

Dix River Watershed Meeting

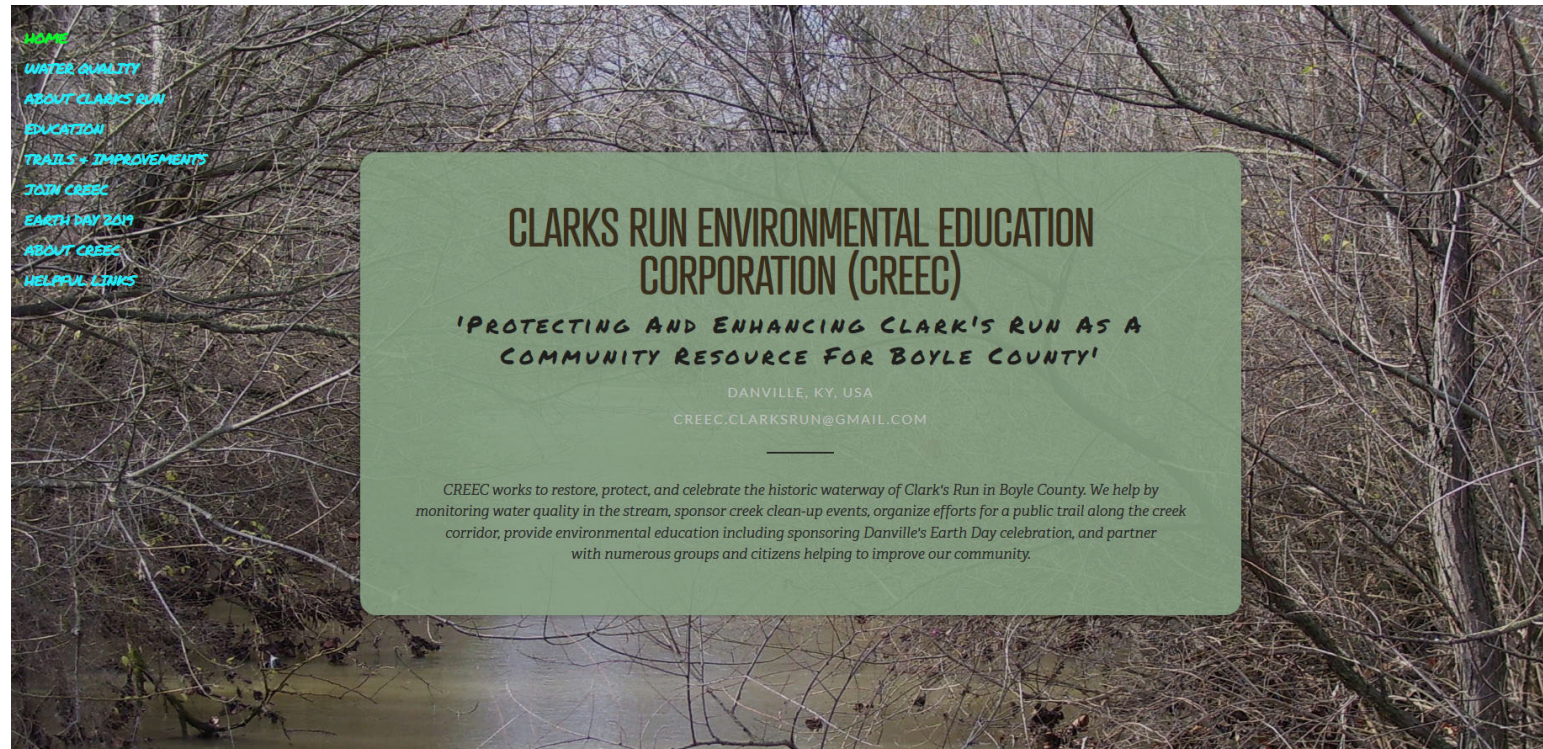
Tuesday, November 19, 2019



Clarks Run Environmental and Education Corporation

Dedicated to protecting and enhancing Clark's Run as a community resource for Boyle County.

Organized informally in 1996 and subsequently incorporated as a non-profit 501(c)3 in 2005 to improve the Clark's Run watershed by enhancing water quality and educating the public.



Service projects with a variety of community groups

HKUW – Day of Action
Centre First-Year Service Plunge
high-school and college groups





Local Earth Day Events

10 of 12 years from 2008 to 2019

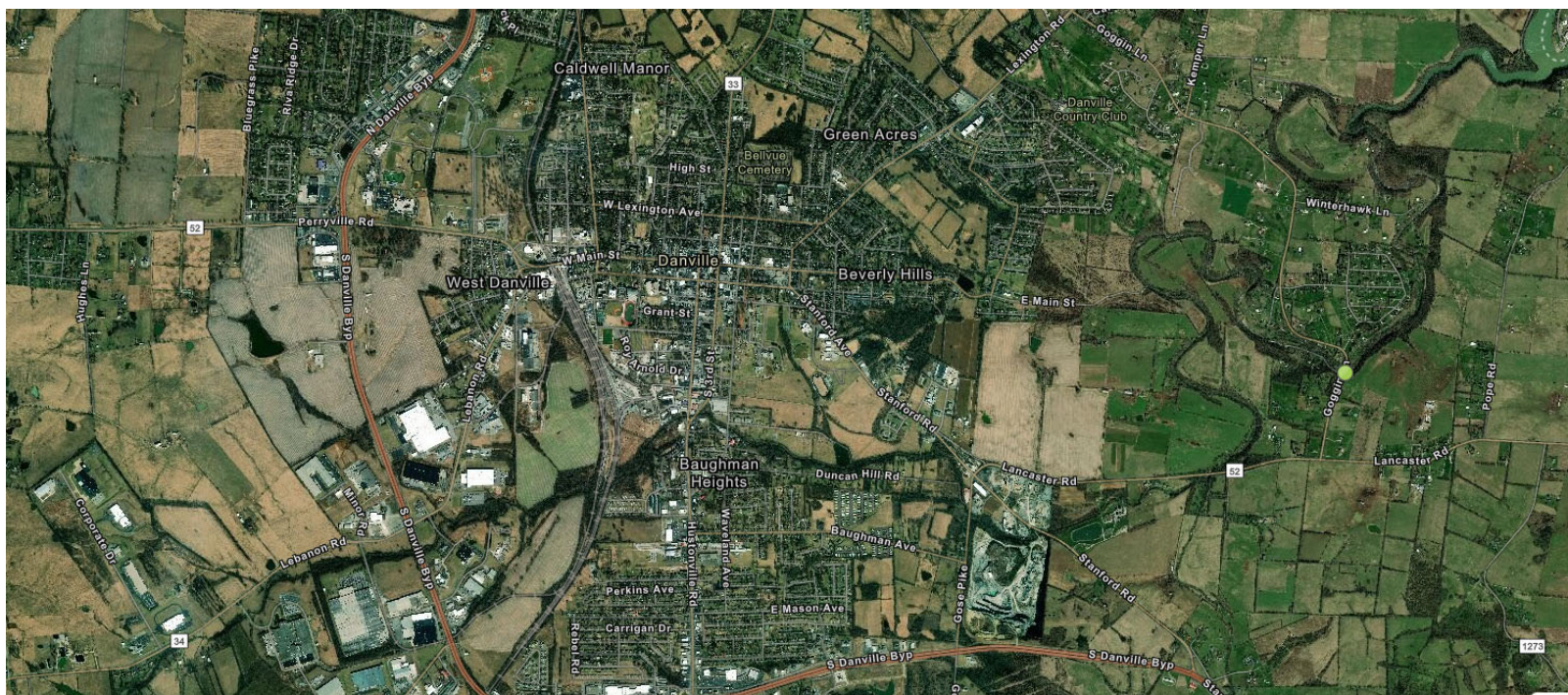
April 22, 2010 will be 50th Anniversary of Earth Day

KY DOW Minigrant, FY 17/18

for “passive” educational signage along
Michael Smith Park.



Spring 2019 installation of water quality sonde on Clarks Run at the Goggin Road bridge.







YSI EXO3 Water Quality Sonde



Water quality data is made publicly available in near real time

Through the CREEC website <http://www.clarksrn.info/>

Through the “public” portal provided by Fondriest Environmental
<https://v2.wqdatalive.com/public/1083>

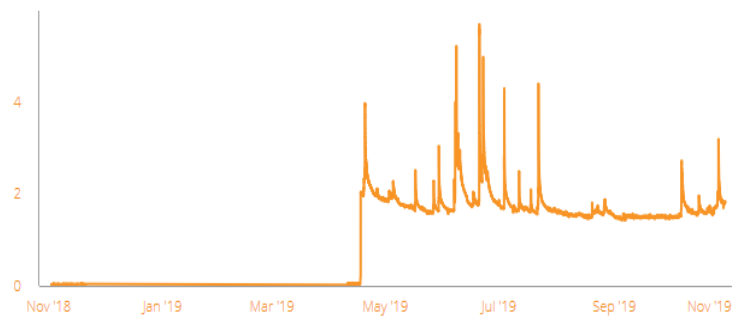
Long Term Changes in Water Quality Parameters

Level

1.85 ft

Y_Avg: 1.52 Y_Min: -0.04 Y_Max: 5.71

2019-10-30 14:00:00

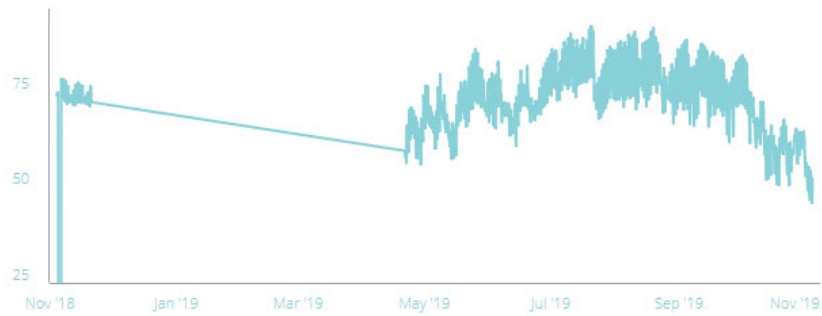


Temperature

50.41 F

Y_Avg: 69.19 Y_Min: 0.00 Y_Max: 90.25

2019-11-04 12:00:00



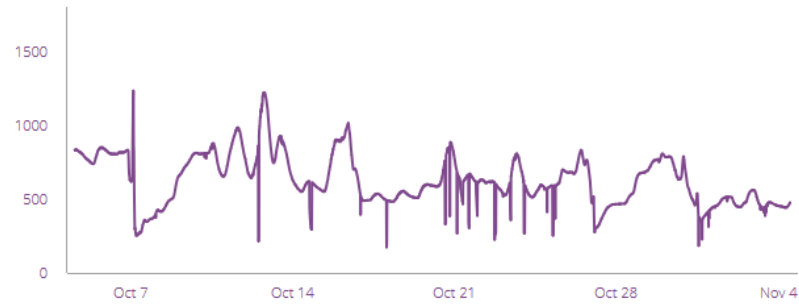
Shorter term variations – a week or month scale

Conductivity

M_Avg: 628.26 M_Min: 173.00 M_Max: 1238.00

479 uS/cm

2019-11-04 12:00:00



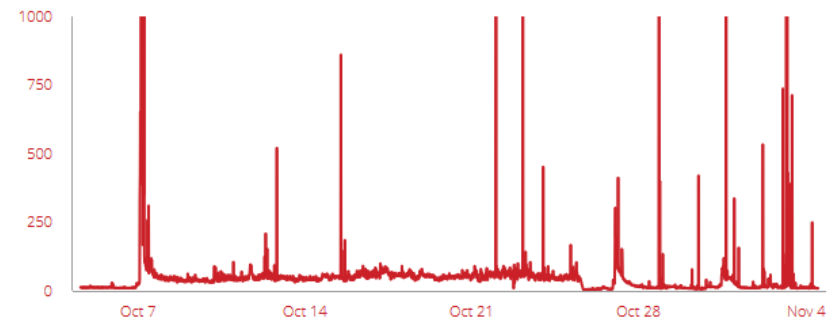
D W M Y

Turbidity

M_Avg: 58.85 M_Min: 4.52 M_Max: 19496.97

8.88 NTU

2019-11-04 12:00:00



D W M Y

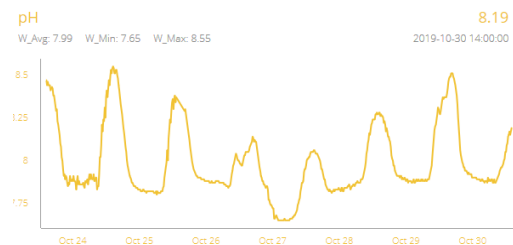
On shorter time scale, we can examine how some parameters are related?



Temperature . . . and oxygen concentration ?

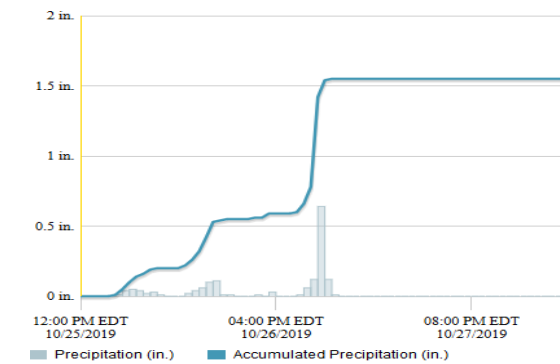


Time of day . . . and oxygen concentration ?



Oxygen concentration . . . and pH ?

Another interesting question is the connection between a rain event and the water level pulse?

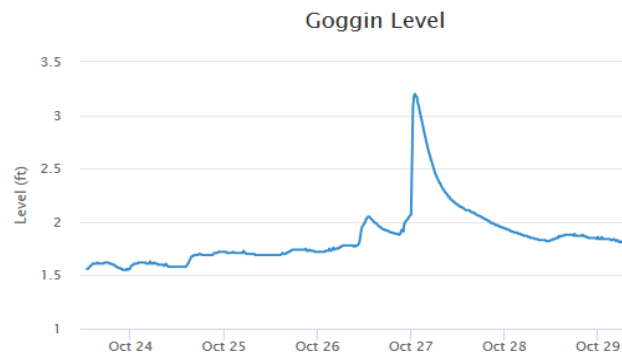


First Rainstorm

Oct 26 3:00am to Oct 26 9:00am = 0.33 inches
 Oct 26 10:30am to Oct 26 1:00pm = 0.20 ft rise

Second Rainstorm

Oct 26 7:00pm to Oct 27 12:00pm = 0.90 inches
 Oct 27 midnight to Oct 27 1:00am = 1.03 ft rise



But water level in the stream isn't the same as stream flow or discharge.

