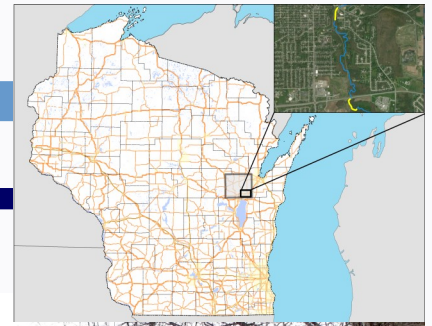


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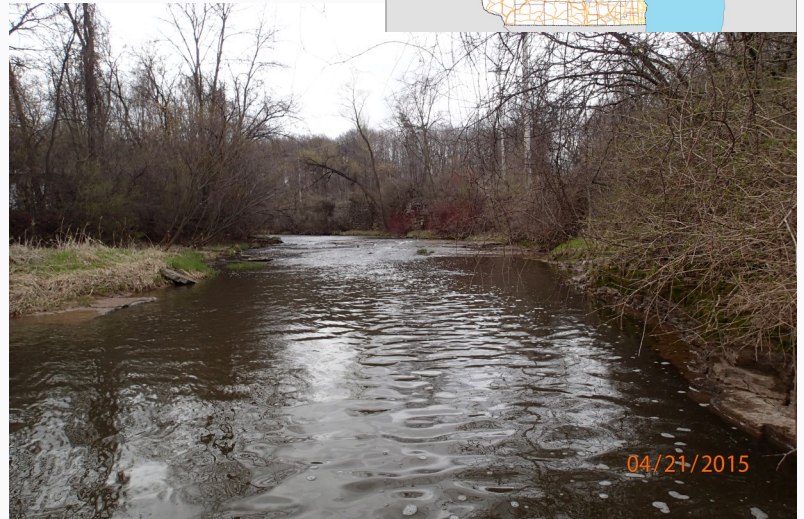
Lower Kankapot Creek 2015 (EGAD 3200-2018-67)



Watershed Details

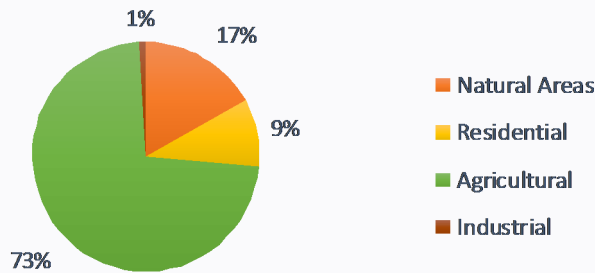
Kankapot Creek in Outagamie County is heavily influenced by non-point sources of pollution prior to its confluence of the Fox River in Kaukauna. Kankapot Creek has been identified to be one of the highest contributors of phosphorus and sediment to the Lower Fox River. Overall this watershed is characterized by having poor aquatic life and habitat. A Nine Key Element Plan was enacted in the summer of 2015 to continue to address non-point sources of pollution in the watershed.

Monthly water chemistry samples were collected by citizen monitoring volunteers from May to October. In addition, habitat, fish and macroinvertebrates surveys were conducted by the Wisconsin DNR at sites throughout the watershed to assess the physical and biological conditions of streams in the watershed.



Kankapot Creek at Dodge Street.

Kankapot Creek Watershed Land Use



Physical Habitat

Streams in the Lower Kankapot generally have wide forested buffers. The quality of these buffers is less than desirable and comprised of lower quality tree species such as box elder on steep, exposed banks with little understory. The two survey sites run through urbanized areas that experience significant storm water inputs from impervious surfaces. Habitat ratings ranged from fair to good and were depressed by extensive fines, bank erosion, and lack of fish cover.

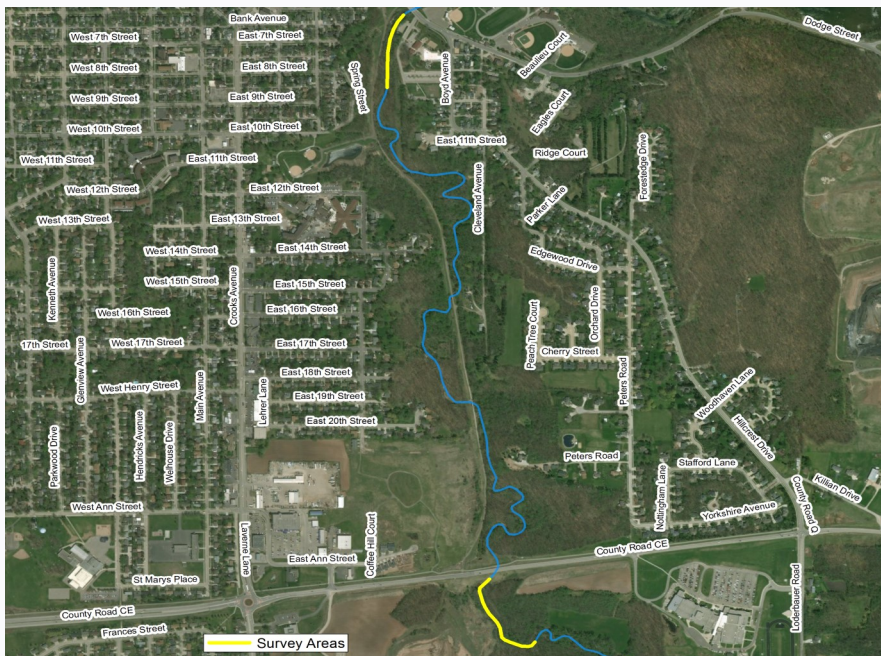
Chemical

Total Phosphorus concentrations on Kankapot Creek at Dodge Street were 4-10 times greater than Wisconsin's Water Quality Standard of 0.075 mg/L throughout the months sampled.

Biological

The two survey locations on the Lower Kankapot Creek had a total of six fish species, all of which are tolerant to environmental degradation. Indexes of biological integrity (IBI) of fish data were calculated to be poor. A Macroinvertebrate sample was collected at Dodge Street and scored fair on the Macroinvertebrate IBI.

Map of Lower Kankapot Creek



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Lower Kankapot Creek 2015

Management Recommendations

Soil Health principles throughout the watershed should be adopted to improve infiltration along with sediment and nutrient retention on agricultural lands in the watershed. Construction site erosion control needs to be properly planned and maintained to adequately prevent soil loss during storm events. Urban storm water best management practices should continue to properly site treatment ponds and consider additional infiltration practices to reduce the rate of storm water delivery to streams. Re-establishment of adequate vegetative buffers along stream corridors could include the removal of undesirable species such as box elder and buckthorn allowing for the management of more desirable tree species and a healthy understory. Additionally, vegetative buffer widths should be expanded to prevent soil loss and increase the distances between nutrient application and proximity to waterways. Areas of significant bank erosion and failures exist. Focused efforts to stabilize banks through a strategic approach should be enacted to prevent hard armoring in a small parcel by parcel approach.

Kankapot Creek at Dodge Street	May	Jun.	Jul.	Aug.	Sep.	Oct.	90% LCI-M*	WI WQ-STD
Total Phosphorus mg/L	0.379	0.321	0.351	0.315	0.38	0.812	0.324	0.075
Suspended sediment mg/L	24.5	25	26.2	17.0	17.6	—		
Orthophosphate DRP mg/L	0.171	0.186	0.236	0.197	0.235	0.471		

*Wisconsin applies the lower 90% confidence interval around the median for Total Phosphorus impairment decisions.

Fish and Habitat Ratings

Stream Site	Fish IBI	Habitat Rating	Macro invertebrate IBI
Kankapot Creek at Dodge Street	Poor	Good	Fair
Kankapot Creek at CTH CE	Fair	Fair	—



Kankapot Creek at County Highway CE



Kankapot Creek at County Highway KK