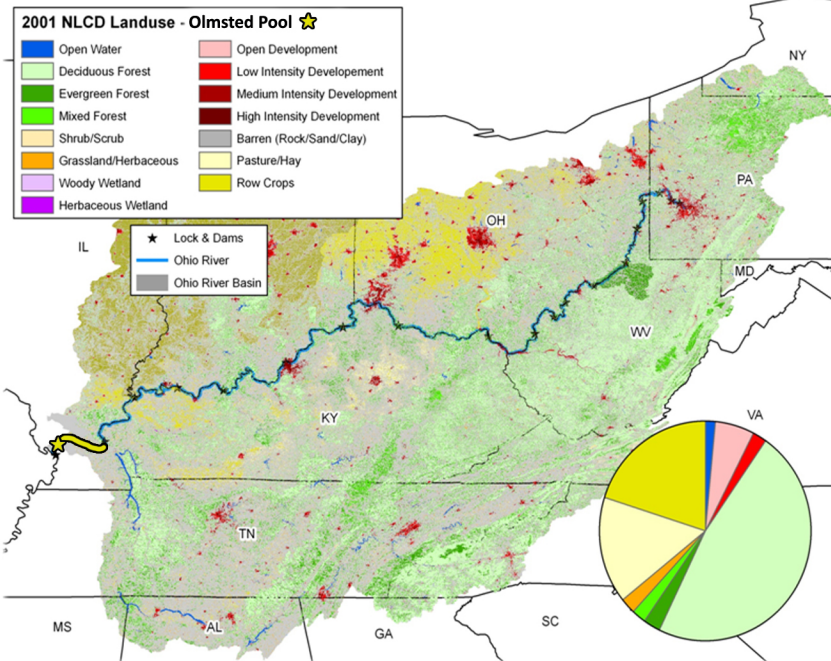


Olmsted Pool - 2014

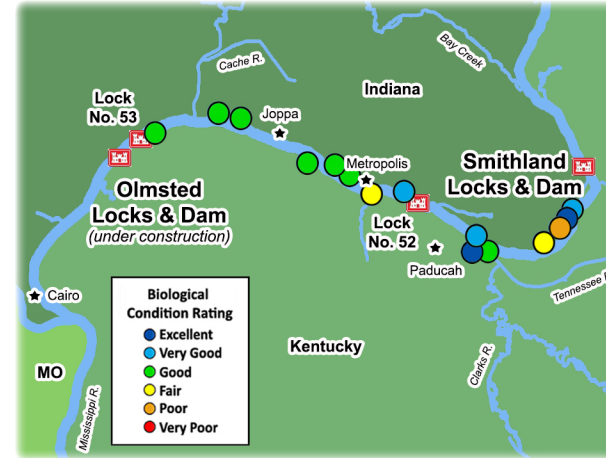
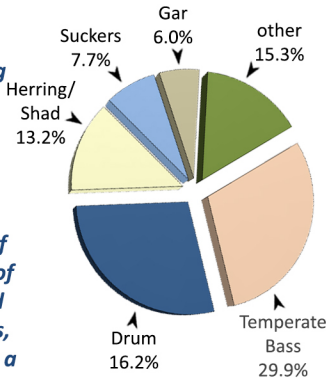
The 46.3 mile long section of the Ohio River is referred to as the *Olmsted pool*. It extends from Smithland Locks and Dam (ORM 918.5) to the on-going US Army Corps of Engineers Project at ORM 964.8. Upon completion, Olmsted Locks and Dam will hold back the waters currently retained by the last low-head dams on the Ohio River (Locks No. 52 and 53). Olmsted Pool will have a gradient drop of 0.3 feet per mile, a width of 3,500 feet, and an average depth of 20 feet (all measurements are approximate, assuming current stages are not drastically changed upon completion). This portion of the Ohio River is bordered by Kentucky and Illinois and has a large amount of barge activity. It receives water from two major tributaries; the Cumberland and Tennessee rivers with drainage areas of 17,920 and 40,910 square miles, respectively. The pool's watershed is primarily forested (46.1%) but also has a considerable amount of row crops (19.5%) and pasture lands (15.3%).



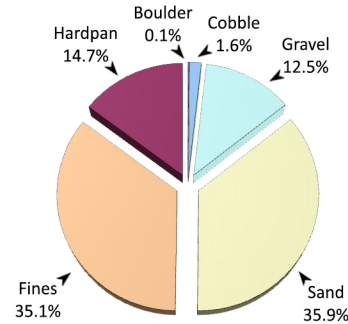
Land-use types within the Olmsted Pool watershed



Flathead Catfish (*Pylodictis olivaris*)



Locations of the 15 randomly chosen electrofishing sites in Olmsted Pool



Black Buffalo (*Ictalurus niger*)

Site Performance

Site No.	River Mile	Habitat Class	ORFIn Exp	ORFIn Obs	mORFIn Score
1	923.3	D	41.80	58.64	40.7
2	924.4	D	41.80	69.17	50.7
3	925.4	D	41.80	39.89	18.1
4	927.2	D	41.80	42.56	21.0
5	932	D	41.80	55.64	37.2
6	932.8	C	44.55	77.85	55.6
7	933.2	D	41.80	65.59	47.2
8	940.1	C	44.55	69.19	46.7
9	942.5	D	41.80	44.92	23.9
10	944.5	D	41.80	50.79	31.3
11	945.8	C	44.55	61.12	40.0
12	948	D	41.80	50.16	30.5
13	954.6	D	41.80	57.30	39.3
14	955.5	D	41.80	56.39	38.2
15	961.2	D	41.80	54.50	35.9
Average Pool mORFIn Score					37.1

Olmsted Pool - Results Overview

Sampling Results

Environmental Measures

Dominant Habitat Class: D - shallow sand/fines
Notable Measures: Instream habitats and conditions are unstable and unpredictable in this stretch of the river.

Biological Measures

Total No. of Fish Species: 46
Average No. of Individuals: 179
Dominant Family (*minus herring/shad*): Temperate Bass
Dominant Species (*minus shad/shiners*): Freshwater Drum
Species of Concern (KY): Black Buffalo
Rare Ohio River Species: Golden Redhorse (uncommon in lower river)
Notable Catch: Mooneye and Yellow Bass (common in lower river)

Assessment Results

Highest scoring ORFIn metric (*minus DELTs*): % Tolerant Species
Lowest scoring ORFIn metric (*minus GR Species*): % Lithophils
Sites Above 25th percentile (i.e. mORFIn Score = 20): 14
Sites Below 25th percentile (i.e. mORFIn Score = 20): 1
Aquatic Life-Use Designation: Met

Overall Biological Condition Rating: Good