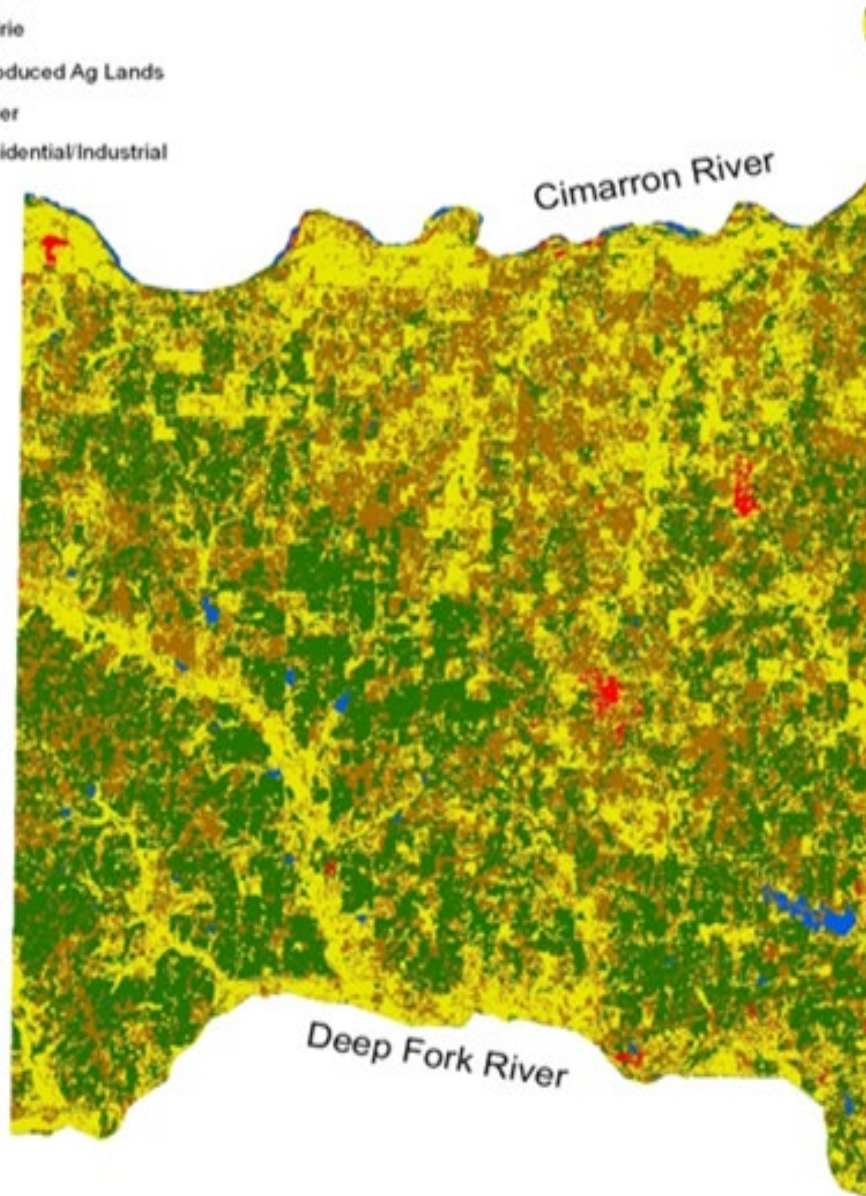
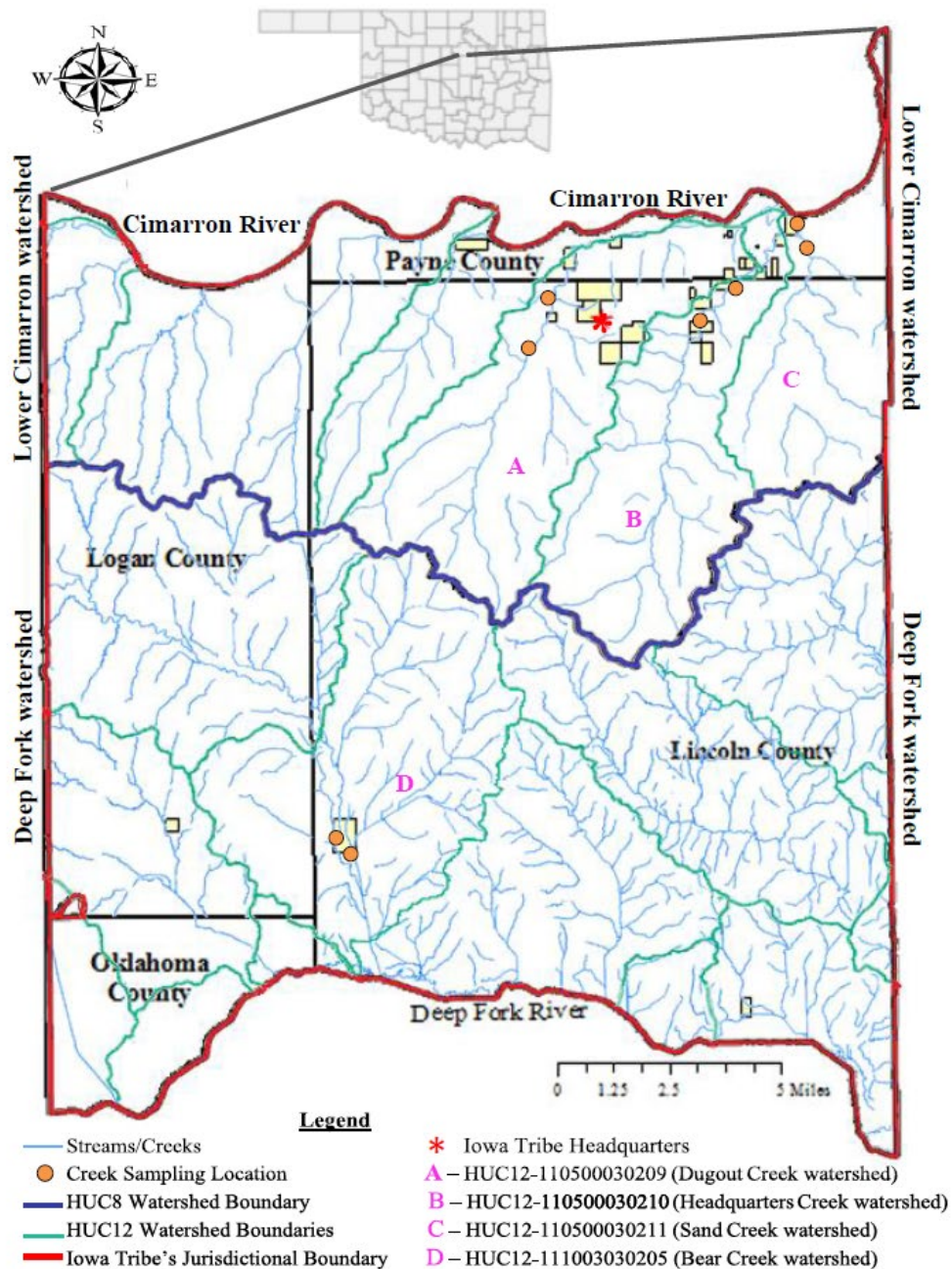
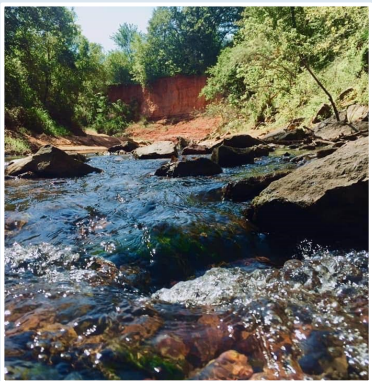




ITO CWA § 106 & 319 ACTIVITIES

Kerstien McMurl
Director, Office of Environmental Services
Iowa Tribe of Oklahoma





Field Work

- Stream assessments
- Habitat assessments
- In-situ data collections via Eureka probe
- Basic water parameter monitoring
- Macroinvertebrate collections
- Seining



Lab Work

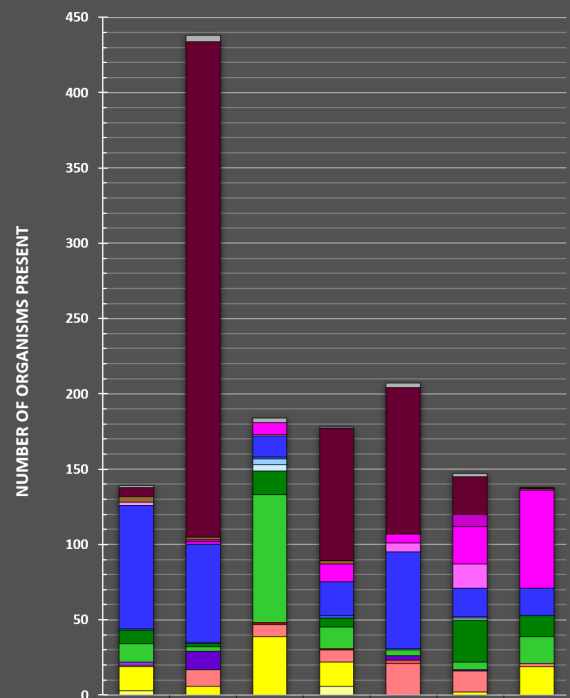
- Metals testing
- Bacterial counts
- Wet chemistry
- Macroinvertebrate sorting and classifications
- Invertebrate collections and classifications



Outreach

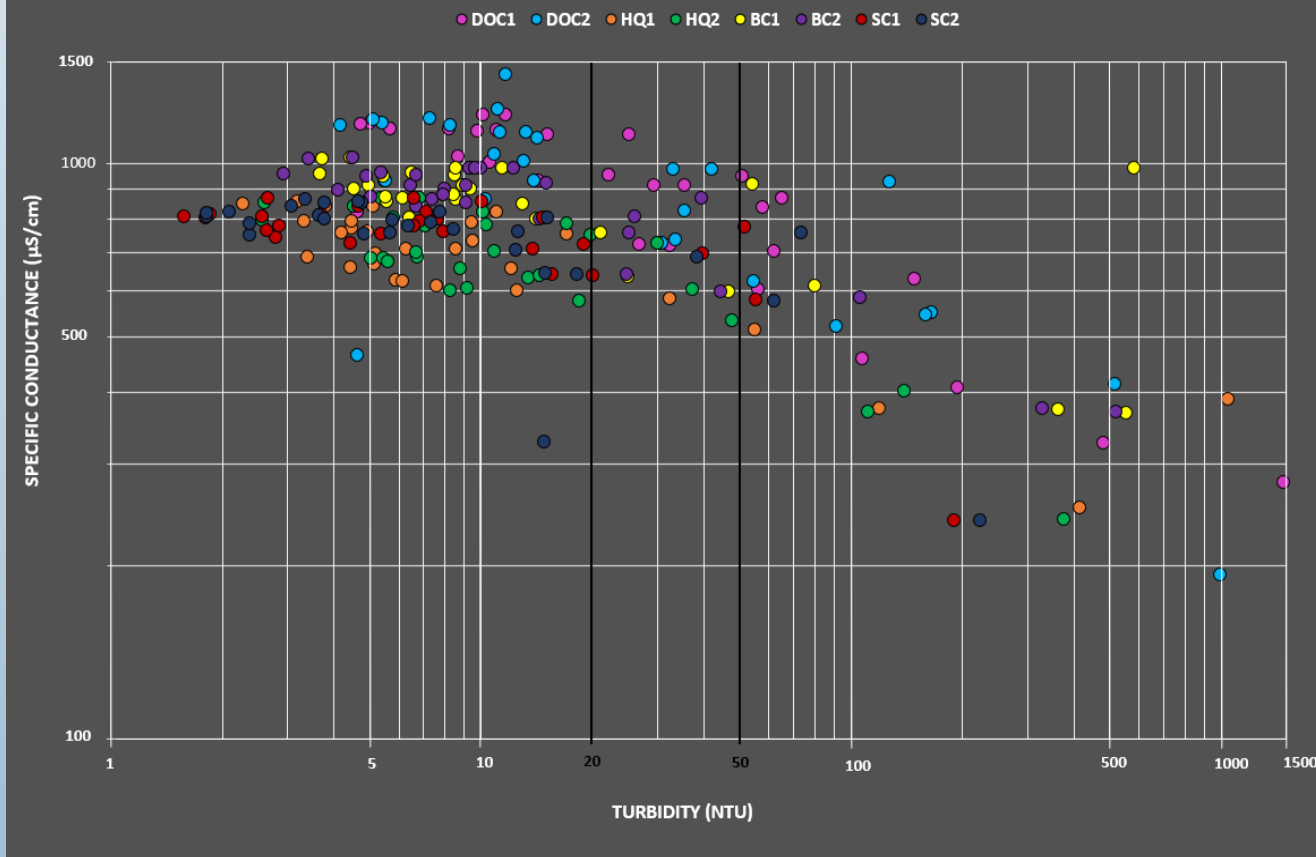
- Journal articles featuring water related issues
- STEM oriented presentations
- Lab demonstrations
- Field trips/guides
- Stream cleanups
- Youth internships
- Other events

CREEK SITE MACROINVERTEBRATE COUNTS



	DOC1	DOC2	HQ1	HQ2	SC1	SC2	BC1
Acari (mites)	1	4	3	1	3	2	
Gastropoda	6	329		88	97	25	1
Oligochaeta	4	2		2			1
Insecta							
Coleoptera							
Dytiscidae		1				8	
Elmidae		2	8	12	6	25	65
Halplidae					6	16	
Hydrophilidae	2		1				
Diptera							
Chironomidae	82	65	14	22	64	19	18
Ceratopogonidae	1	1	1	2			
Ptychopteridae					1	1	
Tabanidae			4				
Stratiomyidae			4			1	
Ephemeroptera							
Baetidae	9	2	16	6		28	14
Caenidae	12	3	85	14	4	5	18
Heptageniidae							
Hemiptera							
Corixidae		12			3	1	
Odonata							
Veliidae	2						
Coenagrionidae			1	1			
Trichoptera							
Corduliidae					2		
Gomphidae	1	11	8	8	21	14	2
Leptoceridae							
Hydropsychidae	16	6	39	16		2	19
Hydroptilidae	3						
Philopotamidae				6			

CREEK SITE SPECIFIC CONDUCTANCE & TURBIDITY

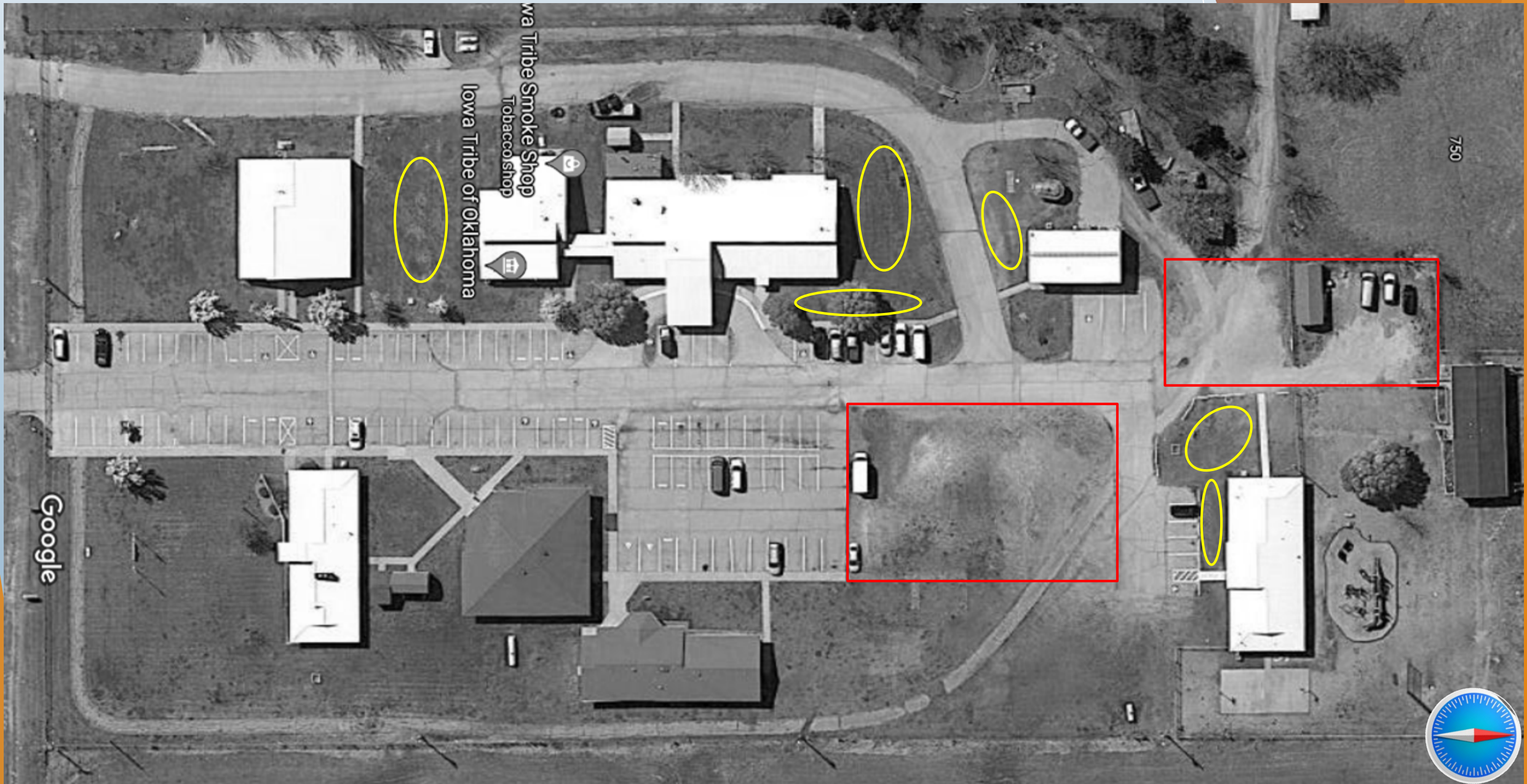


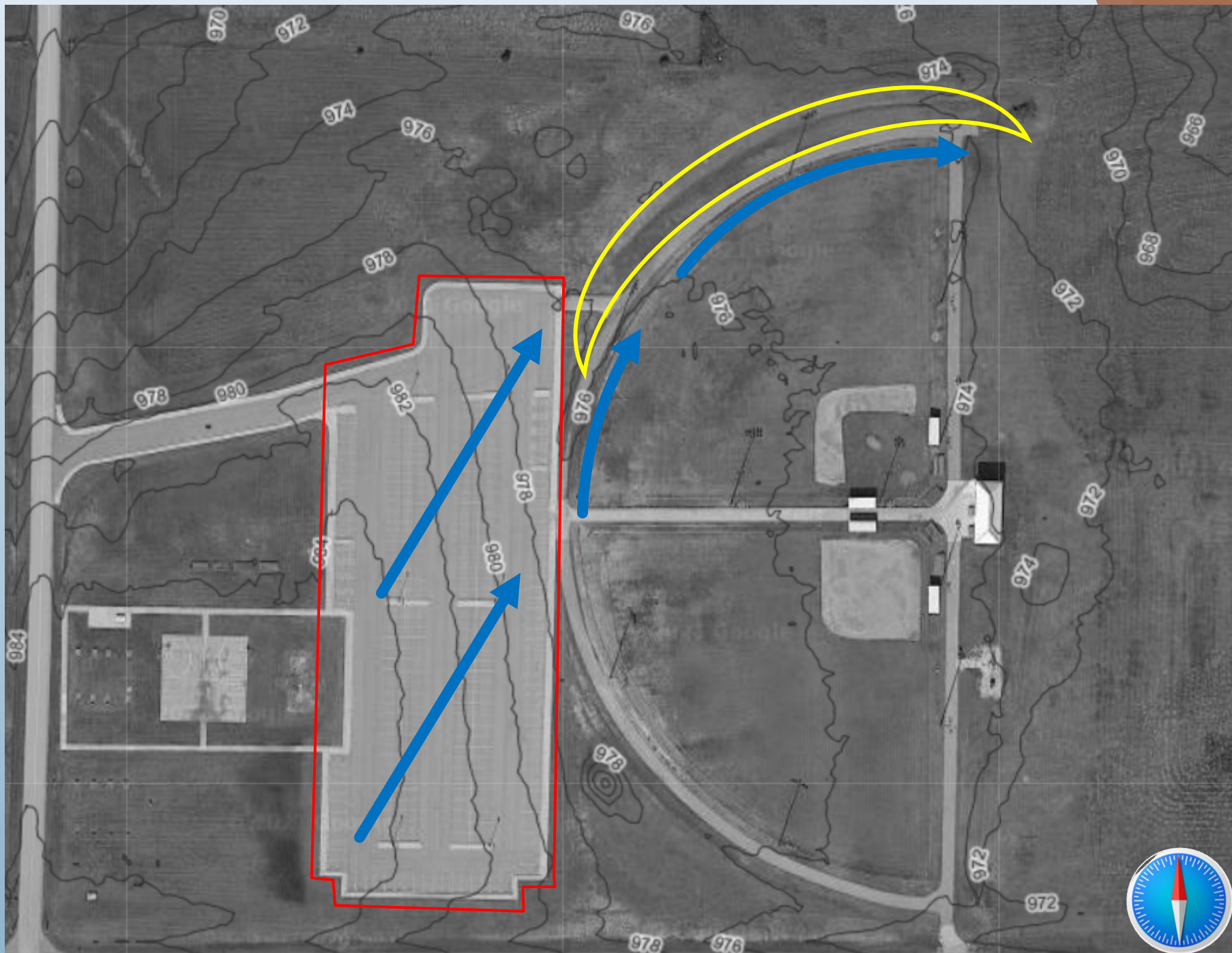
Above: Creek site turbidity and specific conductance, from December 2019-September 2020. Turbidity limits are presented in black.

Left: Creek site macroinvertebrate counts, broken down by taxonomy (Dzialowski, 2020).



Initial locations of rain gardens.





Areas of concern with future potential.



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