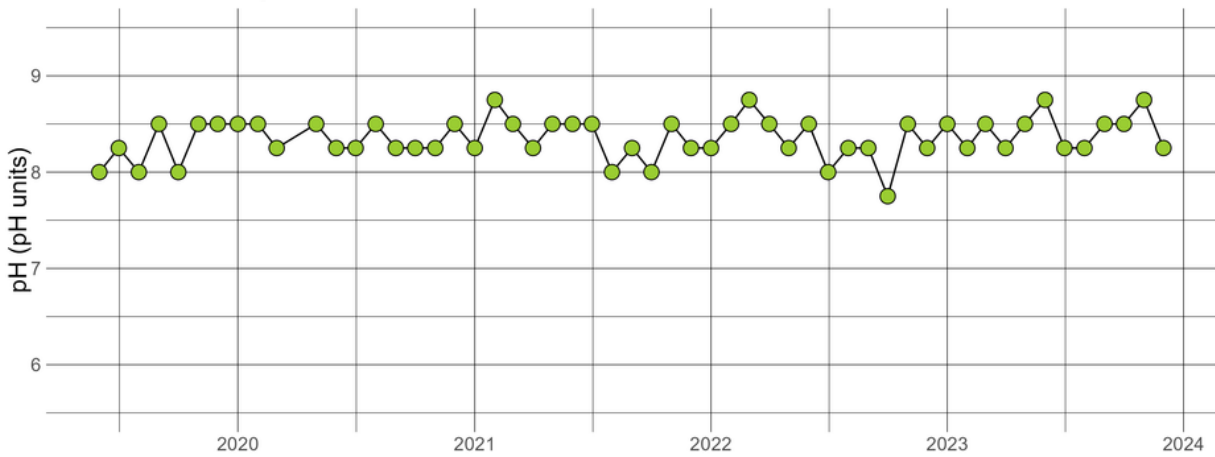
CONCRE6.09 - Water Temperature



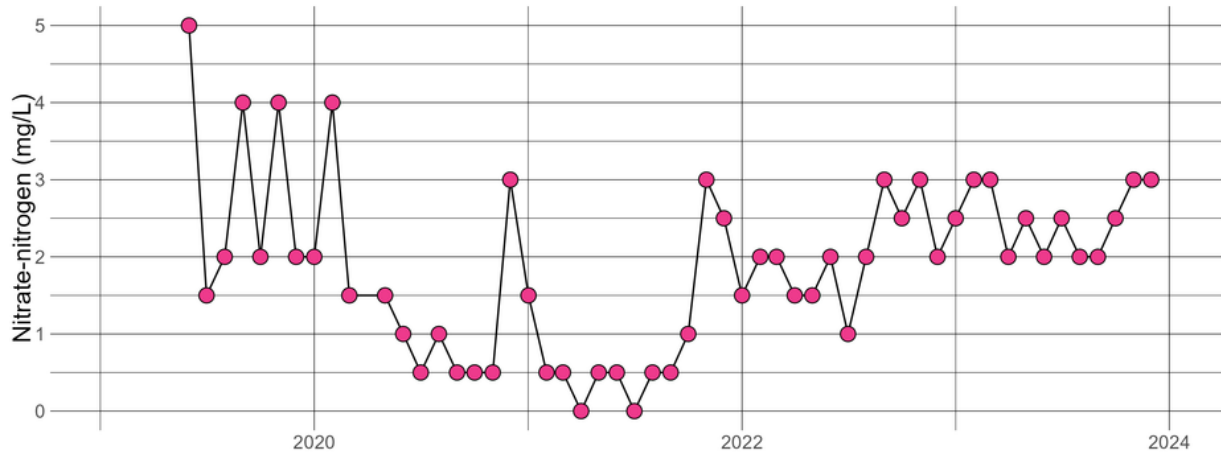
CONCRE6.09 - Conductivity



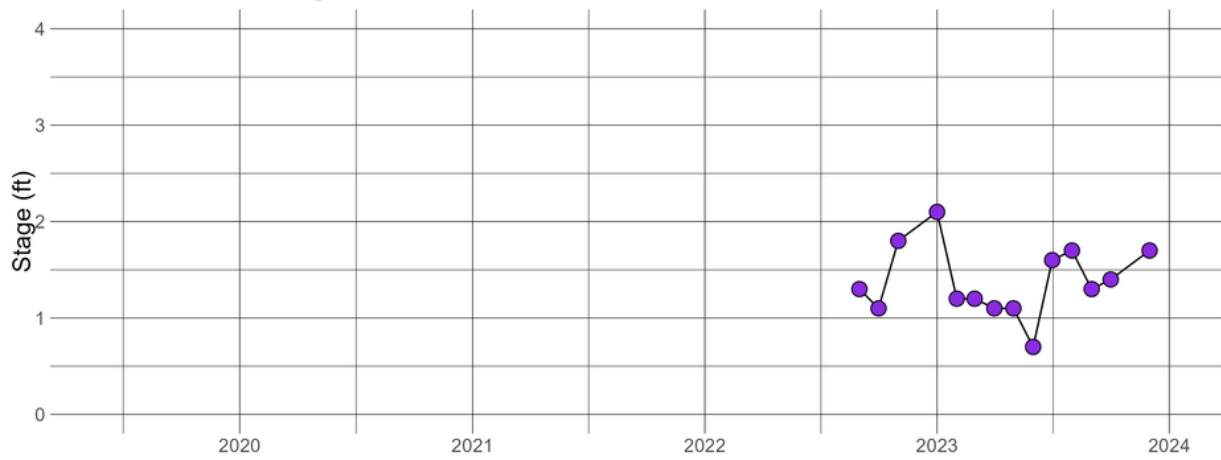
CONCRE6.09 - pH



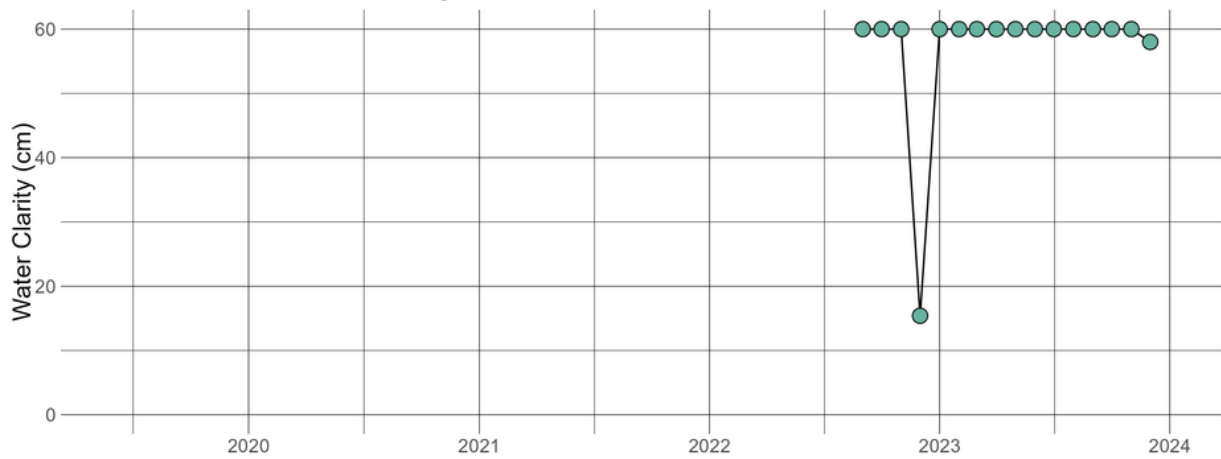
CONCRE6.09 - Nitrate-nitrogen



CONCRE6.09 - Stage



CONCRE6.09 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jun-19 | 496 | 5 | 8 | | | 19.7 |
| Jul-19 | 449 | 1.5 | 8.25 | | | 24.2 |
| Aug-19 | 561 | 2 | 8 | | | 24.7 |
| Sep-19 | 538 | 4 | 8.5 | | | 22 |
| Oct-19 | 584 | 2 | 8 | | | 13.6 |
| Nov-19 | 548 | 4 | 8.5 | | | 5.4 |
| Dec-19 | 407 | 2 | 8.5 | | | 3.3 |
| Jan-20 | 430 | 2 | 8.5 | | | 7.3 |
| Feb-20 | 419 | 4 | 8.5 | | | 4.7 |
| Mar-20 | 396 | 1.5 | 8.25 | | | 9.4 |
| May-20 | 456 | 1.5 | 8.5 | | | 18 |
| Jun-20 | 525 | 1 | 8.25 | | | 23.9 |
| Jul-20 | 525 | 0.5 | 8.25 | | | 28 |
| Aug-20 | 526 | 1 | 8.5 | | | 27.2 |
| Sep-20 | 565 | 0.5 | 8.25 | | | 18.3 |
| Oct-20 | 581 | 0.5 | 8.25 | | | 13.8 |
| Nov-20 | 507 | 0.5 | 8.25 | | | 3.4 |
| Dec-20 | 490 | 3 | 8.5 | | | 2 |
| Jan-21 | 469 | 1.5 | 8.25 | | | 2.9 |
| Feb-21 | 559 | 0.5 | 8.75 | | | 4.2 |
| Mar-21 | 437 | 0.5 | 8.5 | | | 8.6 |
| Apr-21 | 395 | 0 | 8.25 | | | 11.9 |
| May-21 | 539 | 0.5 | 8.5 | | | 21.9 |
| Jun-21 | 493 | 0.5 | 8.5 | | | 20.6 |
| Jul-21 | 467 | 0 | 8.5 | | | 22.2 |
| Aug-21 | 295 | 0.5 | 8 | | | 23 |
| Sep-21 | 539 | 0.5 | 8.25 | | | 22.7 |
| Oct-21 | 575 | 1 | 8 | | | 13.8 |
| Nov-21 | 391 | 3 | 8.5 | | | 6.5 |
| Dec-21 | 544 | 2.5 | 8.25 | | | 5.9 |
| Jan-22 | 553 | 1.5 | 8.25 | | | 2 |
| Feb-22 | 462 | 2 | 8.5 | | | 4.3 |
| Mar-22 | 446 | 2 | 8.75 | | | 10.3 |
| Apr-22 | 424 | 1.5 | 8.5 | | | 9.8 |
| May-22 | 390 | 1.5 | 8.25 | | | 17 |
| Jun-22 | 503 | 2 | 8.5 | | | 23.4 |
| Jul-22 | 520 | 1 | 8 | | | 24.9 |
| Aug-22 | 572 | 2 | 8.25 | | | 22 |
| Sep-22 | 509 | 3 | 8.25 | 1.3 | 60 | 20.5 |
| Oct-22 | 635 | 2.5 | 7.75 | 1.1 | 60 | 10 |
| Nov-22 | 477 | 3 | 8.5 | 1.8 | 60 | 4.8 |
| Dec-22 | 450 | 2 | 8.25 | | 15.4 | 3.7 |

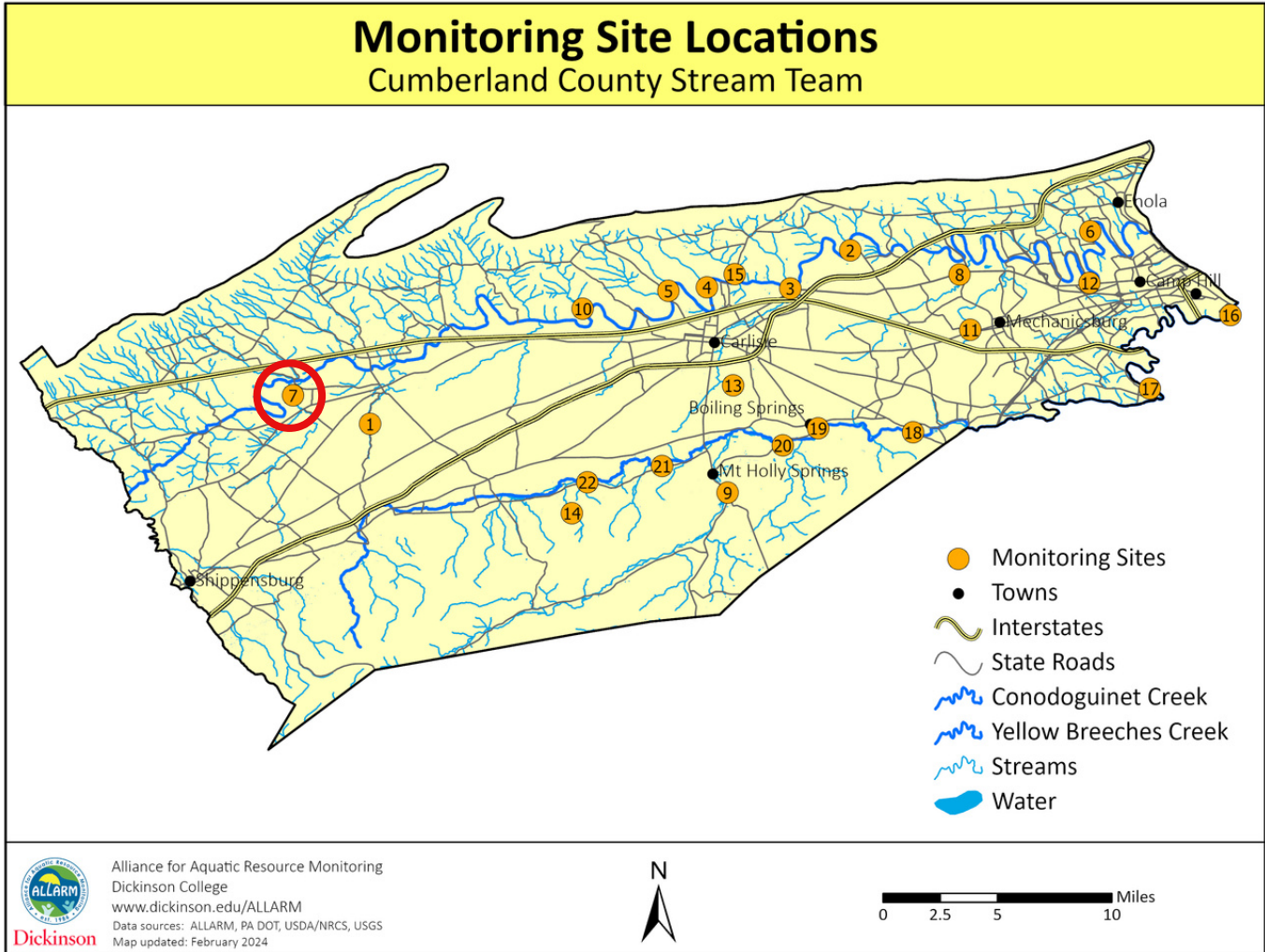
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jan-23 | 425 | 2.5 | 8.5 | 2.1 | 60 | 4.6 |
| Feb-23 | 543 | 3 | 8.25 | 1.2 | 60 | 3.2 |
| Mar-23 | 343 | 3 | 8.5 | 1.2 | 60 | 9.4 |
| Apr-23 | 446 | 2 | 8.25 | 1.1 | 60 | 14.6 |
| May-23 | 496 | 2.5 | 8.5 | 1.1 | 60 | 18 |
| Jun-23 | 571 | 2 | 8.75 | 0.7 | 60 | 18 |
| Jul-23 | 482 | 2.5 | 8.25 | 1.6 | 60 | 24.8 |
| Aug-23 | 507 | 2 | 8.25 | 1.7 | 60 | 23.3 |
| Sep-23 | 570 | 2 | 8.5 | 1.3 | 60 | 17.3 |
| Oct-23 | 538 | 2.5 | 8.5 | 1.4 | 60 | 11.4 |
| Nov-23 | 644 | 3 | 8.75 | | 60 | 6.6 |
| Dec-23 | 356 | 3 | 8.25 | 1.7 | 58 | 2.4 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 295 | 644 | 349 | 492 | 500 |
| Nitrate-Nitrogen | 0 | 5 | 5 | 1.9 | 2 |
| pH | 7.8 | 8.8 | 1 | 8.4 | 8.2 |
| Stage | 0.7 | 2.1 | 1.4 | 1.4 | 1.3 |
| Water Clarity | 15 | 60 | 45 | 57 | 60 |
| Water Temp. | 2 | 28 | 26 | 14 | 14 |

Green Spring Creek (GRESPRCRE 0.16)

Monitor(s): Don Albright



Site information:

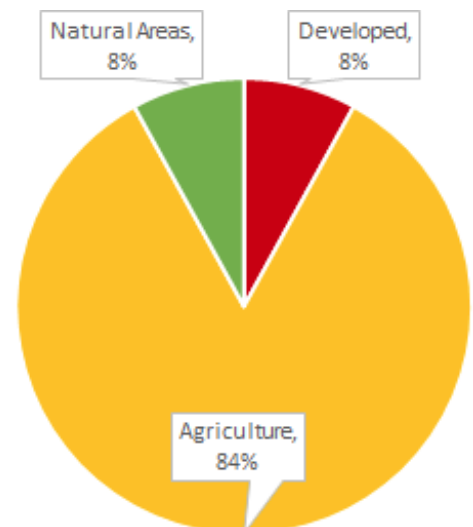
Drains: 27 mi²

Impaired: Yes, recreational pathogens

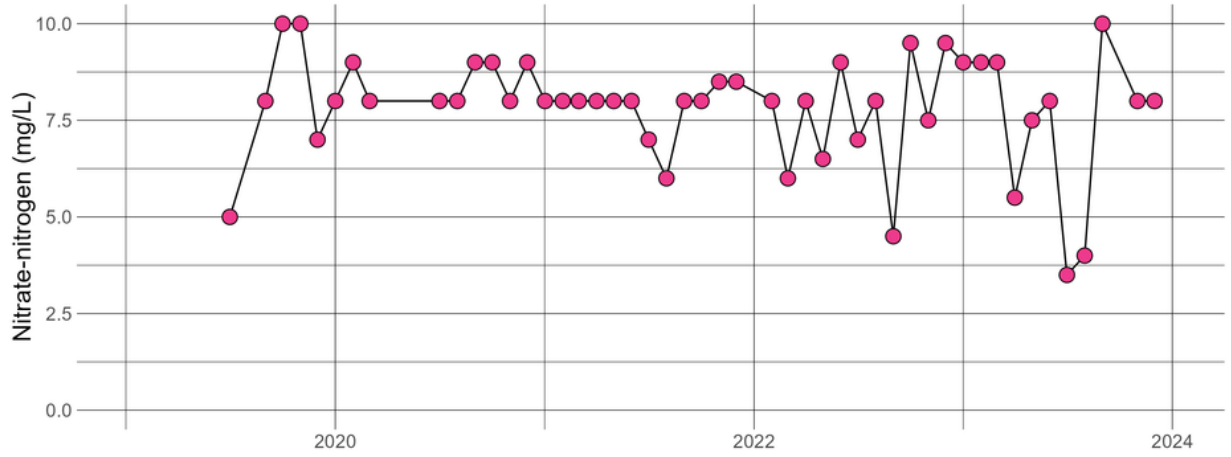
Designation: Warm water fishes (WWF)

Geology: 88% Calcareous, 12% Non-calcareous

Land Use



GRESPRCRE0.16 - Nitrate-nitrogen



GRESPRCRE0.16 - Stage



GRESPRCRE0.16 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jul-19 | 676 | 5 | 7.75 | | | 19.3 |
| Aug-19 | 672 | | 7 | | | 18.3 |
| Sep-19 | 704 | 8 | 9 | | | 13.1 |
| Oct-19 | 709 | 10 | 8 | | | 8.6 |
| Nov-19 | 706 | 10 | 8 | | | 9.9 |
| Dec-19 | 531 | 7 | 8 | | | 8.4 |
| Jan-20 | 683 | 8 | 8 | | | 7.4 |
| Feb-20 | 670 | 9 | 8 | | | 20.1 |
| Mar-20 | 641 | 8 | 8 | | | 15.2 |
| Jul-20 | 722 | 8 | 8 | | | 22.8 |
| Aug-20 | 718 | 8 | 8 | | | 14.5 |
| Sep-20 | 700 | 9 | 8 | | | 16 |
| Oct-20 | 710 | 9 | 8.5 | | | 13.2 |
| Nov-20 | 723 | 8 | 8.5 | | | 9.9 |
| Dec-20 | 681 | 9 | 8 | | | 7.1 |
| Jan-21 | 739 | 8 | 8 | | | 9.8 |
| Feb-21 | 650 | 8 | 8 | | | 10.2 |
| Mar-21 | 666 | 8 | 8 | | | 14.6 |
| Apr-21 | 670 | 8 | 8.5 | | | 15.5 |
| May-21 | 716 | 8 | 8.25 | | | 14 |
| Jun-21 | 714 | 8 | 8 | | | 14.8 |
| Jul-21 | 728 | 7 | 8 | | | 18.7 |
| Aug-21 | 744 | 6 | 8 | | | 16.5 |
| Sep-21 | 758 | 8 | 8 | | | 12.3 |
| Oct-21 | 755 | 8 | 8 | | | 13.3 |
| Nov-21 | 715 | 8.5 | 8.25 | | | 9 |
| Dec-21 | 738 | 8.5 | 8.25 | | | 10.6 |
| Jan-22 | 676 | | 8 | | | 7.8 |
| Feb-22 | 668 | 8 | 8 | | | 13.4 |
| Mar-22 | 698 | 6 | 8 | | | 13.5 |
| Apr-22 | 700 | 8 | 8 | | | 9.6 |
| May-22 | 702 | 6.5 | 8 | | | 13.5 |
| Jun-22 | 734 | 9 | 8 | | | 13.4 |
| Jul-22 | 742 | 7 | 8.25 | | | 15.6 |
| Aug-22 | 688 | 8 | 8 | | | 16.4 |
| Sep-22 | 733 | 4.5 | 8 | 0.5 | 50.6 | 15.6 |
| Oct-22 | 737 | 9.5 | 8 | 0.3 | 31 | 12.3 |
| Nov-22 | 645 | 7.5 | 8 | 0.3 | 29 | 7.4 |
| Dec-22 | 538 | 9.5 | 8 | 0.5 | 28 | 8.2 |

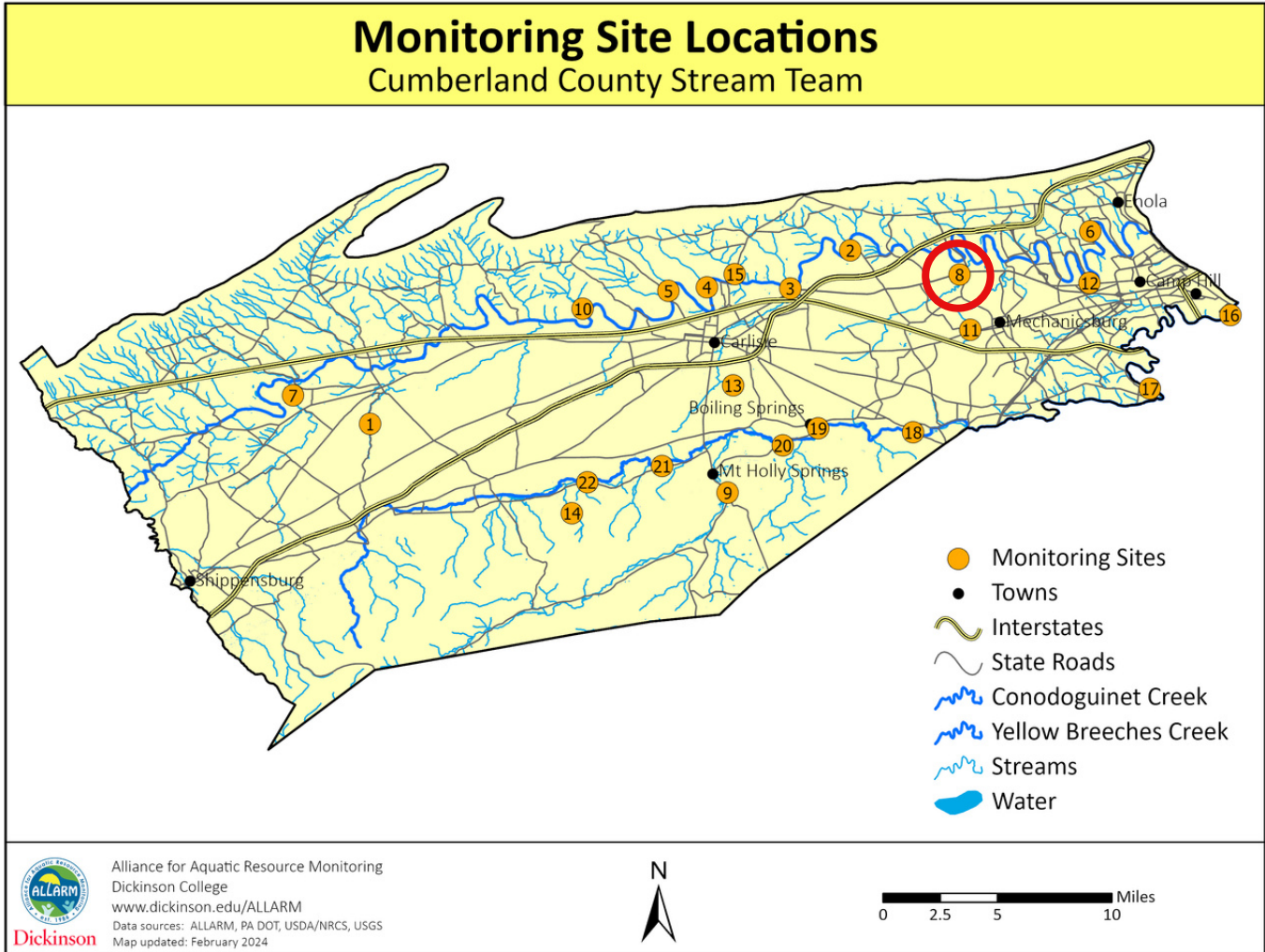
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jan-23 | 655 | 9 | 8 | 0.6 | 33 | 8.4 |
| Feb-23 | 740 | 9 | 8 | 0.6 | 36.6 | 9.9 |
| Mar-23 | 718 | 9 | 8.25 | 0.7 | 47 | 11.8 |
| Apr-23 | 664 | 5.5 | 8 | 0.6 | 57 | 18.8 |
| May-23 | 702 | 7.5 | 8 | 0.7 | 60 | 13.3 |
| Jun-23 | 736 | 8 | 8.5 | 0.6 | 60 | 16.1 |
| Jul-23 | 637 | 3.5 | 8 | 0.7 | 38.8 | 18.2 |
| Aug-23 | 751 | 4 | 8 | 0.7 | 36.6 | 17.6 |
| Sep-23 | 757 | 10 | 8 | 0.5 | 26.6 | 15.3 |
| Oct-23 | 714 | | 8 | 0.7 | 16.4 | 13.8 |
| Nov-23 | 759 | 8 | 8 | 0.7 | 28 | 7.4 |
| Dec-23 | 660 | 8 | 8 | 0.9 | 17.2 | 8.2 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 531 | 759 | 228 | 698 | 706 |
| Nitrate-Nitrogen | 3.5 | 10 | 6.5 | 7.8 | 8 |
| pH | 7 | 9 | 2 | 8.1 | 8 |
| Stage | 0.3 | 0.9 | 0.6 | 0.6 | 0.6 |
| Water Clarity | 16 | 60 | 44 | 37 | 35 |
| Water Temp. | 7.1 | 23 | 16 | 13 | 13 |

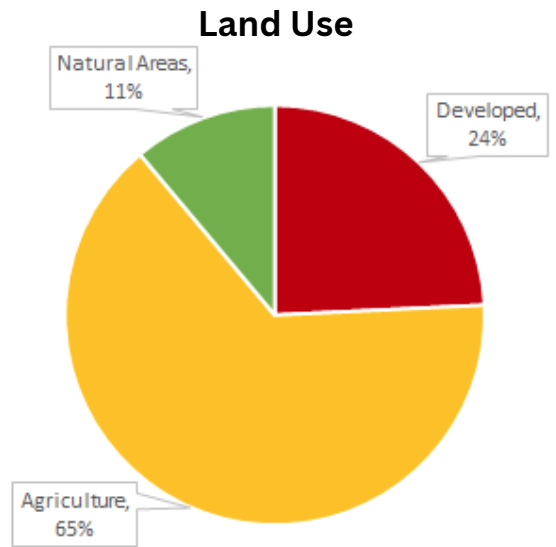
Hogestown Run (HOGRUN0.98)

Monitor(s): Chad Greenlee & Gil Freedman

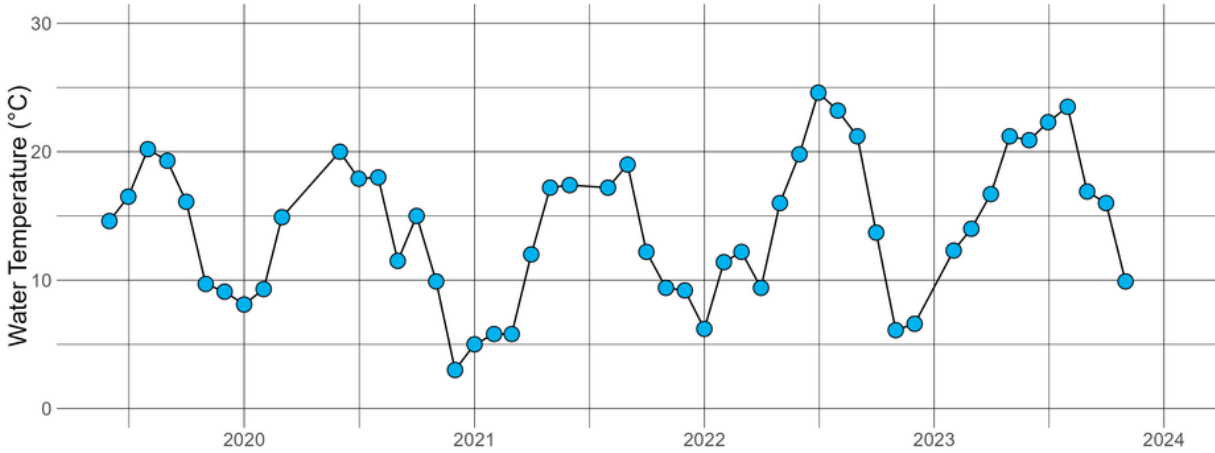


Site information:

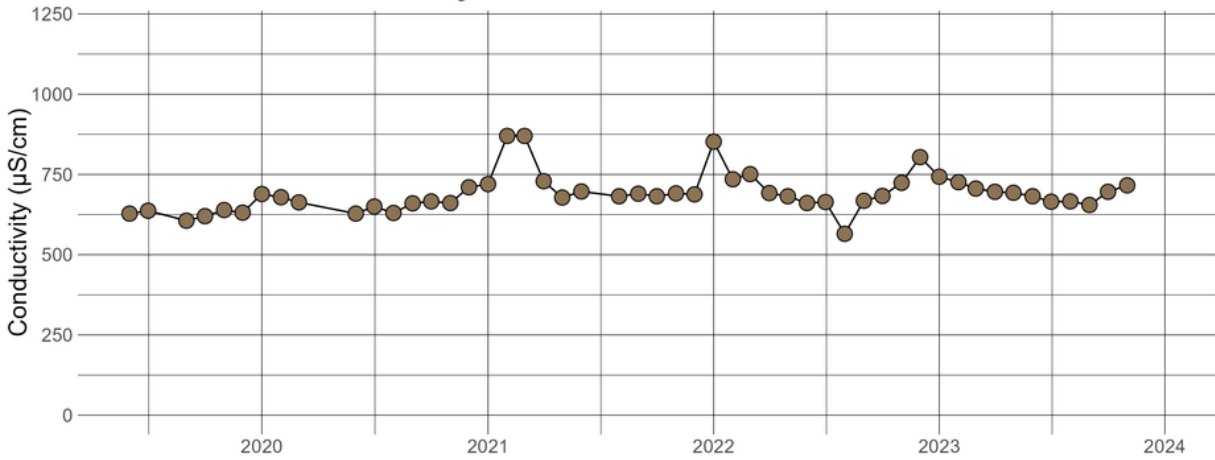
Drains: 17 mi²
 Impaired: Yes, recreational pathogens
 Designation: Cold Water Fishes (CWF)
 Geology: 98% Calcareous, 2% Non-calcareous



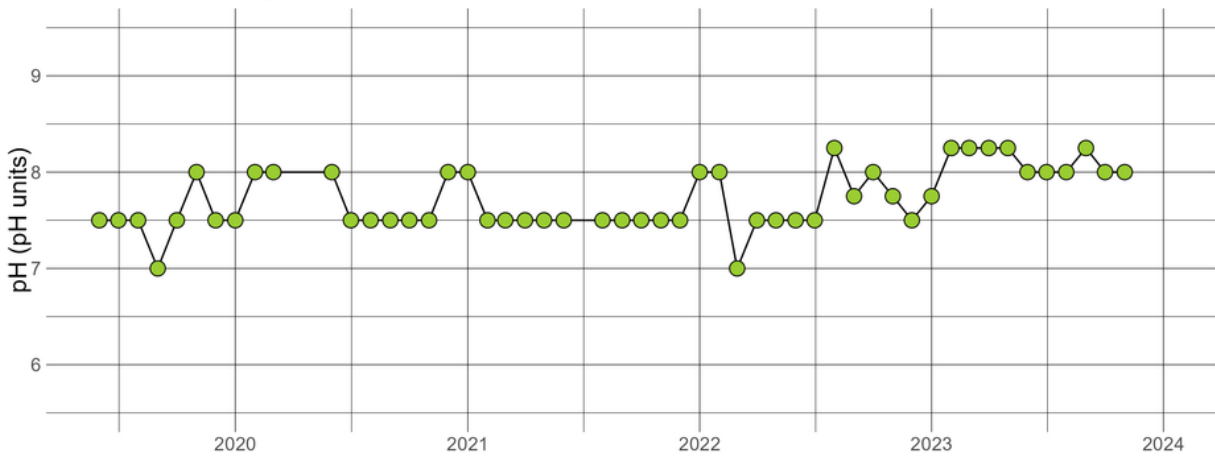
HOGRUN0.98 - Water Temperature



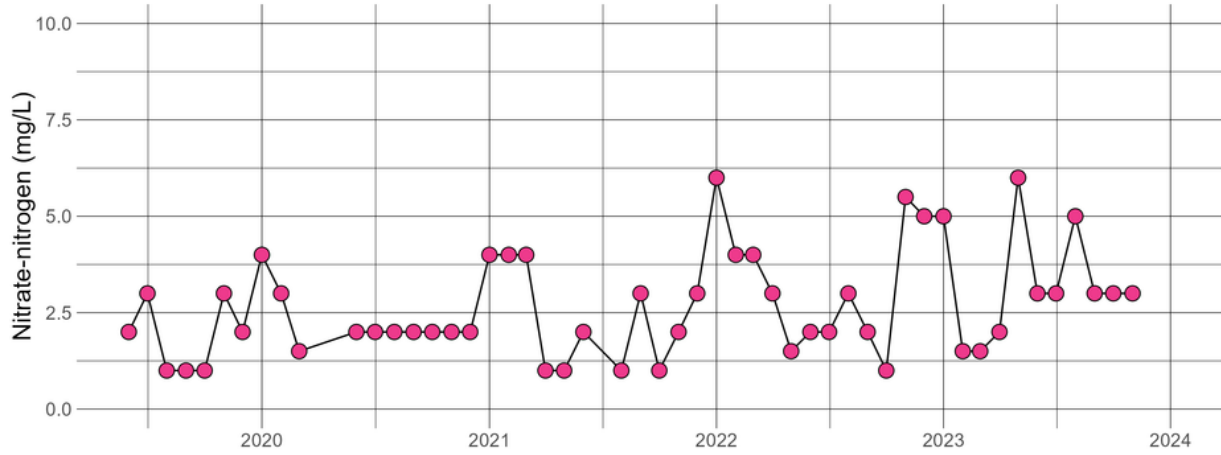
HOGRUN0.98 - Conductivity



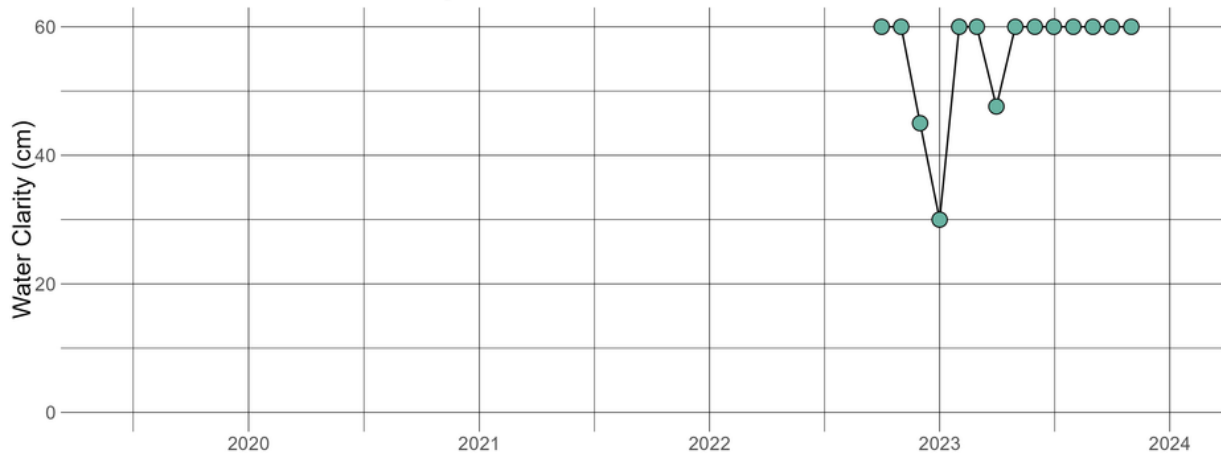
HOGRUN0.98 - pH



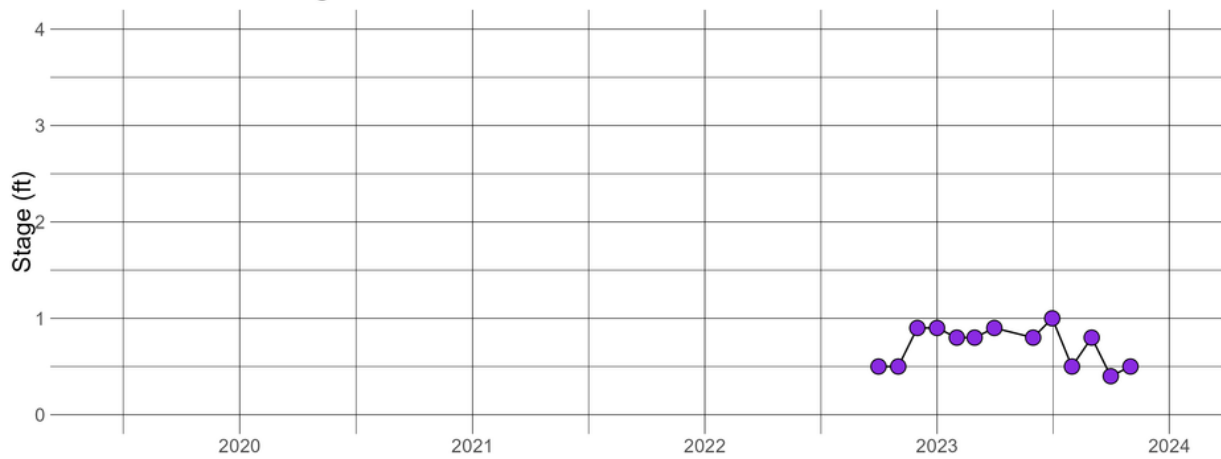
HOGRUN0.98 - Nitrate-nitrogen



HOGRUN0.98 - Water Clarity



HOGRUN0.98 - Stage



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|-------------|------------|----------------|-----------|--------------|----------------|---------------|
| Jun-19 | 628 | 2 | 7.5 | | | 14.6 |
| Jul-19 | 637 | 3 | 7.5 | | | 16.5 |
| Aug-19 | | 1 | 7.5 | | | 20.2 |
| Sep-19 | 606 | 1 | 7 | | | 19.3 |
| Oct-19 | 620 | 1 | 7.5 | | | 16.1 |
| Nov-19 | 639 | 3 | 8 | | | 9.7 |
| Dec-19 | 631 | 2 | 7.5 | | | 9.1 |
| Jan-20 | 689 | 4 | 7.5 | | | 8.1 |
| Feb-20 | 679 | 3 | 8 | | | 9.3 |
| Mar-20 | 663 | 1.5 | 8 | | | 14.9 |
| Jun-20 | 628 | 2 | 8 | | | 20 |
| Jul-20 | 650 | 2 | 7.5 | | | 17.9 |
| Aug-20 | 630 | 2 | 7.5 | | | 18 |
| Sep-20 | 660 | 2 | 7.5 | | | 11.5 |
| Oct-20 | 666 | 2 | 7.5 | | | 15 |
| Nov-20 | 661 | 2 | 7.5 | | | 9.9 |
| Dec-20 | 710 | 2 | 8 | | | 3 |
| Jan-21 | 720 | 4 | 8 | | | 5 |
| Feb-21 | 870 | 4 | 7.5 | | | 5.8 |
| Mar-21 | 870 | 4 | 7.5 | | | 5.8 |
| Apr-21 | 729 | 1 | 7.5 | | | 12 |
| May-21 | 678 | 1 | 7.5 | | | 17.2 |
| Jun-21 | 697 | 2 | 7.5 | | | 17.4 |
| Aug-21 | 682 | 1 | 7.5 | | | 17.2 |
| Sep-21 | 690 | 3 | 7.5 | | | 19 |
| Oct-21 | 682 | 1 | 7.5 | | | 12.2 |
| Nov-21 | 691 | 2 | 7.5 | | | 9.4 |
| Dec-21 | 688 | 3 | 7.5 | | | 9.2 |

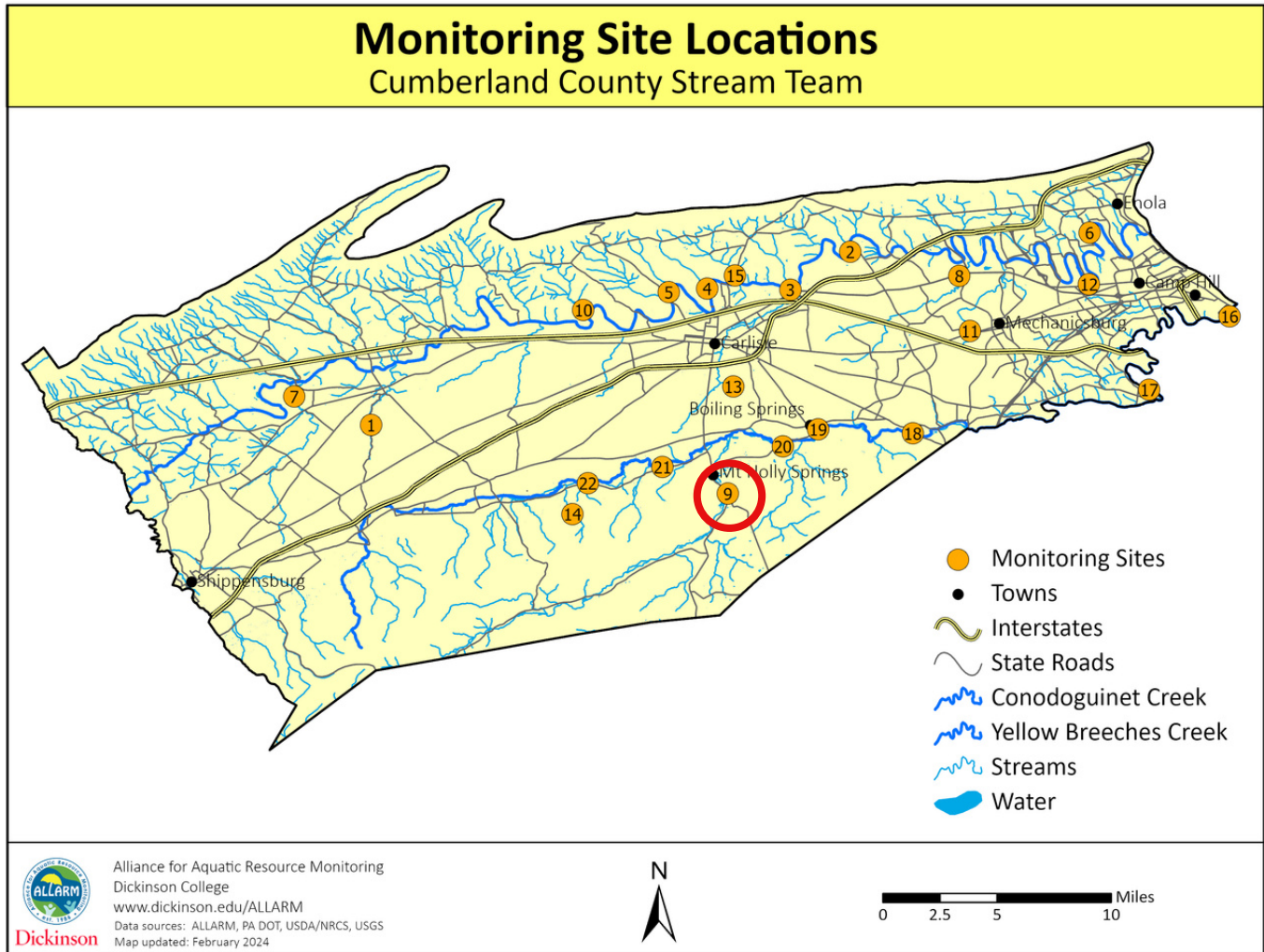
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jan-22 | 852 | 6 | 8 | | | 6.2 |
| Feb-22 | 735 | 4 | 8 | | | 11.4 |
| Mar-22 | 751 | 4 | 7 | | | 12.2 |
| Apr-22 | 692 | 3 | 7.5 | | | 9.4 |
| May-22 | 682 | 1.5 | 7.5 | | | 16 |
| Jun-22 | 661 | 2 | 7.5 | | | 19.8 |
| Jul-22 | 664 | 2 | 7.5 | | | 24.6 |
| Aug-22 | 565 | 3 | 8.25 | | | 23.2 |
| Sep-22 | 668 | 2 | 7.75 | | | 21.2 |
| Oct-22 | 683 | 1 | 8 | 0.5 | 60 | 13.7 |
| Nov-22 | 724 | 5.5 | 7.75 | 0.5 | 60 | 6.1 |
| Dec-22 | 804 | 5 | 7.5 | 0.9 | 45 | 6.6 |
| Jan-23 | 743 | 5 | 7.75 | 0.9 | 30 | |
| Feb-23 | 726 | 1.5 | 8.25 | 0.8 | 60 | 12.3 |
| Mar-23 | 706 | 1.5 | 8.25 | 0.8 | 60 | 14 |
| Apr-23 | 696 | 2 | 8.25 | 0.9 | 47.6 | 16.7 |
| May-23 | 693 | 6 | 8.25 | | 60 | 21.2 |
| Jun-23 | 682 | 3 | 8 | 0.8 | 60 | 20.9 |
| Jul-23 | 665 | 3 | 8 | 1 | 60 | 22.3 |
| Aug-23 | 666 | 5 | 8 | 0.5 | 60 | 23.5 |
| Sep-23 | 655 | 3 | 8.25 | 0.8 | 60 | 16.9 |
| Oct-23 | 696 | 3 | 8 | 0.4 | 60 | 16 |
| Nov-23 | 716 | 3 | 8 | 0.5 | 60 | 9.9 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 565 | 870 | 305 | 690 | 682 |
| Nitrate-Nitrogen | 1 | 6 | 5 | 2.7 | 2 |
| pH | 7 | 8.2 | 1.2 | 7.7 | 7.5 |
| Stage | 0.4 | 1 | 0.6 | 0.72 | 0.8 |
| Water Clarity | 30 | 60 | 30 | 56 | 60 |
| Water Temp. | 3 | 25 | 22 | 14 | 15 |

Mountain Creek (MOUCRE 2.65)

Monitor(s): Jonathan Daniels & Sami Anderson



Land Use

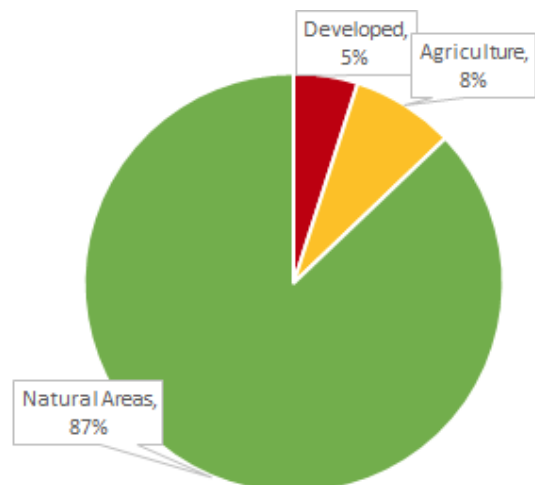
Site information:

Drains: 45 mi²

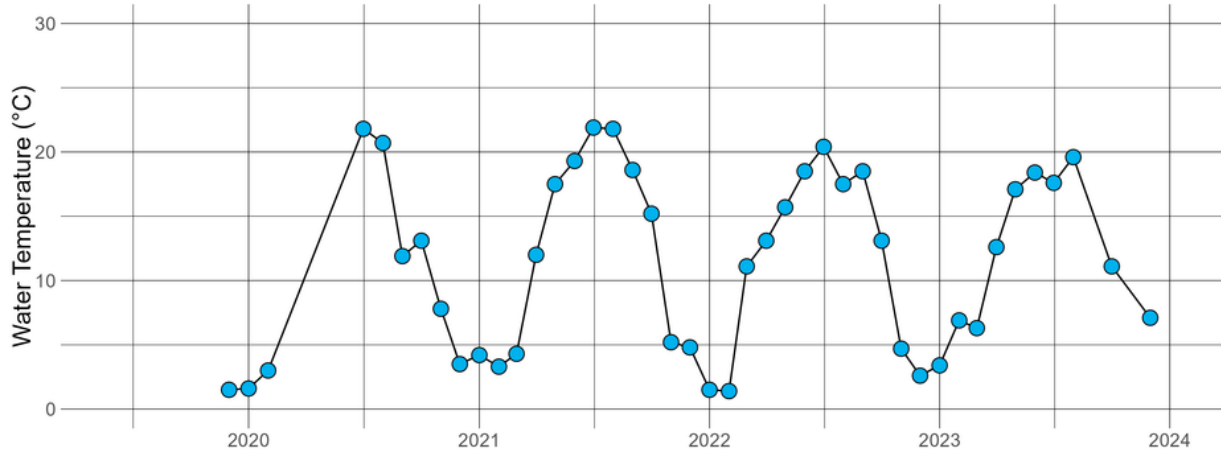
Impaired: No

Designation: Cold water fishes (CWF)

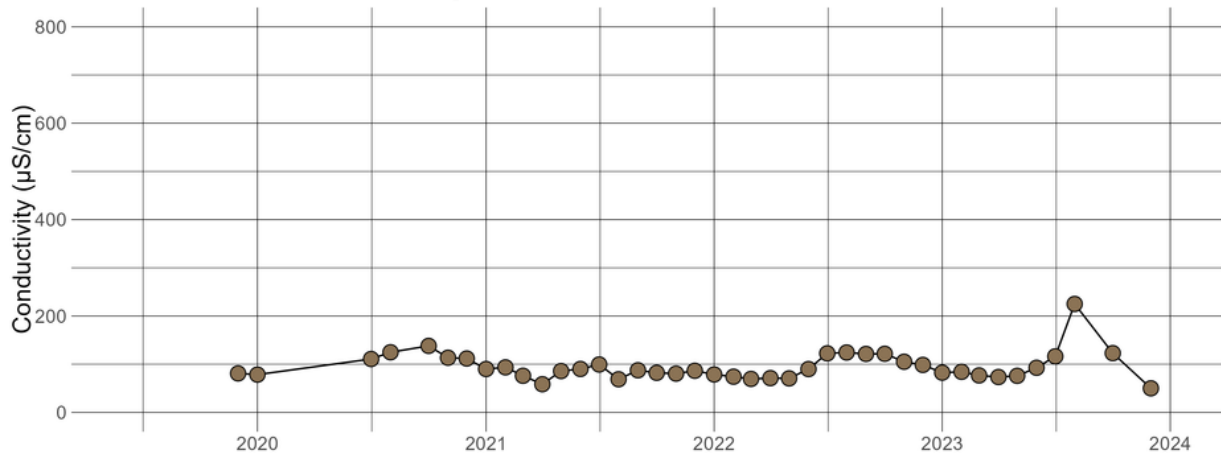
Geology: 12% Calcareous, 88% Non-calcareous



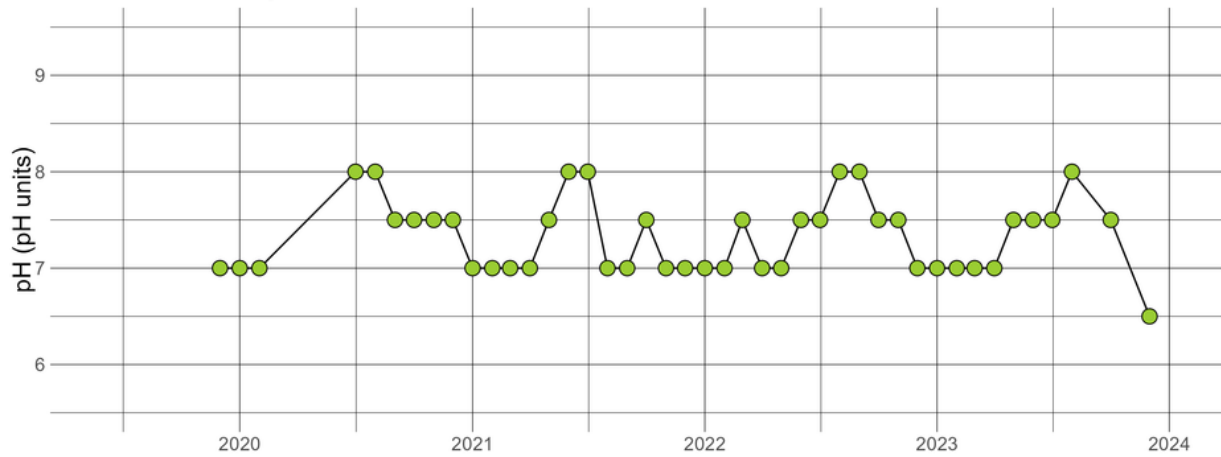
MOUCRE2.65 - Water Temperature



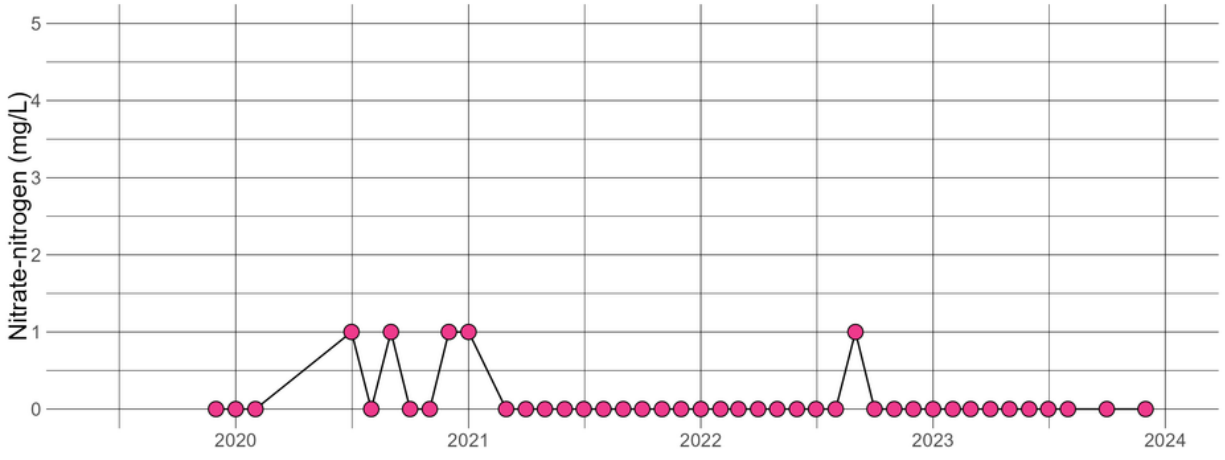
MOUCRE2.65 - Conductivity



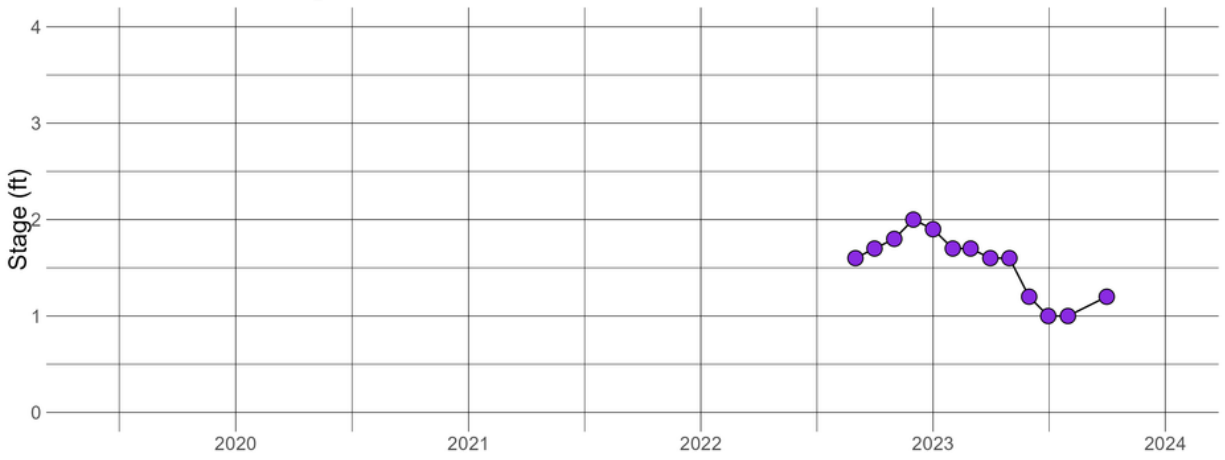
MOUCRE2.65 - pH



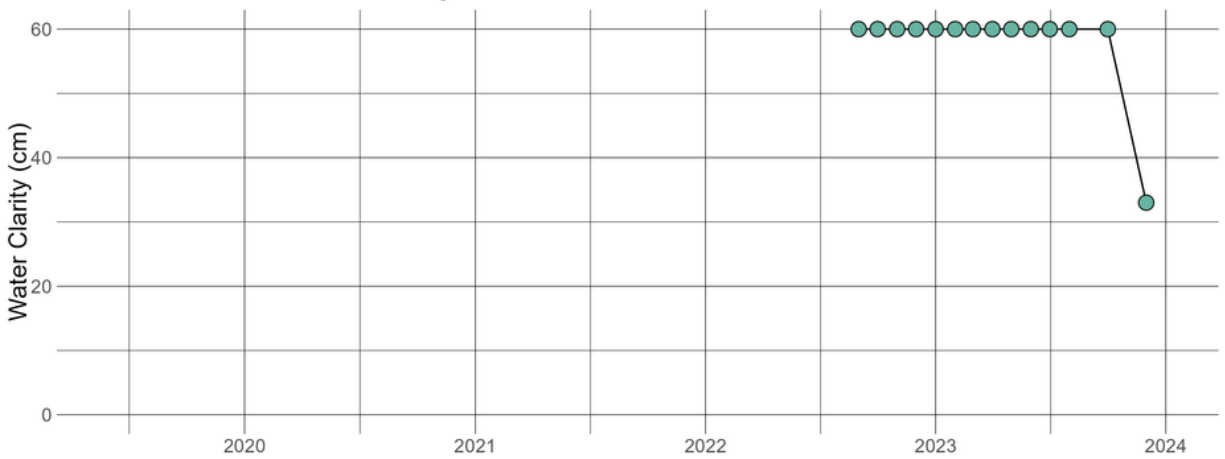
MOUCRE2.65 - Nitrate-nitrogen



MOUCRE2.65 - Stage



MOUCRE2.65 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Dec-19 | 80.9 | 0 | 7 | | | 1.5 |
| Jan-20 | 78.4 | 0 | 7 | | | 1.6 |
| Feb-20 | | 0 | 7 | | | 3 |
| Jun-20 | | | | | | |
| Jul-20 | 110.8 | 1 | 8 | | | 21.8 |
| Aug-20 | 124.8 | 0 | 8 | | | 20.7 |
| Sep-20 | | 1 | 7.5 | | | 11.9 |
| Oct-20 | 138 | 0 | 7.5 | | | 13.1 |
| Nov-20 | 113.4 | 0 | 7.5 | | | 7.8 |
| Dec-20 | 111.8 | 1 | 7.5 | | | 3.5 |
| Jan-21 | 90 | 1 | 7 | | | 4.2 |
| Feb-21 | 93.5 | | 7 | | | 3.3 |
| Mar-21 | 76 | 0 | 7 | | | 4.3 |
| Apr-21 | 58.5 | 0 | 7 | | | 12 |
| May-21 | 85.8 | 0 | 7.5 | | | 17.5 |
| Jun-21 | 90.1 | 0 | 8 | | | 19.3 |
| Jul-21 | 99.4 | 0 | 8 | | | 21.9 |
| Aug-21 | 68.8 | 0 | 7 | | | 21.8 |
| Sep-21 | 87.4 | 0 | 7 | | | 18.6 |
| Oct-21 | 82.1 | 0 | 7.5 | | | 15.2 |
| Nov-21 | 80.5 | 0 | 7 | | | 5.2 |
| Dec-21 | 86.4 | 0 | 7 | | | 4.8 |
| Jan-22 | 78.7 | 0 | 7 | | | 1.5 |
| Feb-22 | 74.1 | 0 | 7 | | | 1.4 |
| Mar-22 | 69.5 | 0 | 7.5 | | | 11.1 |
| Apr-22 | 71.1 | 0 | 7 | | | 13.1 |
| May-22 | 70.6 | 0 | 7 | | | 15.7 |
| Jun-22 | 89.9 | 0 | 7.5 | | | 18.5 |
| Jul-22 | 122.5 | 0 | 7.5 | | | 20.4 |
| Aug-22 | 124.3 | 0 | 8 | | | 17.5 |
| Sep-22 | 121.3 | 1 | 8 | 1.6 | 60 | 18.5 |
| Oct-22 | 121.6 | 0 | 7.5 | 1.7 | 60 | 13.1 |
| Nov-22 | 105.1 | 0 | 7.5 | 1.8 | 60 | 4.7 |
| Dec-22 | 98.5 | 0 | 7 | 2 | 60 | 2.6 |

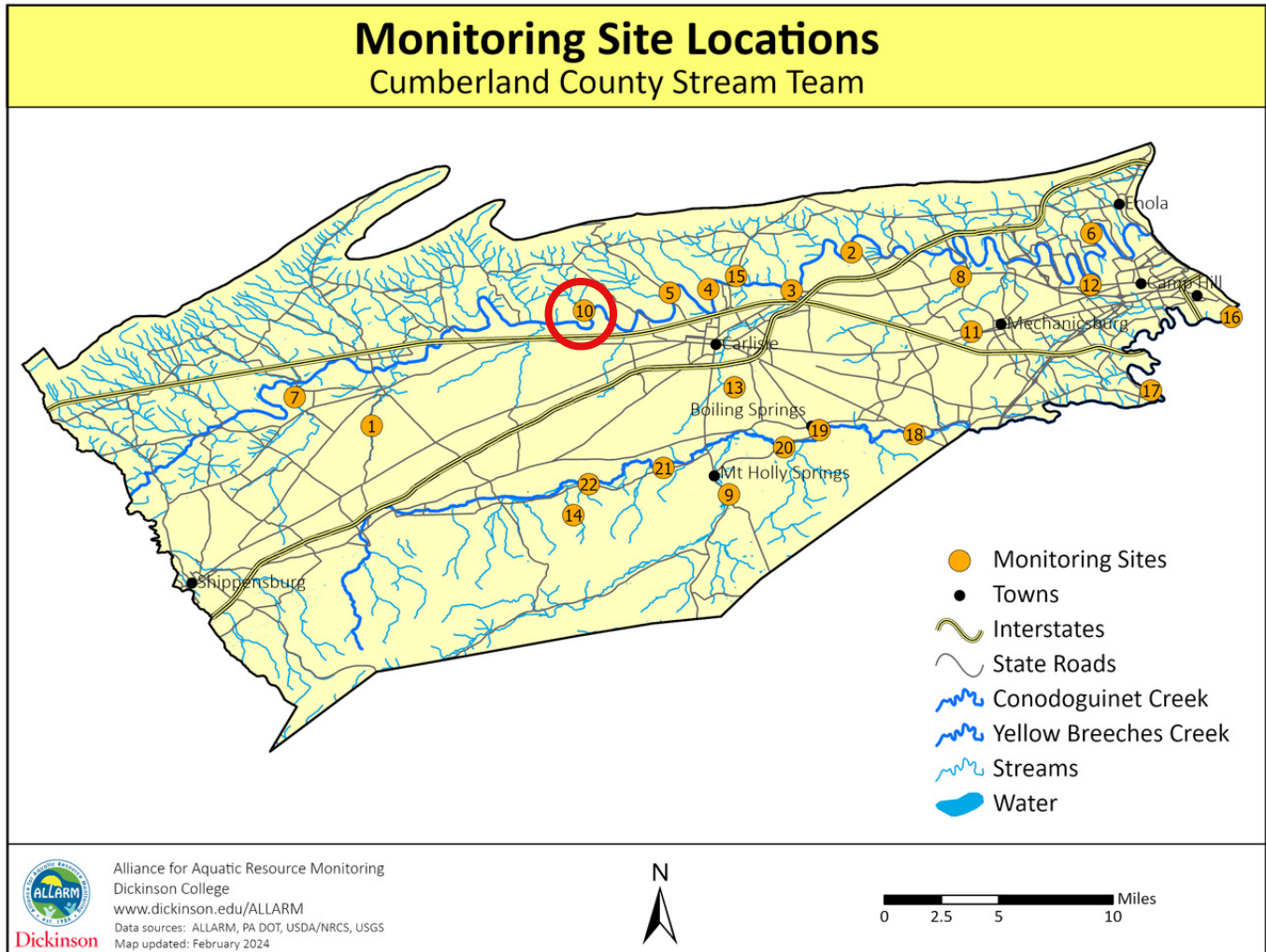
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jan-23 | 82.5 | 0 | 7 | 1.9 | 60 | 3.4 |
| Feb-23 | 84.2 | 0 | 7 | 1.7 | 60 | 6.9 |
| Mar-23 | 76.7 | 0 | 7 | 1.7 | 60 | 6.3 |
| Apr-23 | 73.4 | 0 | 7 | 1.6 | 60 | 12.6 |
| May-23 | 75.9 | 0 | 7.5 | 1.6 | 60 | 17.1 |
| Jun-23 | 92.6 | 0 | 7.5 | 1.2 | 60 | 18.4 |
| Jul-23 | 116.3 | 0 | 7.5 | 1 | 60 | 17.6 |
| Aug-23 | 225 | 0 | 8 | 1 | 60 | 19.6 |
| Oct-23 | 122.9 | 0 | 7.5 | 1.2 | 60 | 11.1 |
| Dec-23 | 50 | 0 | 6.5 | | 33 | 7.1 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 50 | 225 | 175 | 95 | 87 |
| Nitrate-Nitrogen | 0 | 1 | 1 | 0.12 | 0 |
| pH | 6.5 | 8 | 1.5 | 7.3 | 7.5 |
| Stage | 1 | 2 | 1 | 1.5 | 1.6 |
| Water Clarity | 33 | 60 | 27 | 58 | 60 |
| Water Temp. | 1.4 | 22 | 20 | 11 | 12 |

Opossum Creek (OPOCRE 0.19)

Monitor(s): Mary Franco



Site information:

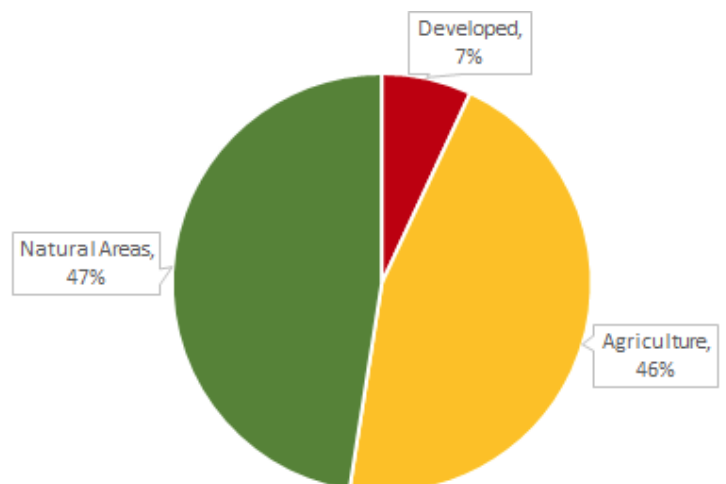
Drains: 5 mi²

Impaired: Yes, aquatic life

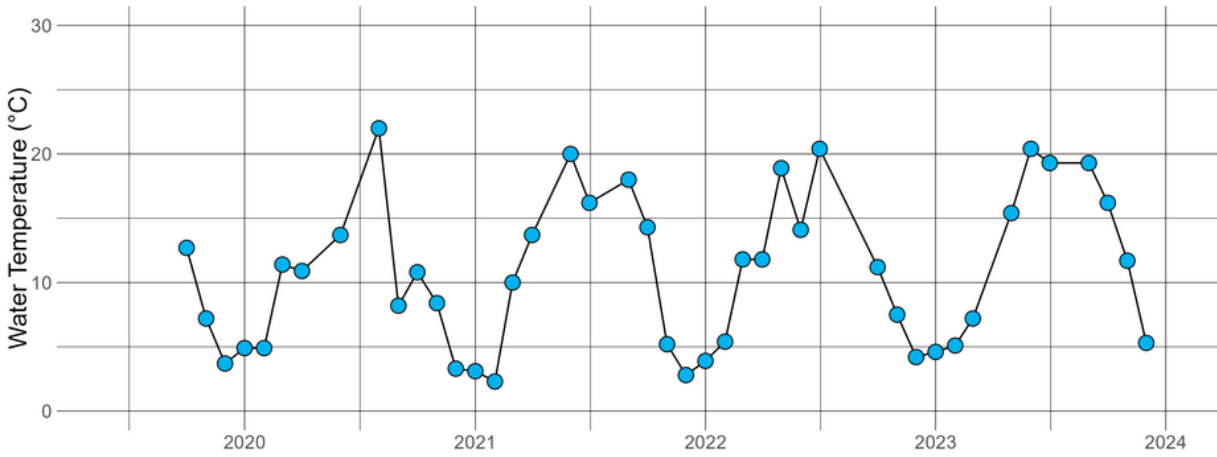
Designation: Trout stocking (TSF)

Geology: 100% Non-calcareous

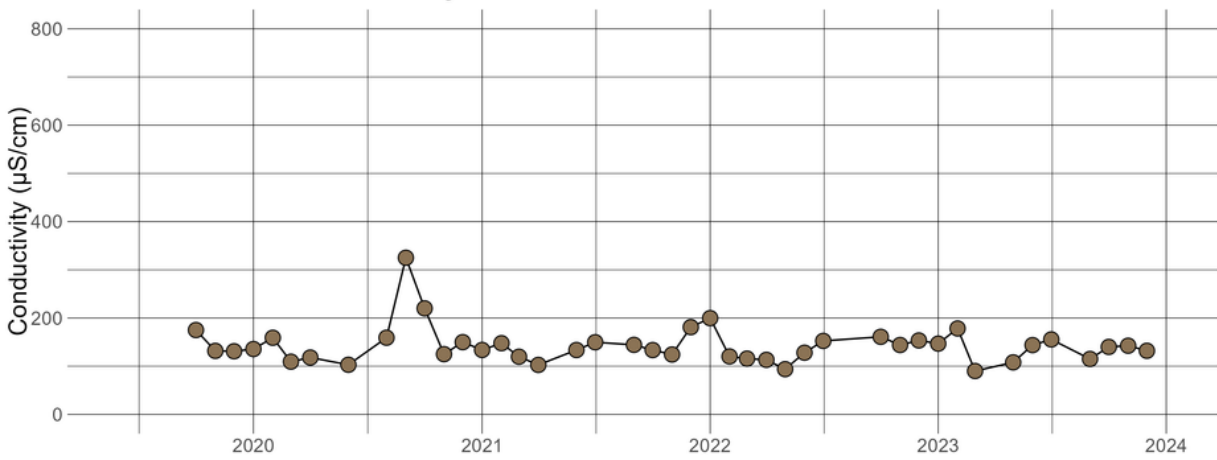
Land Use



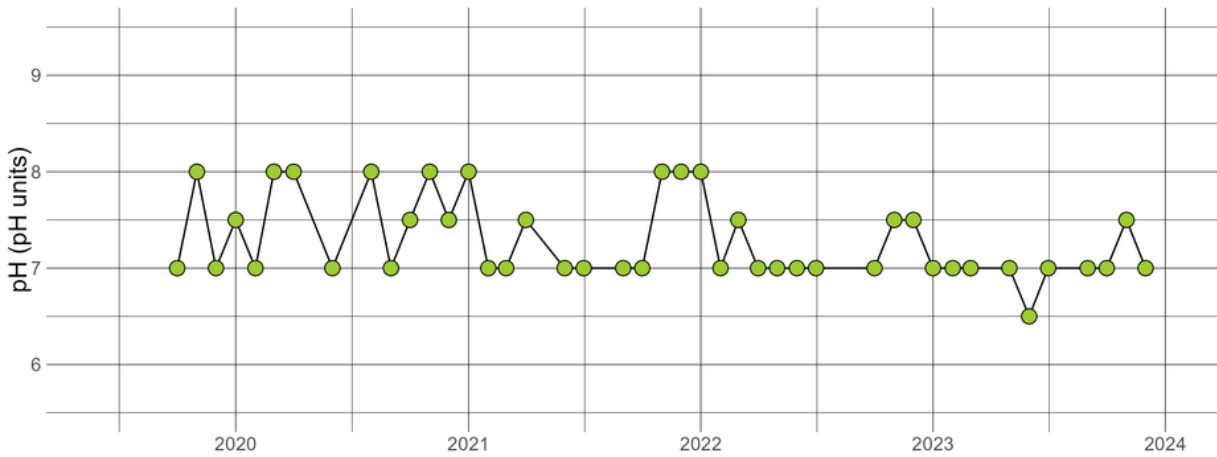
OPOCRE0.19 - Water Temperature



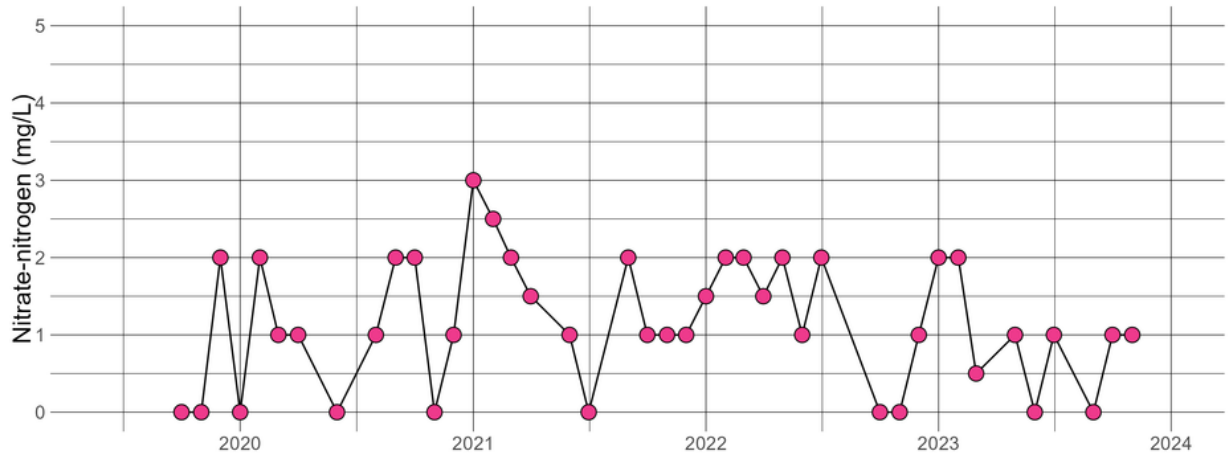
OPOCRE0.19 - Conductivity



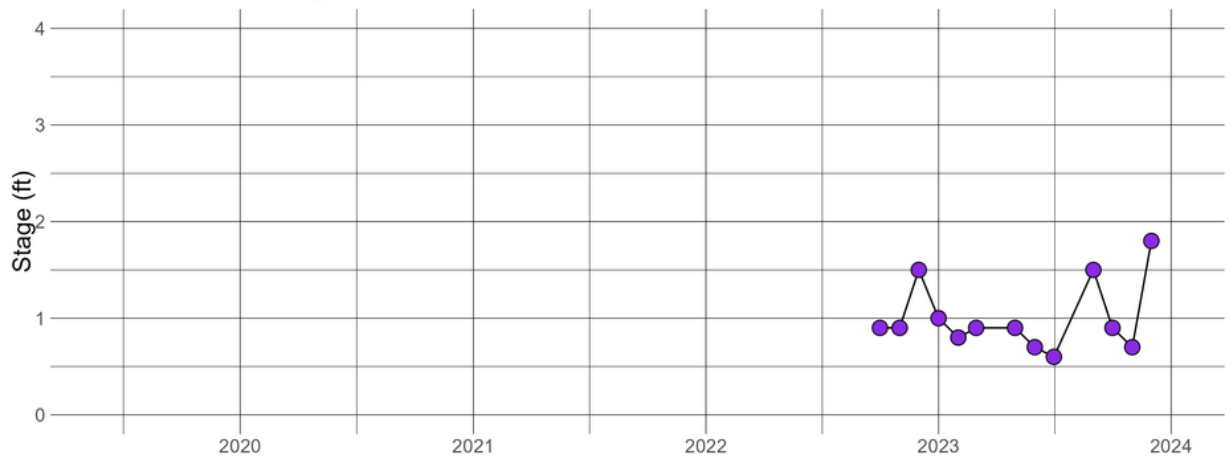
OPOCRE0.19 - pH



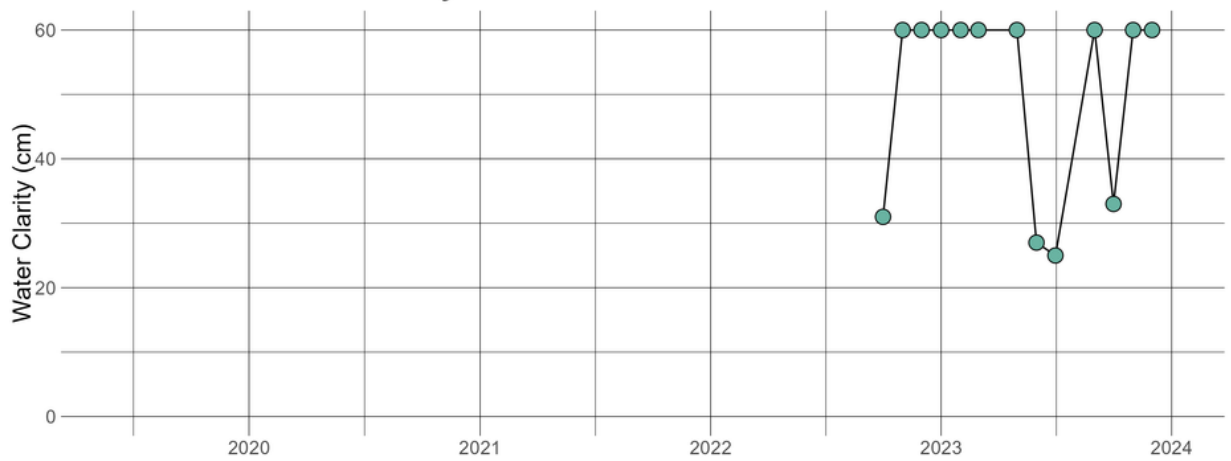
OPOCRE0.19 - Nitrate-nitrogen



OPOCRE0.19 - Stage



OPOCRE0.19 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Oct-19 | 175 | 0 | 7 | | | 12.7 |
| Nov-19 | 131.8 | 0 | 8 | | | 7.2 |
| Dec-19 | 131 | 2 | 7 | | | 3.7 |
| Jan-20 | 135.6 | 0 | 7.5 | | | 4.9 |
| Feb-20 | 159 | 2 | 7 | | | 4.9 |
| Mar-20 | 109.4 | 1 | 8 | | | 11.4 |
| Apr-20 | 118 | 1 | 8 | | | 10.9 |
| Jun-20 | 103 | 0 | 7 | | | 13.7 |
| Aug-20 | 159.1 | 1 | 8 | | | 22 |
| Sep-20 | 325 | 2 | 7 | | | 8.2 |
| Oct-20 | 220 | 2 | 7.5 | | | 10.8 |
| Nov-20 | 125 | 0 | 8 | | | 8.4 |
| Dec-20 | 149.9 | 1 | 7.5 | | | 3.3 |
| Jan-21 | 133.7 | 3 | 8 | | | 3.1 |
| Feb-21 | 147.7 | 2.5 | 7 | | | 2.3 |
| Mar-21 | 119.7 | 2 | 7 | | | 10 |
| Apr-21 | 102.7 | 1.5 | 7.5 | | | 13.7 |
| Jun-21 | 133.6 | 1 | 7 | | | 20 |
| Jul-21 | 149.7 | 0 | 7 | | | 16.2 |
| Sep-21 | 144.3 | 2 | 7 | | | 18 |
| Oct-21 | 133.5 | 1 | 7 | | | 14.3 |
| Nov-21 | 124.3 | 1 | 8 | | | 5.2 |
| Dec-21 | 181 | 1 | 8 | | | 2.8 |
| Jan-22 | 199.7 | 1.5 | 8 | | | 3.9 |
| Feb-22 | 120.2 | 2 | 7 | | | 5.4 |
| Mar-22 | 115.8 | 2 | 7.5 | | | 11.8 |
| Apr-22 | 113.2 | 1.5 | 7 | | | 11.8 |
| May-22 | 93.9 | 2 | 7 | | | 18.9 |
| Jun-22 | 128 | 1 | 7 | | | 14.1 |
| Jul-22 | 152.5 | 2 | 7 | | | 20.4 |
| Oct-22 | 161 | 0 | 7 | 0.9 | 31 | 11.2 |
| Nov-22 | 144 | 0 | 7.5 | 0.9 | 60 | 7.5 |
| Dec-22 | 153.4 | 1 | 7.5 | 1.5 | 60 | 4.2 |

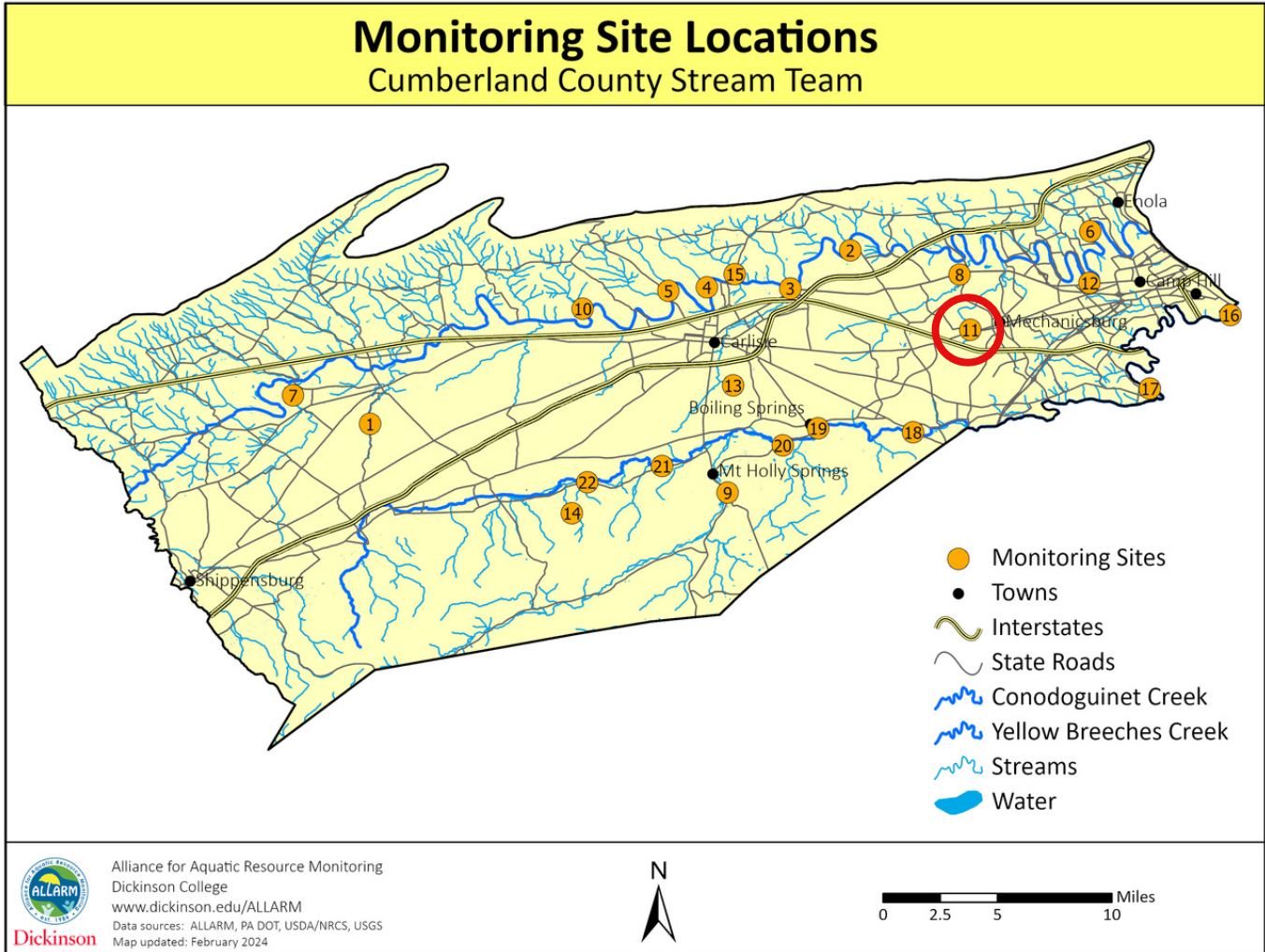
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jan-23 | 146.8 | 2 | 7 | 1 | 60 | 4.6 |
| Feb-23 | 178.3 | 2 | 7 | 0.8 | 60 | 5.1 |
| Mar-23 | 90 | 0.5 | 7 | 0.9 | 60 | 7.2 |
| May-23 | 108 | 1 | 7 | 0.9 | 60 | 15.4 |
| Jun-23 | 143.8 | 0 | 6.5 | 0.7 | 27 | 20.4 |
| Jul-23 | 155.5 | 1 | 7 | 0.6 | 25 | 19.3 |
| Sep-23 | 115 | 0 | 7 | 1.5 | 60 | 19.3 |
| Oct-23 | 140 | 1 | 7 | 0.9 | 33 | 16.2 |
| Nov-23 | 142.5 | 1 | 7.5 | 0.7 | 60 | 11.7 |
| Dec-23 | 132 | | 7 | 1.8 | 60 | 5.3 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 90 | 325 | 235 | 143 | 136 |
| Nitrate-Nitrogen | 0 | 3 | 3 | 1.2 | 1 |
| pH | 6.5 | 8 | 1.5 | 7.3 | 7 |
| Stage | 0.6 | 1.8 | 1.2 | 1 | 0.9 |
| Water Clarity | 25 | 60 | 35 | 50 | 60 |
| Water Temp. | 2.3 | 22 | 20 | 11 | 11 |

Trindle Spring Run (TRISPRRUN5.03)

Monitor(s): Barb Arnold & Curtis Huey



Land Use

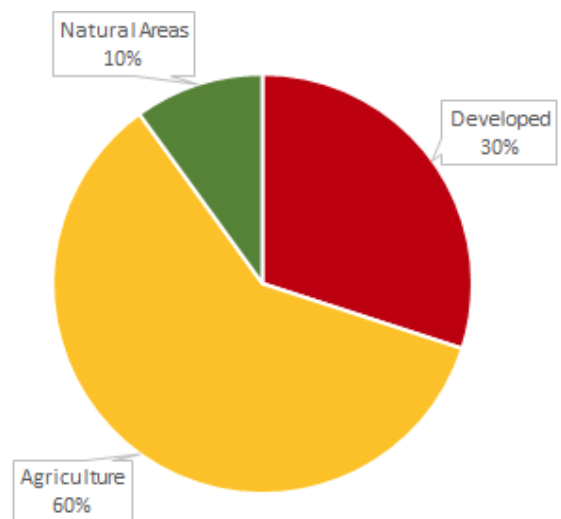
Site information:

Drains: 3 mi²

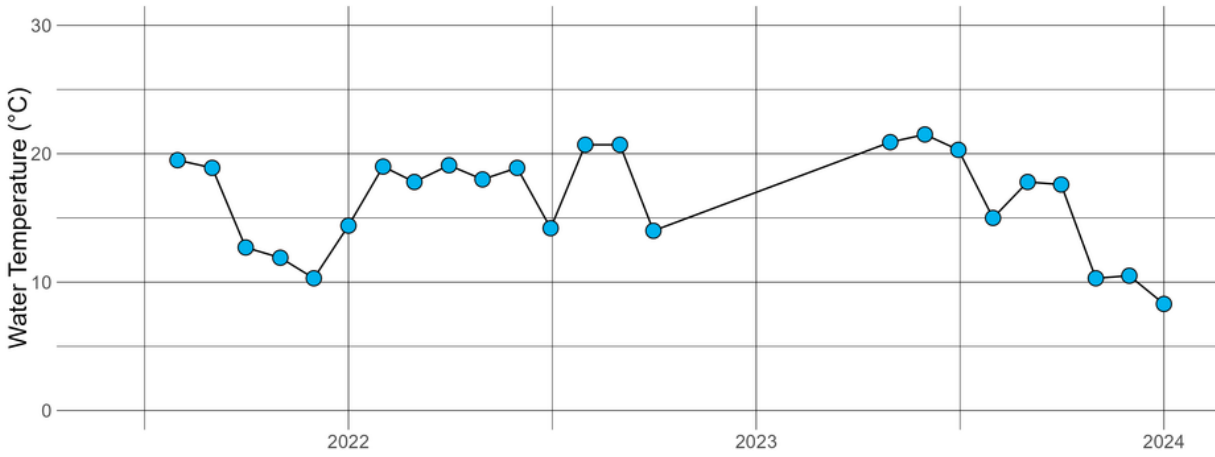
Impaired: Yes, fish consumption

Designation: Cold water fishes (CWF)

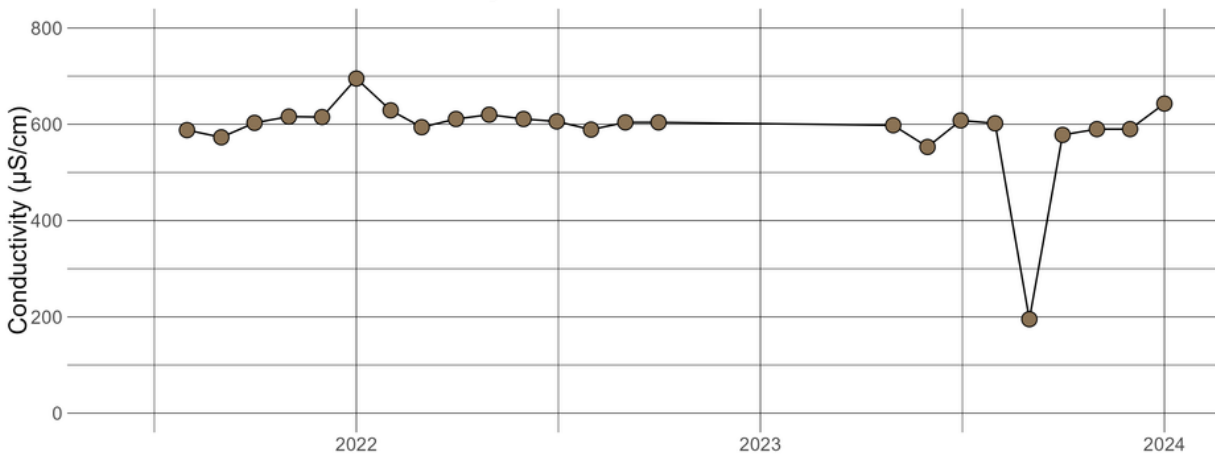
Geology: 100% Calcareous



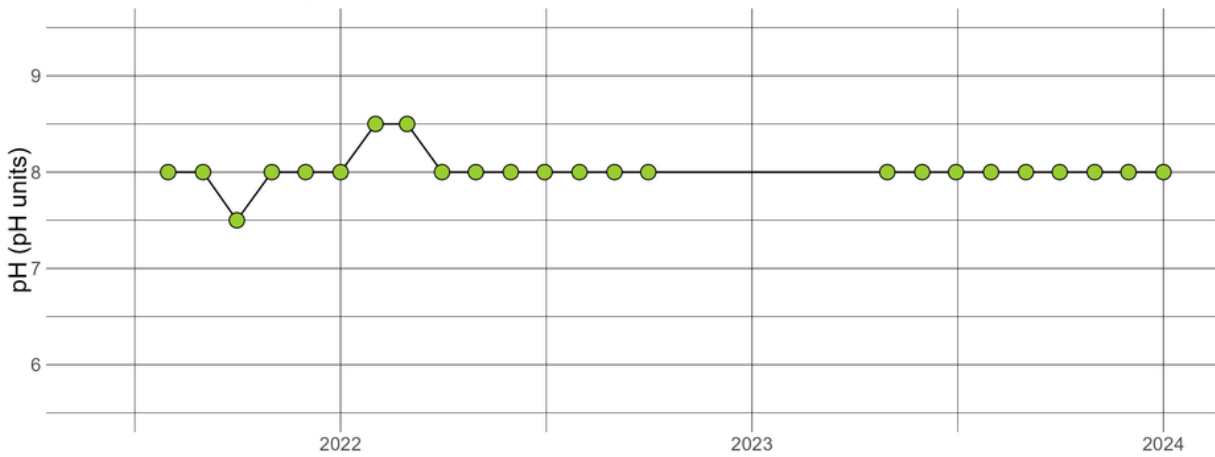
TRISPRRUN5.03 - Water Temperature



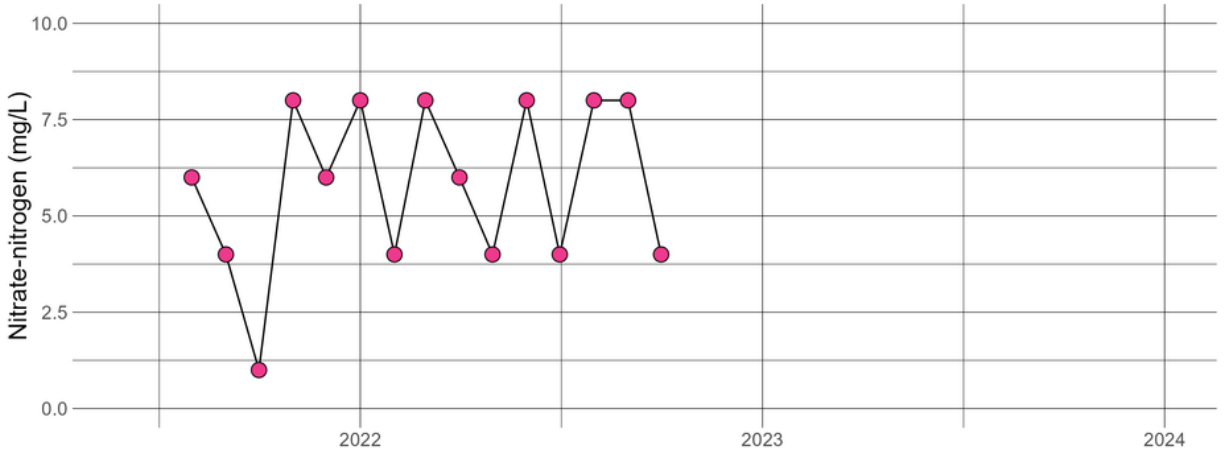
TRISPRRUN5.03 - Conductivity



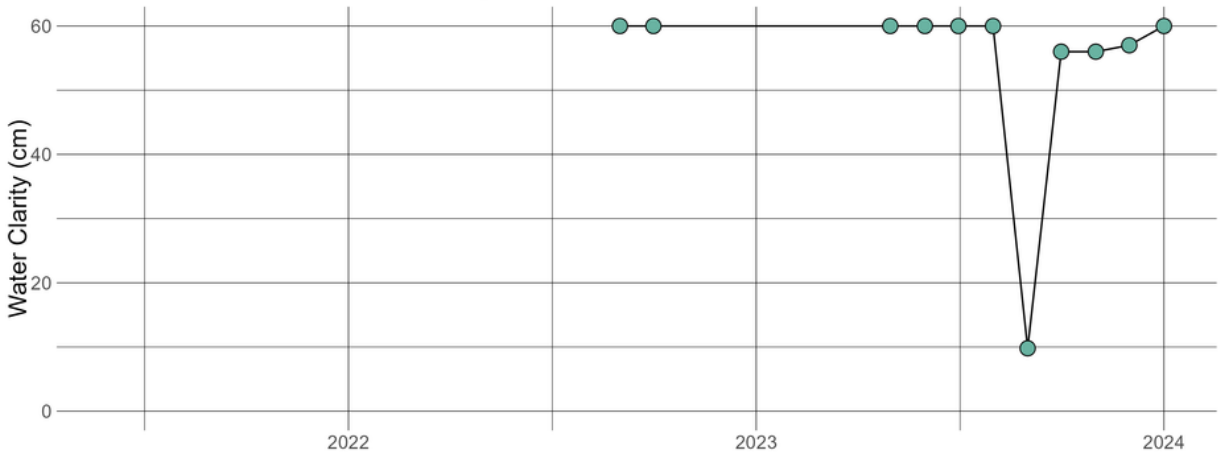
TRISPRRUN5.03 - pH



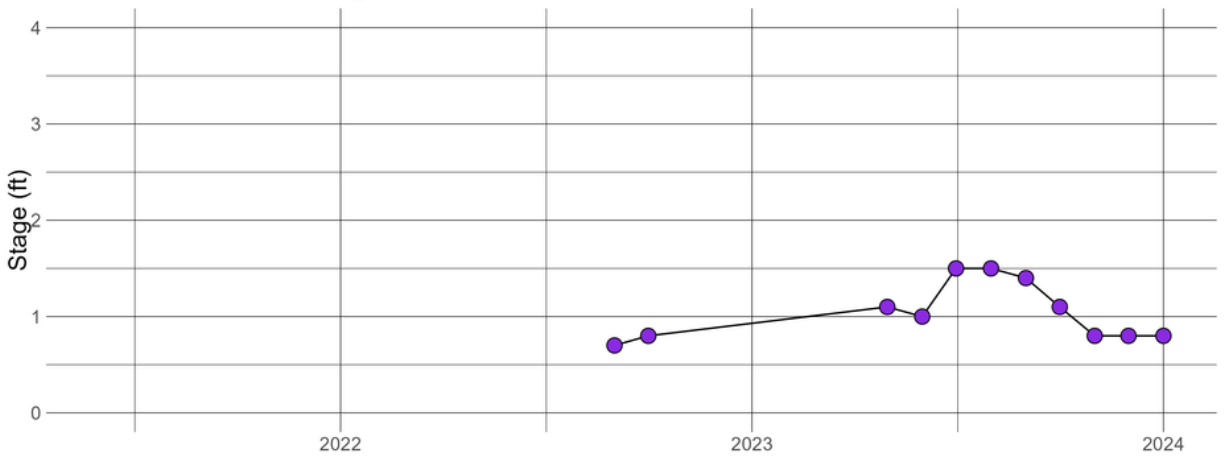
TRISPRRUN5.03 - Nitrate-nitrogen



TRISPRRUN5.03 - Water Clarity



TRISPRRUN5.03 - Stage



Raw Data and Summary Statistics

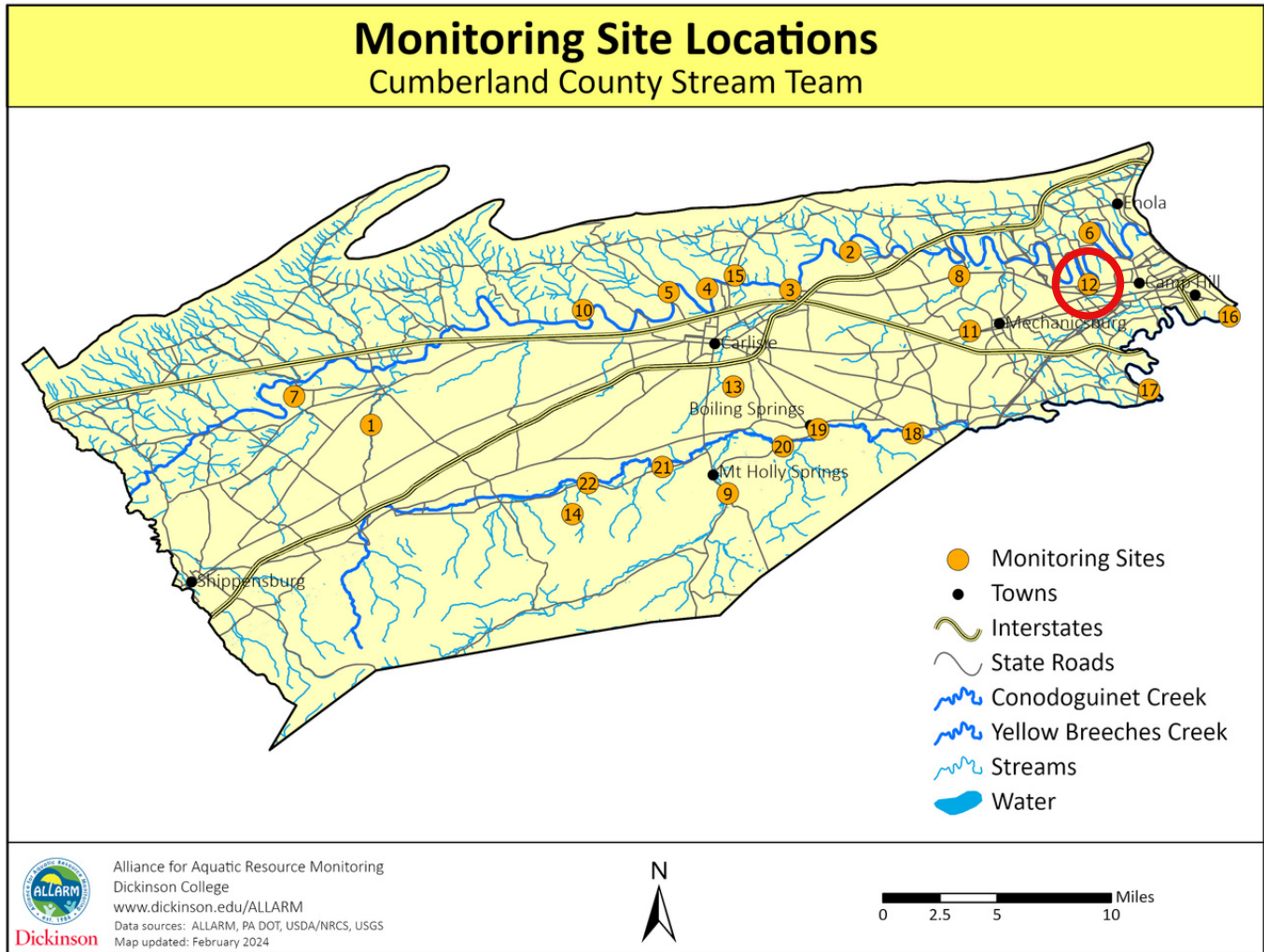
| date | con | nitrate | spec nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|--------------|-----|-------|---------|--------|
| Aug-21 | 588 | 6 | | 8 | | | 19.5 |
| Sep-21 | 573 | 4 | | 8 | | | 18.9 |
| Oct-21 | 603 | 1 | | 7.5 | | | 12.7 |
| Nov-21 | 616 | 8 | | 8 | | | 11.9 |
| Dec-21 | 615 | 6 | | 8 | | | 10.3 |
| Jan-22 | 695 | 8 | | 8 | | | 14.4 |
| Feb-22 | 629 | 4 | | 8.5 | | | 19 |
| Mar-22 | 594 | 8 | | 8.5 | | | 17.8 |
| Apr-22 | 611 | 6 | 7.37 | 8 | | | 19.1 |
| May-22 | 620 | 4 | 6.85 | 8 | | | 18 |
| Jun-22 | 611 | 8 | 8.1 | 8 | | | 18.9 |
| Jul-22 | 606 | 4 | 8.3 | 8 | | | 14.2 |
| Aug-22 | 589 | 8 | 8.1 | 8 | | | 20.7 |
| Sep-22 | 604 | 8 | 8.04 | 8 | 0.7 | 60 | 20.7 |
| Oct-22 | 604 | 4 | 8.1 | 8 | 0.8 | 60 | 14 |
| May-23 | 598 | | 7.7 | 8 | 1.1 | 60 | 20.9 |
| Jun-23 | 553 | | 7.58 | 8 | 1 | 60 | 21.5 |
| Jul-23 | 608 | | 7.6 | 8 | 1.5 | 60 | 20.3 |
| Aug-23 | 602 | | 7.89 | 8 | 1.5 | 60 | 15 |
| Sep-23 | 195.2 | | 1.64 | 8 | 1.4 | 9.8 | 17.8 |
| Oct-23 | 578 | | 8.3 | 8 | 1.1 | 56 | 17.6 |
| Nov-23 | 590 | | 7.52 | 8 | 0.8 | 56 | 10.3 |
| Sec-23 | 590 | | 7.88 | 8 | 0.8 | 57 | 10.5 |

Spec nitrate is not included in summary statistics

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 195 | 695 | 500 | 590 | 604 |
| Nitrate-Nitrogen | 1 | 8 | 7 | 5.8 | 6 |
| pH | 7.5 | 8.5 | 1 | 8 | 8 |
| Stage | 0.7 | 1.5 | 0.8 | 1 | 1 |
| Water Clarity | 9.8 | 60 | 50 | 55 | 60 |
| Water Temp. | 8.3 | 22 | 13 | 16 | 18 |

Conodoguinet at Orrs Bridge Spring (UNTCONCRE 8.8)

Monitor(s): Greg John



Land Use

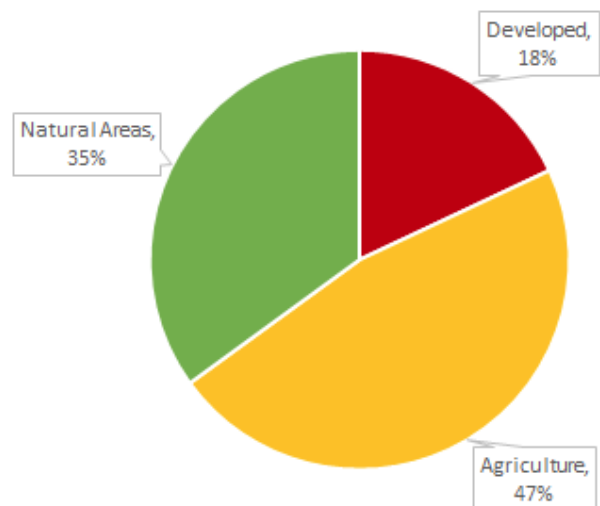
Site information:

Drains: 481 mi²

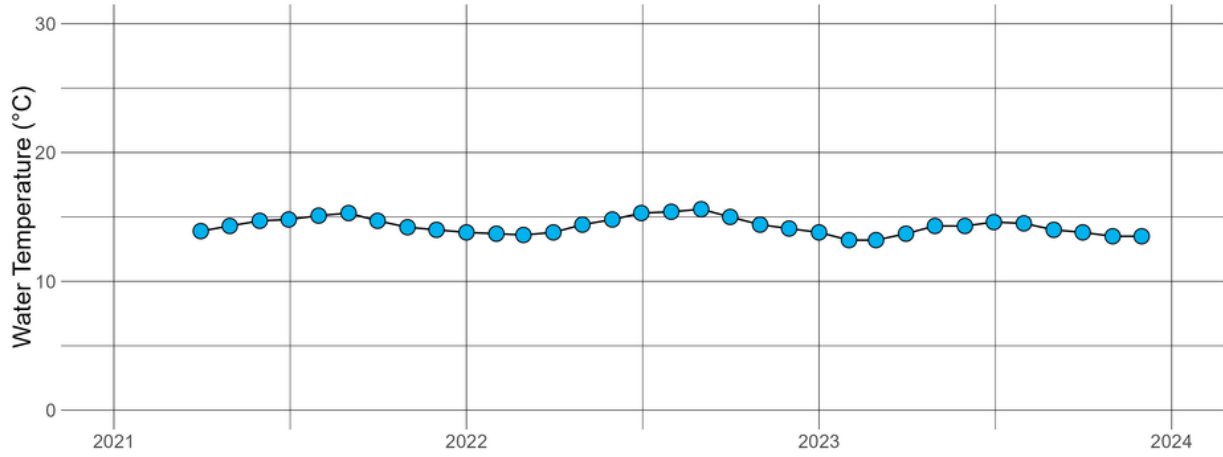
Impaired: Yes, aquatic life - organic enrichment

Designation: Warm water fishes (WWF)

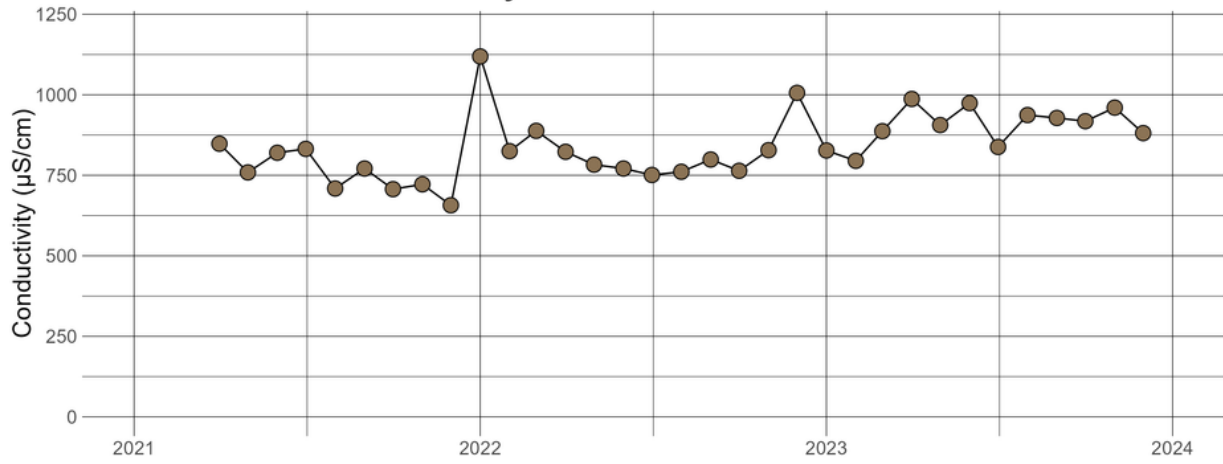
Geology: 39% Calcareous, 61% Non-calcareous



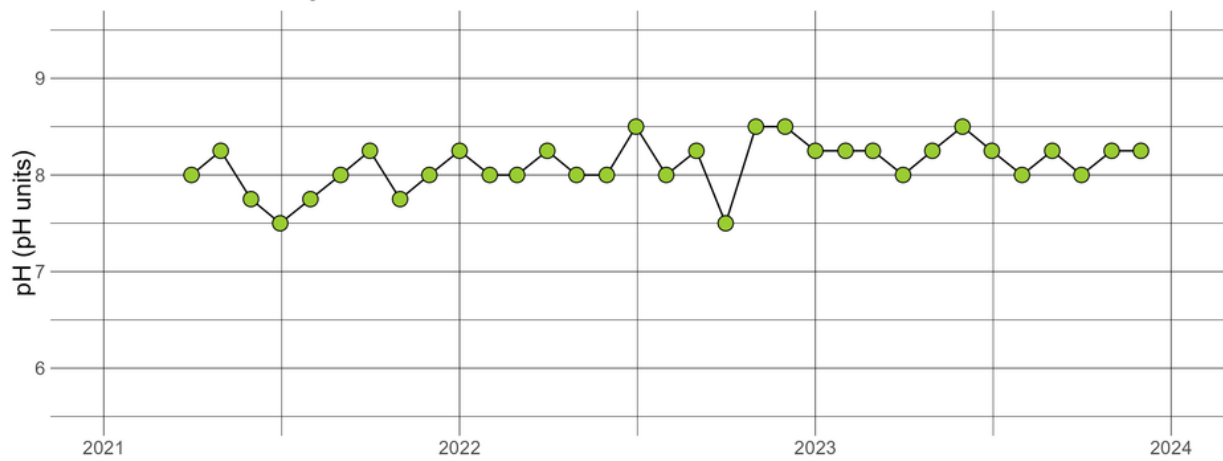
UNTCONCRE8.8 - Water Temperature



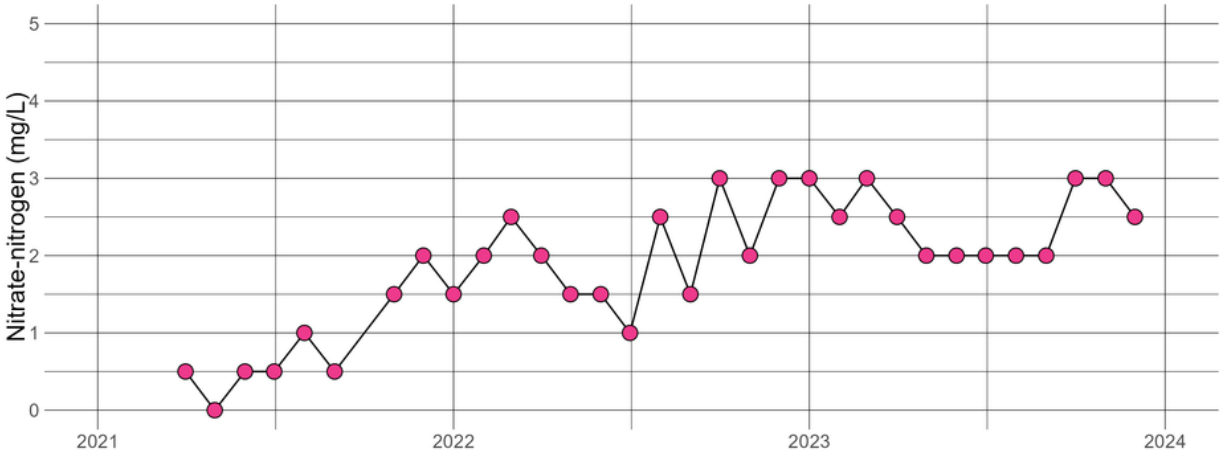
UNTCONCRE8.8 - Conductivity



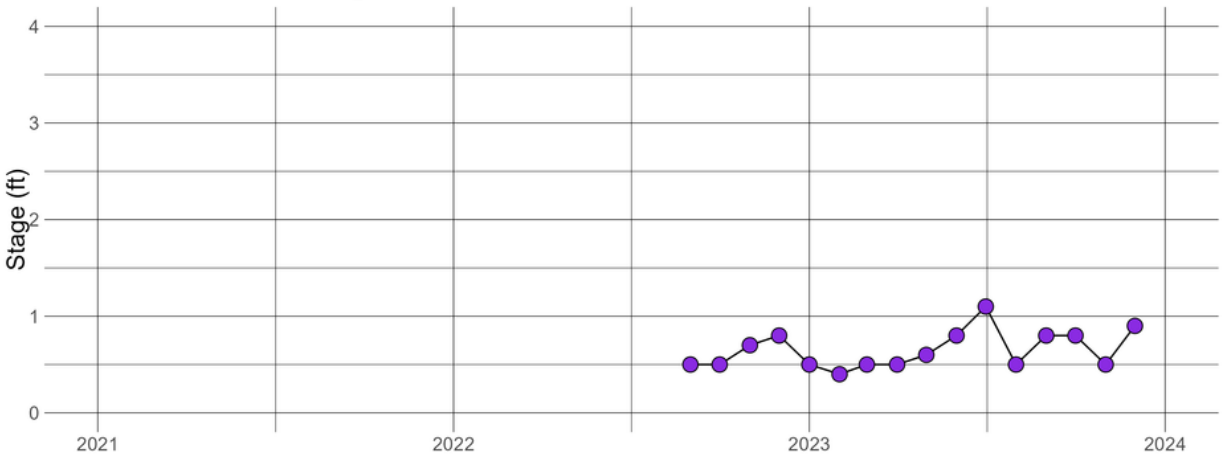
UNTCONCRE8.8 - pH



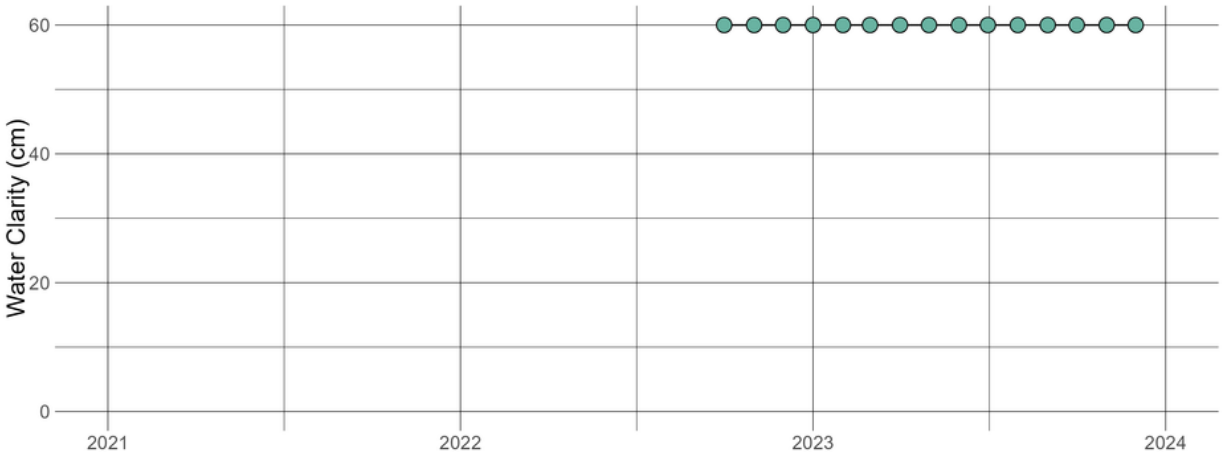
UNTCONCRE8.8 - Nitrate-nitrogen



UNTCONCRE8.8 - Stage



UNTCONCRE8.8 - Water Clarity



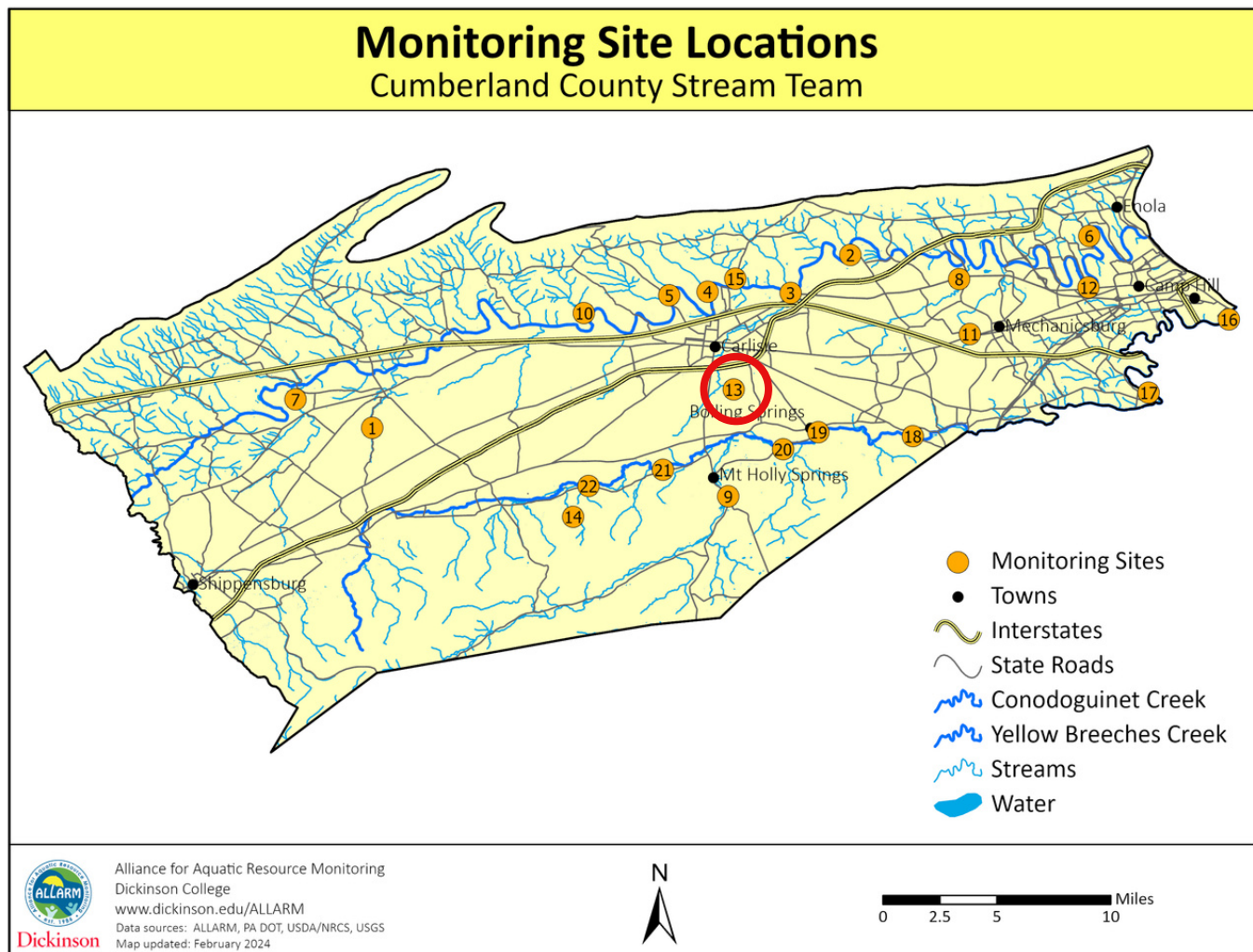
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|------|---------|------|-------|---------|--------|
| Apr-21 | 848 | 0.5 | 8 | | | 13.9 |
| May-21 | 759 | 0 | 8.25 | | | 14.3 |
| Jun-21 | 820 | 0.5 | 7.75 | | | 14.7 |
| Jul-21 | 832 | 0.5 | 7.5 | | | 14.8 |
| Aug-21 | 709 | 1 | 7.75 | | | 15.1 |
| Sep-21 | 771 | 0.5 | 8 | | | 15.3 |
| Oct-21 | 707 | | 8.25 | | | 14.7 |
| Nov-21 | 722 | 1.5 | 7.75 | | | 14.2 |
| Dec-21 | 657 | 2 | 8 | | | 14 |
| Jan-22 | 1119 | 1.5 | 8.25 | | | 13.8 |
| Feb-22 | 825 | 2 | 8 | | | 13.7 |
| Mar-22 | 888 | 2.5 | 8 | | | 13.6 |
| Apr-22 | 823 | 2 | 8.25 | | | 13.8 |
| May-22 | 783 | 1.5 | 8 | | | 14.4 |
| Jun-22 | 771 | 1.5 | 8 | | | 14.8 |
| Jul-22 | 751 | 1 | 8.5 | | | 15.3 |
| Aug-22 | 761 | 2.5 | 8 | | | 15.4 |
| Sep-22 | 799 | 1.5 | 8.25 | 0.5 | | 15.6 |
| Oct-22 | 764 | 3 | 7.5 | 0.5 | 60 | 15 |
| Nov-22 | 828 | 2 | 8.5 | 0.7 | 60 | 14.4 |
| Dec-22 | 1006 | 3 | 8.5 | 0.8 | 60 | 14.1 |
| Jan-23 | 827 | 3 | 8.25 | 0.5 | 60 | 13.8 |
| Feb-23 | 795 | 2.5 | 8.25 | 0.4 | 60 | 13.2 |
| Mar-23 | 887 | 3 | 8.25 | 0.5 | 60 | 13.2 |
| Apr-23 | 987 | 2.5 | 8 | 0.5 | 60 | 13.7 |
| May-23 | 906 | 2 | 8.25 | 0.6 | 60 | 14.3 |
| Jun-23 | 974 | 2 | 8.5 | 0.8 | 60 | 14.3 |
| Jul-23 | 838 | 2 | 8.25 | 1.1 | 60 | 14.6 |
| Aug-23 | 937 | 2 | 8 | 0.5 | 60 | 14.5 |
| Sep-23 | 928 | 2 | 8.25 | 0.8 | 60 | 14 |
| Oct-23 | 918 | 3 | 8 | 0.8 | 60 | 13.8 |
| Nov-23 | 960 | 3 | 8.25 | 0.5 | 60 | 13.5 |
| Dec-23 | 881 | 2.5 | 8.25 | 0.9 | 60 | 13.5 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|------|-------|---------|--------|
| Conductivity | 657 | 1119 | 462 | 842 | 827 |
| Nitrate-Nitrogen | 0 | 3 | 3 | 1.9 | 2 |
| pH | 7.5 | 8.5 | 1 | 8.1 | 8.2 |
| Stage | 0.4 | 1.1 | 0.7 | 0.65 | 0.55 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 13 | 16 | 2.4 | 14 | 14 |

LeTort Spring Run at LeTort Spring Garden Preserve (UNTLETSPRRUN 0.65)

Monitor(s): Lisa Brousse & Tamela Trussell



Alliance for Aquatic Resource Monitoring
Dickinson College
www.dickinson.edu/ALLARM
Data sources: ALLARM, PA DOT, USDA/NRCS, USGS
Map updated: February 2024



Site information:

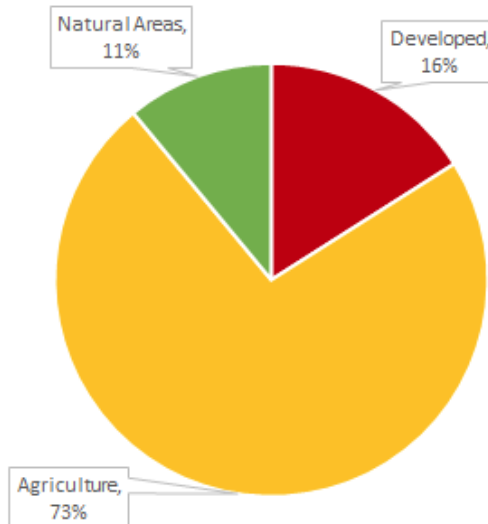
Drains: 3 mi²

Impaired: No

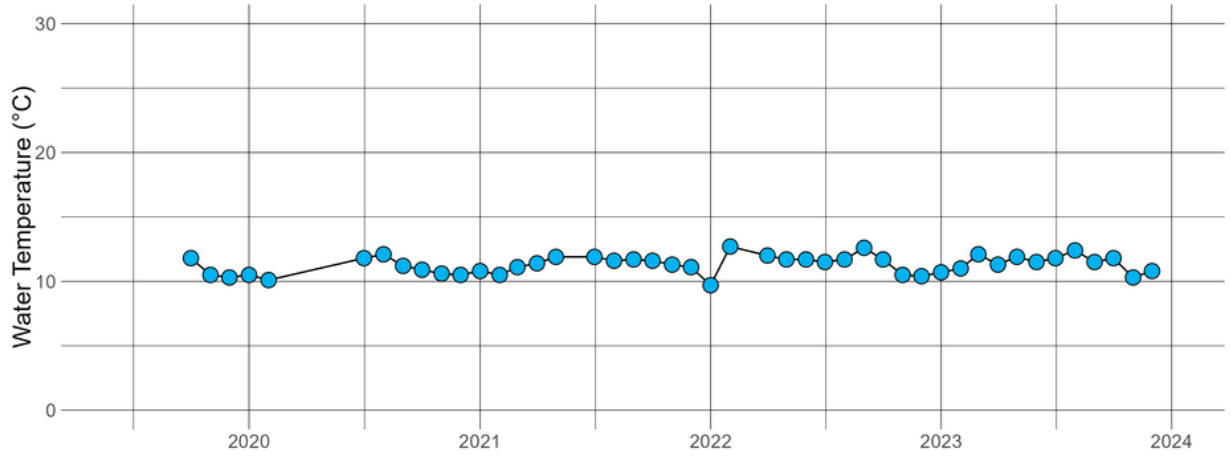
Designation: Exceptional value stream
(EV)

Geology: 100% Calcareous

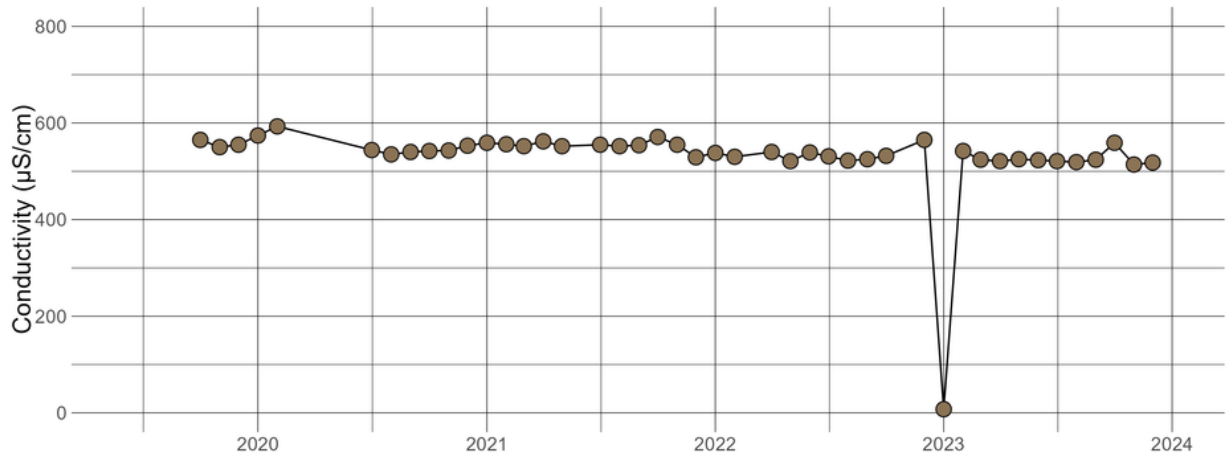
Land Use



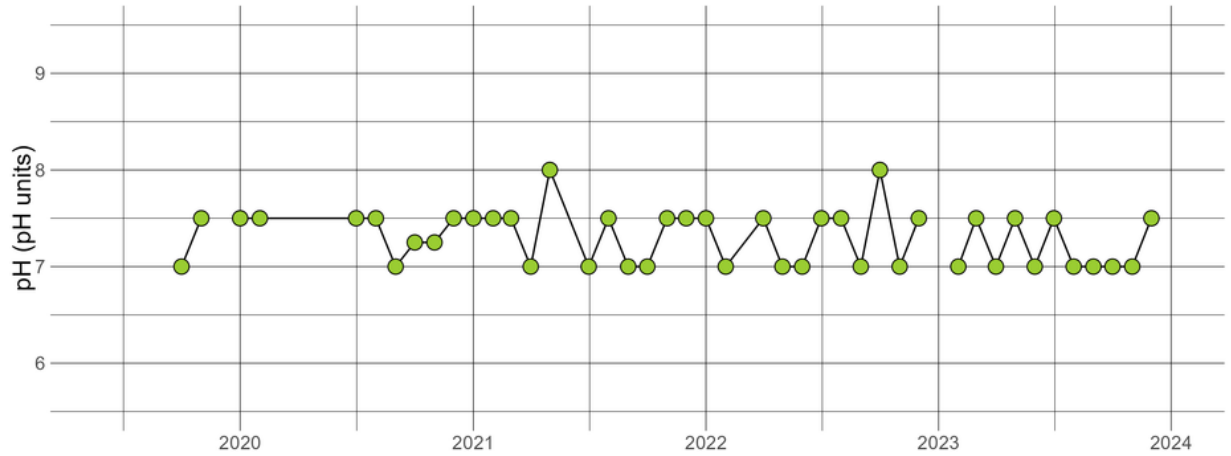
UNTLETSPRRUN0.65 - Water Temperature



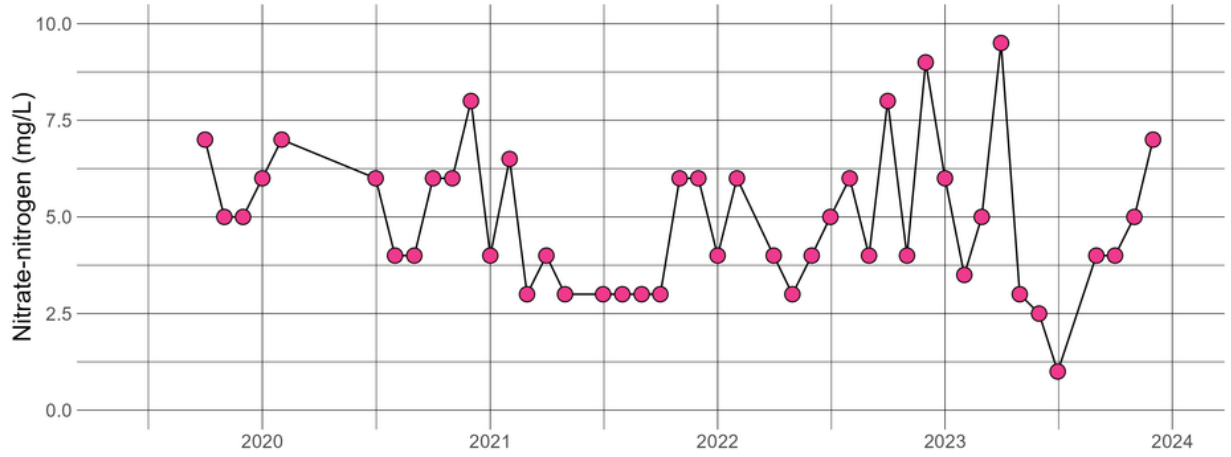
UNTLETSPRRUN0.65 - Conductivity



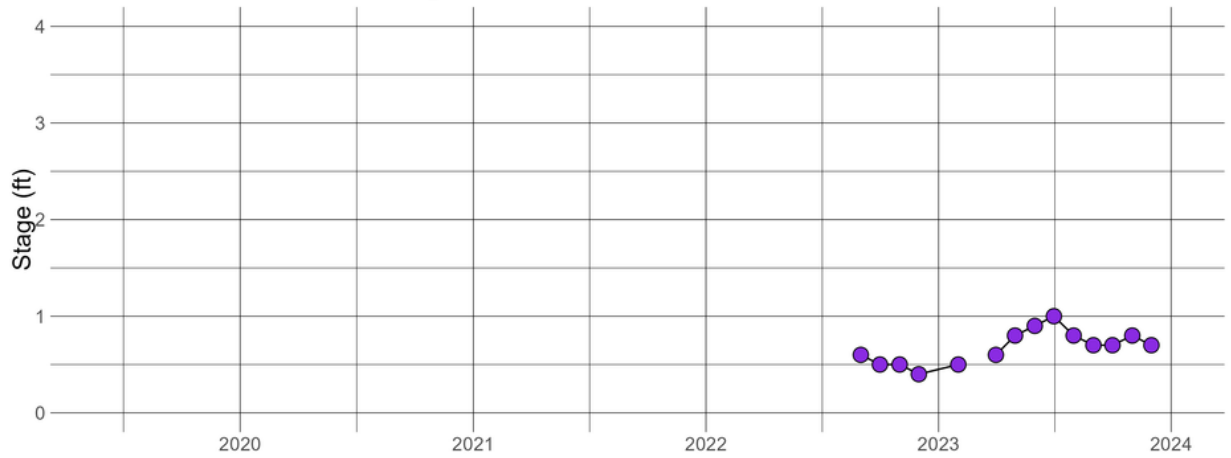
UNTLETSPRRUN0.65 - pH



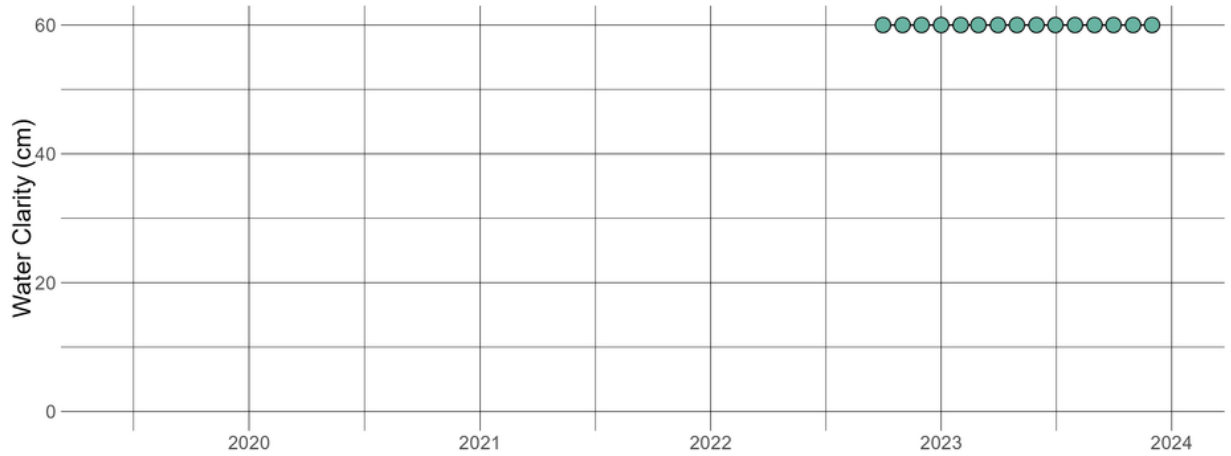
UNTLETPRRUN0.65 - Nitrate-nitrogen



UNTLETPRRUN0.65 - Stage



UNTLETPRRUN0.65 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Oct-19 | 565 | 7 | 7 | | | 11.8 |
| Nov-19 | 550 | 5 | 7.5 | | | 10.5 |
| Dec-19 | 555 | 5 | 3.75 | | | 10.3 |
| Jan-20 | 574 | 6 | 7.5 | | | 10.5 |
| Feb-20 | 593 | 7 | 7.5 | | | 10.1 |
| Jul-20 | 544 | 6 | 7.5 | | | 11.8 |
| Aug-20 | 535 | 4 | 7.5 | | | 12.1 |
| Sep-20 | 540 | 4 | 7 | | | 11.2 |
| Oct-20 | 542 | 6 | 7.25 | | | 10.9 |
| Nov-20 | 543 | 6 | 7.25 | | | 10.6 |
| Dec-20 | 553 | 8 | 7.5 | | | 10.5 |
| Jan-21 | 559 | 4 | 7.5 | | | 10.8 |
| Feb-21 | 556 | 6.5 | 7.5 | | | 10.5 |
| Mar-21 | 552 | 3 | 7.5 | | | 11.1 |
| Apr-21 | 562 | 4 | 7 | | | 11.4 |
| May-21 | 552 | 3 | 8 | | | 11.9 |
| Jul-21 | 555 | 3 | 7 | | | 11.9 |
| Aug-21 | 552 | 3 | 7.5 | | | 11.6 |
| Sep-21 | 554 | 3 | 7 | | | 11.7 |
| Oct-21 | 571 | 3 | 7 | | | 11.6 |
| Nov-21 | 555 | 6 | 7.5 | | | 11.3 |
| Dec-21 | 529 | 6 | 7.5 | | | 11.1 |
| Jan-22 | 538 | 4 | 7.5 | | | 9.7 |
| Feb-22 | 530 | 6 | 7 | | | 12.7 |
| Apr-22 | 540 | 4 | 7.5 | | | 12 |
| May-22 | 521 | 3 | 7 | | | 11.7 |
| Jun-22 | 539 | 4 | 7 | | | 11.7 |
| Jul-22 | 531 | 5 | 7.5 | | | 11.5 |
| Aug-22 | 522 | 6 | 7.5 | | | 11.7 |
| Sep-22 | 525 | 4 | 7 | 0.6 | | 12.6 |
| Oct-22 | 532 | 8 | 8 | 0.5 | 60 | 11.7 |
| Nov-22 | | 4 | 7 | 0.5 | 60 | 10.5 |
| Dec-22 | 565 | 9 | 7.5 | 0.4 | 60 | 10.4 |

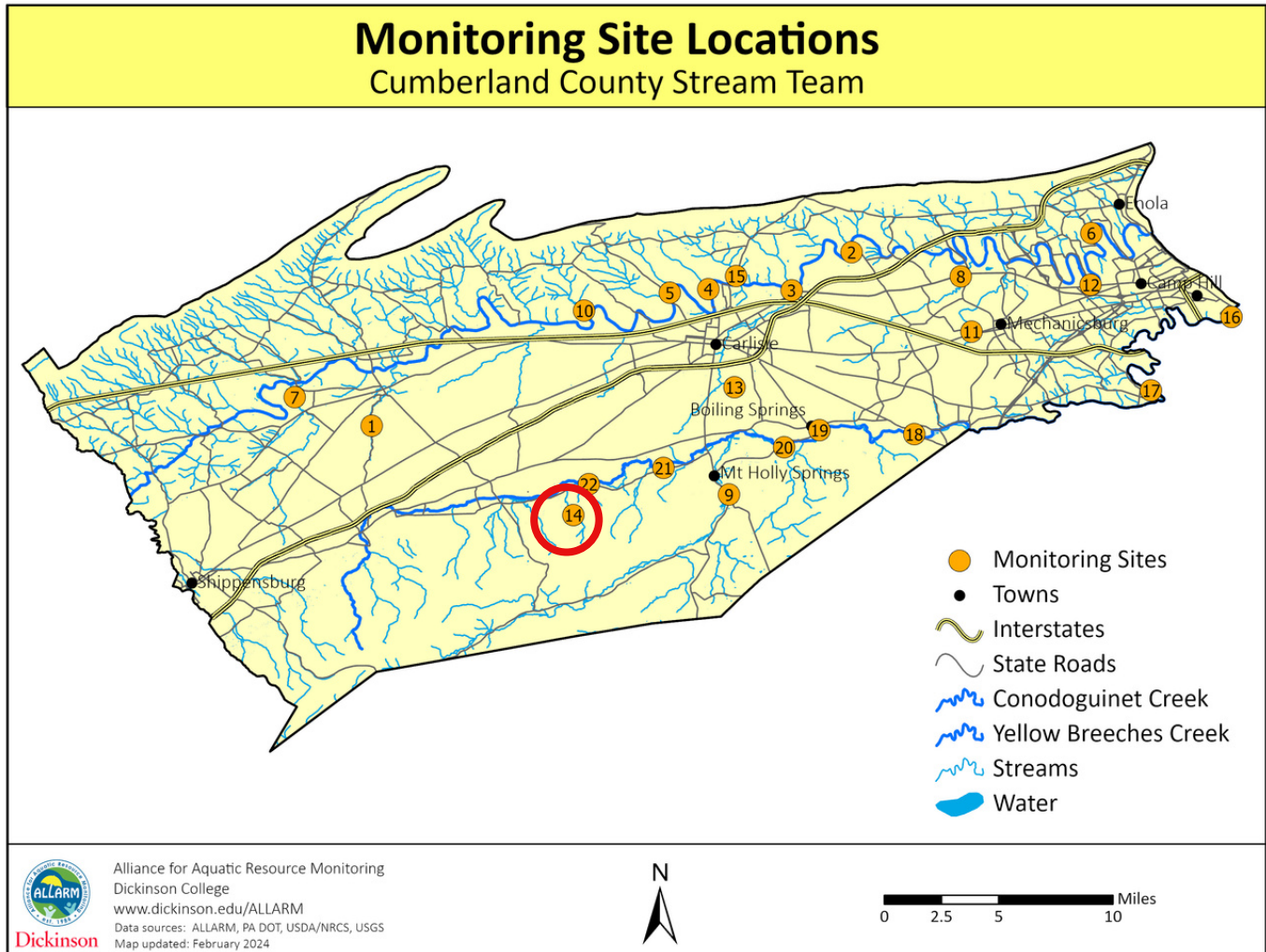
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|-----|-------|---------|--------|
| Jan-23 | 7.5 | 6 | 4.5 | | 60 | 10.7 |
| Feb-23 | 542 | 3.5 | 7 | 0.5 | 60 | 11 |
| Mar-23 | 524 | 5 | 7.5 | 5.8 | 60 | 12.1 |
| Apr-23 | 521 | 9.5 | 7 | 0.6 | 60 | 11.3 |
| May-23 | 525 | 3 | 7.5 | 0.8 | 60 | 11.9 |
| Jun-23 | 523 | 2.5 | 7 | 0.9 | 60 | 11.5 |
| Jul-23 | 521 | 1 | 7.5 | 1 | 60 | 11.8 |
| Aug-23 | 519 | | 7 | 0.8 | 60 | 12.4 |
| Sep-23 | 524 | 4 | 7 | 0.7 | 60 | 11.5 |
| Oct-23 | 559 | 4 | 7 | 0.7 | 60 | 11.8 |
| Nov-23 | 514 | 5 | 7 | 0.8 | 60 | 10.3 |
| Dec-23 | 518 | 7 | 7.5 | 0.7 | 60 | 10.8 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 7.5 | 593 | 586 | 530 | 541 |
| Nitrate-Nitrogen | 1 | 9.5 | 8.5 | 4.9 | 4.5 |
| pH | 3.8 | 8 | 4.2 | 7.2 | 7.5 |
| Stage | 0.4 | 5.8 | 5.4 | 1 | 0.7 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 9.7 | 13 | 3 | 11 | 12 |

Kings Gap Run (UNTYELBRECCE 1.25)

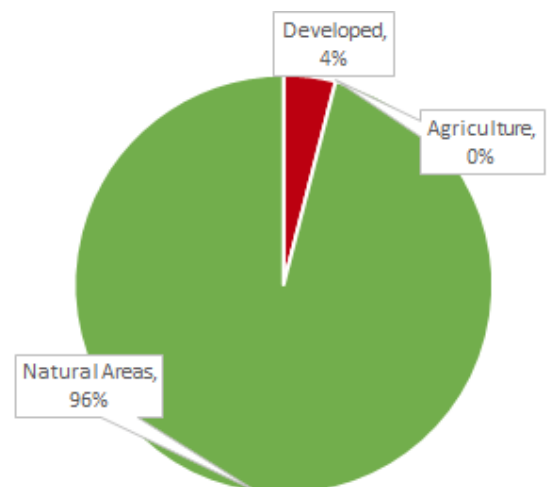
Monitor(s): Michele Miller & Kelly McGinley



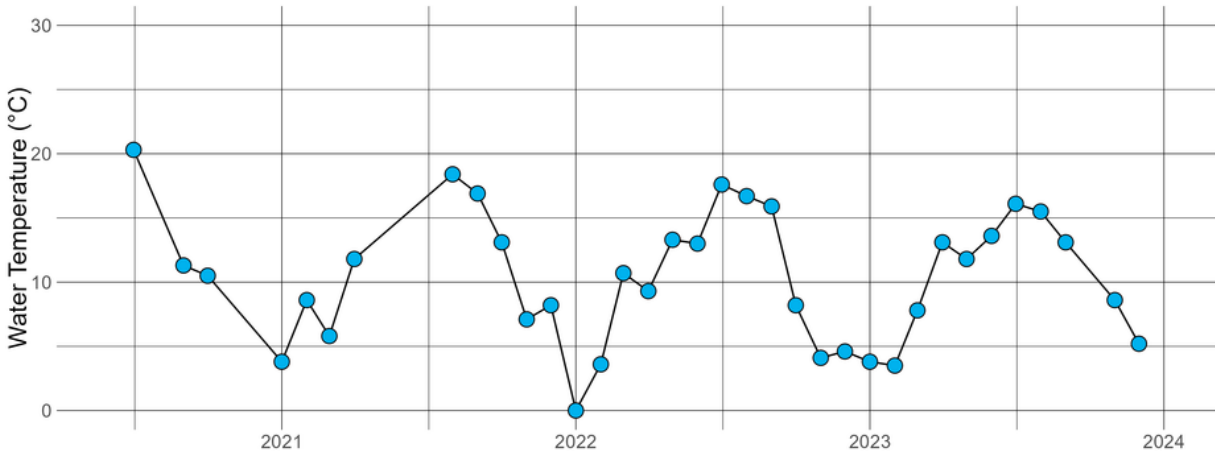
Site information:

Drains: 2 mi²
 Impaired: Yes, aquatic life - atmospheric deposition
 Designation: High-quality cold water fishes (HQ-CWF)
 Geology: 100% Non-calcareous

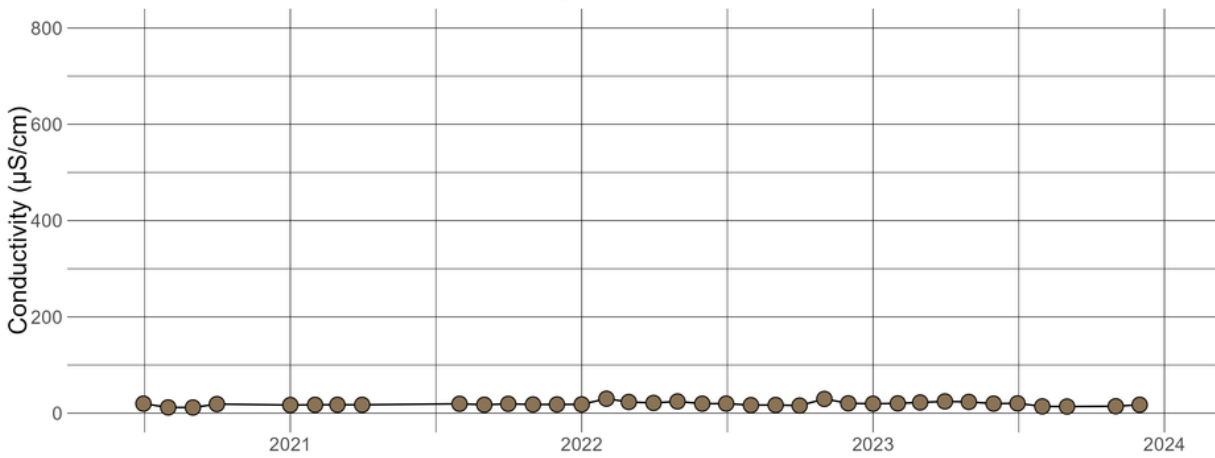
Land Use



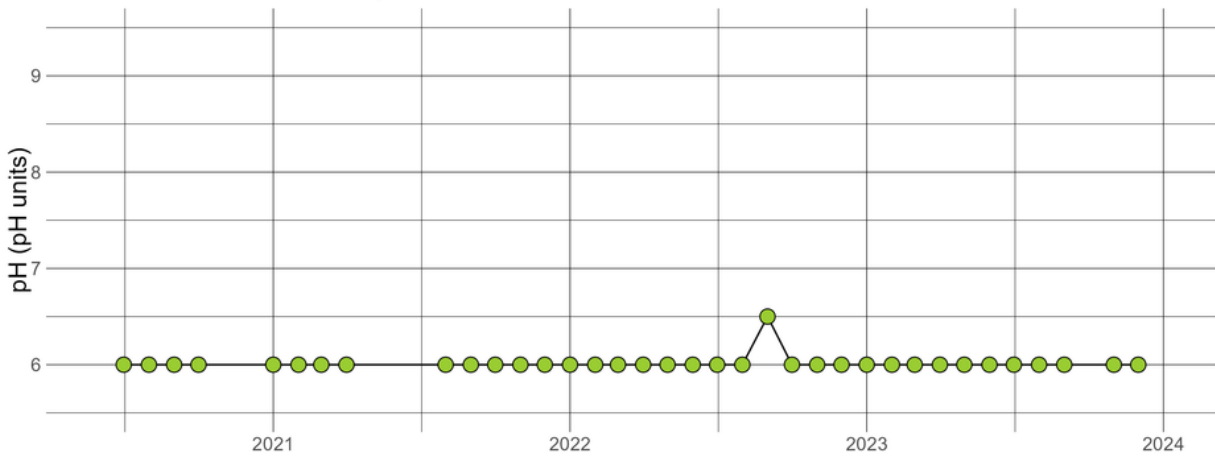
UNTYELBRECRE1.25 - Water Temperature



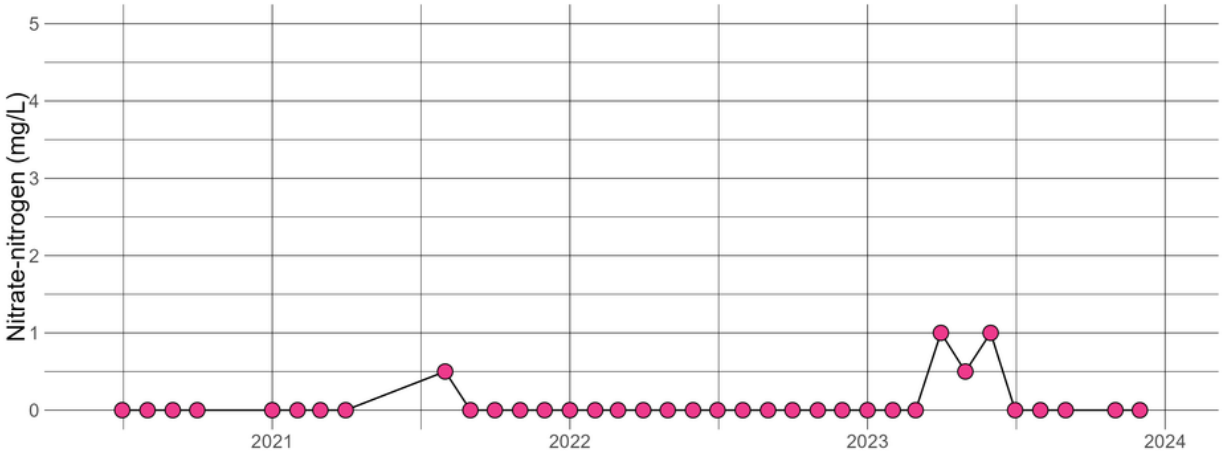
UNTYELBRECRE1.25 - Conductivity



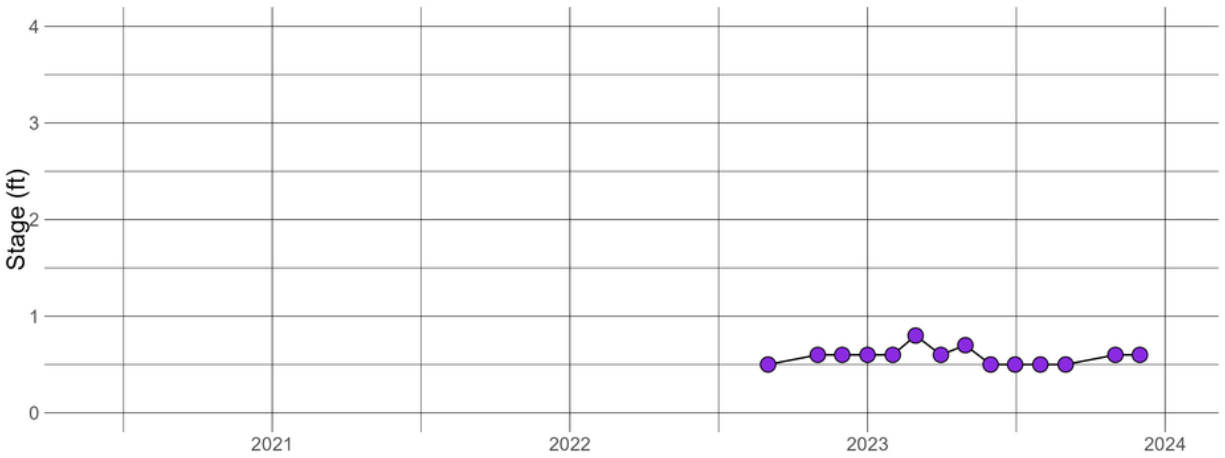
UNTYELBRECRE1.25 - pH



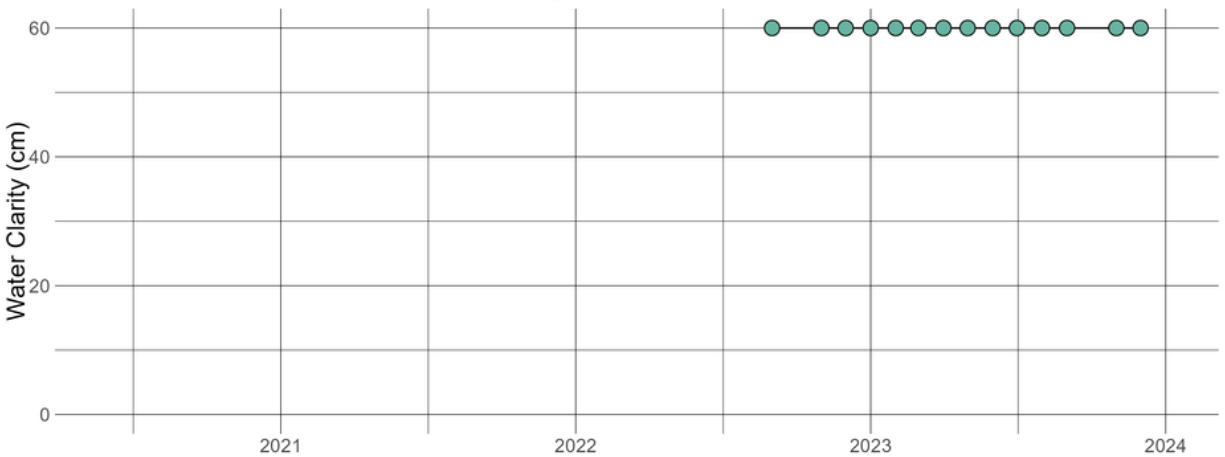
UNTYELBRECRE1.25 - Nitrate-nitrogen



UNTYELBRECRE1.25 - Stage



UNTYELBRECRE1.25 - Water Clarity



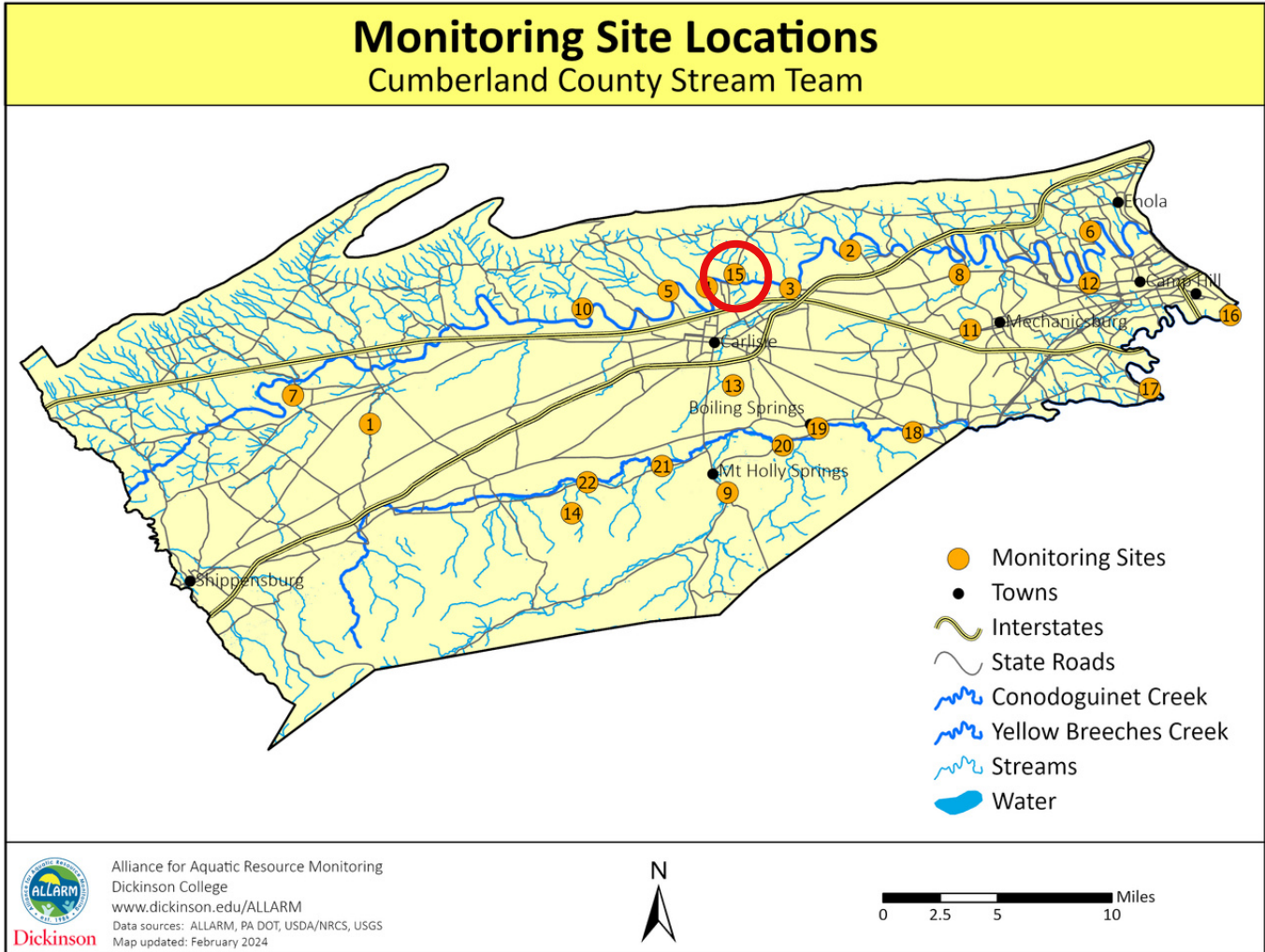
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|------|---------|-----|-------|---------|--------|
| Jul-20 | 19.8 | 0 | 6 | | | 20.3 |
| Aug-20 | 12 | 0 | 6 | | | |
| Sep-20 | 11.8 | 0 | 6 | | | 11.3 |
| Oct-20 | 18.9 | 0 | 6 | | | 10.5 |
| Jan-21 | 16.9 | 0 | 6 | | | 3.8 |
| Feb-21 | 17.4 | 0 | 6 | | | 8.6 |
| Mar-21 | 17.5 | 0 | 6 | | | 5.8 |
| Apr-21 | 17.4 | 0 | 6 | | | 11.8 |
| Aug-21 | 19.5 | 0.5 | 6 | | | 18.4 |
| Sep-21 | 17.5 | 0 | 6 | | | 16.9 |
| Oct-21 | 19.4 | 0 | 6 | | | 13.1 |
| Nov-21 | 18.1 | 0 | 6 | | | 7.1 |
| Dec-21 | 18.2 | 0 | 6 | | | 8.2 |
| Jan-22 | 18.3 | 0 | 6 | | | 0 |
| Feb-22 | 30.1 | 0 | 6 | | | 3.6 |
| Mar-22 | 23.3 | 0 | 6 | | | 10.7 |
| Apr-22 | 21.3 | 0 | 6 | | | 9.3 |
| May-22 | 24.4 | 0 | 6 | | | 13.3 |
| Jun-22 | 19.8 | 0 | 6 | | | 13 |
| Jul-22 | 19.9 | 0 | 6 | | | 17.6 |
| Aug-22 | 16.7 | 0 | 6 | | | 16.7 |
| Sep-22 | 17 | 0 | 6.5 | 0.5 | 60 | 15.9 |
| Oct-22 | 15.8 | 0 | 6 | | | 8.2 |
| Nov-22 | 29.6 | 0 | 6 | 0.6 | 60 | 4.1 |
| Dec-22 | 20.5 | 0 | 6 | 0.6 | 60 | 4.6 |
| Jan-23 | 19.6 | 0 | 6 | 0.6 | 60 | 3.8 |
| Feb-23 | 20.4 | 0 | 6 | 0.6 | 60 | 3.5 |
| Mar-23 | 22.3 | 0 | 6 | 0.8 | 60 | 7.8 |
| Apr-23 | 24.5 | 1 | 6 | 0.6 | 60 | 13.1 |
| May-23 | 23.4 | 0.5 | 6 | 0.7 | 60 | 11.8 |
| Jun-23 | 19.9 | 1 | 6 | 0.5 | 60 | 13.6 |
| Jul-23 | 20.4 | 0 | 6 | 0.5 | 60 | 16.1 |
| Aug-23 | 14.1 | 0 | 6 | 0.5 | 60 | 15.5 |
| Sep-23 | 13.8 | 0 | 6 | 0.5 | 60 | 13.1 |
| Nov-23 | 14.4 | 0 | 6 | 0.6 | 60 | 8.6 |
| Dec-23 | 17.5 | 0 | 6 | 0.6 | 60 | 5.2 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 12 | 30 | 18 | 19 | 19 |
| Nitrate-Nitrogen | 0 | 1 | 1 | 0.083 | 0 |
| pH | 6 | 6.5 | 0.5 | 6 | 6 |
| Stage | 0.5 | 0.8 | 0.3 | 0.59 | 0.6 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 0 | 20 | 20 | 10 | 11 |

Wertz Run (WERRUN0.34)

Monitor(s): Joel Warner



Site information:

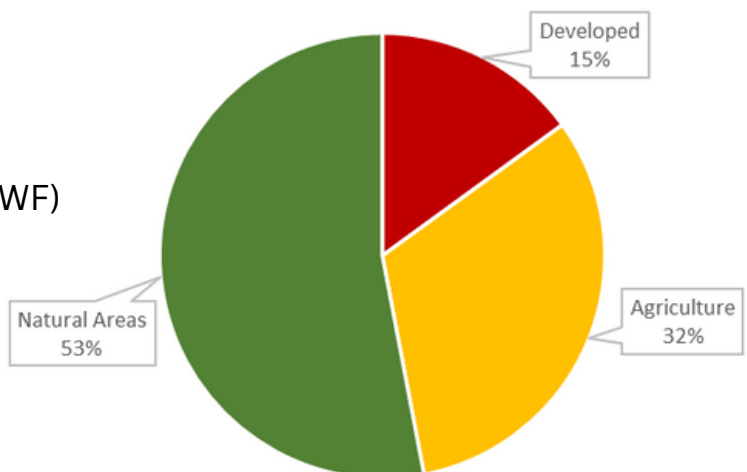
Drains: 6 mi²

Impaired: Yes, aquatic life - agriculture, construction

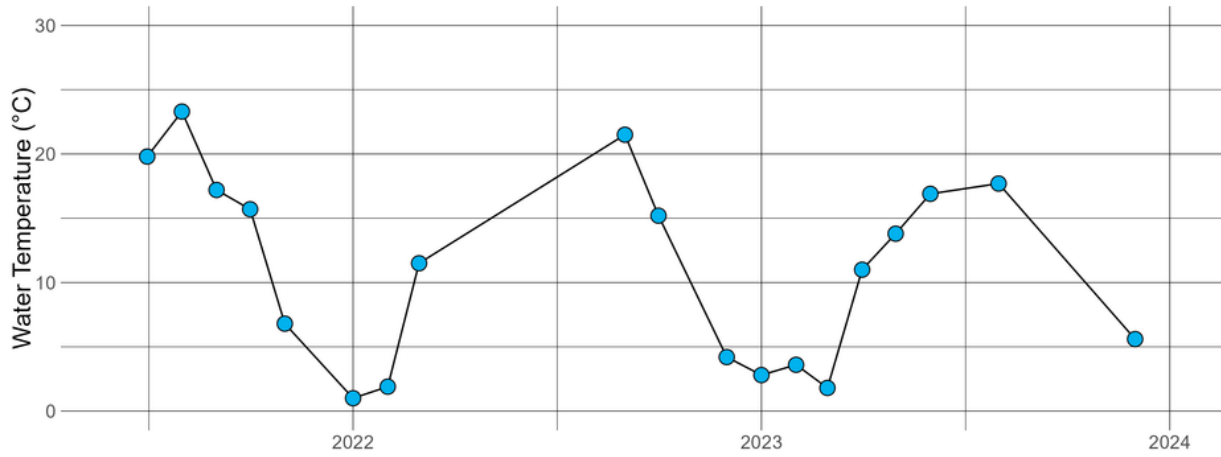
Designation: Warm water fishes (WWF)

Geology: 100% Non-calcareous

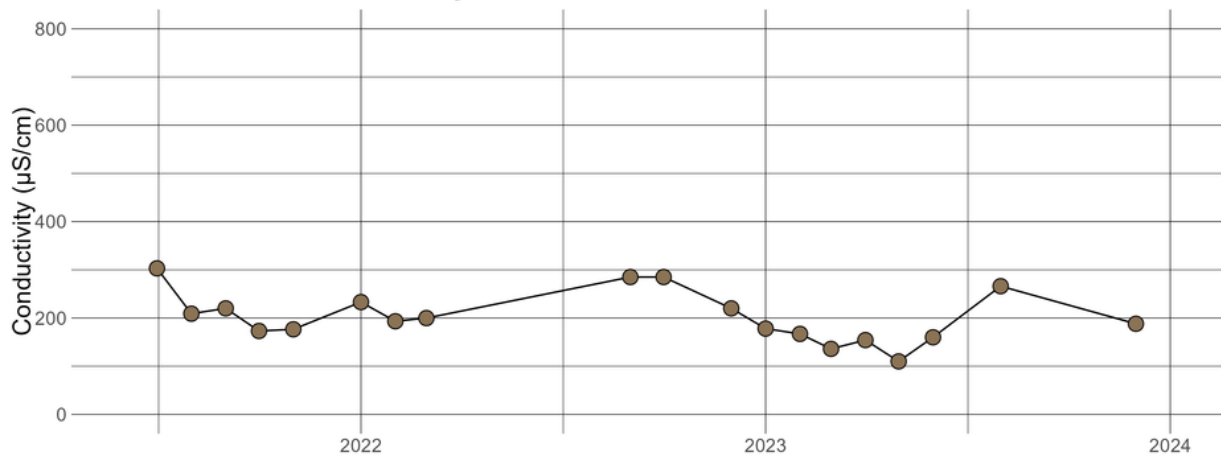
Land Use



WERRUN0.34 - Water Temperature



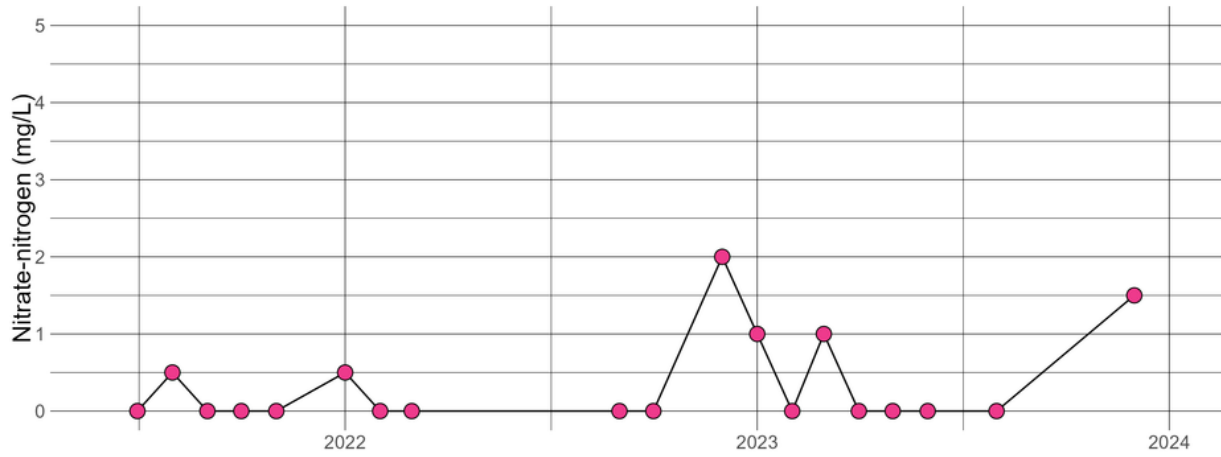
WERRUN0.34 - Conductivity



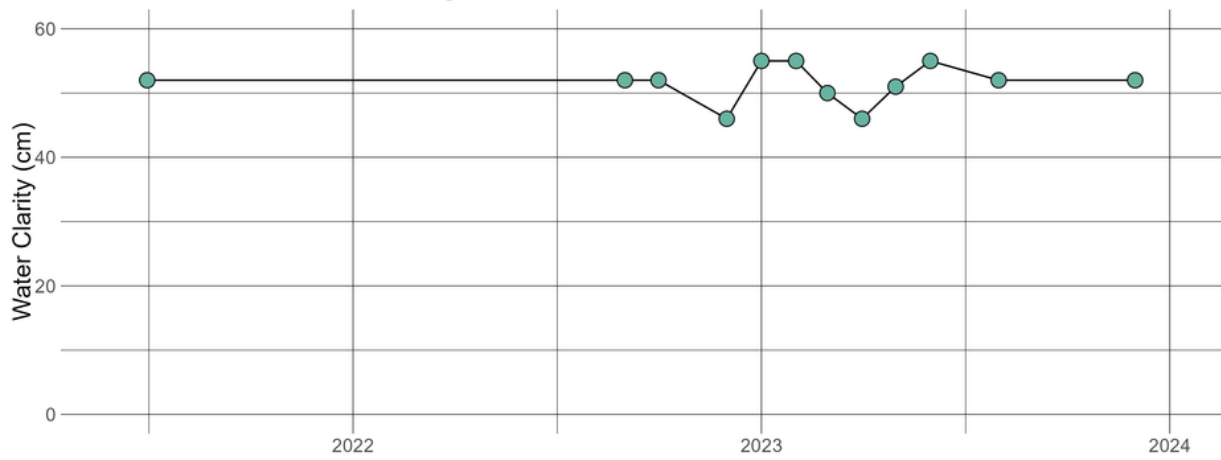
WERRUN0.34 - pH



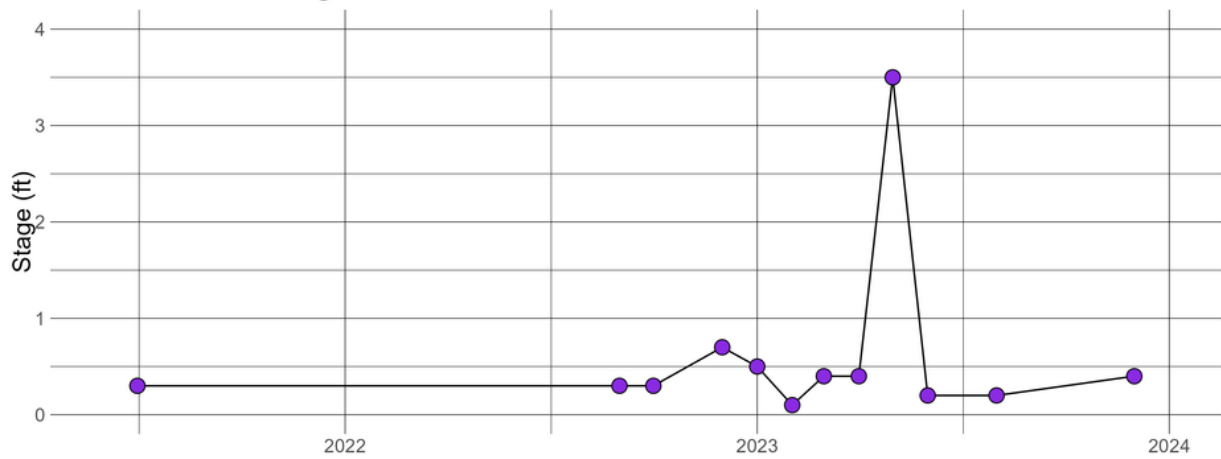
WERRUN0.34 - Nitrate-nitrogen



WERRUN0.34 - Water Clarity



WERRUN0.34 - Stage



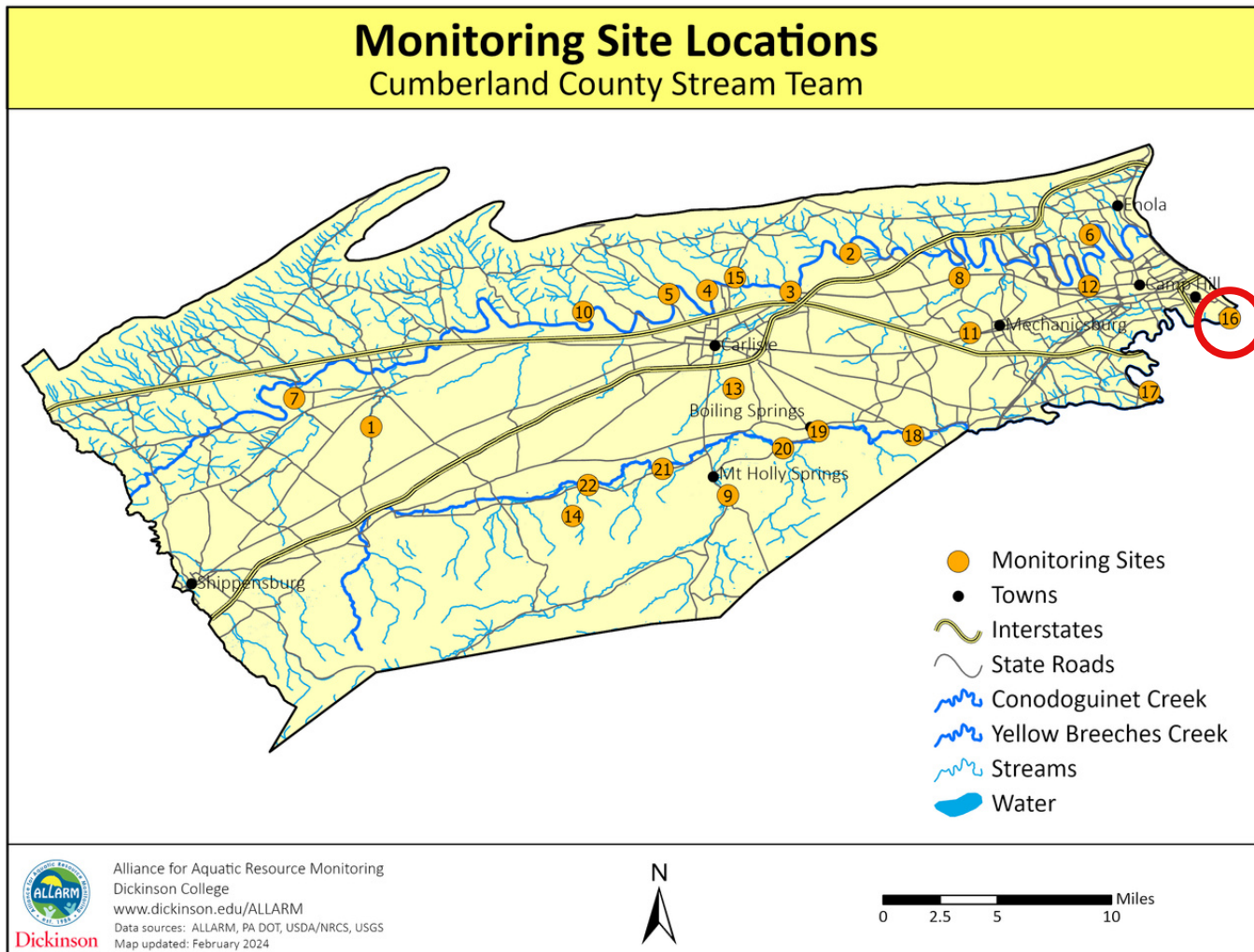
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jul-21 | 303 | 0 | 8 | 0.3 | 52 | 19.8 |
| Aug-21 | 209 | 0.5 | 8 | | | 23.3 |
| Sep-21 | 220 | 0 | 8 | | | 17.2 |
| Oct-21 | 173.1 | 0 | 8 | | | 15.7 |
| Nov-21 | 176.6 | 0 | 8 | | | 6.8 |
| Jan-22 | 233 | 0.5 | 7.5 | | | 1 |
| Feb-22 | 193.3 | 0 | 7 | | | 1.9 |
| Mar-22 | 199.8 | 0 | 8 | | | 11.5 |
| Sep-22 | 285 | 0 | 8 | 0.3 | 52 | 21.5 |
| Oct-22 | 285 | 0 | 8 | 0.3 | 52 | 15.2 |
| Dec-22 | 220 | 2 | 7 | 0.7 | 46 | 4.2 |
| Jan-23 | 178 | 1 | 8 | 0.5 | 55 | 2.8 |
| Feb-23 | 167 | 0 | 7.5 | 0.1 | 55 | 3.6 |
| Mar-23 | 136 | 1 | 8 | 0.4 | 50 | 1.8 |
| Apr-23 | 154.2 | 0 | 8 | 0.4 | 46 | 11 |
| May-23 | 110 | 0 | 8 | 3.5 | 51 | 13.8 |
| Jun-23 | 160 | 0 | 8 | 0.2 | 55 | 16.9 |
| Aug-23 | 266 | 0 | 8 | 0.2 | 52 | 17.7 |
| Dec-23 | 188 | 1.5 | 7 | 0.4 | 52 | 5.6 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 110 | 303 | 193 | 203 | 193 |
| Nitrate-Nitrogen | 0 | 2 | 2 | 0.34 | 0 |
| pH | 7 | 8 | 1 | 7.8 | 8 |
| Stage | 0.1 | 3.5 | 3.4 | 0.61 | 0.35 |
| Water Clarity | 46 | 55 | 9 | 52 | 52 |
| Water Temp. | 1 | 23 | 22 | 11 | 12 |

Yellow Breeches at New Cumberland Borough Park (YELBREC 0.85)

Monitor(s): Stephanie Kern



Site information:

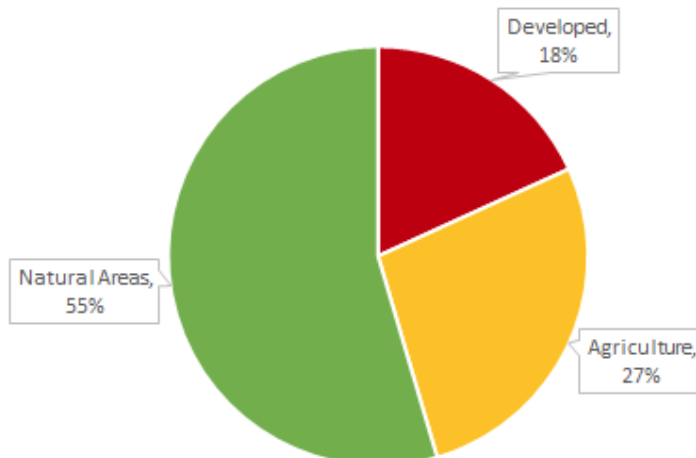
Drains: 217 mi²

Impaired: No

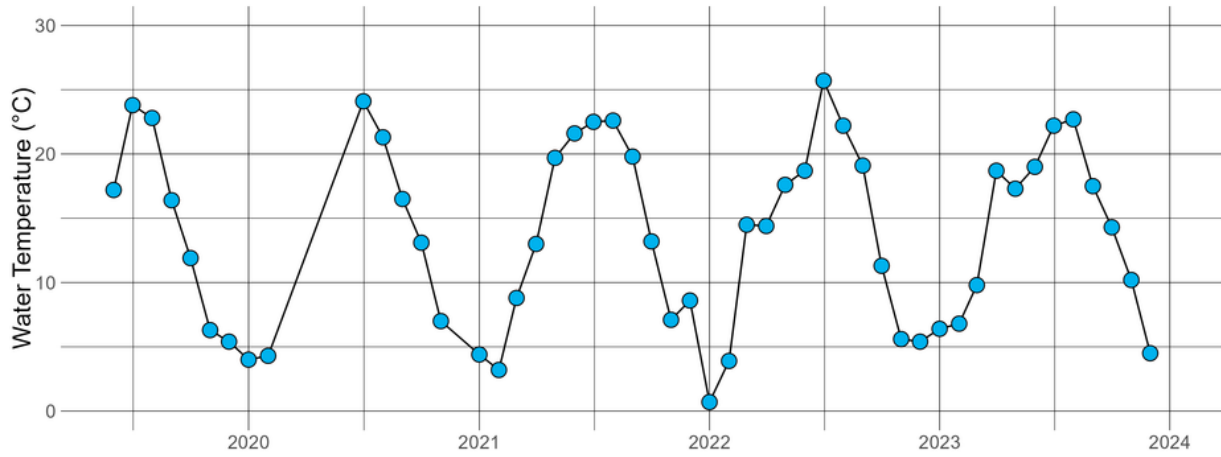
Designation: Cold water fishes (CWF)

Geology: 35% Calcareous 65% Non-calcareous

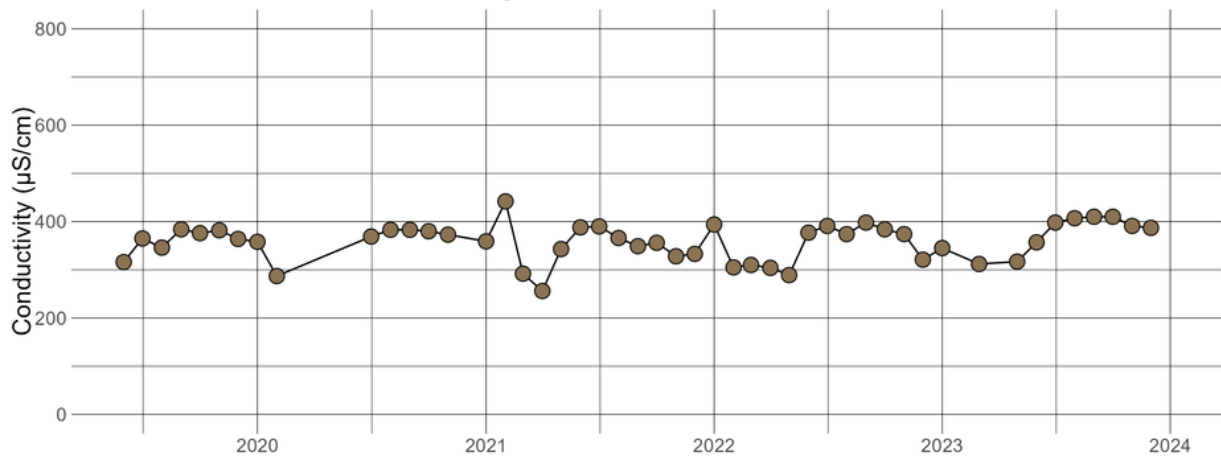
Land Use



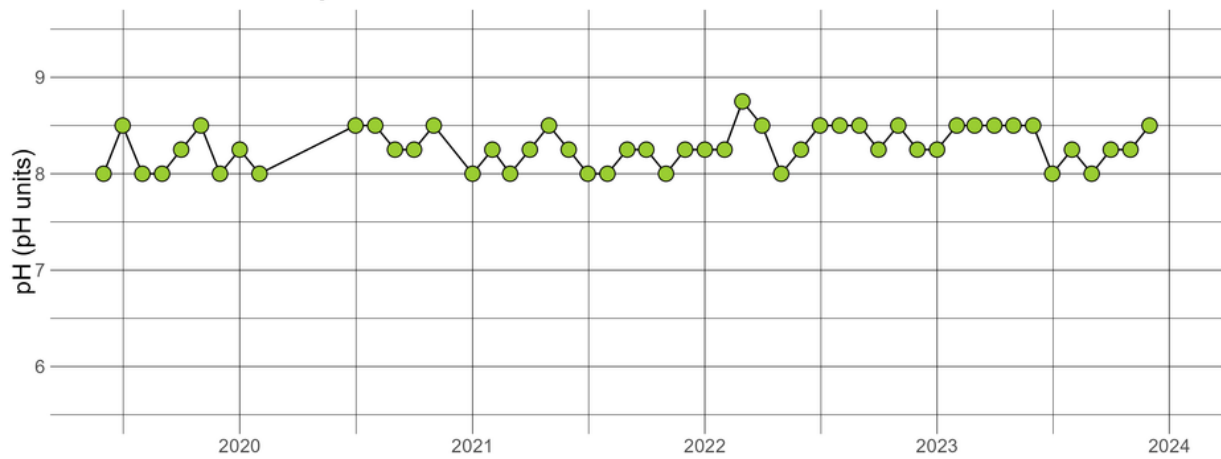
YELBREC0.85 - Water Temperature



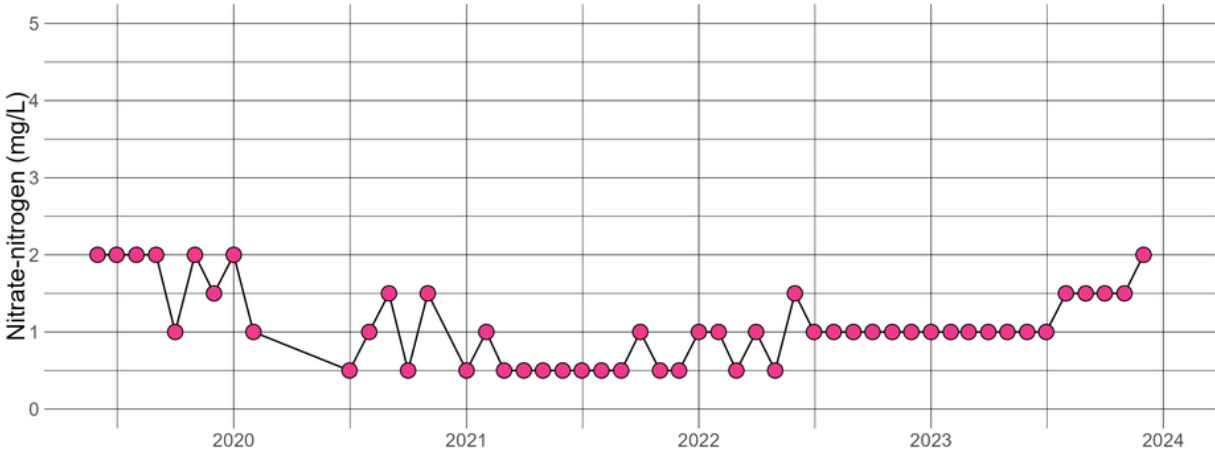
YELBREC0.85 - Conductivity



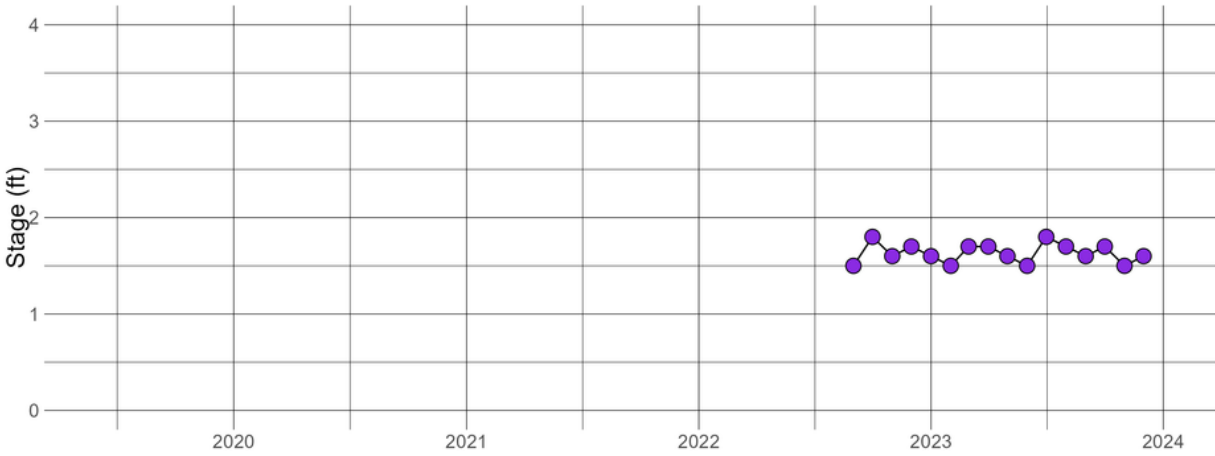
YELBREC0.85 - pH



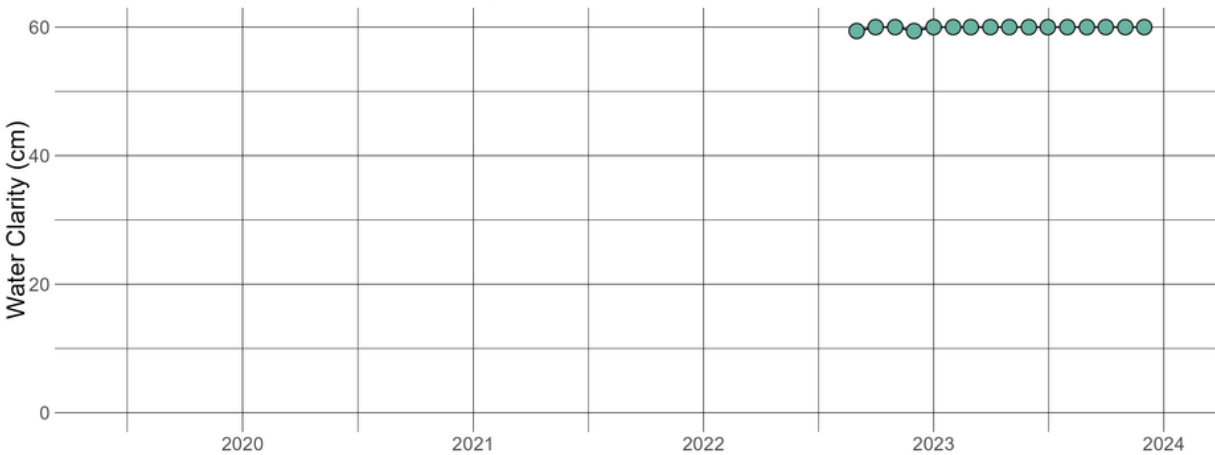
YELBRECRE0.85 - Nitrate-nitrogen



YELBRECRE0.85 - Stage



YELBRECRE0.85 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jun-19 | 316 | 2 | 8 | | | 17.2 |
| Jul-19 | 365 | 2 | 8.5 | | | 23.8 |
| Aug-19 | 346 | 2 | 8 | | | 22.8 |
| Sep-19 | 384 | 2 | 8 | | | 16.4 |
| Oct-19 | 376 | 1 | 8.25 | | | 11.9 |
| Nov-19 | 382 | 2 | 8.5 | | | 6.3 |
| Dec-19 | 364 | 1.5 | 8 | | | 5.4 |
| Jan-20 | 358 | 2 | 8.25 | | | 4 |
| Feb-20 | 287 | 1 | 8 | | | 4.3 |
| Jul-20 | 369 | 0.5 | 8.5 | | | 24.1 |
| Aug-20 | 383 | 1 | 8.5 | | | 21.3 |
| Sep-20 | 383 | 1.5 | 8.25 | | | 16.5 |
| Oct-20 | 380 | 0.5 | 8.25 | | | 13.1 |
| Nov-20 | 373 | 1.5 | 8.5 | | | 7 |
| Jan-21 | 359 | 0.5 | 8 | | | 4.4 |
| Feb-21 | 442 | 1 | 8.25 | | | 3.2 |
| Mar-21 | 292 | 0.5 | 8 | | | 8.8 |
| Apr-21 | 256 | 0.5 | 8.25 | | | 13 |
| May-21 | 343 | 0.5 | 8.5 | | | 19.7 |
| Jun-21 | 388 | 0.5 | 8.25 | | | 21.6 |
| Jul-21 | 390 | 0.5 | 8 | | | 22.5 |
| Aug-21 | 366 | 0.5 | 8 | | | 22.6 |
| Sep-21 | 349 | 0.5 | 8.25 | | | 19.8 |
| Oct-21 | 356 | 1 | 8.25 | | | 13.2 |
| Nov-21 | 328 | 0.5 | 8 | | | 7.1 |
| Dec-21 | 333 | 0.5 | 8.25 | | | 8.6 |
| Jan-22 | 394 | 1 | 8.25 | | | 0.7 |
| Feb-22 | 305 | 1 | 8.25 | | | 3.9 |
| Mar-22 | 310 | 0.5 | 8.75 | | | 14.5 |
| Apr-22 | 304 | 1 | 8.5 | | | 14.4 |
| May-22 | 289 | 0.5 | 8 | | | 17.6 |
| Jun-22 | 377 | 1.5 | 8.25 | | | 18.7 |
| Jul-22 | 391 | 1 | 8.5 | | | 25.7 |
| Aug-22 | 374 | 1 | 8.5 | | | 22.2 |
| Sep-22 | 398 | 1 | 8.5 | 1.5 | 59.4 | 19.1 |
| Oct-22 | 384 | 1 | 8.25 | 1.8 | 60 | 11.3 |
| Nov-22 | 374 | 1 | 8.5 | 1.6 | 60 | 5.6 |
| Dec-22 | 321 | 1 | 8.25 | 1.7 | 59.4 | 5.4 |

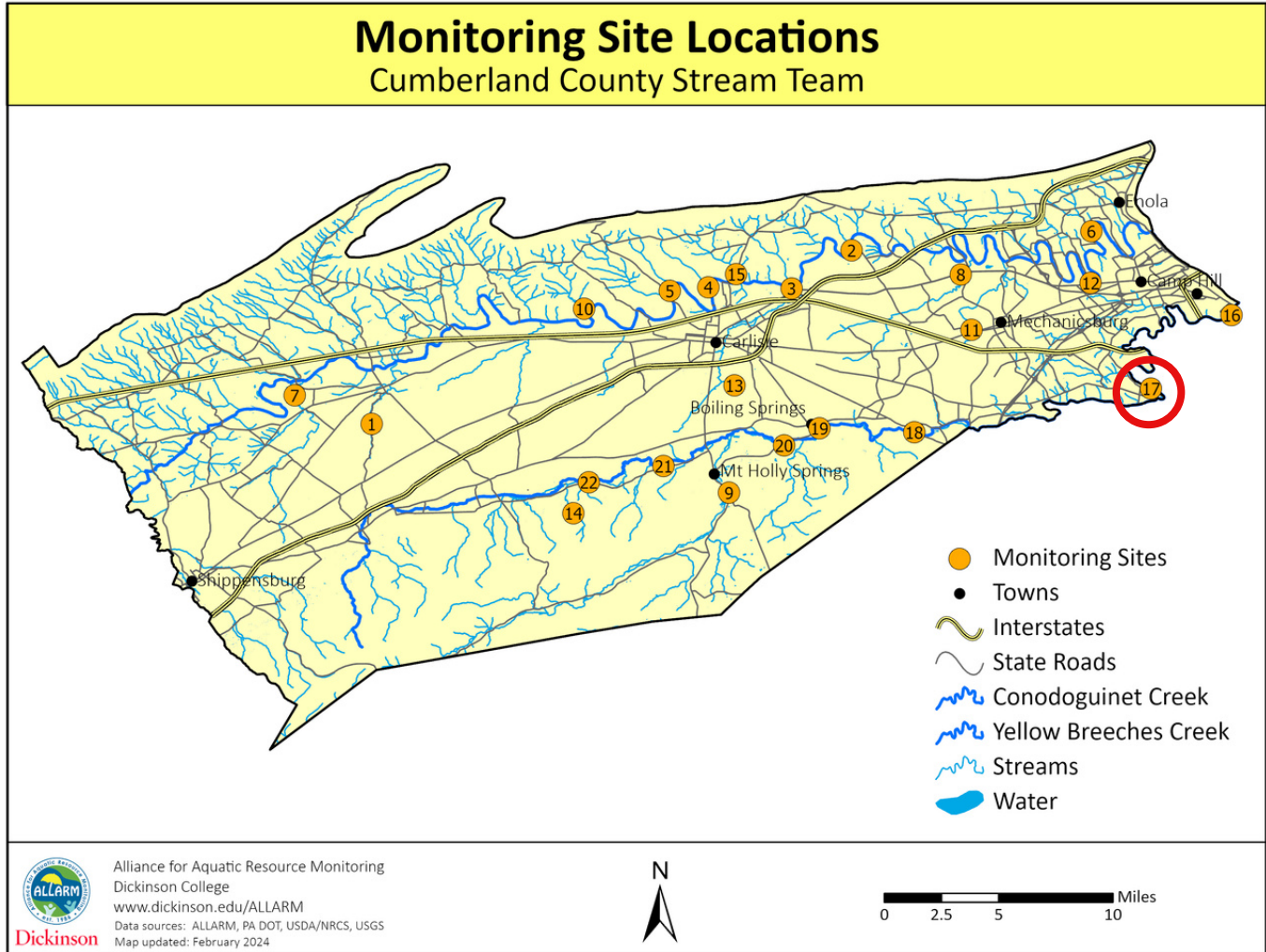
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jan-23 | 345 | 1 | 8.25 | 1.6 | 60 | 6.4 |
| Feb-23 | | 1 | 8.5 | 1.5 | 60 | 6.8 |
| Mar-23 | 312 | 1 | 8.5 | 1.7 | 60 | 9.8 |
| Apr-23 | | 1 | 8.5 | 1.7 | 60 | 18.7 |
| May-23 | 317 | 1 | 8.5 | 1.6 | 60 | 17.3 |
| Jun-23 | 357 | 1 | 8.5 | 1.5 | 60 | 19 |
| Jul-23 | 398 | 1 | 8 | 1.8 | 60 | 22.2 |
| Aug-23 | 407 | 1.5 | 8.25 | 1.7 | 60 | 22.7 |
| Sep-23 | 410 | 1.5 | 8 | 1.6 | 60 | 17.5 |
| Oct-23 | 410 | 1.5 | 8.25 | 1.7 | 60 | 14.3 |
| Nov-23 | 391 | 1.5 | 8.25 | 1.5 | 60 | 10.2 |
| Dec-23 | 387 | 2 | 8.5 | 1.6 | 60 | 4.5 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 256 | 442 | 186 | 359 | 368 |
| Nitrate-Nitrogen | 0.5 | 2 | 1.5 | 1.1 | 1 |
| pH | 8 | 8.8 | 0.75 | 8.3 | 8.2 |
| Stage | 1.5 | 1.8 | 0.3 | 1.6 | 1.6 |
| Water Clarity | 59 | 60 | 0.6 | 60 | 60 |
| Water Temp. | 0.7 | 26 | 25 | 14 | 14 |

Yellow Breeches at Lower Allen Community Park (YELBREC 13.63)

Monitor(s): Randy Brown & Janie Gunn



Land Use

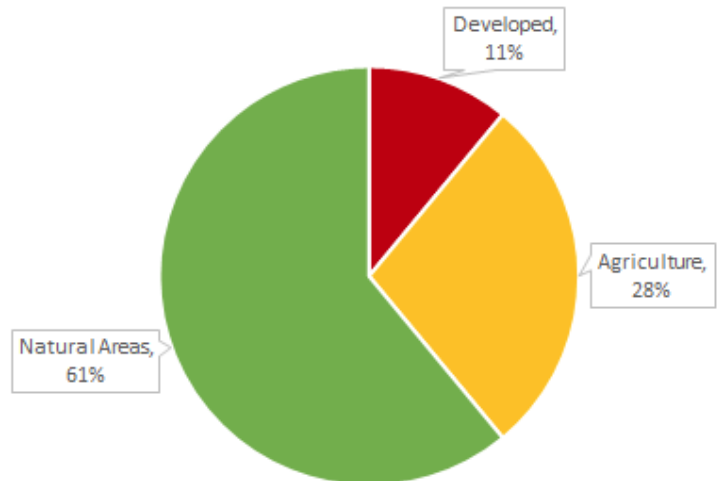
Site information:

Drains: 189 mi²

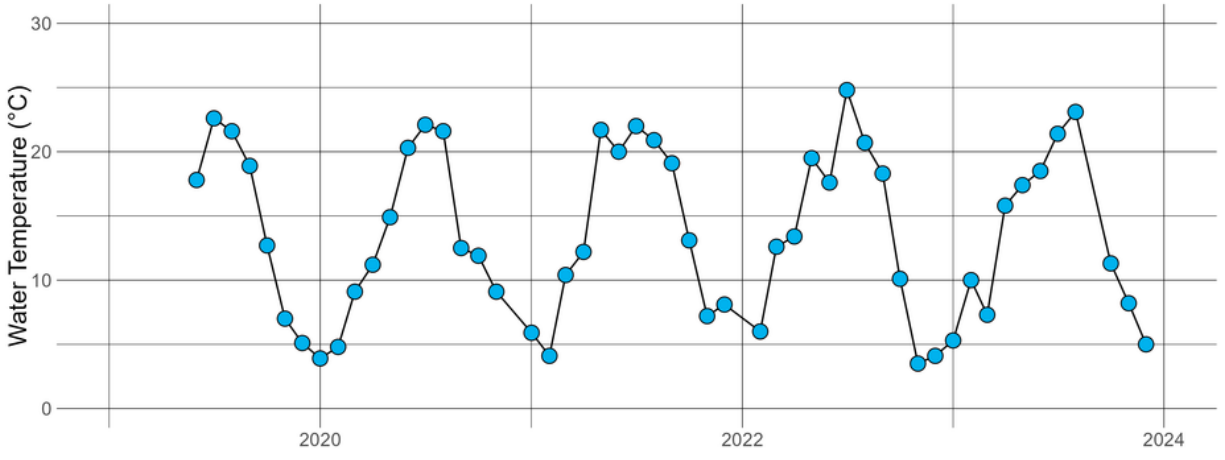
Impaired: No

Designation: Cold water fishes (CWF)

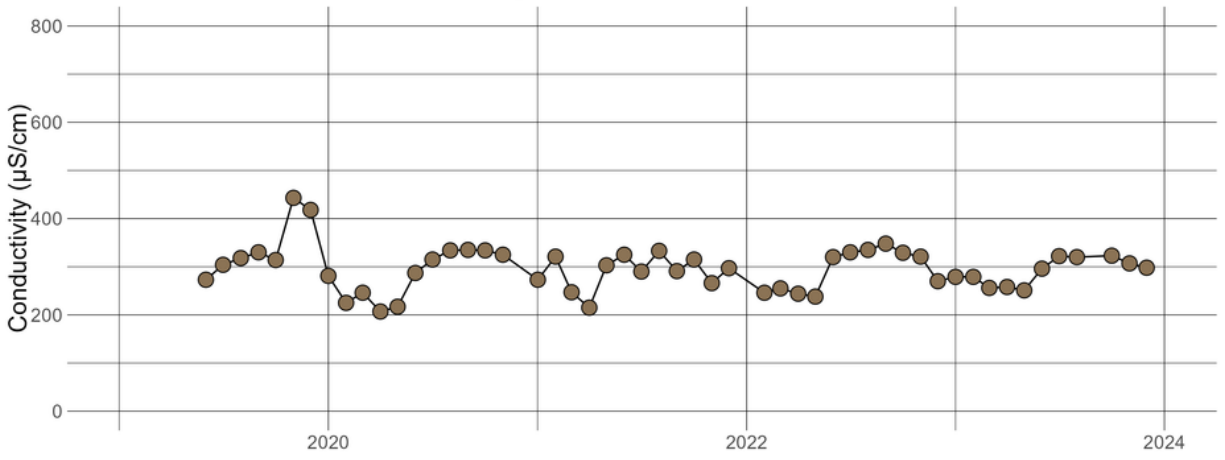
Geology: 32% Calcareous, 68% Non-calcareous



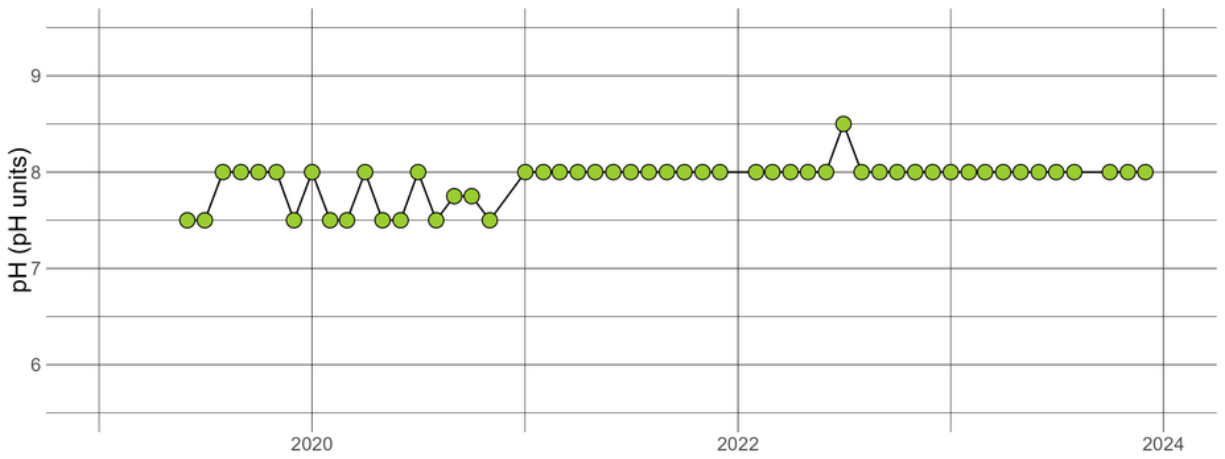
YELBRECRE13.63 - Water Temperature



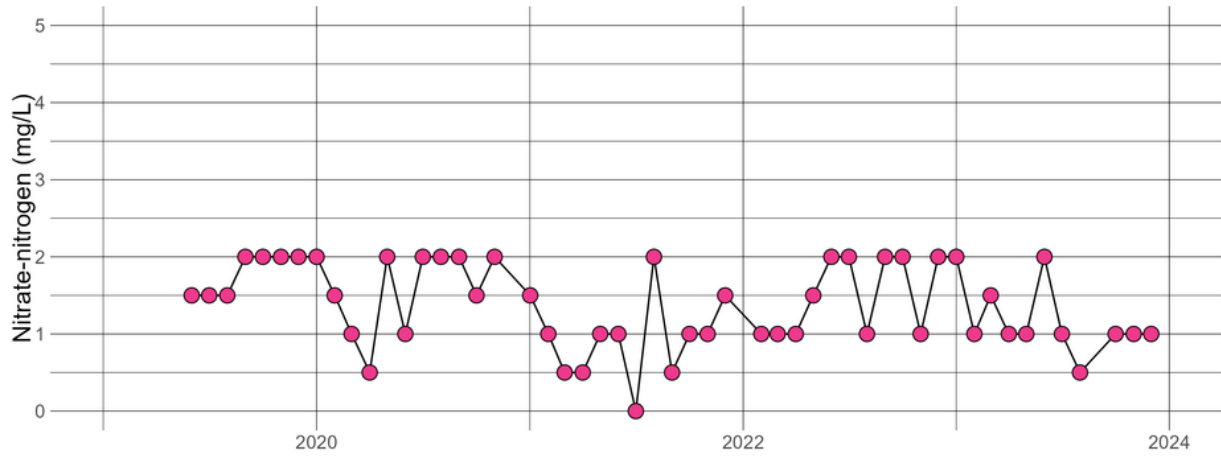
YELBRECRE13.63 - Conductivity



YELBRECRE13.63 - pH



YELBRECRE13.63 - Nitrate-nitrogen



YELBRECRE13.63 - Stage



YELBRECRE13.63 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|------|-------|---------|--------|
| Jun-19 | 273 | 1.5 | 7.5 | | | 17.8 |
| Jul-19 | 304 | 1.5 | 7.5 | | | 22.6 |
| Aug-19 | 318 | 1.5 | 8 | | | 21.6 |
| Sep-19 | 330 | 2 | 8 | | | 18.9 |
| Oct-19 | 314 | 2 | 8 | | | 12.7 |
| Nov-19 | 443 | 2 | 8 | | | 7 |
| Dec-19 | 418 | 2 | 7.5 | | | 5.1 |
| Jan-20 | 281 | 2 | 8 | | | 3.9 |
| Feb-20 | 225 | 1.5 | 7.5 | | | 4.8 |
| Mar-20 | 246 | 1 | 7.5 | | | 9.1 |
| Apr-20 | 207 | 0.5 | 8 | | | 11.2 |
| May-20 | 217 | 2 | 7.5 | | | 14.9 |
| Jun-20 | 287 | 1 | 7.5 | | | 20.3 |
| Jul-20 | 315 | 2 | 8 | | | 22.1 |
| Aug-20 | 334 | 2 | 7.5 | | | 21.6 |
| Sep-20 | 335 | 2 | 7.75 | | | 12.5 |
| Oct-20 | 334 | 1.5 | 7.75 | | | 11.9 |
| Nov-20 | 325 | 2 | 7.5 | | | 9.1 |
| Jan-21 | 273 | 1.5 | 8 | | | 5.9 |
| Feb-21 | 321 | 1 | 8 | | | 4.1 |
| Mar-21 | 247 | 0.5 | 8 | | | 10.4 |
| Apr-21 | 215 | 0.5 | 8 | | | 12.2 |
| May-21 | 303 | 1 | 8 | | | 21.7 |
| Jun-21 | 325 | 1 | 8 | | | 20 |
| Jul-21 | 290 | 0 | 8 | | | 22 |
| Aug-21 | 333 | 2 | 8 | | | 20.9 |
| Sep-21 | 291 | 0.5 | 8 | | | 19.1 |
| Oct-21 | 315 | 1 | 8 | | | 13.1 |
| Nov-21 | 266 | 1 | 8 | | | 7.2 |
| Dec-21 | 297 | 1.5 | 8 | | | 8.1 |
| Feb-22 | 246 | 1 | 8 | | | 6 |
| Mar-22 | 255 | 1 | 8 | | | 12.6 |
| Apr-22 | 244 | 1 | 8 | | | 13.4 |
| May-22 | 238 | 1.5 | 8 | | | 19.5 |
| Jun-22 | 320 | 2 | 8 | | | 17.6 |
| Jul-22 | 330 | 2 | 8.5 | | | 24.8 |
| Aug-22 | 335 | 1 | 8 | | | 20.7 |
| Sep-22 | 348 | 2 | 8 | 1 | 60 | 18.3 |
| Oct-22 | 329 | 2 | 8 | 1.1 | 60 | 10.1 |
| Nov-22 | 321 | 1 | 8 | 1.4 | 60 | 3.5 |
| Dec-22 | 270 | 2 | 8 | 1.9 | 60 | 4.1 |

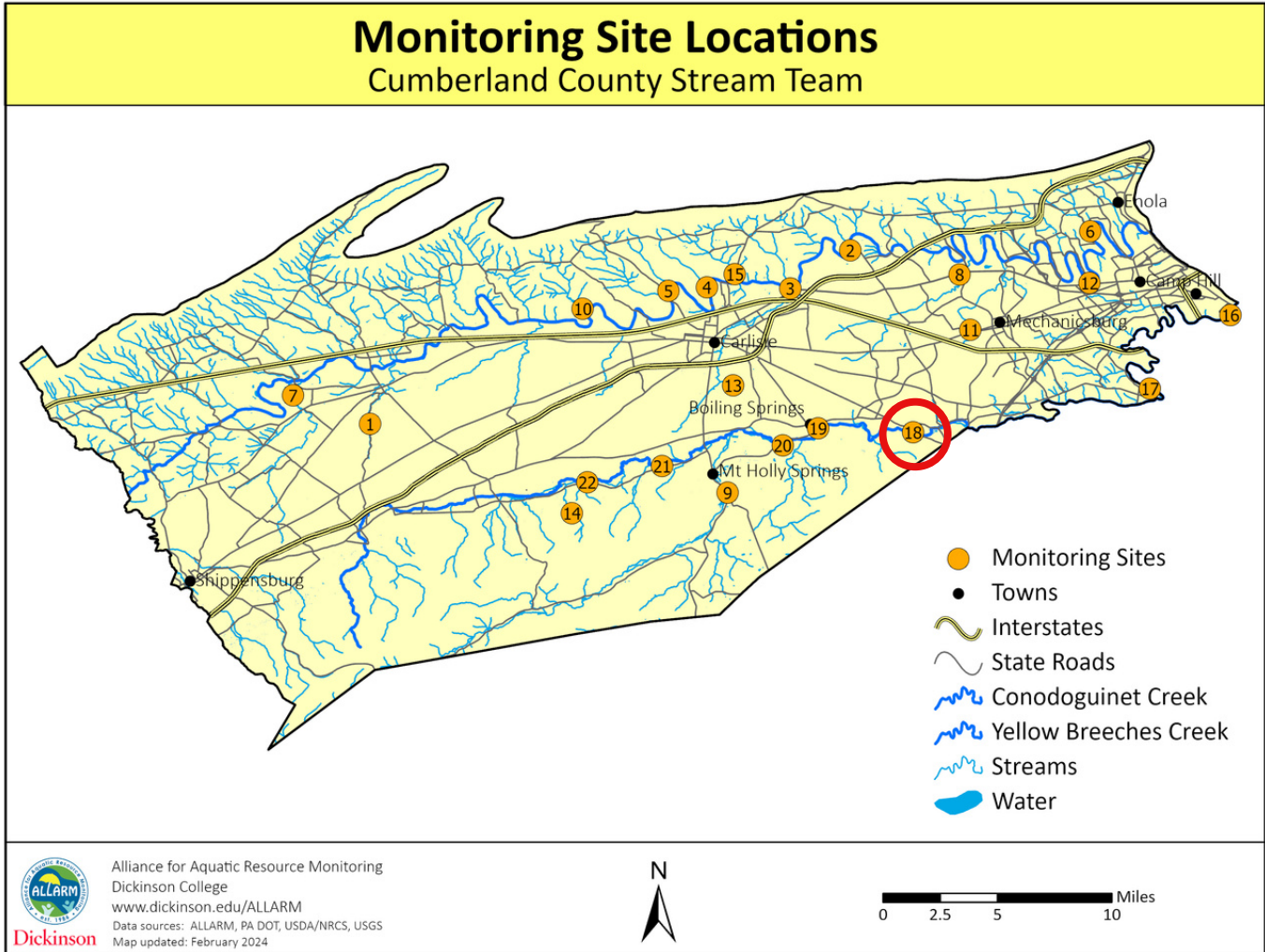
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-----|---------|----|-------|---------|--------|
| Jan-23 | 279 | 2 | 8 | 1.7 | 60 | 5.3 |
| Feb-23 | 279 | 1 | 8 | 1.7 | 60 | 10 |
| Mar-23 | 256 | 1.5 | 8 | 1.5 | 60 | 7.3 |
| Apr-23 | 258 | 1 | 8 | 1.9 | 60 | 15.8 |
| May-23 | 251 | 1 | 8 | 1.7 | 60 | 17.4 |
| Jun-23 | 296 | 2 | 8 | 1.5 | 60 | 18.5 |
| Jul-23 | 322 | 1 | 8 | 1.3 | 60 | 21.4 |
| Aug-23 | 320 | 0.5 | 8 | 1.3 | 60 | 23.1 |
| Oct-23 | 323 | 1 | 8 | 1.5 | 60 | 11.3 |
| Nov-23 | 307 | 1 | 8 | 1.3 | 60 | 8.2 |
| Dec-23 | 298 | 1 | 8 | 1.6 | 60 | 5 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 207 | 443 | 236 | 296 | 300 |
| Nitrate-Nitrogen | 0 | 2 | 2 | 1.4 | 1.5 |
| pH | 7.5 | 8.5 | 1 | 7.9 | 8 |
| Stage | 1 | 1.9 | 0.9 | 1.5 | 1.5 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 3.5 | 25 | 21 | 14 | 13 |

Yellow Breeches at Yellow Breeches Creek (YELBRECREE 23.6)

Monitor(s): Andrew & Fabian Jankowski



 Alliance for Aquatic Resource Monitoring
Dickinson College
www.dickinson.edu/ALLARM
Data sources: ALLARM, PA DOT, USDA/NRCS, USGS
Map updated: February 2024

Site information:

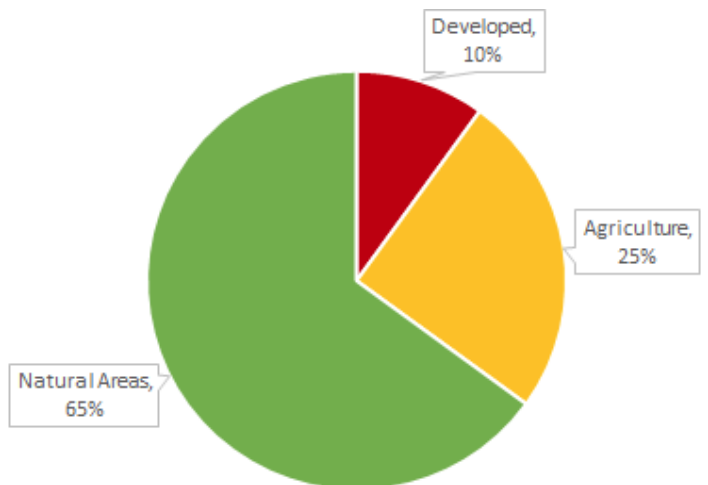
Drains: 141 mi²

Impaired: No

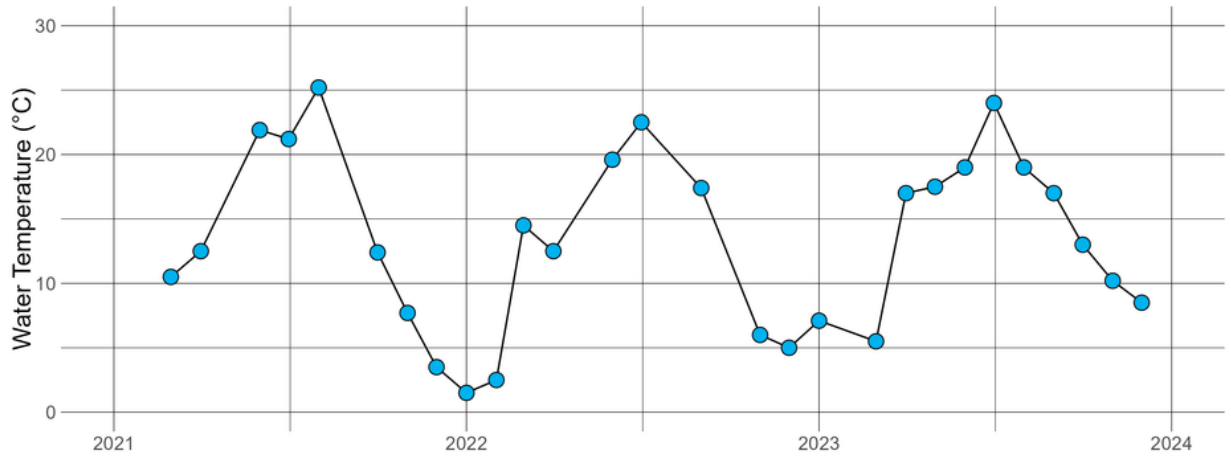
Designation: High-quality cold water fishes (HQ-CWF)

Geology: 35% Calcareous, 65% Non-calcareous

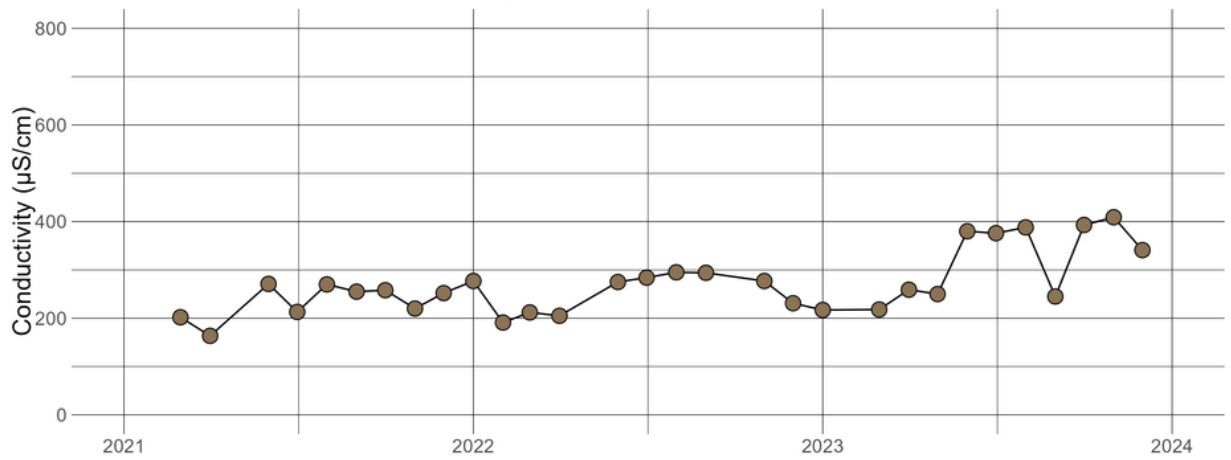
Land Use



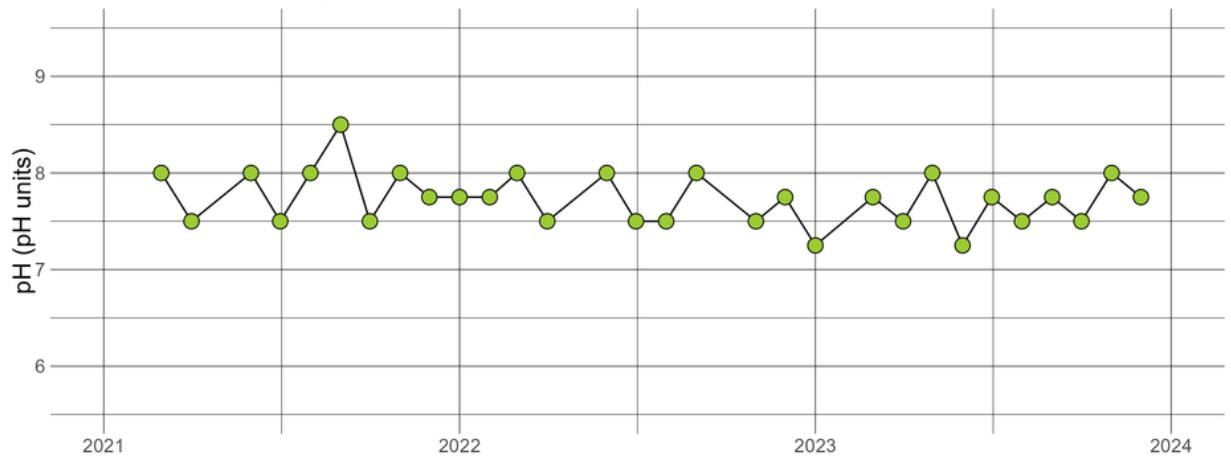
YELBREC23.6 - Water Temperature



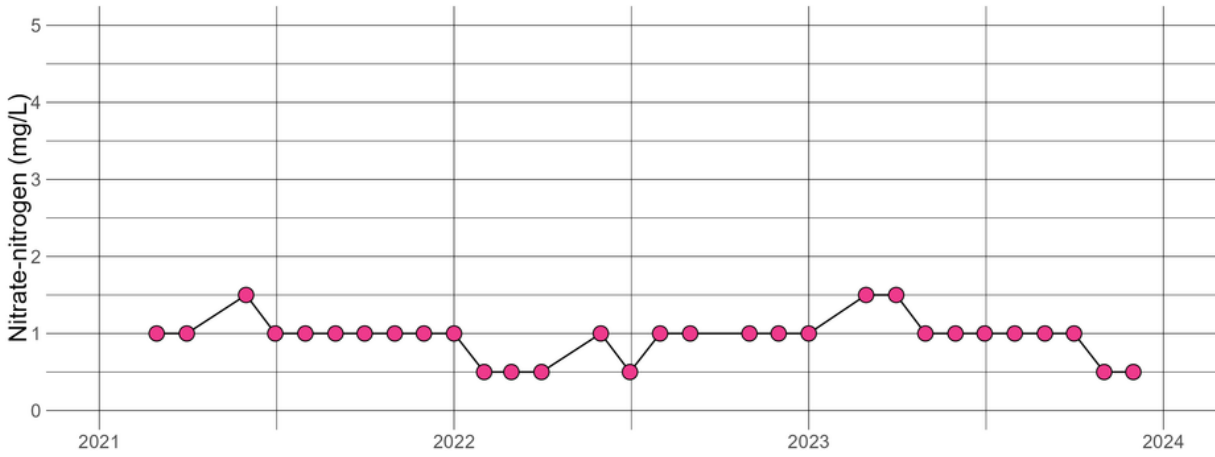
YELBREC23.6 - Conductivity



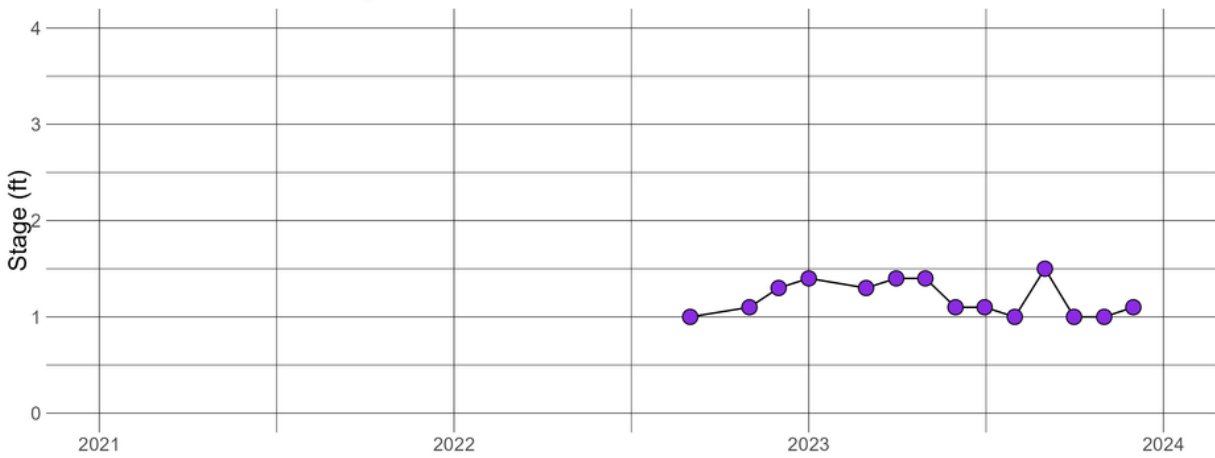
YELBREC23.6 - pH



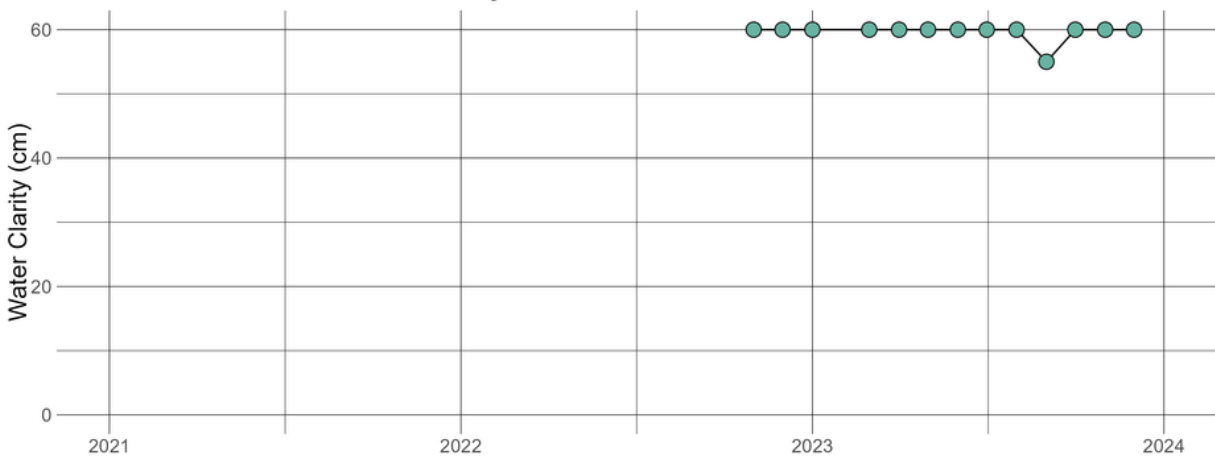
YELBREC23.6 - Nitrate-nitrogen



YELBREC23.6 - Stage



YELBREC23.6 - Water Clarity



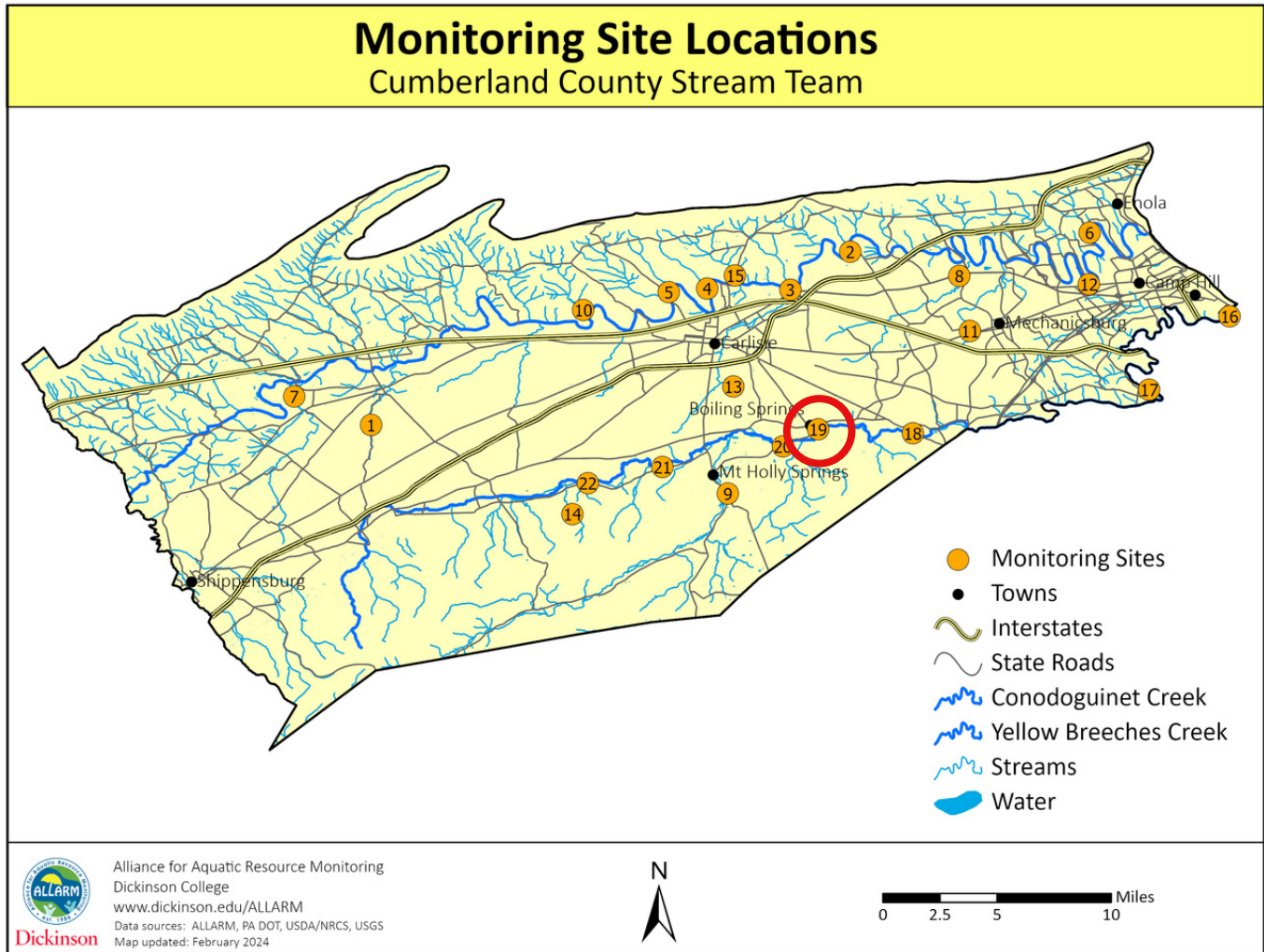
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|------|-------|---------|--------|
| Mar-21 | 202 | 1 | 8 | | | 10.5 |
| Apr-21 | 163.5 | 1 | 7.5 | | | 12.5 |
| Jun-21 | 271 | 1.5 | 8 | | | 21.9 |
| Jul-21 | 213 | 1 | 7.5 | | | 21.2 |
| Aug-21 | 270 | 1 | 8 | | | 25.2 |
| Sep-21 | 255 | 1 | 8.5 | | | |
| Oct-21 | 258 | 1 | 7.5 | | | 12.4 |
| Nov-21 | 220 | 1 | 8 | | | 7.7 |
| Dec-21 | 252 | 1 | 7.75 | | | 3.5 |
| Jan-22 | 277 | 1 | 7.75 | | | 1.5 |
| Feb-22 | 191 | 0.5 | 7.75 | | | 2.5 |
| Mar-22 | 212 | 0.5 | 8 | | | 14.5 |
| Apr-22 | 205 | 0.5 | 7.5 | | | 12.5 |
| Jun-22 | 275 | 1 | 8 | | | 19.6 |
| Jul-22 | 284 | 0.5 | 7.5 | | | 22.5 |
| Aug-22 | 295 | 1 | 7.5 | | | |
| Sep-22 | 294 | 1 | 8 | 1 | | 17.4 |
| Nov-22 | 277 | 1 | 7.5 | 1.1 | 60 | 6 |
| Dec-22 | 231 | 1 | 7.75 | 1.3 | 60 | 5 |
| Jan-23 | 217 | 1 | 7.25 | 1.4 | 60 | 7.1 |
| Mar-23 | 218 | 1.5 | 7.75 | 1.3 | 60 | 5.5 |
| Apr-23 | 259 | 1.5 | 7.5 | 1.4 | 60 | 17 |
| May-23 | 250 | 1 | 8 | 1.4 | 60 | 17.5 |
| Jun-23 | 380 | 1 | 7.25 | 1.1 | 60 | 19 |
| Jul-23 | 376 | 1 | 7.75 | 1.1 | 60 | 24 |
| Aug-23 | 388 | 1 | 7.5 | 1 | 60 | 19 |
| Sep-23 | 245 | 1 | 7.75 | 1.5 | 55 | 17 |
| Oct-23 | 393 | 1 | 7.5 | 1 | 60 | 13 |
| Nov-23 | 409 | 0.5 | 8 | 1 | 60 | 10.2 |
| Dec-23 | 341 | 0.5 | 7.75 | 1.1 | 60 | 8.5 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 164 | 409 | 246 | 271 | 258 |
| Nitrate-Nitrogen | 0.5 | 1.5 | 1 | 0.95 | 1 |
| pH | 7.2 | 8.5 | 1.2 | 7.7 | 7.8 |
| Stage | 1 | 1.5 | 0.5 | 1.2 | 1.1 |
| Water Clarity | 55 | 60 | 5 | 60 | 60 |
| Water Temp. | 1.5 | 25 | 24 | 13 | 13 |

Yellow Breeches at Children's Lake (YELBREC32.32)

Monitor(s): Kelly Kurtas



Site information:

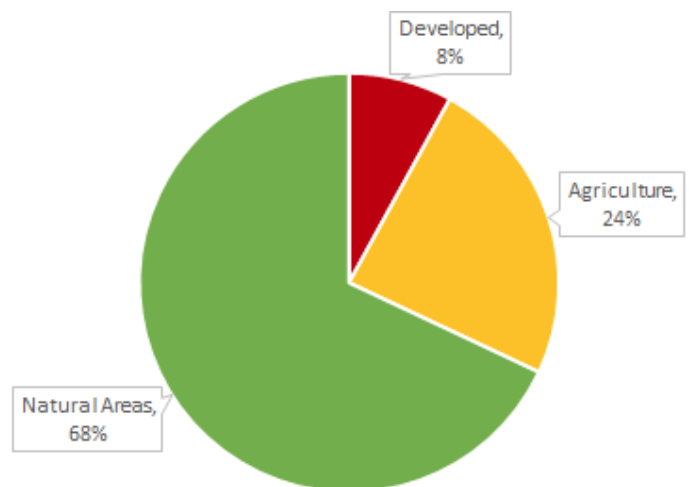
Drains: 131 mi²

Impaired: No

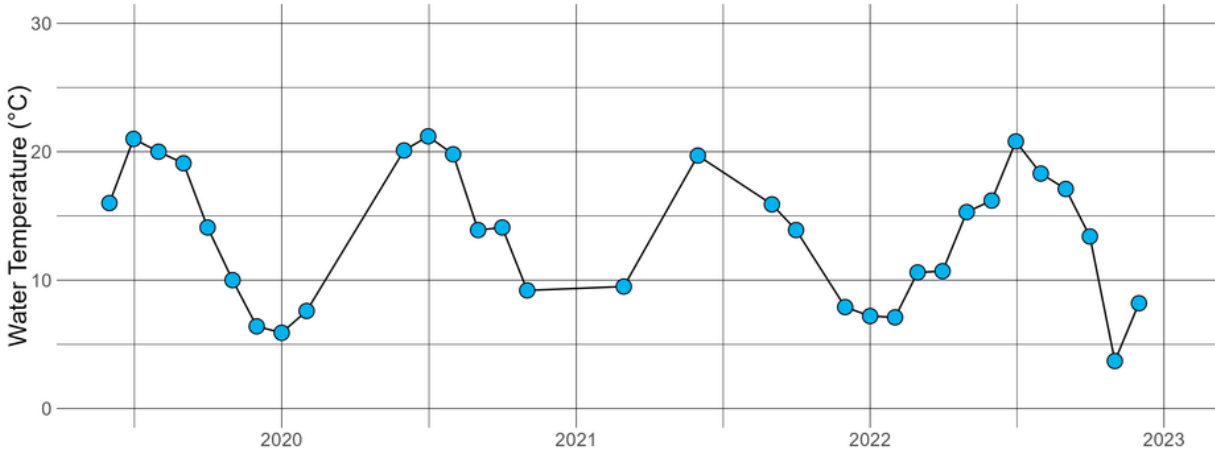
Designation: High-quality cold water fishes (HQ-CWF)

Geology: 32% Calcareous, 68% Non-calcareous

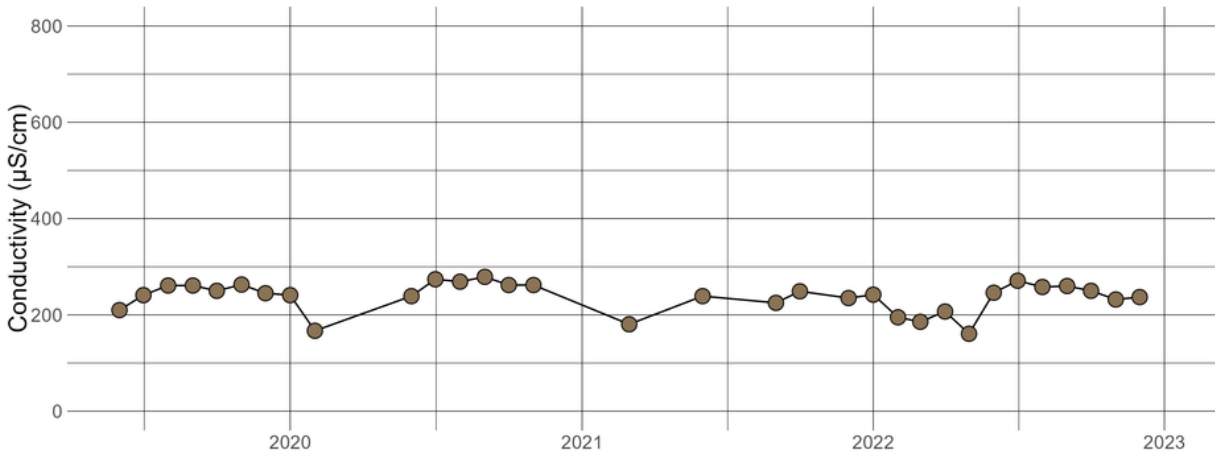
Land Use



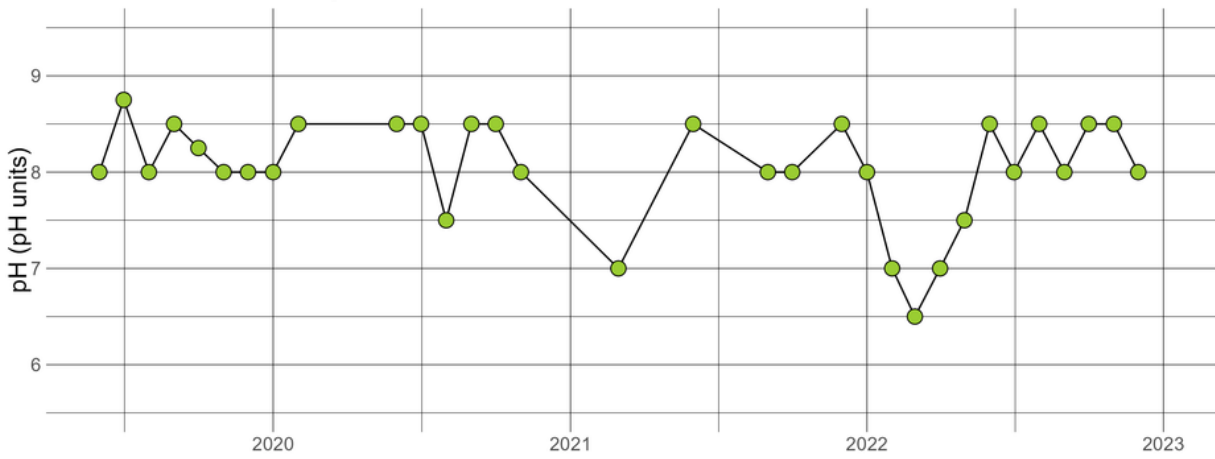
YELBREC32.32 - Water Temperature



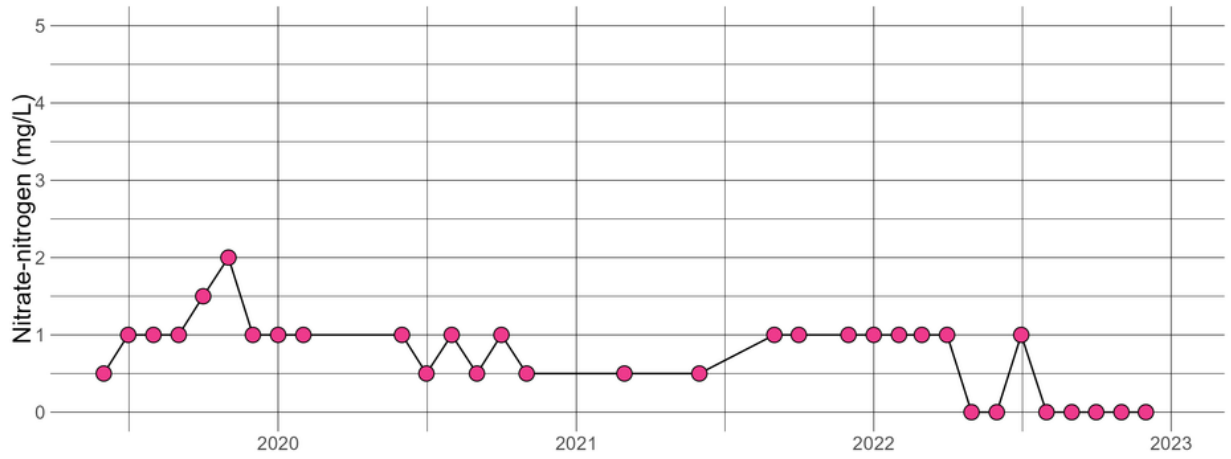
YELBREC32.32 - Conductivity



YELBREC32.32 - pH



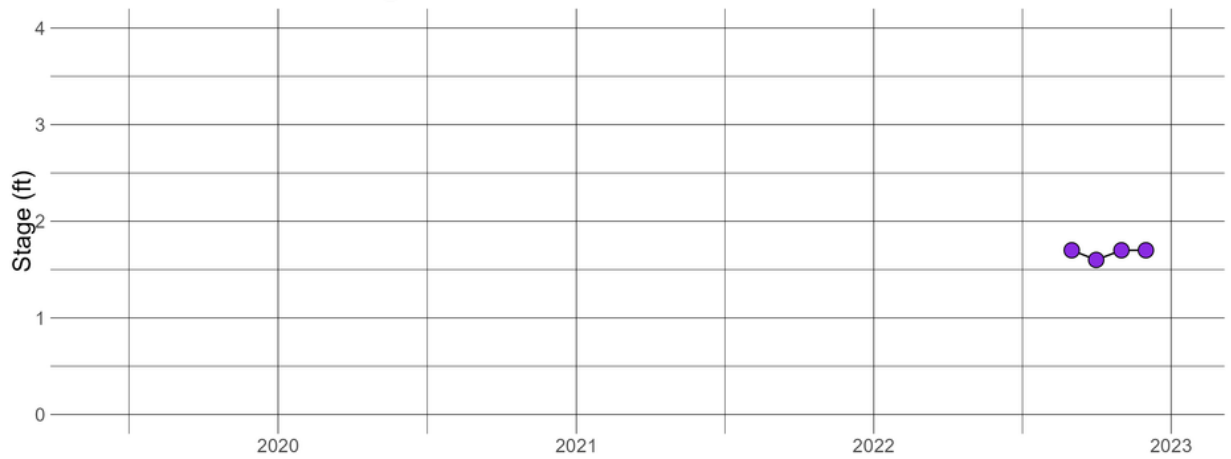
YELBREC32.32 - Nitrate-nitrogen



YELBREC32.32 - Water Clarity



YELBREC32.32 - Stage



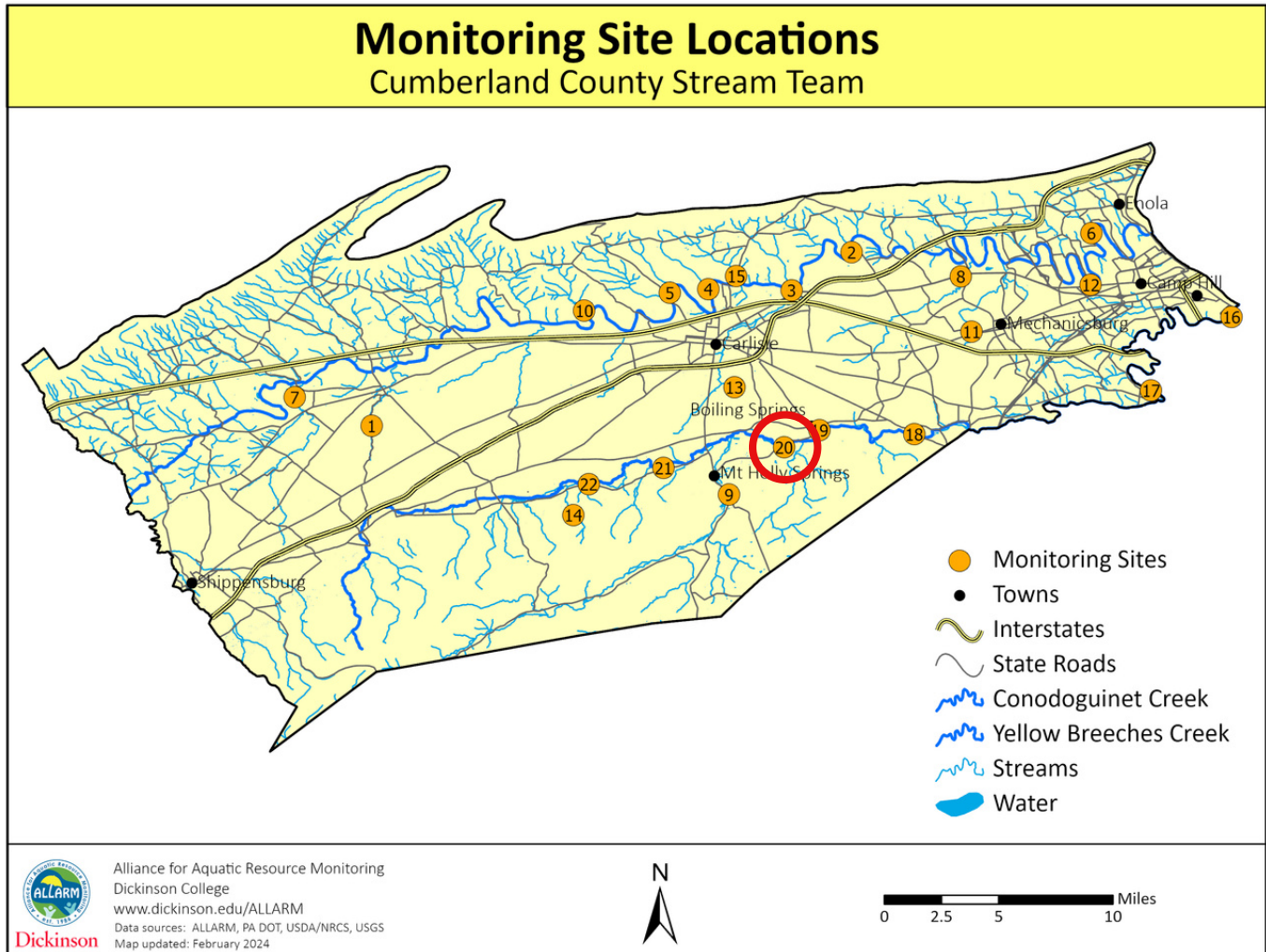
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|------|-------|---------|--------|
| Jun-19 | 210 | 0.5 | 8 | | | 16 |
| Jul-19 | 241 | 1 | 8.75 | | | 21 |
| Aug-19 | 261 | 1 | 8 | | | 20 |
| Sep-19 | 261 | 1 | 8.5 | | | 19.1 |
| Oct-19 | 250 | 1.5 | 8.25 | | | 14.1 |
| Nov-19 | 263 | 2 | 8 | | | 10 |
| Dec-19 | 245 | 1 | 8 | | | 6.4 |
| Jan-20 | 241 | 1 | 8 | | | 5.9 |
| Feb-20 | 167 | 1 | 8.5 | | | 7.6 |
| Jun-20 | 239 | 1 | 8.5 | | | 20.1 |
| Jul-20 | 274 | 0.5 | 8.5 | | | 21.2 |
| Aug-20 | 269 | 1 | 7.5 | | | 19.8 |
| Sep-20 | 279 | 0.5 | 8.5 | | | 13.9 |
| Oct-20 | 262 | 1 | 8.5 | | | 14.1 |
| Nov-20 | 262 | 0.5 | 8 | | | 9.2 |
| Mar-21 | 180.5 | 0.5 | 7 | | | 9.5 |
| Jun-21 | 239 | 0.5 | 8.5 | | | 19.7 |
| Sep-21 | 225 | 1 | 8 | | | 15.9 |
| Oct-21 | 249 | 1 | 8 | | | 13.9 |
| Dec-21 | 235 | 1 | 8.5 | | | 7.9 |
| Jan-22 | 242 | 1 | 8 | | | 7.2 |
| Feb-22 | 195 | 1 | 7 | | | 7.1 |
| Mar-22 | 185.6 | 1 | 6.5 | | | 10.6 |
| Apr-22 | 207 | 1 | 7 | | | 10.7 |
| May-22 | 160.8 | 0 | 7.5 | | | 15.3 |
| Jun-22 | 246 | 0 | 8.5 | | | 16.2 |
| Jul-22 | 271 | 1 | 8 | | | 20.8 |
| Aug-22 | 258 | 0 | 8.5 | | | 18.3 |
| Sep-22 | 260 | 0 | 8 | 1.7 | 60 | 17.1 |
| Oct-22 | 250 | 0 | 8.5 | 1.6 | 60 | 13.4 |
| Nov-22 | 232 | 0 | 8.5 | 1.7 | 60 | 3.7 |
| Dec-22 | 237 | 0 | 8 | 1.7 | 60 | 8.2 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 161 | 279 | 118 | 237 | 244 |
| Nitrate-Nitrogen | 0 | 2 | 2 | 0.73 | 1 |
| pH | 6.5 | 8.8 | 2.2 | 8 | 8 |
| Stage | 1.6 | 1.7 | 0.1 | 1.7 | 1.7 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 3.7 | 21 | 18 | 14 | 14 |

Yellow Breeches at South Middleton Township Park (YELBREC 34.93)

Monitor(s): Inactive, previously Tracy, Elizabeth, & Bud
Aichele



Land Use

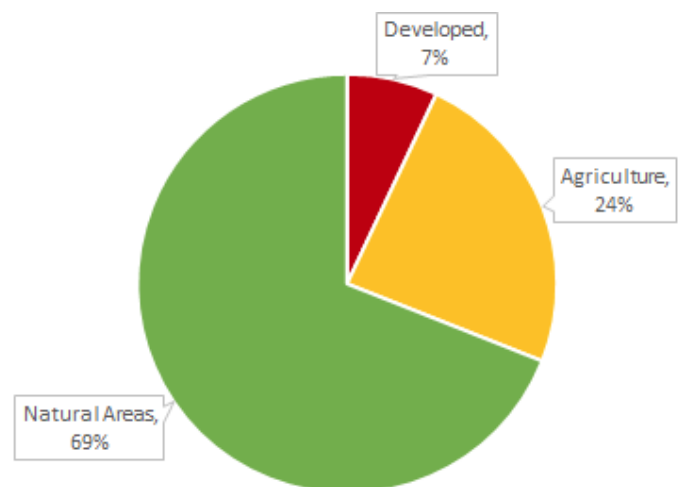
Site information:

Drains: 114 mi²

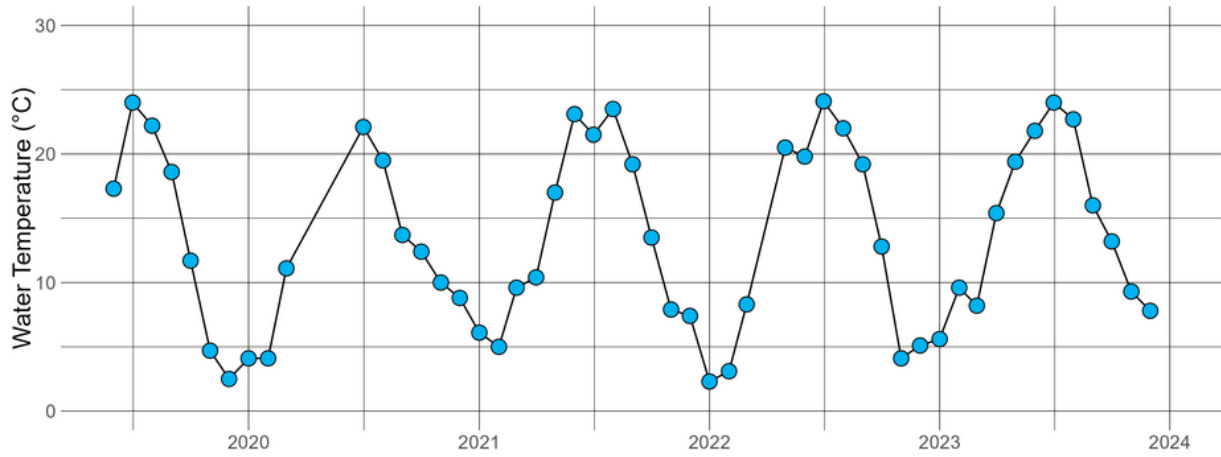
Impaired: No

Designation: High-quality cold water fishes (HQ-CWF)

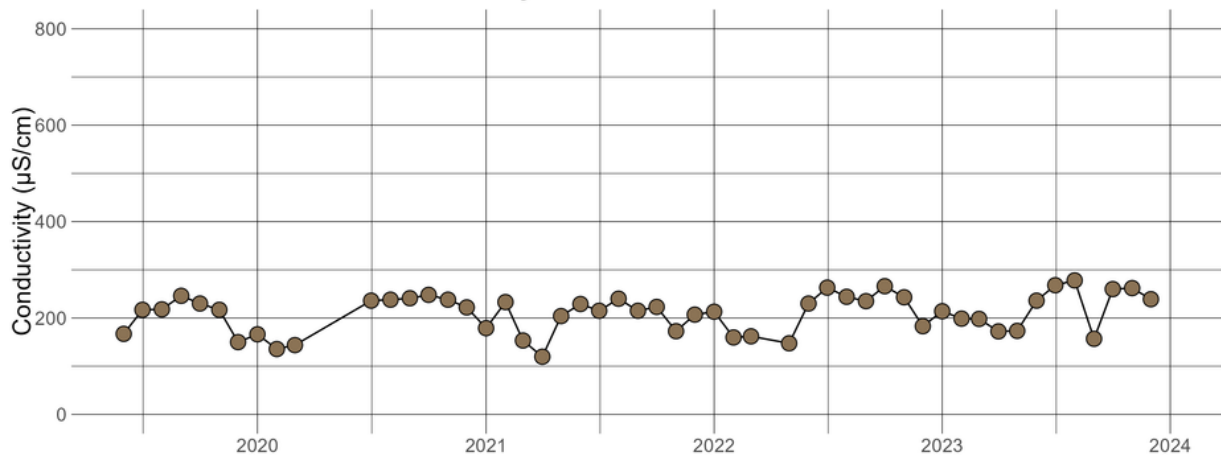
Geology: 31% Calcareous, 69% Non-calcareous



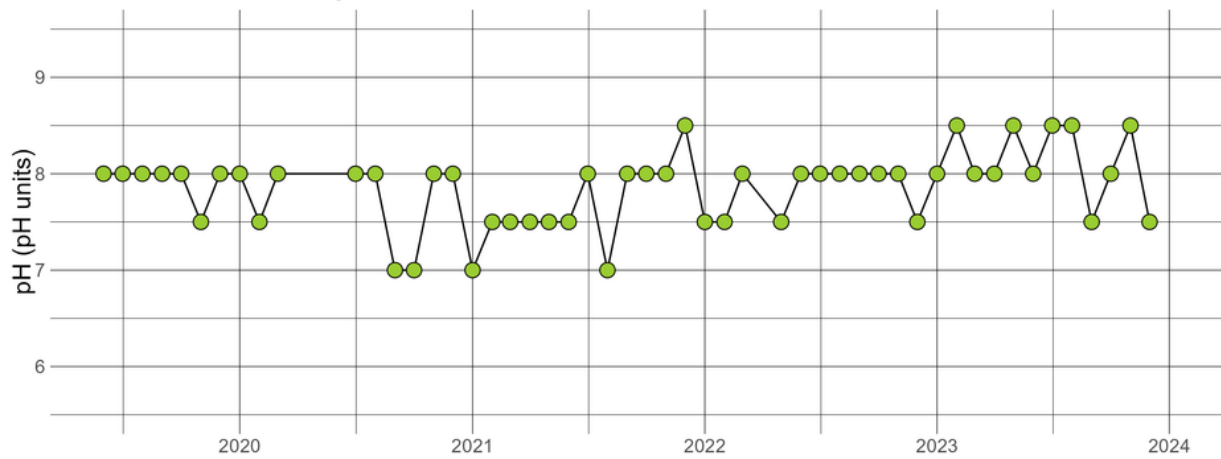
YELBREC34.93 - Water Temperature



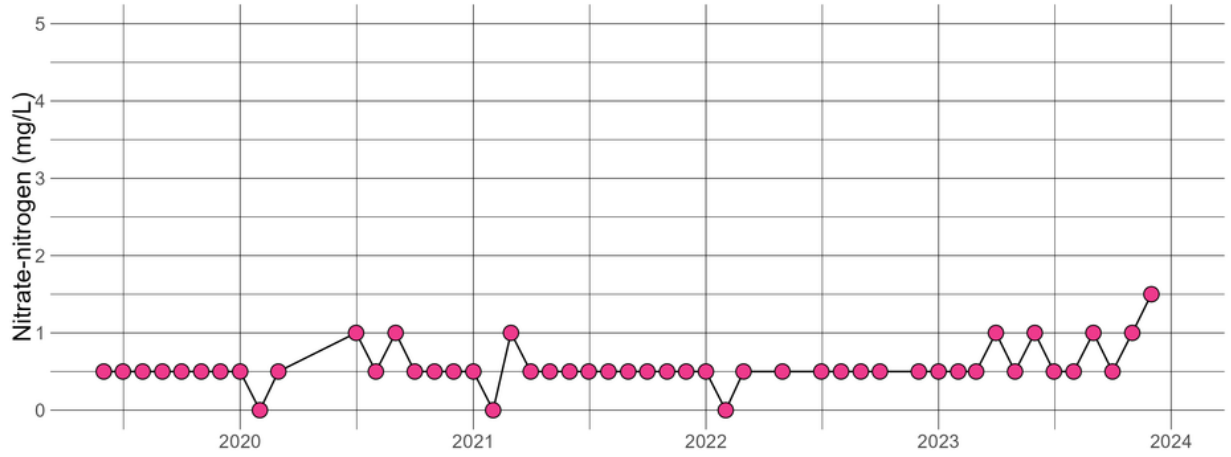
YELBREC34.93 - Conductivity



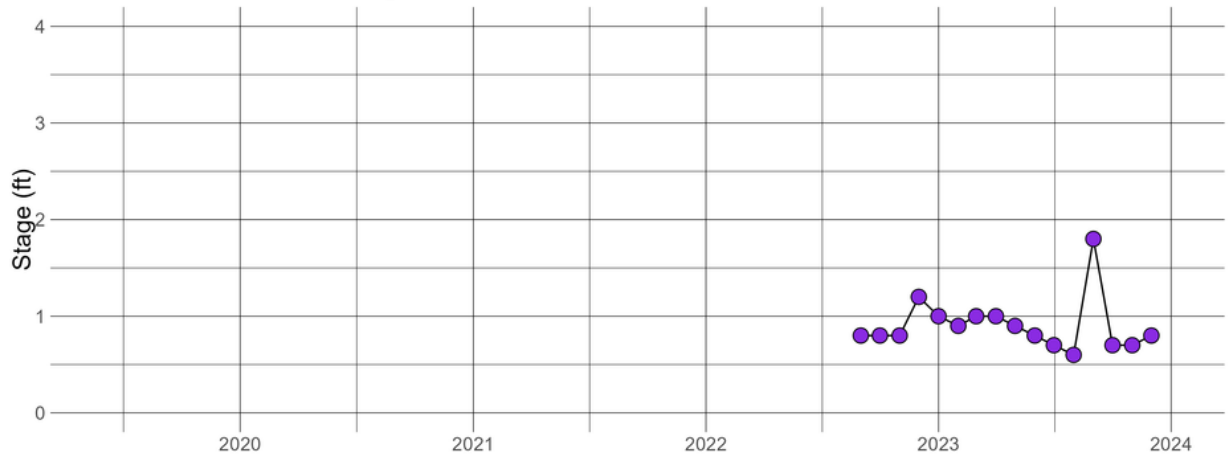
YELBREC34.93 - pH



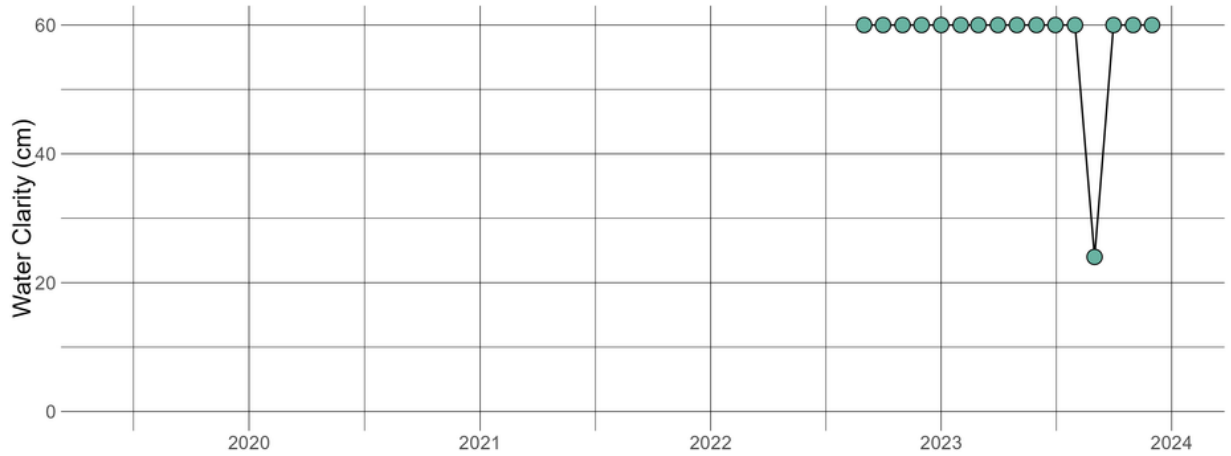
YELBREC34.93 - Nitrate-nitrogen



YELBREC34.93 - Stage



YELBREC34.93 - Water Clarity



Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jun-19 | 167.1 | 0.5 | 8 | | | 17.3 |
| Jul-19 | 217 | 0.5 | 8 | | | 24 |
| Aug-19 | 218 | 0.5 | 8 | | | 22.2 |
| Sep-19 | 246 | 0.5 | 8 | | | 18.6 |
| Oct-19 | 230 | 0.5 | 8 | | | 11.7 |
| Nov-19 | 217 | 0.5 | 7.5 | | | 4.7 |
| Dec-19 | 150 | 0.5 | 8 | | | 2.5 |
| Jan-20 | 166.2 | 0.5 | 8 | | | 4.1 |
| Feb-20 | 135.6 | 0 | 7.5 | | | 4.1 |
| Mar-20 | 143.8 | 0.5 | 8 | | | 11.1 |
| Jul-20 | 236 | 1 | 8 | | | 22.1 |
| Aug-20 | 238 | 0.5 | 8 | | | 19.5 |
| Sep-20 | 241 | 1 | 7 | | | 13.7 |
| Oct-20 | 248 | 0.5 | 7 | | | 12.4 |
| Nov-20 | 238 | 0.5 | 8 | | | 10 |
| Dec-20 | 222 | 0.5 | 8 | | | 8.8 |
| Jan-21 | 178.9 | 0.5 | 7 | | | 6.1 |
| Feb-21 | 233 | 0 | 7.5 | | | 5 |
| Mar-21 | 153.3 | 1 | 7.5 | | | 9.6 |
| Apr-21 | 119.7 | 0.5 | 7.5 | | | 10.4 |
| May-21 | 204 | 0.5 | 7.5 | | | 17 |
| Jun-21 | 229 | 0.5 | 7.5 | | | 23.1 |
| Jul-21 | 215 | 0.5 | 8 | | | 21.5 |
| Aug-21 | 240 | 0.5 | 7 | | | 23.5 |
| Sep-21 | 215 | 0.5 | 8 | | | 19.2 |
| Oct-21 | 223 | 0.5 | 8 | | | 13.5 |
| Nov-21 | 172.6 | 0.5 | 8 | | | 7.9 |
| Dec-21 | 207 | 0.5 | 8.5 | | | 7.4 |
| Jan-22 | 213 | 0.5 | 7.5 | | | 2.3 |
| Feb-22 | 159.7 | 0 | 7.5 | | | 3.1 |
| Mar-22 | 162 | 0.5 | 8 | | | 8.3 |
| May-22 | 147.5 | 0.5 | 7.5 | | | 20.5 |
| Jun-22 | 230 | | 8 | | | 19.8 |
| Jul-22 | 263 | 0.5 | 8 | | | 24.1 |
| Aug-22 | 244 | 0.5 | 8 | | | 22 |
| Sep-22 | 235 | 0.5 | 8 | 0.8 | 60 | 19.2 |
| Oct-22 | 266 | 0.5 | 8 | 0.8 | 60 | 12.8 |
| Nov-22 | 243 | | 8 | 0.8 | 60 | 4.1 |
| Dec-22 | 183 | 0.5 | 7.5 | 1.2 | 60 | 5.1 |

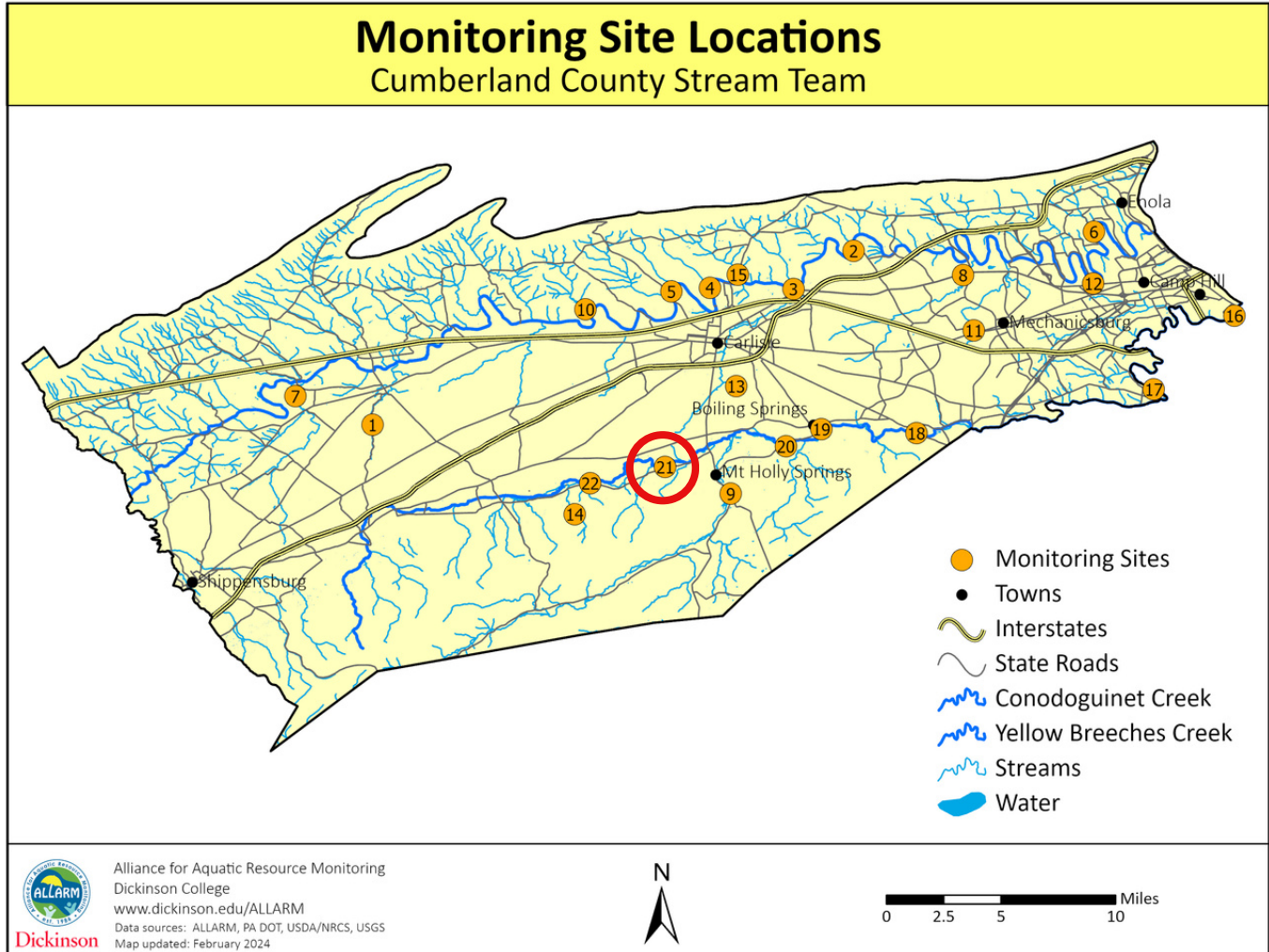
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jan-23 | 214 | 0.5 | 8 | 1 | 60 | 5.6 |
| Feb-23 | 198.7 | 0.5 | 8.5 | 0.9 | 60 | 9.6 |
| Mar-23 | 198.1 | 0.5 | 8 | 1 | 60 | 8.2 |
| Apr-23 | 172.2 | 1 | 8 | 1 | 60 | 15.4 |
| May-23 | 173.3 | 0.5 | 8.5 | 0.9 | 60 | 19.4 |
| Jun-23 | 236 | 1 | 8 | 0.8 | 60 | 21.8 |
| Jul-23 | 268 | 0.5 | 8.5 | 0.7 | 60 | 24 |
| Aug-23 | 278 | 0.5 | 8.5 | 0.6 | 60 | 22.7 |
| Sep-23 | 156.9 | 1 | 7.5 | 1.8 | 24 | 16 |
| Oct-23 | 260 | 0.5 | 8 | 0.7 | 60 | 13.2 |
| Nov-23 | 262 | 1 | 8.5 | 0.7 | 60 | 9.3 |
| Dec-23 | 239 | 1.5 | 7.5 | 0.8 | 60 | 7.8 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 120 | 278 | 158 | 210 | 217 |
| Nitrate-Nitrogen | 0 | 1.5 | 1.5 | 0.56 | 0.5 |
| pH | 7 | 8.5 | 1.5 | 7.9 | 8 |
| Stage | 0.6 | 1.8 | 1.2 | 0.91 | 0.8 |
| Water Clarity | 24 | 60 | 36 | 58 | 60 |
| Water Temp. | 2.3 | 24 | 22 | 13 | 13 |

Yellow Breeches at Stuart Park Barnitz Mill (YELBREC 36.90)

Monitor(s): Inactive, previously Stephen, Katelin & Elise Moul



Site information:

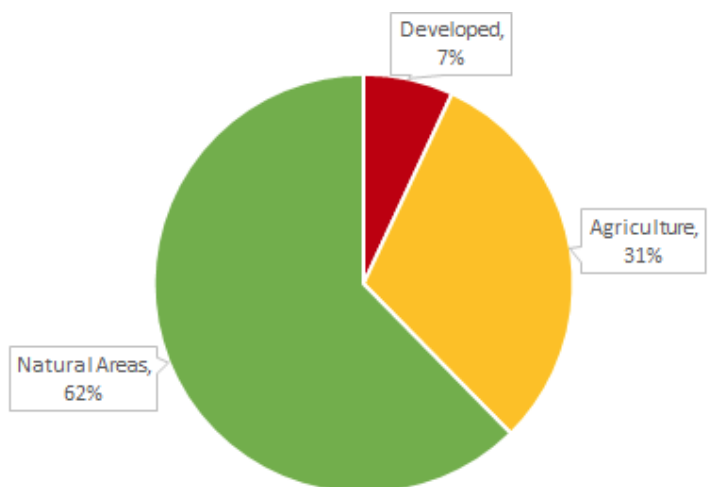
Drains: 55 mi²

Impaired: No

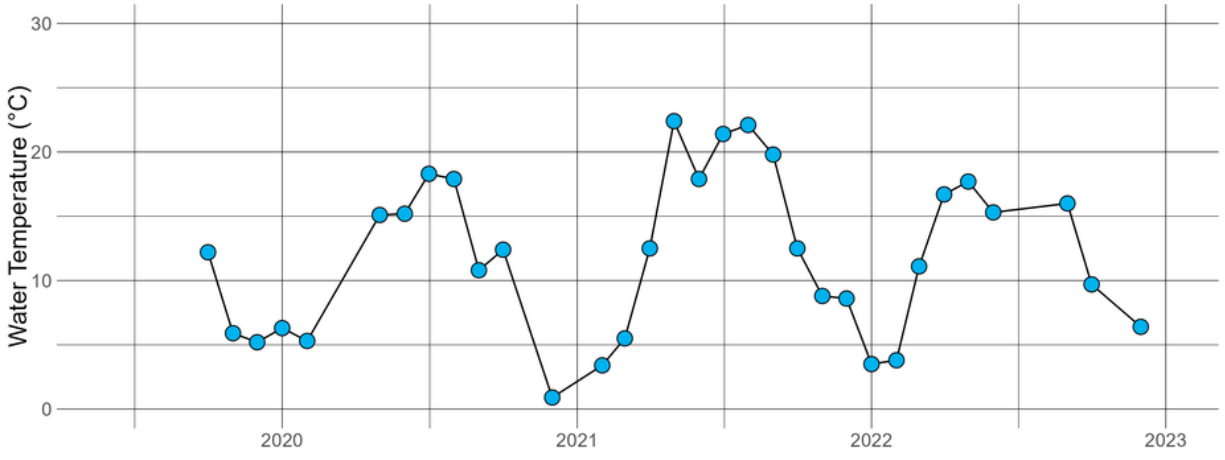
Designation: High-quality cold water fishes (HQ-CWF)

Geology: 35% Calcareous, 65% Non-calcareous

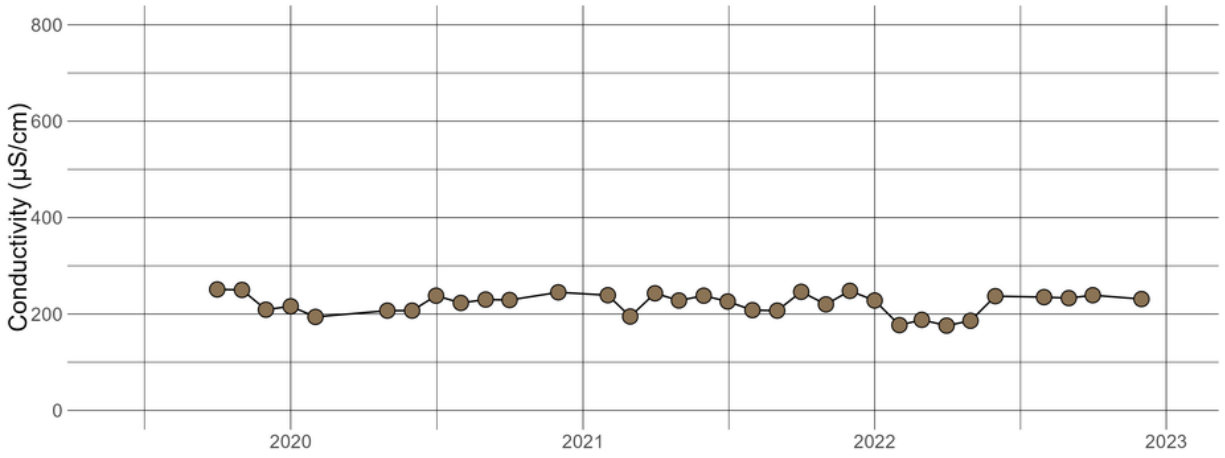
Land Use



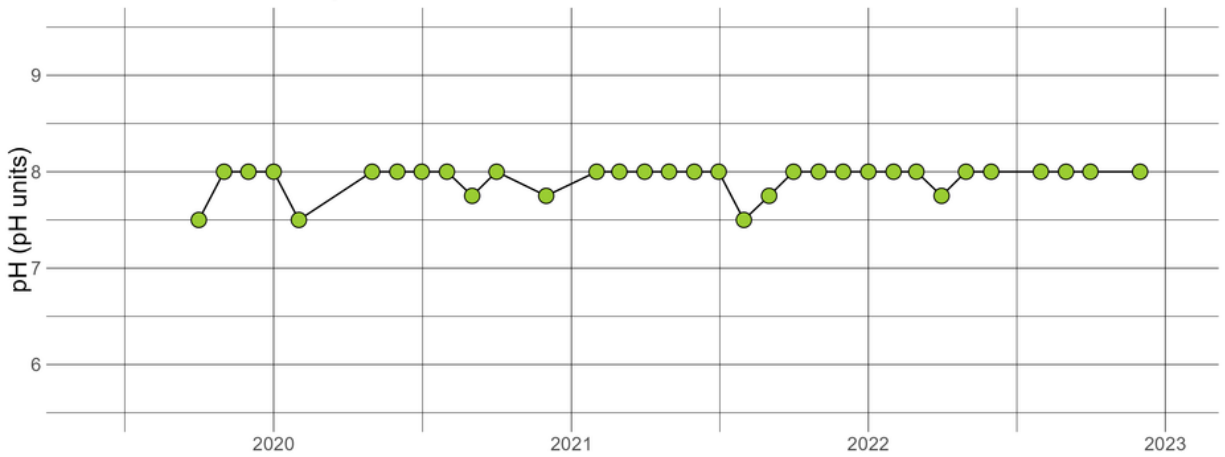
YELBREC36.90 - Water Temperature



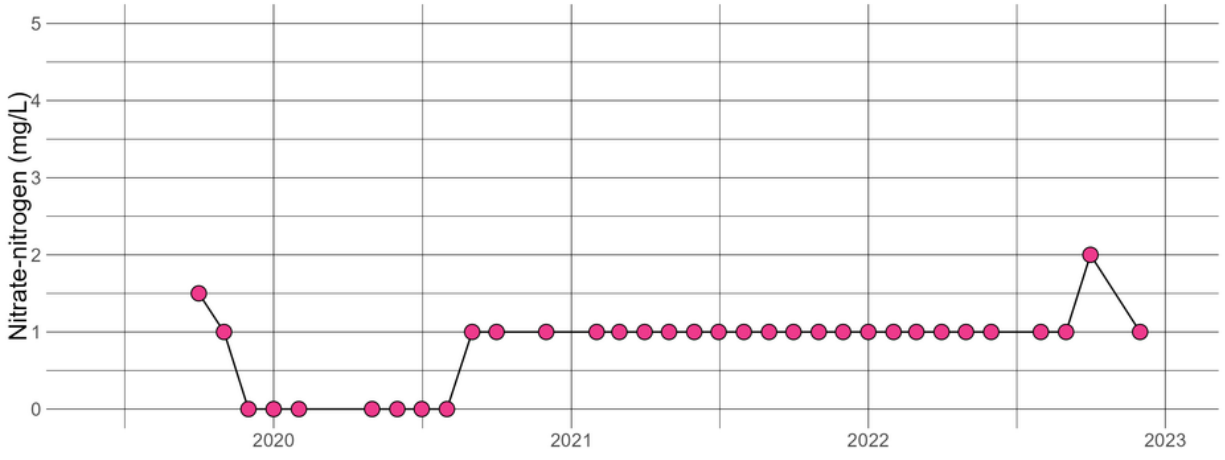
YELBREC36.90 - Conductivity



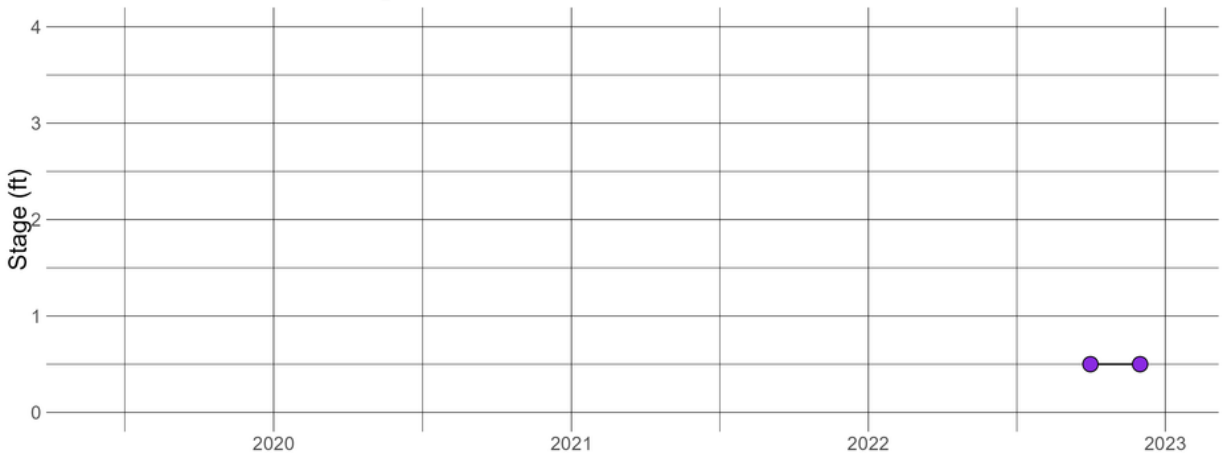
YELBREC36.90 - pH



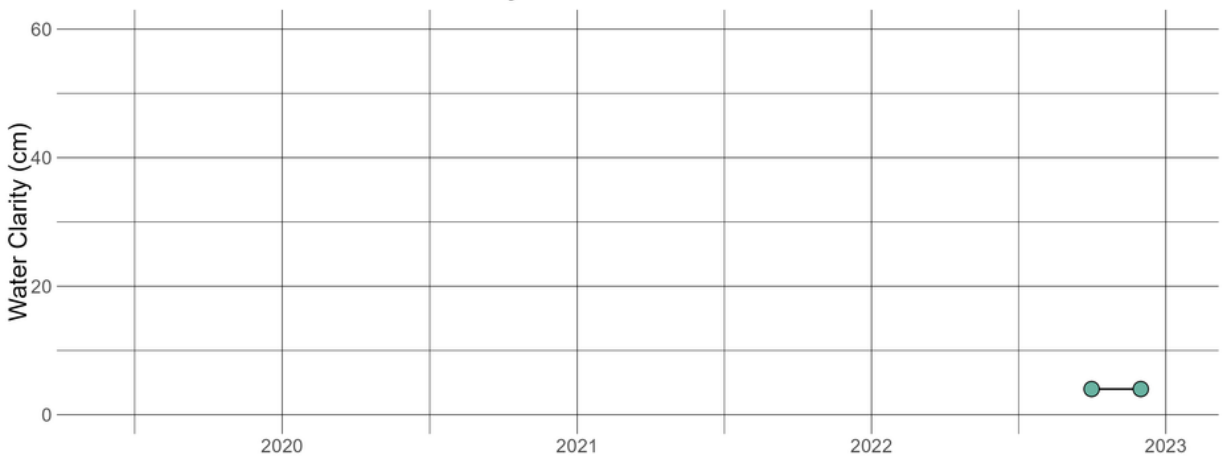
YELBREC36.90 - Nitrate-nitrogen



YELBREC36.90 - Stage



YELBREC36.90 - Water Clarity



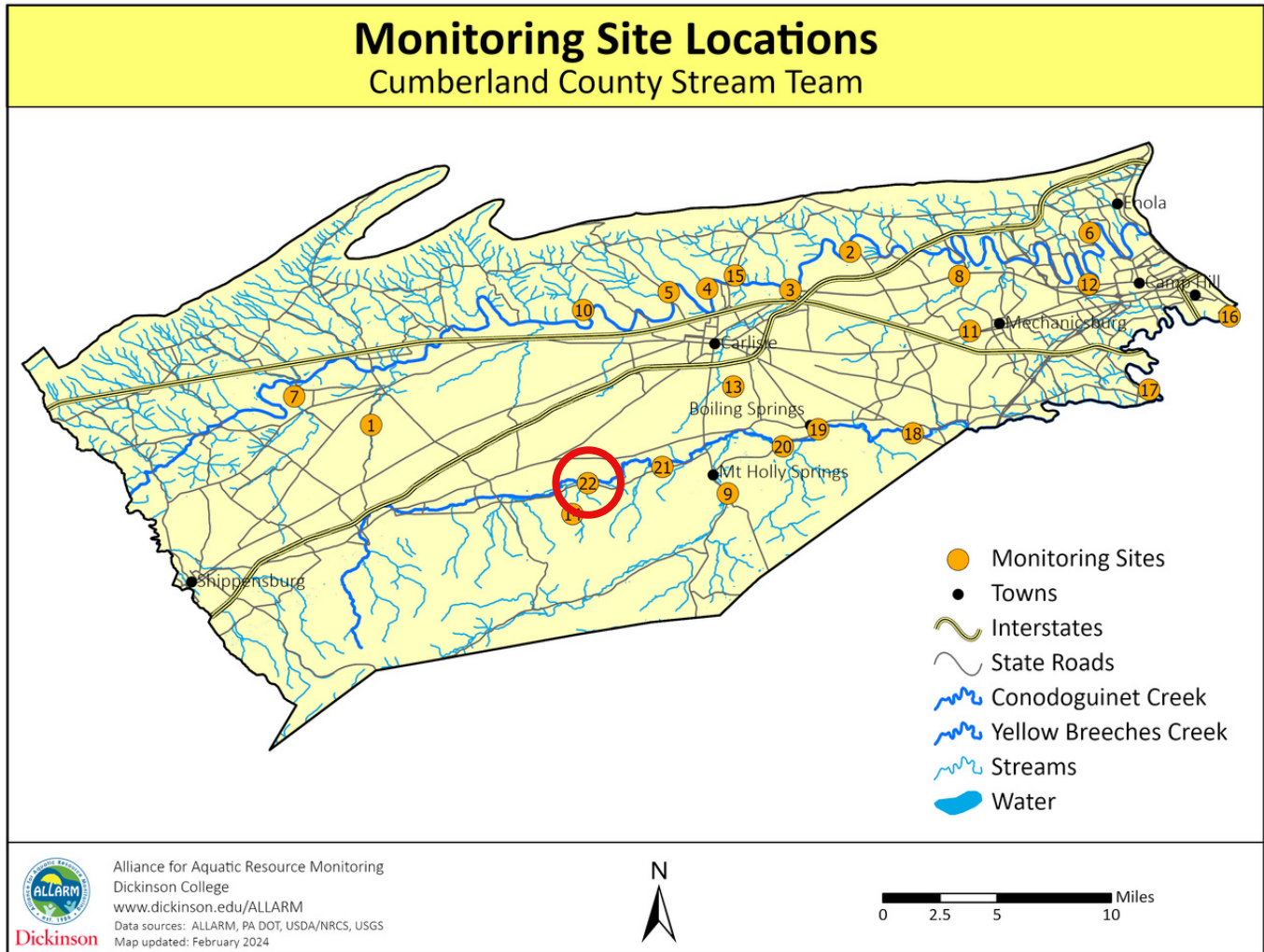
Raw Data and Summary Statistics

| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|------|-------|---------|--------|
| Oct-19 | 251 | 1.5 | 7.5 | | | 12.2 |
| Nov-19 | 250 | 1 | 8 | | | 5.9 |
| Dec-19 | 209 | 0 | 8 | | | 5.2 |
| Jan-20 | 216 | 0 | 8 | | | 6.3 |
| Feb-20 | 194 | 0 | 7.5 | | | 5.3 |
| May-20 | 207 | 0 | 8 | | | 15.1 |
| Jun-20 | 207 | 0 | 8 | | | 15.2 |
| Jul-20 | 238 | 0 | 8 | | | 18.3 |
| Aug-20 | 223 | 0 | 8 | | | 17.9 |
| Sep-20 | 230 | 1 | 7.75 | | | 10.8 |
| Oct-20 | 229 | 1 | 8 | | | 12.4 |
| Dec-20 | 245 | 1 | 7.75 | | | 0.9 |
| Feb-21 | 239 | 1 | 8 | | | 3.4 |
| Mar-21 | 194.8 | 1 | 8 | | | 5.5 |
| Apr-21 | 243 | 1 | 8 | | | 12.5 |
| May-21 | 228 | 1 | 8 | | | 22.4 |
| Jun-21 | 238 | 1 | 8 | | | 17.9 |
| Jul-21 | 226 | 1 | 8 | | | 21.4 |
| Aug-21 | 208 | 1 | 7.5 | | | 22.1 |
| Sep-21 | 207 | 1 | 7.75 | | | 19.8 |
| Oct-21 | 246 | 1 | 8 | | | 12.5 |
| Nov-21 | 220 | 1 | 8 | | | 8.8 |
| Dec-21 | 248 | 1 | 8 | | | 8.6 |
| Jan-22 | 228 | 1 | 8 | | | 3.5 |
| Feb-22 | 177 | 1 | 8 | | | 3.8 |
| Mar-22 | 187.9 | 1 | 8 | | | 11.1 |
| Apr-22 | 175.9 | 1 | 7.75 | | | 16.7 |
| May-22 | 186 | 1 | 8 | | | 17.7 |
| Jun-22 | 237 | 1 | 8 | | | 15.3 |
| Aug-22 | 235 | 1 | 8 | | | |
| Sep-22 | 233 | 1 | 8 | | | 16 |
| Oct-22 | 239 | 2 | 8 | 0.5 | 4 | 9.7 |
| Dec-22 | 231 | 1 | 8 | 0.5 | 4 | 6.4 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 176 | 251 | 75 | 222 | 228 |
| Nitrate-Nitrogen | 0 | 2 | 2 | 0.83 | 1 |
| pH | 7.5 | 8 | 0.5 | 7.9 | 8 |
| Stage | 0.5 | 0.5 | 0 | 0.5 | 0.5 |
| Water Clarity | 4 | 4 | 0 | 4 | 4 |
| Water Temp. | 0.9 | 22 | 22 | 12 | 12 |

Yellow Breeches Fishing Spot (YELBREC 40.75)

Monitor(s): Elizabeth Grant & Laura Gish



Site information:

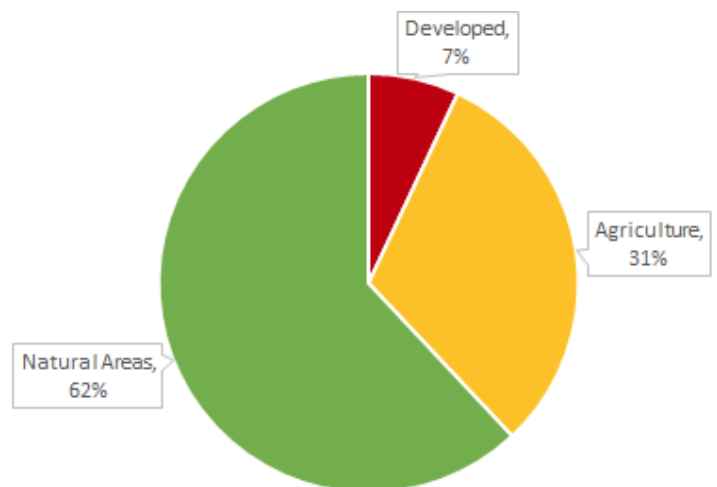
Drains: 45 mi²

Impaired: Yes, recreational pathogens

Designation: High-quality cold water fishes (HQ-CWF)

Geology: 33% Calcareous, 67% Non-calcareous

Land Use



Raw Data and Summary Statistics

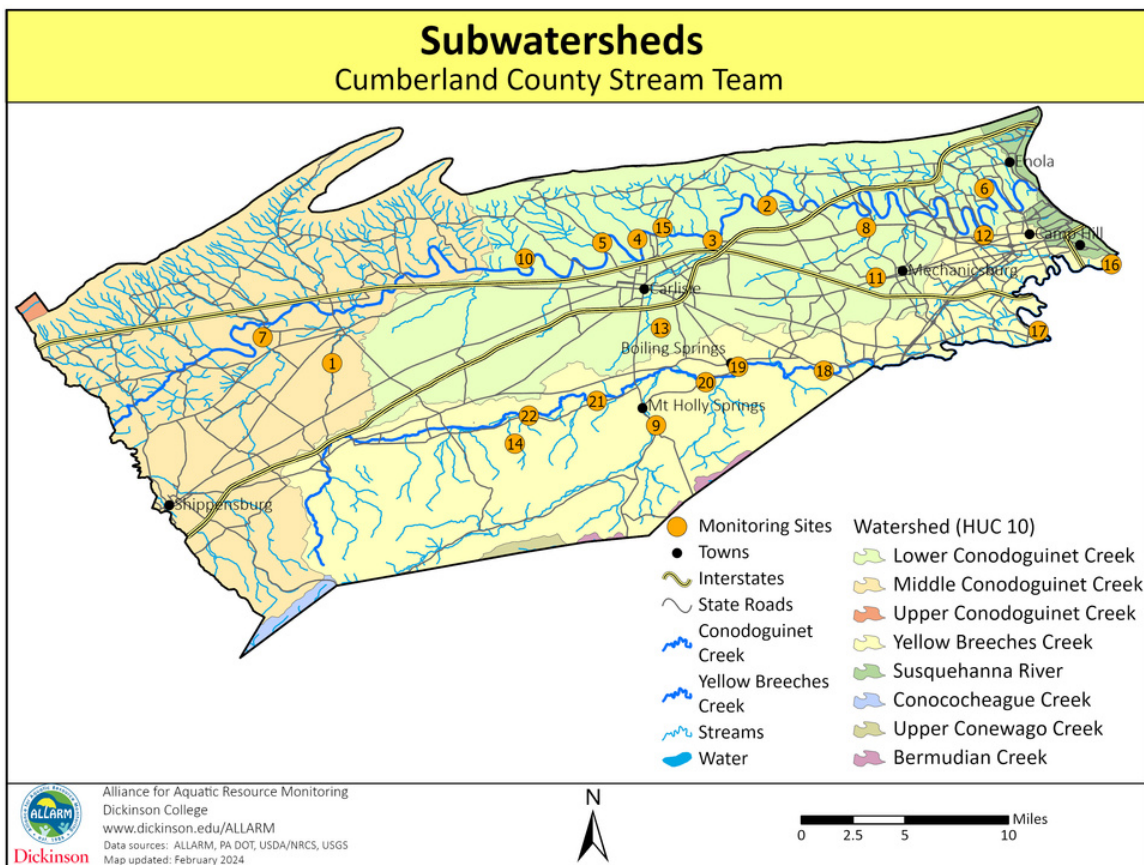
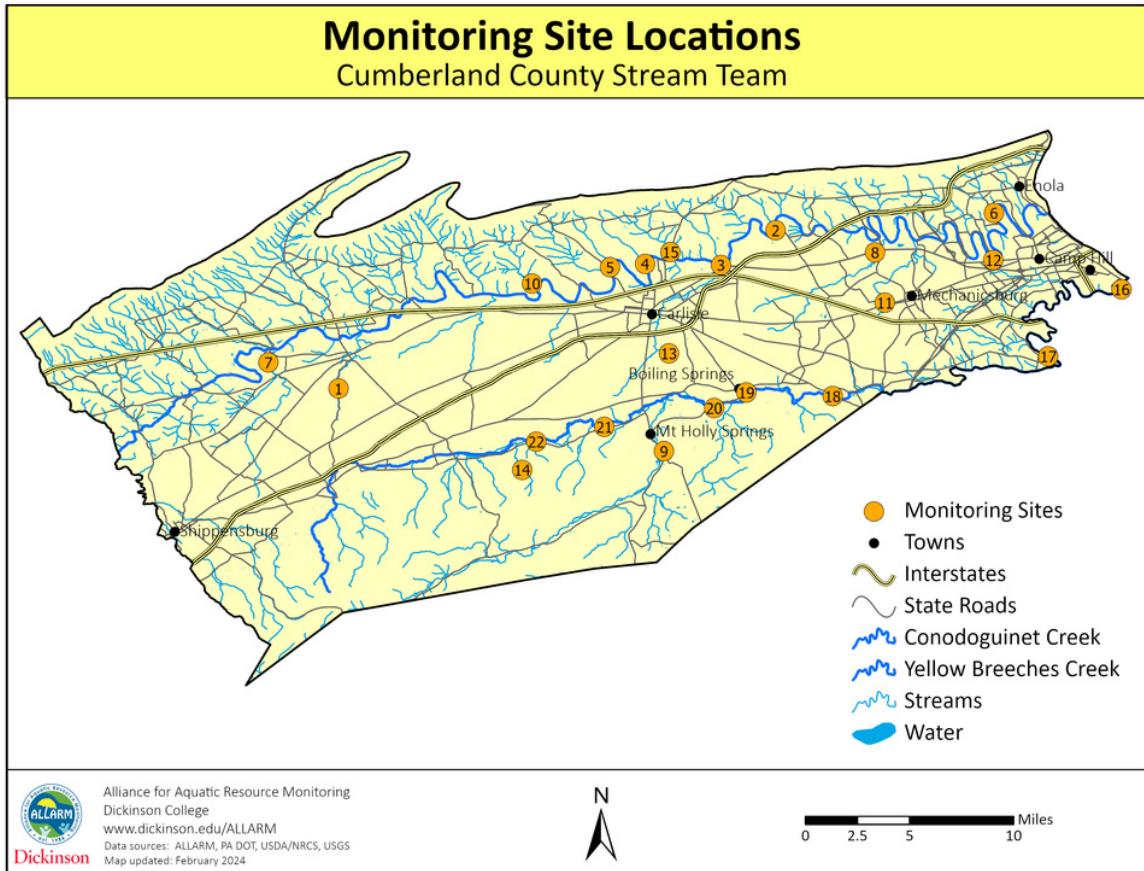
| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|------|-------|---------|--------|
| Sep-19 | 578 | 10 | 8 | | | 22.3 |
| Oct-19 | 249 | 1 | 8 | | | 13.4 |
| Nov-19 | 245 | 1 | 7.5 | | | 10.9 |
| Dec-19 | 215 | 2 | 8 | | | 8.8 |
| Jan-20 | 170.9 | 2 | 7.5 | | | 7.4 |
| Jun-20 | 231 | 1 | 8 | | | 16.6 |
| Aug-20 | 250 | 1 | 8.5 | | | 17.7 |
| Sep-20 | 250 | 1 | 8 | | | 11.2 |
| Oct-20 | 248 | 1 | 8 | | | 13.9 |
| Nov-20 | 245 | 1 | 8 | | | 11.6 |
| Dec-20 | 241 | 1 | 8 | | | 9.3 |
| Jan-21 | 239 | 1 | 8 | | | 8 |
| Feb-21 | 248 | 1 | 8 | | | 10 |
| Apr-21 | 190 | 1 | 8 | | | 15 |
| May-21 | 247 | 2 | 8 | | | 15.5 |
| Jun-21 | 246 | 1 | 8 | | | 23.6 |
| Jul-21 | 250 | 2 | 8 | | | 16.8 |
| Aug-21 | 270 | 2 | 8 | | | 19.6 |
| Sep-21 | 220 | 2 | 8 | | | |
| Nov-21 | 237 | 1 | 7.5 | | | 7.8 |
| Dec-21 | 240 | 1 | 8 | | | 11.3 |
| Jan-22 | 247 | 2 | 8 | | | 7.3 |
| Mar-22 | 223 | 1 | 8 | | | 6.2 |
| Jul-22 | 254 | 0 | 8 | | | 17.9 |
| Aug-22 | 249 | 1 | 8 | | | 16.2 |
| Sep-22 | 253 | 1 | 8 | 1.5 | 60 | 16.2 |
| Oct-22 | 251 | 1 | 7.5 | 1.6 | 60 | 13.4 |
| Nov-22 | 256 | 1 | 8 | 1.6 | 60 | 10.1 |
| Dec-22 | 8 | 1 | 1.75 | | 60 | 6.4 |

Raw Data and Summary Statistics

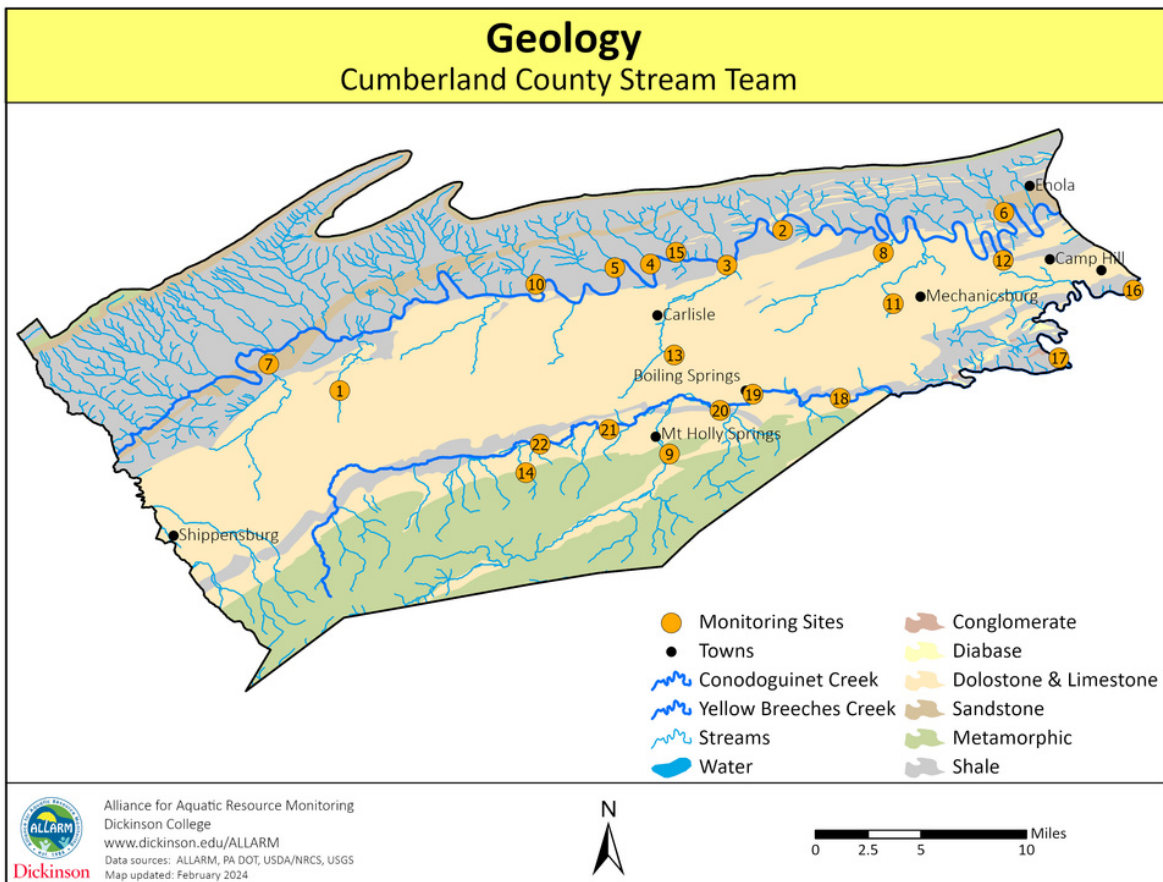
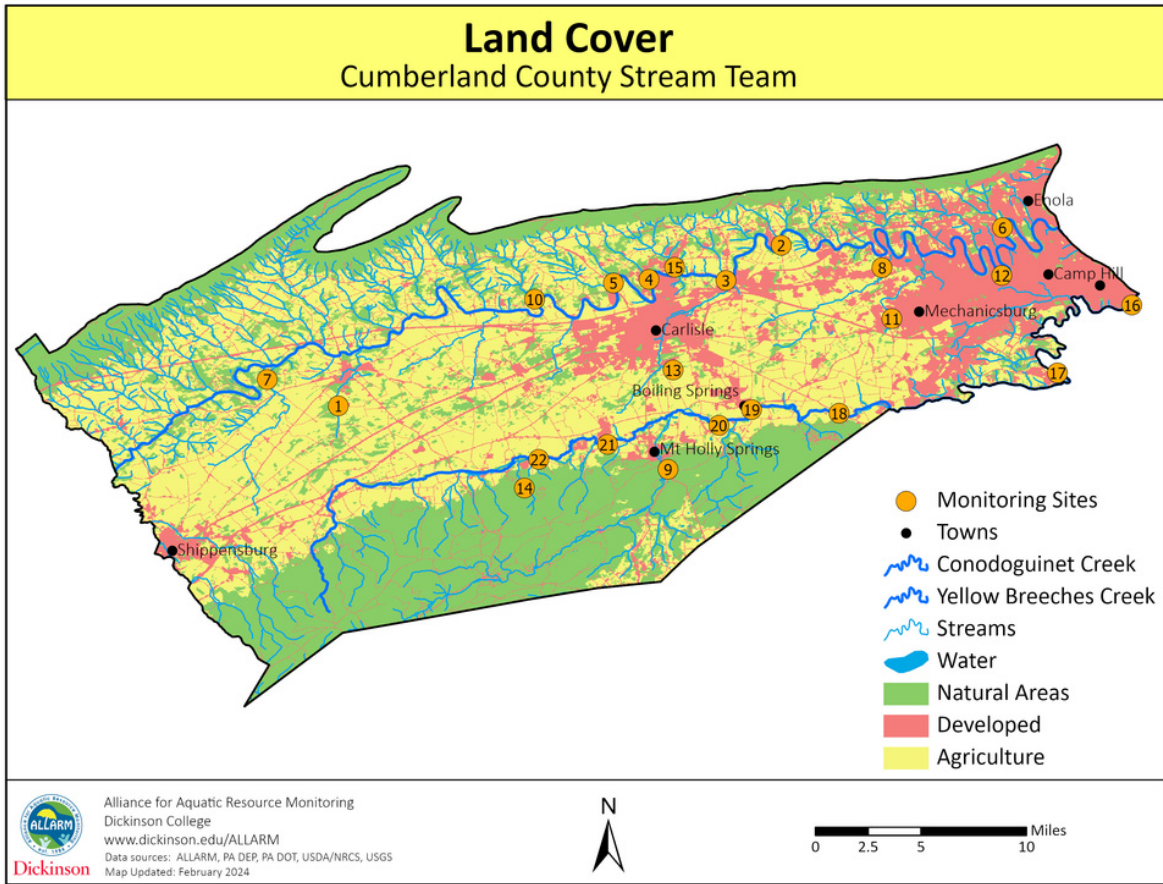
| date | con | nitrate | ph | stage | clarity | watemp |
|--------|-------|---------|-----|-------|---------|--------|
| Jan-23 | 236 | 1 | 8 | 2 | 60 | 7.6 |
| Mar-23 | 200 | 1 | 8 | 1.8 | 60 | 9.3 |
| Apr-23 | 186.6 | 1 | 8.5 | 1.6 | 60 | 17.5 |
| May-23 | | | | | | |
| Jun-23 | 238 | 1 | 8 | | 60 | 18.7 |
| Jul-23 | 241 | 1 | 8.5 | 1.1 | | 19.3 |
| Aug-23 | 262 | 2 | 8.5 | 1.8 | 60 | 16.5 |
| Sep-23 | 233 | 1 | 8.5 | 1 | 60 | 16.4 |
| Oct-23 | 252 | 1 | 8 | 1.3 | 60 | 13.9 |
| Nov-23 | 229 | 1 | 8.5 | | | 12.3 |
| Dec-23 | 240 | 2 | 8 | 1.2 | | 7.9 |

| Variable | Min | Max | Range | Average | Median |
|------------------|-----|-----|-------|---------|--------|
| Conductivity | 8 | 578 | 570 | 240 | 245 |
| Nitrate-Nitrogen | 0 | 10 | 10 | 1.4 | 1 |
| pH | 1.8 | 8.5 | 6.8 | 7.9 | 8 |
| Stage | 1 | 2 | 1 | 1.5 | 1.6 |
| Water Clarity | 60 | 60 | 0 | 60 | 60 |
| Water Temp. | 6.2 | 24 | 17 | 13 | 13 |

Supplemental Maps



Supplemental Maps



Supplemental Maps

