

Ecological Water Resources and Assessment Project

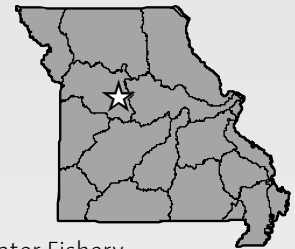
Assessment of Ecoregional Dissolved Oxygen Regimes 2007 Data Summary for Heaths Creek near Wanamaker Road (HC-1)

DATA OF INTEREST

Dissolved Oxygen (n= 48 days)	
Percent Time Below 5.0 mg/L	27 %
Percent Time Below 3.0 mg/L	1 %
Daily Mean	6.1 mg/L
Mean Daily Minimum	4.0 mg/L
Water Temperature (n= 48 days)	
Daily Mean	26.0 °C
Mean Daily Maximum	28.0 °C
Mean Daily Range	3.8 °C
Total Phosphorus	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Total Nitrogen	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Nitrate + Nitrite	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Sestonic Chlorophyll-a	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Periphyton Chlorophyll-a	
Median Areal Biomass	NA
EPA 25 th Aggregated Percentile	NA

SITE INFORMATION

Location
Pettis County, Missouri
Northing 4306864 Easting 484199 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10300103
Ecological Drainage Unit 11
Central Plains/Blackwater/Lamine
EPA Aggregate Ecoregion IX
Southeastern Temperate Forested Plains and Hills
EPA Level III Ecoregion 72 (Interior River Lowland)
Drainage Area 56.8 square miles

Landuse →

Urban	1.5 %
Row-Crop	55.7%
Grassland	29.1%
Forest & Woodland	12.7%
Percent Refugia	0.0%

Sampling Period → 18 July 2007 – 5 September 2007

Days with Flow < 0.1 ft³/sec → NA

Days Dominated by Runoff → NA

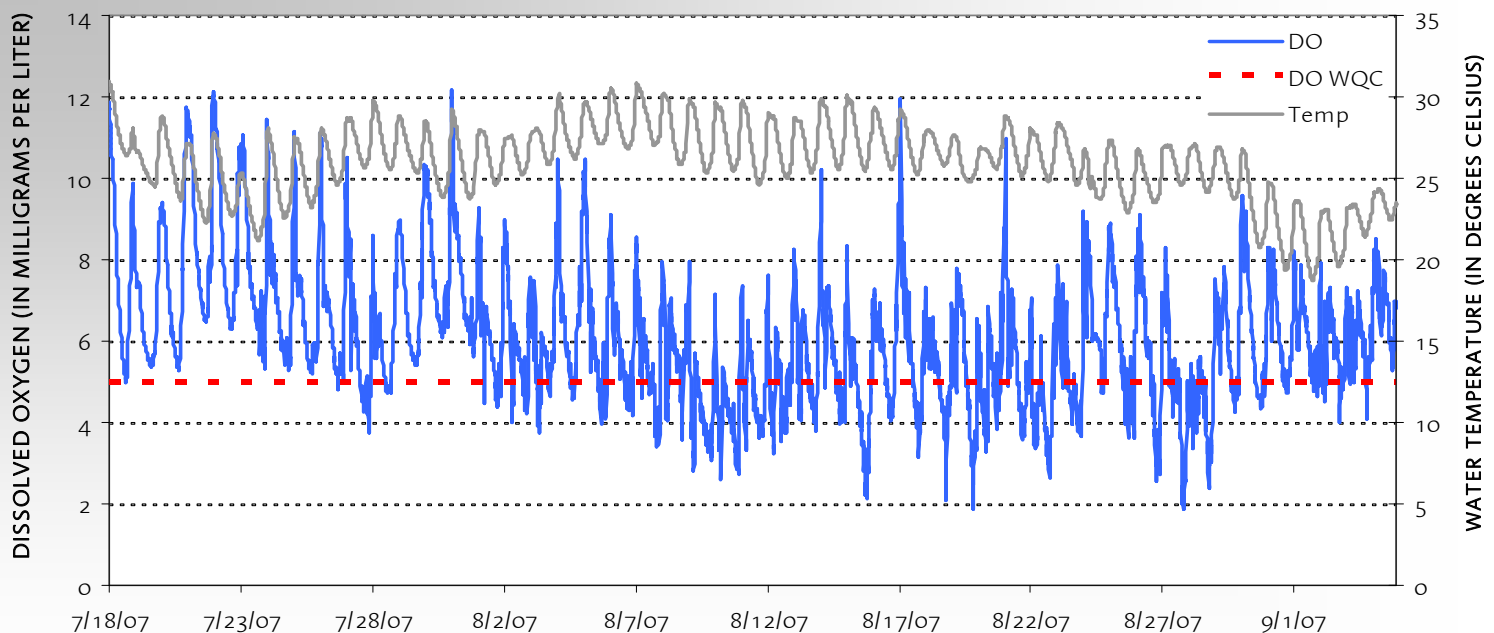


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/18/07 to 09/05/07. Heaths Creek near Wanamaker Road (HC-1).

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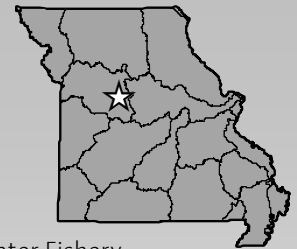
Assessment of Ecoregional Dissolved Oxygen Regimes 2007 Data Summary for Heaths Creek near Major Road (HC-2)

DATA OF INTEREST

Dissolved Oxygen (n= 102 days)	
Percent Time Below 5.0 mg/L	62 %
Percent Time Below 3.0 mg/L	9 %
Daily Mean	4.7 mg/L
Mean Daily Minimum	3.2 mg/L
Water Temperature (n= 102 days)	
Daily Mean	20.9 °C
Mean Daily Maximum	22.0 °C
Mean Daily Range	2.0 °C
Total Phosphorus (n= 7 samples)	
Median Concentration	150 ug/L
EPA 25 th Aggregated Percentile	83.1 ug/L
Total Nitrogen (n= 7 samples)	
Median Concentration	0.60 mg/L
EPA 25 th Aggregated Percentile	1.67 mg/L
Nitrate + Nitrite (n= 7 samples)	
Median Concentration	0.09 mg/L
EPA 25 th Aggregated Percentile	0.22 mg/L
Sestonic Chlorophyll-a (n= 7 samples)	
Median Concentration	13.7 ug/L
EPA 25 th Aggregated Percentile	1.5 ug/L
Periphyton Chlorophyll-a	
(n= 7 samples based on 5 replicates per week)	
Median Areal Biomass	57.9 mg/m ²
EPA 25 th Aggregated Percentile	NA

SITE INFORMATION

Location
Pettis County, Missouri
Northing 4307033 Easting 486449 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10300103
Ecological Drainage Unit 11
Central Plains/Blackwater/Lamine
EPA Aggregate Ecoregion IX
Southeastern Temperate Forested Plains and Hills
EPA Level III Ecoregion 72 (Interior River Lowland)
Drainage Area 71.8 square miles

Landuse →

Urban	1.4 %
Row-Crop	52.5 %
Grassland	30.0 %
Forest & Woodland	15.2 %
Percent Refugia	0.0 %

Sampling Period → 18 July 2007 – 9 November 2007

Days with Flow < 0.1 ft³/sec → 39 (52.7%)

Days Dominated by Runoff → 4 (5.4%)

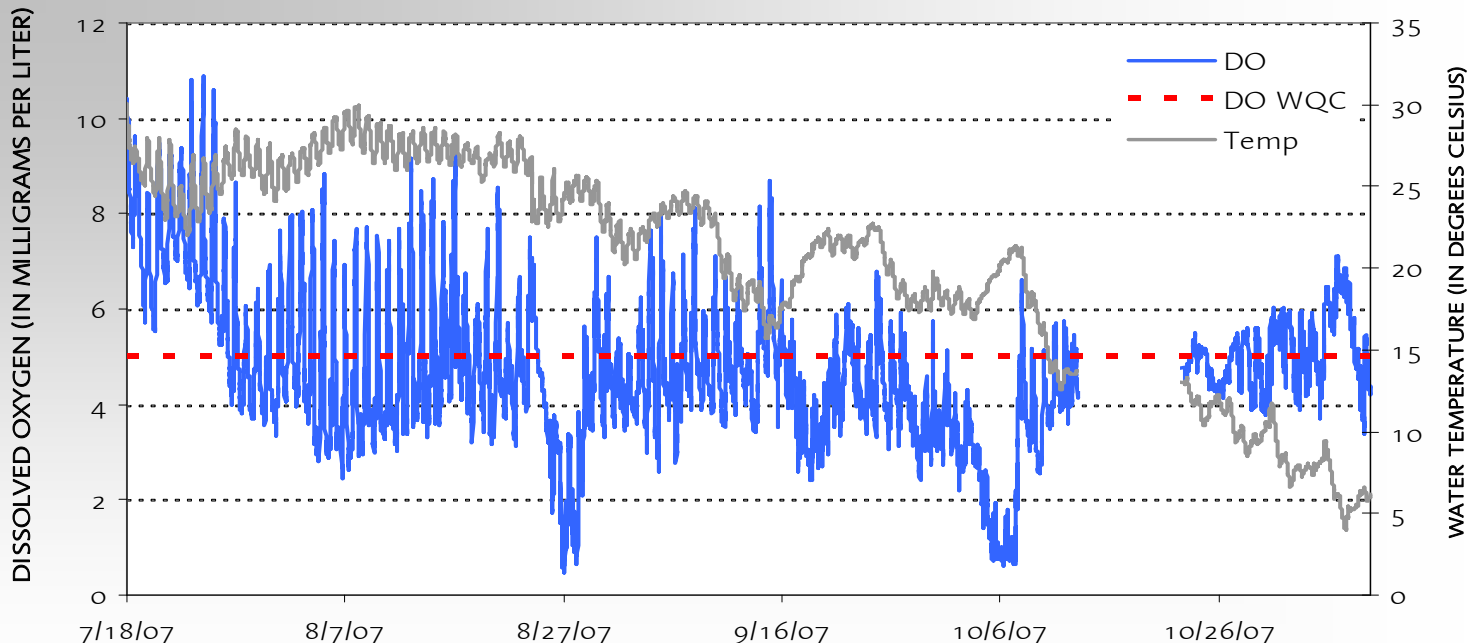


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/18/07 to 11/09/07. Heaths Creek near Major Road (HC-2).

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Assessment of Ecoregional Dissolved Oxygen Regimes 2007 Data Summary for Heaths Creek near Walk Road (HC-3)

DATA OF INTEREST

Dissolved Oxygen (n= 47 days)	
Percent Time Below 5.0 mg/L	13 %
Percent Time Below 3.0 mg/L	1 %
Daily Mean	7.1 mg/L
Mean Daily Minimum	5.3 mg/L
Water Temperature (n= 47 days)	
Daily Mean	25.5 °C
Mean Daily Maximum	27.1 °C
Mean Daily Range	3.1 °C
Total Phosphorus	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Total Nitrogen	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Nitrate + Nitrite	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Sestonic Chlorophyll-a	
Median Concentration	NA
EPA 25 th Aggregated Percentile	NA
Periphyton Chlorophyll-a	
Median Areal Biomass	NA
EPA 25 th Aggregated Percentile	NA

SITE INFORMATION

Location
Pettis County, Missouri
Northing 4308749 Easting 488470 NAD83



Classification → Class P, General Warm-Water Fishery
Biocriteria Reference Stream
Riffle-Pool

Watershed → Hydrologic Unit Code 10300103
Ecological Drainage Unit 11
Central Plains/Blackwater/Lamine
EPA Aggregate Ecoregion IX
Southeastern Temperate Forested Plains and Hills
EPA Level III Ecoregion 72 (Interior River Lowland)
Drainage Area 74.7 square miles

Landuse →

Urban	1.3 %
Row-Crop	51.4%
Grassland	30.2%
Forest & Woodland	15.9%
Percent Refugia	0.0%

Sampling Period → 19 July 2007 – 5 September 2007

Days with Flow < 0.1 ft³/sec → NA

Days Dominated by Runoff → NA

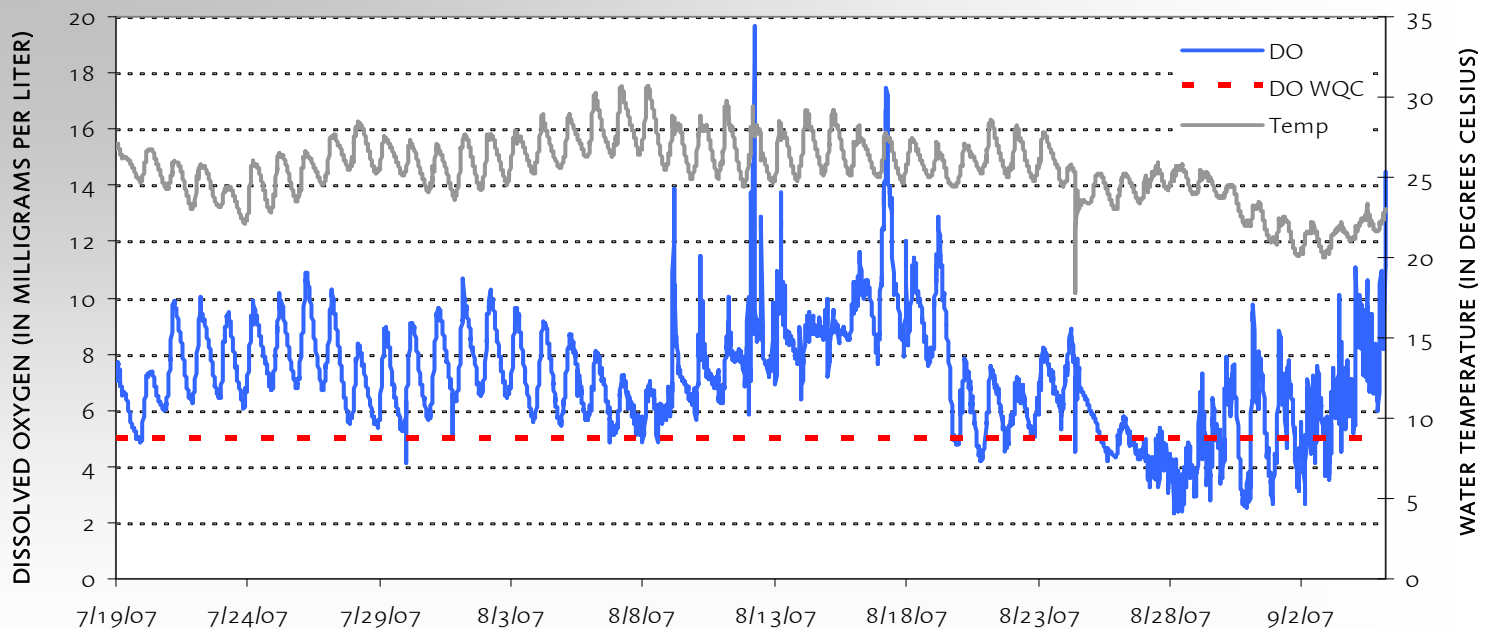


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/19/07 to 09/05/07. Heaths Creek near Walk Road (HC-3).