

National Water Quality Monitoring Council

Products Overview

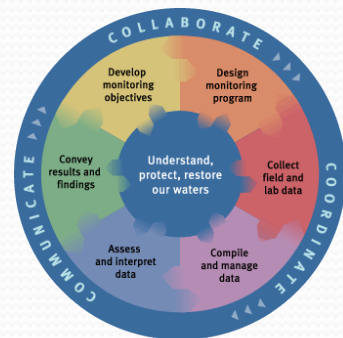


NWQMC



National Water Quality Monitoring Council

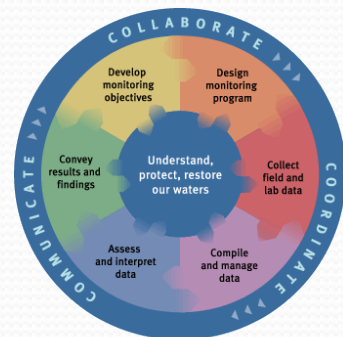
- “ A vehicle for bringing together diverse expertise needed to develop collaborative, comparable, and cost-effective approaches for monitoring and assessing our Nation’s water quality”
- Members ~30
 - 10 Federal (USEPA & USGS co-chairs)
 - 10 State water quality agencies representing each USEPA region
 - 10 Other
 - Interstate Basin Commissions





National Water Quality Monitoring Council

- Workgroups & Products
 - Methods & Data Comparability Board
 - National Environmental Methods Index (NEMI)
 - Water information Strategies (WIS)
 - Volunteer Monitoring
 - National Network of Reference Watersheds
 - Water Quality Portal
- Monitoring & Assessment Partnership (MAP)





Water Quality Portal (WQP)

- Integrates STORET (USEPA) & NWIS (USGS)
- Allows seamless retrieval of data from either source

The screenshot shows the homepage of the National Water Quality Monitoring Council (NWQMC) Water Quality Portal (WQP). The header features the NWQMC logo on the left and the text "NATIONAL WATER QUALITY MONITORING COUNCIL" on the right. Below the header is a banner image of a sunset over a body of water. The main content area is titled "Water Quality Portal" and includes a description: "The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC)." Below this description are three main sections: "DOWNLOAD DATA" (with a link to download water quality data in Excel, CSV, TSV, and KML formats), "HOW TO USE THE WQP" (with links to User Guide, Web Services Guide, FAQs, and Upload Data), and "NATIONAL RESULTS COVERAGE" (with a link to view water quality data by state). At the bottom, there is a section titled "ABOUT THE WQP" (with links to What is the WQP?, Contributing organizations, Other Water Quality Portals, and Contact us). The footer includes the logos for USGS (United States Geological Survey) and EPA (United States Environmental Protection Agency).

NATIONAL WATER QUALITY MONITORING COUNCIL

WQP

Water Quality Portal

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC).

DOWNLOAD DATA
Download water quality data in Excel, CSV, TSV, and KML formats.

HOW TO USE THE WQP
User Guide
Web Services Guide
FAQs
Upload Data

NATIONAL RESULTS COVERAGE
Water quality data by state.

ABOUT THE WQP
What is the WQP?
Contributing organizations
Other Water Quality Portals
Contact us

USGS
science for a changing world

EPA
United States Environmental Protection Agency



NEMI

National Environmental Methods Index

[Home](#)

[About NEMI](#)

[Glossary](#)

BROWSE: NEMI contains 1220 methods, protocols, and procedures.

[Back to search](#)

[+ BIOLOGICAL - 62 methods](#)

[+ CHEMICAL - 1055 methods](#)

[+ PHYSICAL - 31 methods](#)

[+ STATISTICAL - 51 methods](#)

[+ TOXICITY ASSAY - 21 methods](#)

BIOLOGICAL - 62 methods

Microbiological - 42 methods

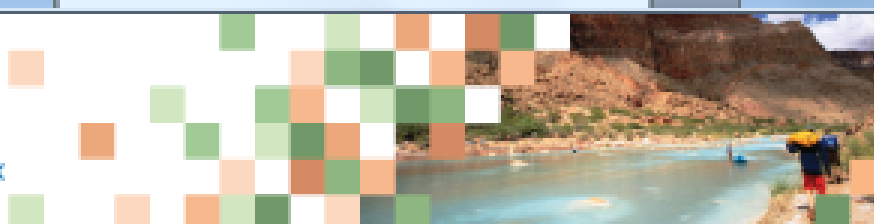
Population/Community - 20 methods

Method Id	Method Descriptive Name	Method Source
AFS SD Trout	Trout collection in wadeable trout streams by backpack electrofishing	AFS
AFS-WWSTC	Fish collection in warmwater streams by electrofishing	AFS
B-9135-00 (Qualitative)	Benthic Macroinvertebrate Sample Processing: Qualitative Visual Sort Method	USGS-NWQL
B-9135-00 (Quantitative)	Benthic Macroinvertebrate Sample Processing: Quantitative Fixed-Count Method	USGS-NWQL
B-9135-00 (Slide Preparation)	Benthic Macroinvertebrate Slide Preparation	USGS-NWQL
B-9135-00 (Taxonomic ID)	Benthic Macroinvertebrate Sample Processing: Taxonomic Identification	USGS-NWQL
CAB-EC-1-2001	Benthic Invertebrate sample collection; 3 minute kicknet in wadeable streams	EnvCanada-NWRI
EPA RBP (Inverts)	Benthic Macroinvertebrate RBP, single habitat, 1m kick net	EPA-OW
Fish Monitoring Guide, USDA-FS	Fish inventory and monitoring technical guide, USDA-FS	USDA-FS
MD DNR MBSS	Benthic Sampling Protocols for Maryland Streams	MD DNR



NEMI

National Environmental Methods Index



NEMI is a searchable database of environmental methods, protocols, and procedures that allows scientists and managers to find and compare data-collection methods and protocols for all stages of the monitoring process.

[About NEMI](#)[Glossary](#)[FAQ](#)

What's new with NEMI

Selected USGS-NAWQA and EPA-NARS ecological sampling methods added Jan. 2014

NEMI 4.0: more powerful and streamlined search capabilities; advanced data management;

GENERAL SEARCH

[Keyword](#)[Number](#)[Browse](#)

Search entire NEMI database by keyword:

[SEARCH](#)

FILTERED SEARCH

[Analytes](#)[Chemical](#)[Microbiological](#)[Community](#)[Toxicity](#)[Physical](#)[Statistical](#)[Regulatory](#)

Search by ANALYTES

Analyte name(s):

OR

Analyte code(s):

[+](#) Limit by: (optional)

1631/631

WHO WE ARE

[Submit a method](#)[NWQMC](#)[ACWI](#)[Contact us](#)

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NEMI

National Environmental Methods Index

[Home](#)[About NEMI](#)[Glossary](#)[FAQ](#)Modify your search: [Search](#)**RESULTS:** Your search for "1631" returned: 3 results.[Back to search](#)

Page 1 of 1

Method ID	Method Source	Descriptive Method Name	Get Method	Search Ranking
1631	EPA-EAD	Mercury in Water Using CVAFS	Download full method now (PDF file)	32
I-2464-01	USGS-NWQL	Organic plus Inorganic Mercury in Filtered Natural Water by Cold-Vapor AFS	Download full method now (PDF file)	31
I-4464-01	USGS-NWQL	Organic plus Inorganic Mercury in Unfiltered Natural Water by Cold-Vapor AFS	Download full method now (PDF file)	31
OPR_01-443	USGS Mercury Lab, WI	Methyl Mercury in Water	Download full method now (PDF file)	0
243.7	EPA-ORD / EPA-OST	Mercury in water by cold-vapor atomic fluorescence spectrometry	Download full method now (PDF file)	0

RESULTS: Your search for "1631" returned: 3 results.[Back to search](#)

Page 1 of 1

Modify your search: [Search](#)**WHO WE ARE**[Submit a method](#)[NWQMC](#)[ACWI](#)[Contact us](#)**LEGAL**[Terms of use](#)[Accessibility](#)[FOIA](#)[Privacy](#)[Policies and notices](#)



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GENERAL SEARCH

Keyword

Number

Browse

Search entire NEMI database by keyword:

SEARCH

FILTERED SEARCH

Analytes

Chemical

Microbiological

Community

Toxicity

Physical

Statistical

Regulatory

Limit search to POPULATION/COMMUNITY methods

Analyte type:

Fish x v

Waterbody type:

Non-wadeable stream x v

Gear type:

Electrofishing Unit x v

[+](#) Limit by: (optional)

SEARCH



NEMI

National Environmental Methods Index

[Home](#)[About NEMI](#)[Glossary](#)[FAQ](#)[View selected results](#)[View all results](#)[Download selected results](#)

RESULTS: Your search returned 3 results.

[Back to search](#)[Show/hide columns](#)

	Method ID	Method Source	Method Name	Analyte Name	Detection Level	Detection Level Type	Bias	Precision	Spiking Level
<input type="checkbox"/>	NRSA Fish (Boat)	EPA-OW	Electrofishing procedures for large non-wadeable rivers	Fish species indentification (X00021.3)	N/A	N/A	N/A	N/A	
<input type="checkbox"/>	NRSA Fish (Boat)	EPA-OW	Electrofishing procedures for large non-wadeable rivers	Fish length measurement (X00021.1)	N/A	N/A	N/A	N/A	
<input type="checkbox"/>	NRSA Fish (Boat)	EPA-OW	Electrofishing procedures for large non-wadeable rivers	Fish community (X00021)	N/A	N/A	N/A	N/A	

RESULTS: Your search returned 3 results.

[Back to search](#)[Show/hide columns](#)

**EPA-OW: NRSA Fish (Boat): Electrofishing procedures for large non-wadeable ...**[DOWNLOAD METHOD](#)

Summary	Official Method Name ?	National Rivers and Streams Assessment 2013/14: Field Operations Manual Non-Wadeable: Fish Assemblage
Analytes	Current Revision	Version 1.1, 2013
Revision	Media ?	WATER (Waterbody type - Non-wadeable stream)
	Instrumentation ?	Electrofishing Unit
	Method Subcategory ?	Population/Community
	Method Source ?	+ EPA-OW
	Citation ?	+ National Rivers and Streams Assessment 2013/14: Field Operations Manual Non-Wadeable
	Brief Method Summary ?	<p>The fish sampling method is designed to provide a representative sample of the fish community, collecting all but the rarest taxa inhabiting the site. It is intended to accurately represent species richness, species guilds, relative abundance, size, and presence of anomalies. The intended uses of the fish assemblage data are to calculate predictive models of multimetric indicators (MMIs; similar to an Index of Biotic Integrity [IBI]; Pont et al. 2009, USEPA 2013a) and possibly Observed/Expected (O/E) taxa richness. In addition, the fish assemblage data provides a starting point for developing potential indicators of ecosystem services related to fish. In non-wadeable rivers, collect fish using boat (or raft) electrofishing over a defined sampling reach within the support reach established for the site. Use secondary fish collection methods in habitat that cannot be adequately sampled by boat. Secondary methods may include backpack or tote barge electrofishing, using your boat as a barge, or seining as a last option only if conductivity is too high for electrofishing. Conduct sampling in a downstream direction, allocating effort (button time) within subreaches (areas between the cross-section transects). At medium and large wadeable streams, if you have not collected 500 individuals at the end of the defined fish sampling reach, sample additional subreaches in their entirety until you obtain at least 500 individuals. Record information related to sampling effort on the front of the Fish Gear and Sample Information Form (see Figure 10.1 in method PDF). Record species identification and enumeration data on one or more pages of the fish collection form (see Figure 10.2 in method PDF).</p>
	Scope and Application ?	This method describes the procedure for collecting fish in non-wadeable streams that are sampled as part of the U.S. EPA's National Rivers and Streams Assessment.
	Applicable Concentration Range ?	
	Interferences ?	Very low or very high conductivity can decrease the effectiveness of electrofishing equipment. Depths of over about 10 feet are also not sampled very effectively.
	Quality Control Requirements ?	
	Sample Handling ?	
	Maximum Holding Time ?	
	Relative Cost ?	Unknown
	Sample Preparation Methods ?	
DOWNLOAD METHOD		



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Browse

Search entire NEMI database by keyword:

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FILTERED SEARCH

Analytes

Chemical

Microbiological

Community

Toxicity

Physical

Statistical

Regulatory

Limit search to STATISTICAL methods

Statistical subcategories:

☒ Stat-Data analysis

☐ Stat-Sampling design

What are you interested in:

Temporal trends



Item type:

Journal Article



Complexity:

Medium



Analysis type:

Data analysis



Publication source type:

Journal



Media emphasized:

Biological



Special topic:

Handling nondetects



Limit by: (optional)

SEARCH



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☒ Stat-Data analysis

☐ Stat-Sampling design

What are you interested in:

Item type:

Complexity:

Analysis type:

Publication source type:

Media emphasized:

Special topic:

Temporal trends

Bioassays & toxicity tests

Communities & populations

Compare locations

Compare treatments

Compliance with a threshold

Continuous (sensor) data

Derive thresholds

+ Limit by: (optional)

SEARCH



National Water Quality Monitoring Council

- 9th National Water Quality Monitoring Conference
 - Biennial
 - April 28th – May 2nd 2014 in Cincinnati, OH

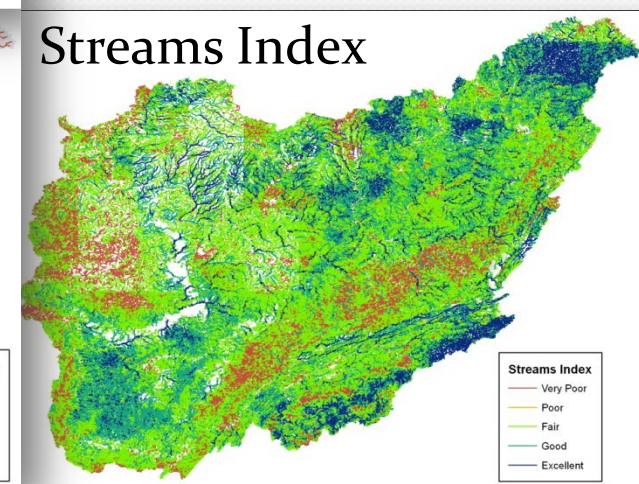
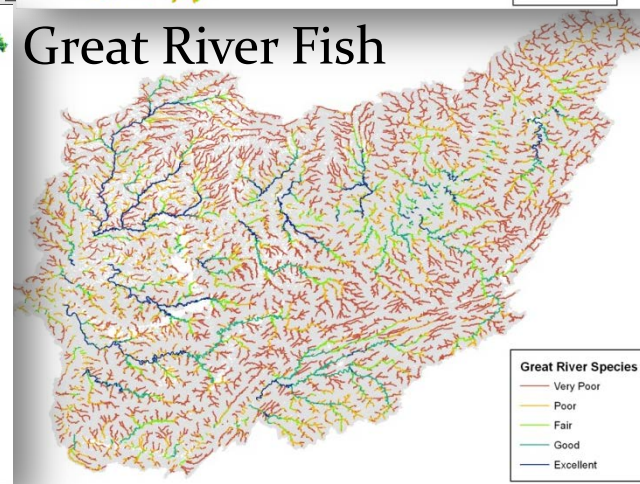
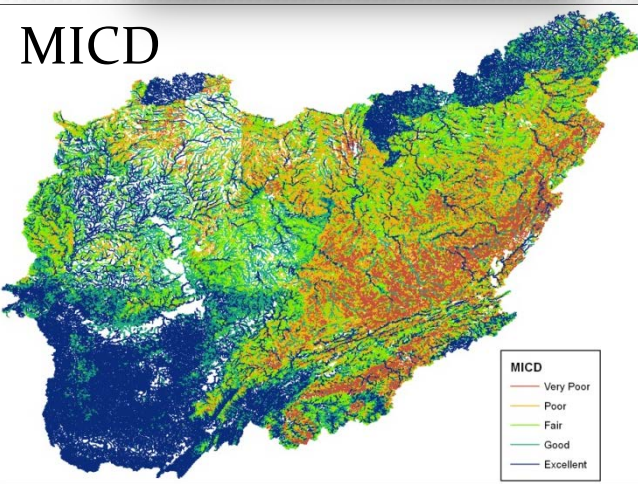
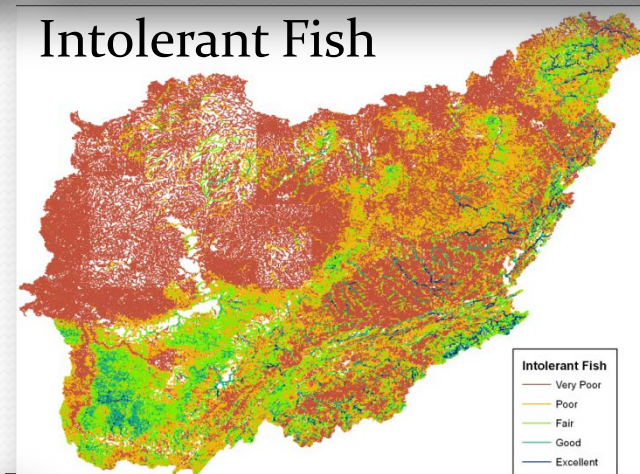
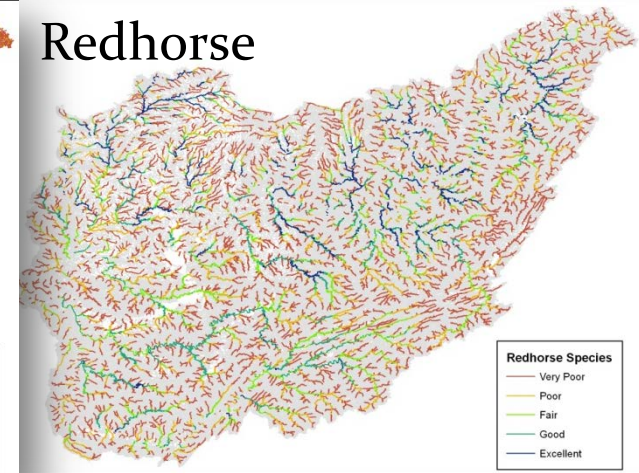
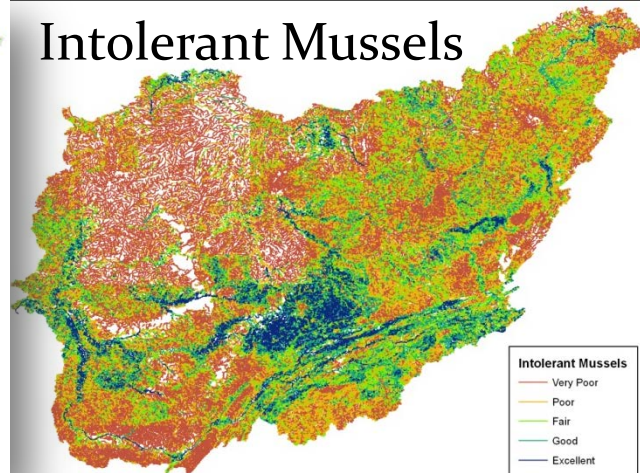
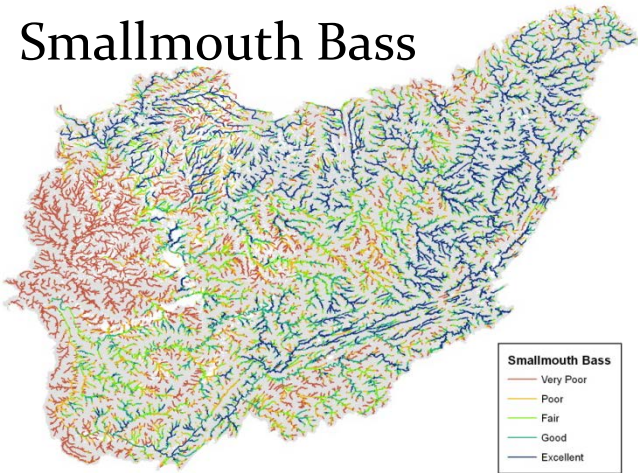


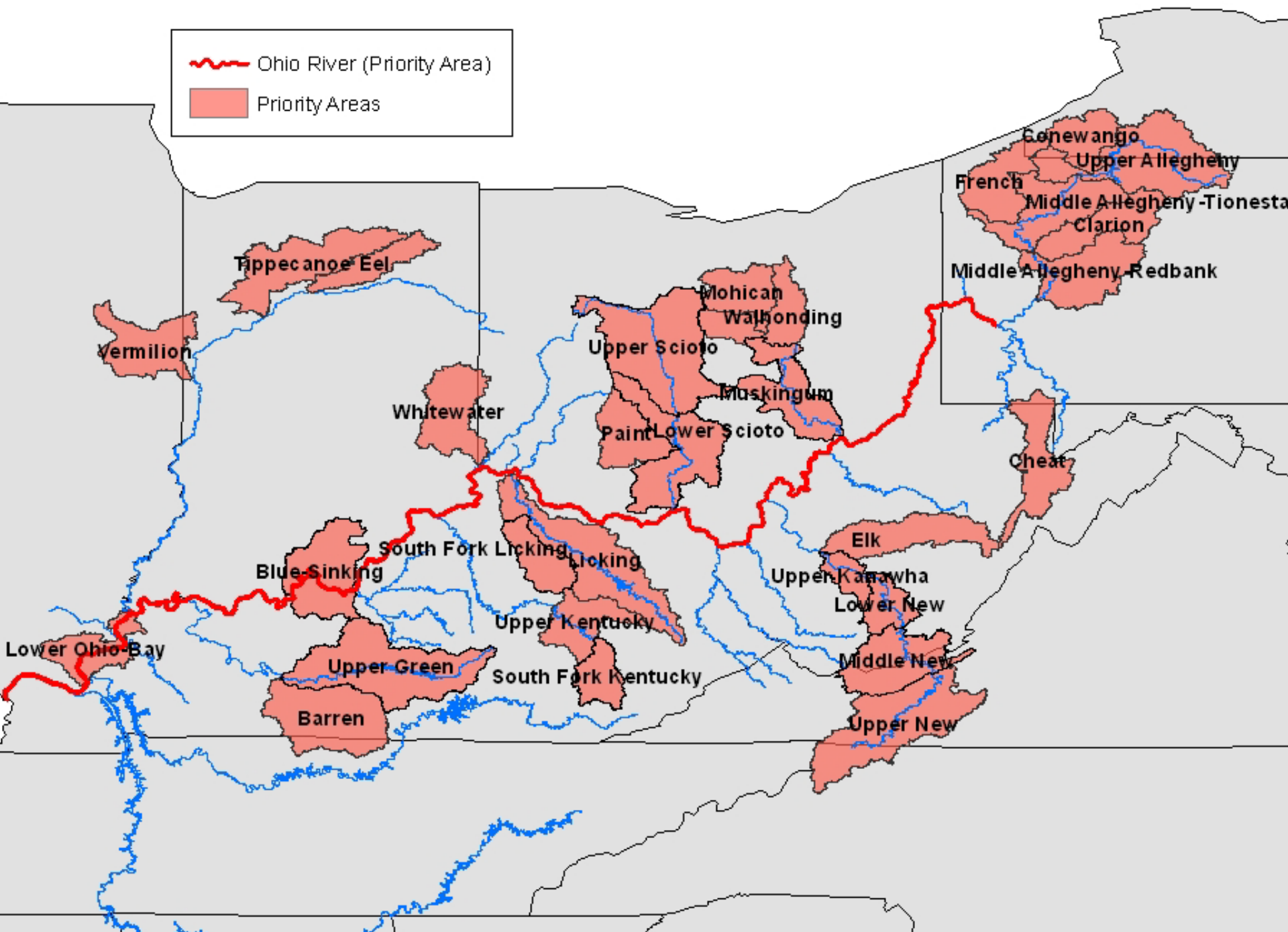


Ohio River Basin Fish Habitat Partnership (ORBFHP)

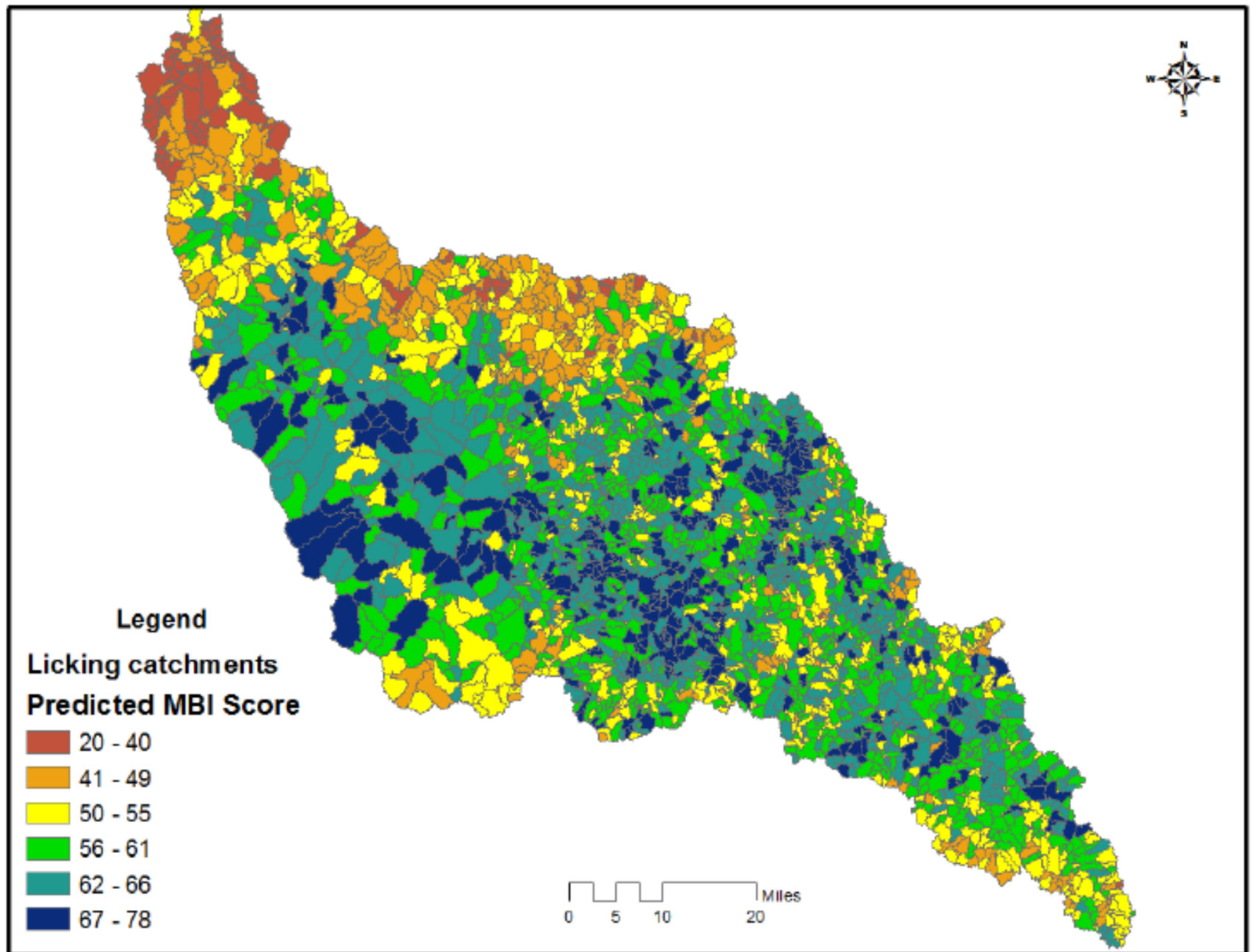
- Recently we completed a basin-wide assessment of aquatic habitat
- Landscape-scale predictor variables to model 7 different response variables







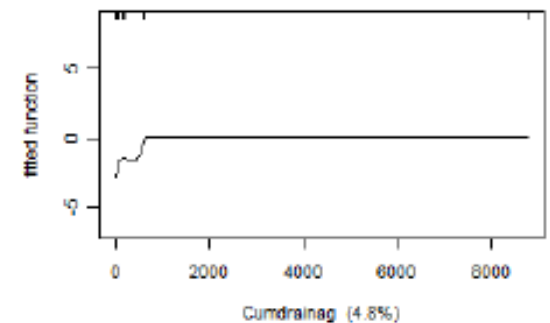
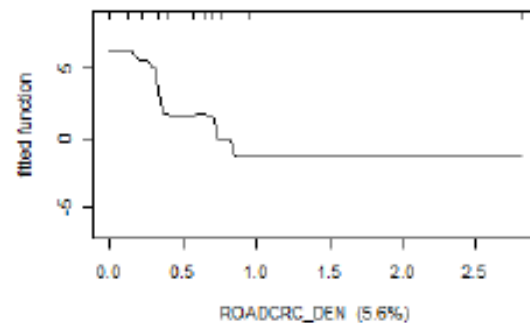
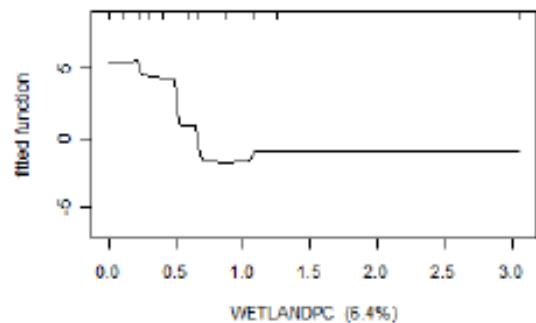
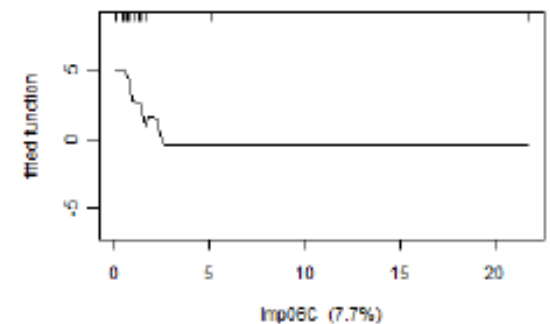
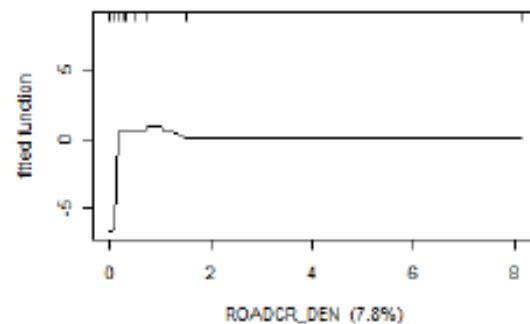
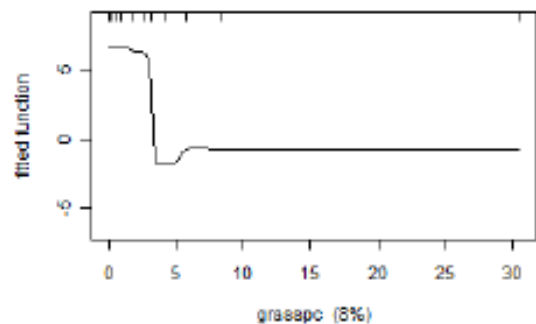
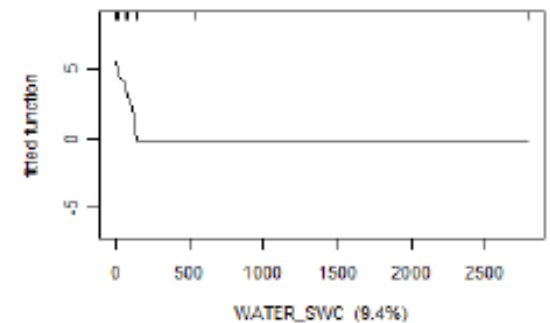
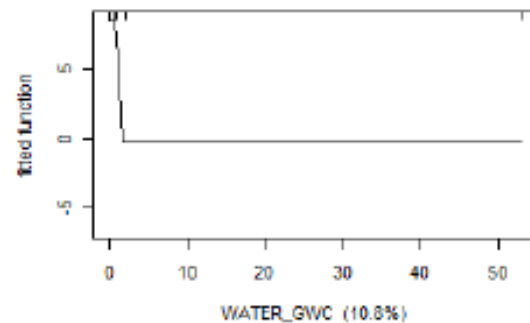
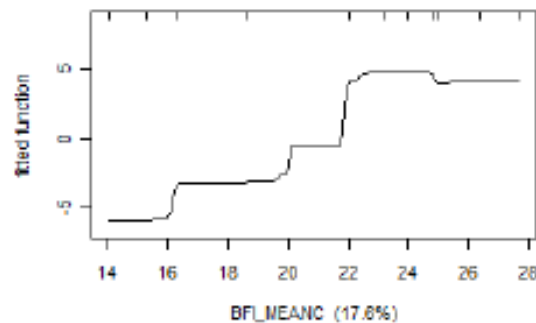
Expected current conditions

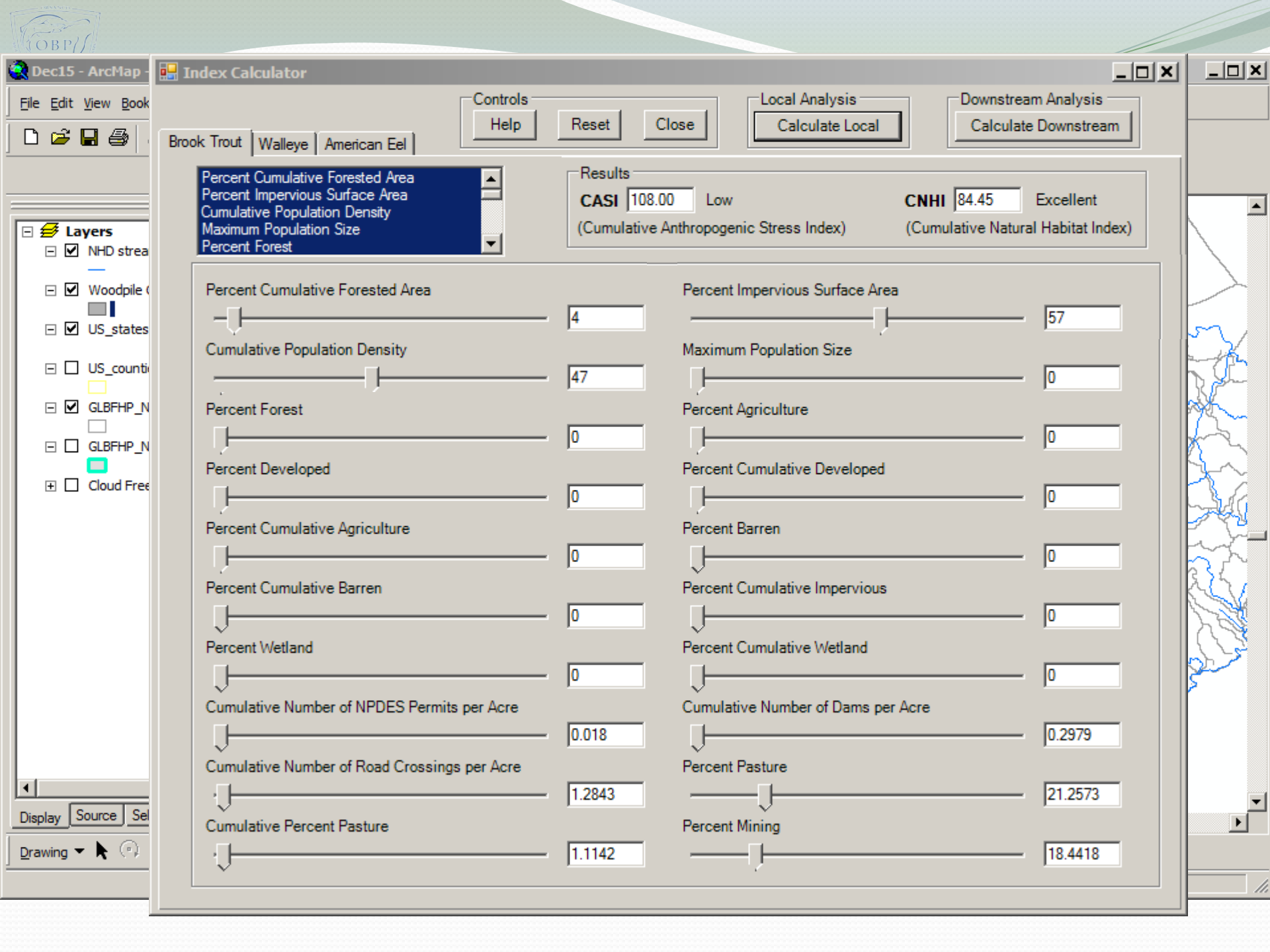


MBI – Variable Influence

Variable Code	Variable Description	Relative Influence
BFI_MEANC	Network mean baseflow index	17.579
WATER_GWC	Network groundwater consumption	10.758
WATER_SWC	Network surface water consumption	9.423
grasspc	Network grassland land cover	8.041
ROADCR_DEN	Local road crossing density	7.820
Imp06C	Network impervious surface cover	7.708
WETLANDPC	Network wetland land cover	6.360
ROADCRC_DEN	Network road crossing density	5.642
Cumdrainag	Network drainage area	4.786
RIP_AGC	Network riparian agriculture cover	4.623
agpc	Network agriculture land cover	3.587
Brock7pc	Network shale bedrock geology	3.180
Soil2pc	Network soil hydrologic group B	2.790
RIP_DEVC	Network riparian development	2.359
Brock5pc	Network sand/gravel bedrock geology	2.027
Surf3pc	Network alluvium surficial geology	1.726
Temp	Mean annual air temperature	1.591

Function Plots





Dec15 - ArcMap

File Edit View Book



Layers

- ☒ NHD stream
- ☒ Woodpile
- ☒ US_states
- ☐ US_counties
- ☒ GLBFHP_N
- ☐ GLBFHP_N
- ☐ Cloud Free

Display Source Select

Drawing

Index Calculator

Controls

Help

Reset

Close

Local Analysis

Calculate Local

Downstream Analysis

Calculate Downstream

Brook Trout Walleye American Eel

Percent Cumulative Forested Area
Percent Impervious Surface Area
Cumulative Population Density
Maximum Population Size
Percent Forest

Results

CASI 108.00 Low

(Cumulative Anthropogenic Stress Index)

CNHI 84.45 Excellent

(Cumulative Natural Habitat Index)

Percent Cumulative Forested Area

4

Cumulative Population Density

47

Percent Forest

0

Percent Developed

0

Percent Cumulative Agriculture

0

Percent Cumulative Barren

0

Percent Wetland

0

Cumulative Number of NPDES Permits per Acre

0.018

Cumulative Number of Road Crossings per Acre

1.2843

Cumulative Percent Pasture

1.1142

Percent Impervious Surface Area

57

Maximum Population Size

0

Percent Agriculture

0

Percent Cumulative Developed

0

Percent Barren

0

Percent Cumulative Impervious

0

Percent Cumulative Wetland

0

Cumulative Number of Dams per Acre

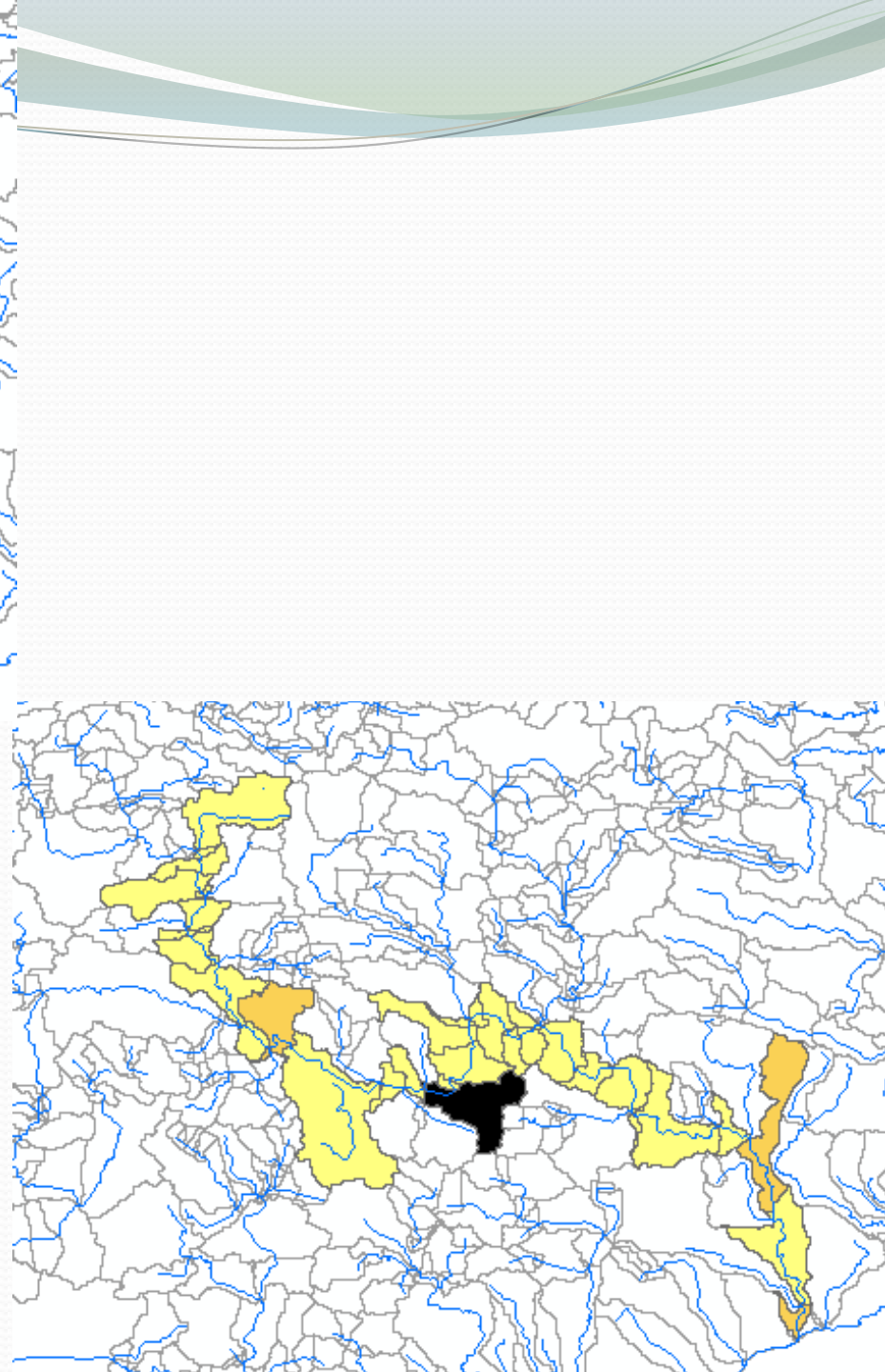
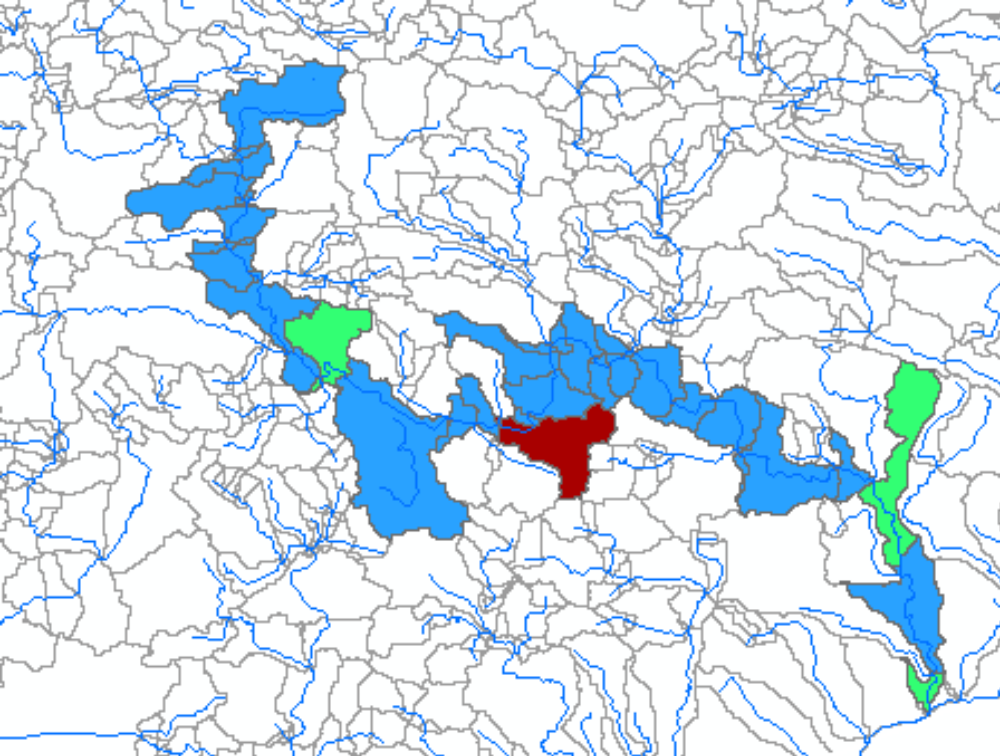
0.2979

Percent Pasture

21.2573

Percent Mining

18.4418



Questions or Comments?

