

Ecological Water Resources and Assessment Project

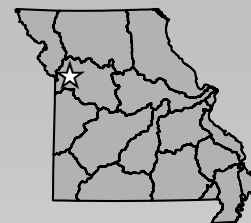
Assessment of Ecoregional Dissolved Oxygen Regimes 2007 Data Summary for East Fork Crooked River near Vassmer Road (EFCR-1)

DATA OF INTEREST

Dissolved Oxygen (n= 49 days)	
Percent Time Below 5.0 mg/L	95 %
Percent Time Below 3.0 mg/L	51 %
Daily Mean	3.1 mg/L
Mean Daily Minimum	1.8 mg/L
Water Temperature (n= 49 days)	
Daily Mean	25.8 °C
Mean Daily Maximum	27.3 °C
Mean Daily Range	2.9 °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
Ray County, Missouri
Northing 4355593 Easting 423245 NAD83



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

Watershed → Hydrologic Unit Code 10300101
Ecological Drainage Unit 11
Central Plains/Blackwater/Lamine
EPA Aggregate Ecoregion IX
Southeastern Temperate Forested Plains and Hills
EPA Level III Ecoregion 40 (Central Irregular Plains)
Drainage Area 85.9 square miles

Landuse →

Urban	0.05 %
Row-Crop	33.9%
Grassland	43.3%
Forest & Woodland	22.4%
Other	0.35%

Sampling Period → 17 July 2007 – 5 September 2007

Days with Flow < 0.1 ft³/sec → NA

Days Dominated by Runoff → NA

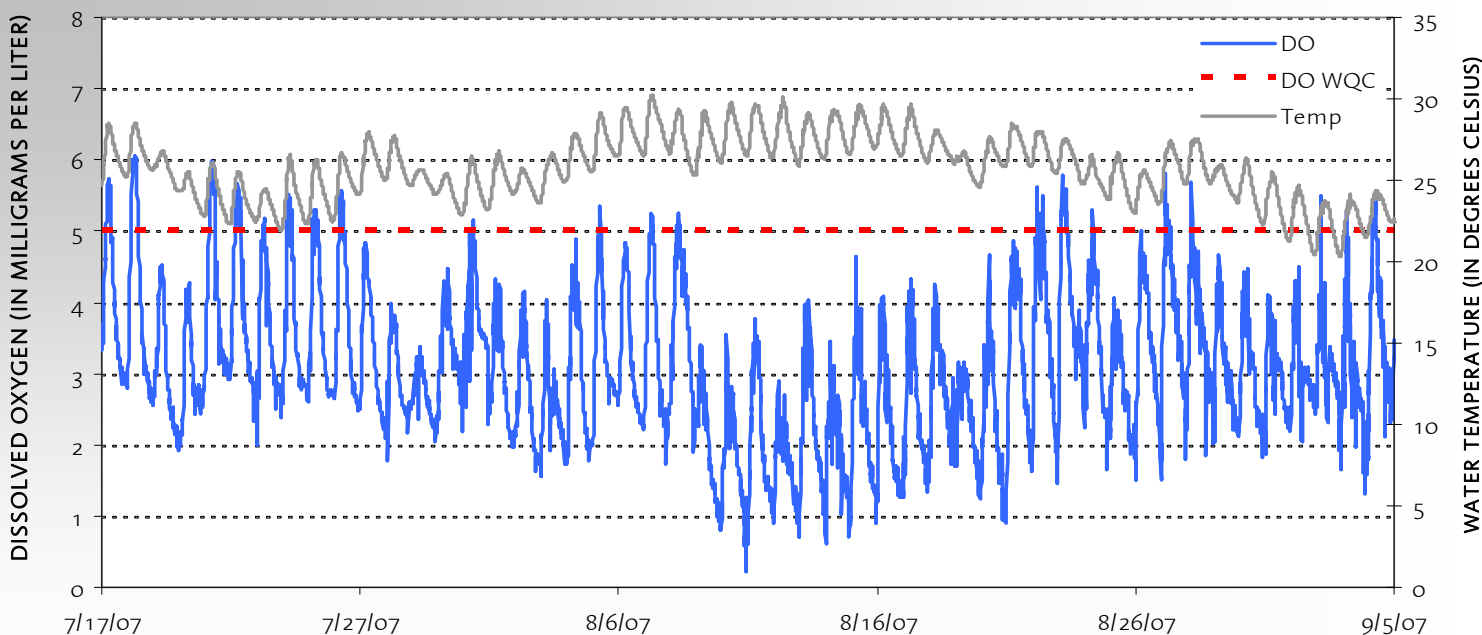


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/17/07 to 09/05/07. East Fork Crooked River Near Vassmer Road (EFCR-1).

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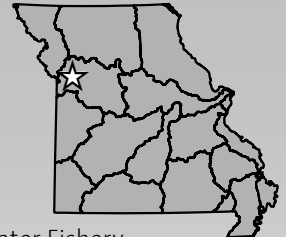
Assessment of Ecoregional Dissolved Oxygen Regimes 2007 Data Summary for East Fork Crooked River near East 128th Street (EFCR-2)

DATA OF INTEREST

Dissolved Oxygen (n= 114 days)	
Percent Time Below 5.0 mg/L	75 %
Percent Time Below 3.0 mg/L	42 %
Daily Mean	3.7 mg/L
Mean Daily Minimum	2.7 mg/L
Water Temperature (n= 114 days)	
Daily Mean	20.2 °C
Mean Daily Maximum	21.6 °C
Mean Daily Range	2.6 °C
Total Phosphorus (n= 7 samples)	
Median Concentration	120 ug/L
EPA 25 th Aggregated Percentile	92.5 ug/L
Total Nitrogen (n= 7 samples)	
Median Concentration	0.88 mg/L
EPA 25 th Aggregated Percentile	0.71 mg/L
Nitrate + Nitrite (n= 7 samples)	
Median Concentration	0.13 mg/L
EPA 25 th Aggregated Percentile	0.23 mg/L
Sestonic Chlorophyll-a (n= 7 samples)	
Median Concentration	1.0 ug/L
EPA 25 th Aggregated Percentile	2.8 ug/L
Periphyton Chlorophyll-a (n= 7 samples based on 5 replicates per week)	
Median Areal Biomass	18.8 mg/m ²
EPA 25 th Aggregated Percentile	NA

SITE INFORMATION

Location
Ray County, Missouri
Northing 4353118 Easting 423271 NAD83



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

Watershed → Hydrologic Unit Code 10300101
Ecological Drainage Unit 11
Central Plains/Blackwater/Lamine
EPA Aggregate Ecoregion IX
Southeastern Temperate Forested Plains and Hills
EPA Level III Ecoregion 40 (Central Irregular Plains)
Drainage Area 93.4 square miles

Landuse →

Urban	0.05 %
Row-Crop	33.9%
Grassland	43.3%
Forest & Woodland	22.4%
Other	0.35%

Sampling Period → 17 July 2007 – 9 November 2007

Days with Flow < 0.1 ft³/sec → 34 (45.3 %)

Days Dominated by Runoff → 9 (12.0%)

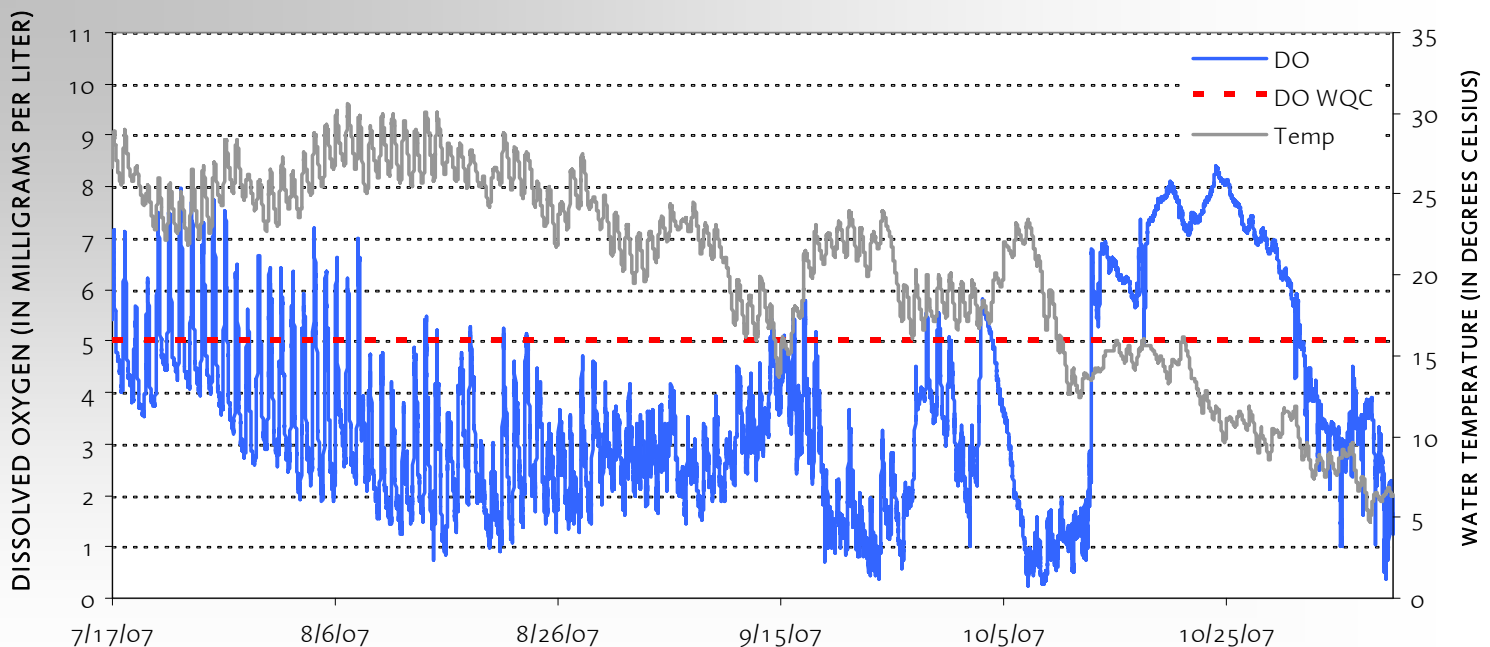


FIG 1. Continuous Dissolved Oxygen and Temperature Timeseries Collected at 15-minute intervals from 07/17/07 to 11/09/07. East Fork Crooked River Near East 128th Street (EFCR-2).