

Survey About Threats and Conservation Needs for Fish and Wildlife Habitats in Indiana

Summary of Results – The Corn Belt (Region 3)

DNR

Indiana Department
of Natural Resources



**INDIANA DIVISION OF
FISH & WILDLIFE**

PURDUE
UNIVERSITY



**FORESTRY
AND
NATURAL
RESOURCES**

Section III: Threats to Fish and Wildlife Habitats

11. How would you describe the **overall quality** of fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3)? (Check only one)

	Very Poor		Poor		Satisfactory		Good		Very good		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N	%	N	
Aquatic systems	5.1	3	45.8	27	35.6	21	13.6	8	0.0	0	0.0	0	59
Agricultural lands	22.2	10	51.1	23	22.2	10	2.2	1	2.2	1	0.0	0	45
Barren lands	33.3	2	16.7	1	33.3	2	16.7	1	0.0	0	0.0	0	6
Developed Lands	5.6	1	61.1	11	16.7	3	11.1	2	0.0	0	5.6	1	18
Forests	14.9	7	34.0	16	27.7	13	12.8	6	8.5	4	2.1	1	47
Grasslands	28.0	7	28.0	7	24.0	6	12.0	3	8.0	2	0.0	0	25
Subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	17.2	5	37.9	11	37.9	11	3.4	1	0.0	0	3.4	1	29
Total	15.3	35	41.9	96	28.8	66	9.6	22	3.1	7	1.3	3	229

12. How would you describe the total amount and overall quality of fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) since 2005? (Check one for each line item)

Amount of fish and wildlife habitats within HABITAT since 2005

	Increase		About the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	
Aquatic systems	10.2	6	57.6	34	25.4	15	6.8	4	59
Agricultural lands	4.4	2	22.2	10	71.1	32	2.2	1	45
Barren lands	0.0	0	40.0	2	60.0	3	0.0	0	5
Developed Lands	20.0	4	25.0	5	50.0	10	5.0	1	20
Forests	6.4	3	31.9	15	59.6	28	2.1	1	47
Grasslands	11.5	3	26.9	7	61.5	16	0.0	0	26
Subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	6.9	2	37.9	11	48.3	14	6.9	2	29
Total	8.7	20	36.4	84	51.1	118	3.9	9	231

Quality of fish and wildlife habitats within HABITAT since 2005

	Increase		About the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	
Aquatic systems	13.6	8	52.5	31	27.1	16	6.8	4	59
Agricultural lands	6.7	3	20.0	9	71.1	32	2.2	1	45
Barren lands	16.7	1	33.3	2	50.0	3	0.0	0	6
Developed Lands	16.7	3	22.2	4	55.6	10	5.6	1	18
Forests	6.4	3	40.4	19	51.1	24	2.1	1	47
Grasslands	4.0	1	52.0	13	44.0	11	0.0	0	25
Subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	6.9	2	48.3	14	37.9	11	6.9	2	29
Total	9.2	21	40.2	92	46.7	107	3.9	9	229

13. How would you predict about the total amount and overall quality of fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) over the next 10 years? (Check one for each line item)

Amount of fish and wildlife habitats within HABITAT over the next 10 years

	Increase		About the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	
Aquatic systems	15.3	9	39.0	23	40.7	24	5.1	3	59
Agricultural lands	8.9	4	15.6	7	75.6	34	0.0	0	45
Barren lands	0.0	0	66.7	4	33.3	2	0.0	0	6
Developed Lands	15.0	3	10.0	2	70.0	14	5.0	1	20
Forests	6.4	3	29.8	14	57.4	27	6.4	3	47
Grasslands	8.0	2	24.0	6	68.0	17	0.0	0	25
Subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	10.3	3	20.7	6	65.5	19	3.4	1	29
Total	10.4	24	26.8	62	59.3	137	3.5	8	231

Quality of fish and wildlife habitats within HABITAT over the next 10 years

<i>Corn Belt (Region 3)</i>	Increase		About the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	
Aquatic systems	15.5	9	31.0	18	46.6	27	6.9	4	58
Agricultural lands	11.1	5	13.3	6	75.6	34	0.0	0	45
Barren lands	0.0	0	66.7	4	33.3	2	0.0	0	6
Developed Lands	15.0	3	20.0	4	60.0	12	5.0	1	20
Forests	4.3	2	27.7	13	61.7	29	6.4	3	47
Grasslands	8.3	2	29.2	7	62.5	15	0.0	0	24
Subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wetlands	10.3	3	24.1	7	58.6	17	6.9	2	29
Total	10.5	24	25.8	59	59.4	136	4.4	10	229

14. **Currently**, to what extent do you think the following general categories of threats **apply** to fish and wildlife habitats within **HABITAT** in the Corn Belt (Region 3)? (Check one for each line item)

<i>Corn Belt (Region 3)</i>	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N	
Residential and commercial development	42.3	93	41.4	91	13.2	29	2.7	6	0.5	1	220
Agriculture and aquaculture	55.0	121	27.3	60	10.9	24	3.6	8	3.2	7	220
Energy production and mining	7.3	16	26.9	59	32.9	72	24.2	53	8.7	19	219
Transportation and service corridors	12.3	27	35.5	78	38.6	85	9.5	21	4.1	9	220
Biological resource use	8.7	19	22.5	49	42.7	93	22.0	48	4.1	9	218
Human intrusion and disturbance	33.9	74	31.7	69	28.0	61	5.5	12	0.9	2	218
Natural systems modifications	33.6	74	37.7	83	24.1	53	2.3	5	2.3	5	220
Invasives and other problematic species and genes	50.2	111	32.1	71	14.5	32	1.8	4	1.4	3	221
Pollution	30.4	66	41.0	89	24.9	54	2.3	5	1.4	3	217
Climate change and severe weather	20.5	45	32.0	70	26.5	58	12.3	27	8.7	19	219
Other stressors	14.3	30	32.4	68	27.1	57	6.2	13	20.0	42	210

15. You indicated a number of general categories as significant or moderate threats to fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3). Please indicate which of the following are specific threats to fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) and their trends over the next 10 years. You may add additional threats you think are important using the “Other, please specify” option.

Residential and Commercial Development

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?									
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Housing and urban areas	45.0	81	44.4	80	10.0	18	0.0	0	.6	1	180	76.6	59	18.2	14	0.0	0	5.2	4	77
Commercial and industrial areas	34.9	60	44.8	77	18.6	32	1.2	2	0.6	1	172	69.3	52	21.3	16	0.0	0	9.3	7	75
Tourism and recreation areas (e.g., sites with a substantial footprint – golf courses, campgrounds, etc.)	8.4	15	33.5	60	43.6	78	11.2	20	3.4	6	179	35.1	27	51.9	40	0.0	0	13.0	10	77

Other responses listed:

Response text:	N
Aerial application of pesticides	1
ATV traffic	1
dams	1
Forest clearing for agriculture	1
lack of habitat production	1
Mounds reservoir	1
New energy uses	1
urban sprawl	1
Total responses:	8

Agriculture and Aquaculture

<i>Corn Belt (Region 3)</i>	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?											How will the significance of this threat change over the next 10 years?								
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Annual and perennial nontimber crops	51.1	91	19.7	35	16.3	29	10.7	19	2.2	4	178	63.0	51	32.1	26	0.0	0	4.9	4	81
Wood and pulp plantations	5.1	9	6.8	12	36.2	64	43.5	77	8.5	15	177	5.1	4	69.6	55	1.3	1	24.1	19	79
Livestock farming and ranching	29.9	53	35.0	62	28.8	51	5.1	9	1.1	2	177	32.5	26	55.0	44	5.0	4	7.5	6	80
Aquaculture	2.4	4	11.8	20	27.6	47	38.2	65	20.0	34	170	3.8	3	52.6	41	0.0	0	43.6	34	78
Conversion of habitat to annual crops	55.6	99	27.5	49	12.9	23	2.8	5	1.1	2	178	71.6	58	23.5	19	0.0	0	4.9	4	81

Other responses listed:

Response text:	N
CFO/CAFO	1
Edge habitat destruction	1
Loss of mature woodlands and woodlots for residential and commercial development	1
Over abundance of deer and raccoons	1
placement of drainage tiles in farm fields	1
water consumption	1
Total responses:	6

Energy Production and Mining

To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The | How will the significance of this threat change over the next 10 years?

Corn Belt (Region 3)	Corn Belt (Region 3)?																						
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses			
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N				
Oil and gas drilling	18.7	14	30.7	23	32.0	24	13.3	10	5.3	4	75	58.0	40	36.2	25	0.0	0	5.8	4	69			
Mining and quarrying	11.0	8	37.0	27	34.2	25	13.7	10	4.1	3	73	40.3	27	55.2	37	0.0	0	4.5	3	67			
Renewable energy production	17.3	13	46.7	35	29.3	22	4.0	3	2.7	2	75	73.5	50	20.6	14	1.5	1	4.4	3	68			
Fossil fuel energy production	18.7	14	29.3	22	32.0	24	12.0	9	8.0	6	75	37.7	26	47.8	33	5.8	4	8.7	6	69			
Shale gas development (e.g., fracking)	36.5	27	21.6	16	23.0	17	6.8	5	12.2	9	74	55.7	39	27.1	19	0.0	0	17.1	12	70			

Other responses listed:

Response text:	N
Loss of drop land and edges for wind farms	1
Total responses:	1

Transportation and Service Corridors

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?									
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Roads and railroads	25.7	27	53.3	56	18.1	19	1.9	2	1.0	1	105	65.3	62	31.6	30	1.1	1	2.1	2	95
Utility and service lines	12.4	13	47.6	50	27.6	29	9.5	10	2.9	3	105	42.7	41	52.1	50	0.0	0	5.2	5	96
Flight paths	3.8	4	15.4	16	39.4	41	31.7	33	9.6	10	104	14.7	14	67.4	64	1.1	1	16.8	16	95
Shipping lanes	1.0	1	11.8	12	14.7	15	57.8	59	14.7	15	102	5.7	5	63.6	56	1.1	1	29.5	26	88

Other responses listed:

Response text:	N
Transportation corridor	1
Total responses:	1

Biological Resource Use

To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?	How will the significance of this threat change over the next 10 years?
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<i>Corn Belt (Region 3)</i>	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Forestry practices (e.g., silvicultural methods leading to the lack of early successional habitat)	30.3	20	31.8	21	18.2	12	12.1	8	7.6	5	66	42.6	26	42.6	26	0.0	0	14.8	9	61

Other responses listed:

Response text:	N
Aquatic weed control	1
Over abundance of deer and racoons	1
soil erosion	1
Total responses:	3

Human Intrusion and Disturbance

<i>Corn Belt (Region 3)</i>	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?									
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
%	N	%	N	%	N	%	N	%	N	%		N	%	N	%	N	%	N		
Recreation activities (e.g., ATVs, trail use, horseback riding, high-speed boating, canoeing)	22.0	31	41.8	59	30.5	43	4.3	6	1.4	2	141	56.9	78	38.7	53	0.0	0	4.4	6	137

Other responses listed:

Response text:	N
invasive species introduction	1
Total responses:	1

Natural Systems Modification

<i>Corn Belt (Region 3)</i>	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?				
	Significant	Moderate	Minor	Not a	I don't	Total	Increase	Remain the	Decrease	I don't	Total				

	threat		Threat		Threat		threat		know		Responses	same				know		Responses		
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N			
Dams and water management/use	22.1	34	37.0	57	22.1	34	11.7	18	7.1	11	154	40.7	59	50.3	73	0.7	1	8.3	12	145
Fire and fire suppression	7.2	11	17.0	26	30.1	46	37.9	58	7.8	12	153	12.5	18	78.5	113	0.0	0	9.0	13	144
Log jam removal	10.4	16	26.6	41	26.0	40	23.4	36	13.6	21	154	23.3	34	60.3	88	0.7	1	15.8	23	146
Over-mowing of natural areas	20.9	31	37.8	56	25.0	37	8.8	13	7.4	11	148	33.1	47	52.8	75	2.8	4	11.3	16	142
Conversion of natural habitats to other land uses	63.6	98	30.5	47	4.5	7	0.0	0	1.3	2	154	74.5	108	24.1	35	0.0	0	1.4	2	145

Other responses listed:

Response text:

loss of early successional habitats

Total responses:

N
1
1

Invasives and Other Problematic Species/Genes

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?									
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Invasive/alien species	71.3	122	24.6	42	2.3	4	0.0	0	1.8	3	171	83.0	137	13.3	22	1.2	2	2.4	4	165
Problematic native species (e.g. overabundant native deer or algae)	35.1	61	37.9	66	19.5	34	6.9	12	0.6	1	174	59.0	98	36.7	61	1.2	2	3.0	5	166
Plant diseases	19.3	34	38.6	68	21.0	37	5.1	9	15.9	28	176	52.4	87	28.3	47	.0	0	19.3	32	166
Introduced genetic material (such as crop, seed stock, biocontrol, stocked/released species, etc.)	20.9	37	31.1	55	22.0	39	9.6	17	16.4	29	177	48.2	81	32.7	55	1.2	2	17.9	30	168

Other responses listed:

Response text:

Asian Carp

Cervid Farms

herbicide use in fence rows

Problematic non native species

Total responses:

N
1
1
1
1
4

Pollution

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?					How will the significance of this threat change over the next 10 years?				
	Significant	Moderate	Minor	Not a	I don't	Total	Increase	Remain the	Decrease	I don't

	threat		Threat		Threat		threat		know		Responses			same				know		Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Runoff from roads/service corridors	32.7	50	51.0	78	15.7	24	0.7	1	0.0	0	153	63.9	94	33.3	49	0.7	1	2.0	3	147
Chemical spills	17.8	27	45.4	69	31.6	48	1.3	2	3.9	6	152	35.7	51	58.7	84	.0	0	5.6	8	143
Point source pollution from commercial/industrial sources	30.9	47	47.4	72	19.1	29	.0	0	2.6	4	152	46.9	69	44.9	66	4.1	6	4.1	6	147
Air pollution (e.g., smoke, mercury emissions)	28.3	43	30.3	46	32.9	50	3.3	5	5.3	8	152	34.2	50	45.2	66	13.7	20	6.8	10	146
Household sewage and urban water waste	34.0	52	37.3	57	25.5	39	1.3	2	2.0	3	153	47.9	70	37.0	54	9.6	14	5.5	8	146
Agriculture, residential, and forestry effluents	48.3	73	38.4	58	12.6	19	0.7	1	0.0	0	151	58.5	86	31.3	46	6.1	9	4.1	6	147
Garbage and solid waste	19.2	29	33.8	51	39.1	59	4.6	7	3.3	5	151	44.1	64	48.3	70	2.8	4	4.8	7	145
Excess energy (e.g., noise/light pollution, warm water discharge, etc.)	19.7	29	36.1	53	31.3	46	8.2	12	4.8	7	147	45.7	64	45.0	63	1.4	2	7.9	11	140

Other responses listed:

Response text:	N
most forest effluents	2
nutrient loading	1
overspray of herbicides on resistant GM crops (e.g. RoundUp Ready soy)	1
soil pollution from improperly protected disturbed soil in construction sites	1
Total responses:	5

Climate Change and Severe Weather

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?					Total Responses	How will the significance of this threat change over the next 10 years?					
	Significant threat	Moderate Threat	Minor Threat	Not a threat	I don't know		Increase	Remain the same	Decrease	I don't know	Total Responses	

	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Changing frequency, duration, and intensity of drought	46.9	53	38.9	44	11.5	13	0.9	1	1.8	2	113	76.8	86	14.3	16	0.0	0	8.9	10	112
Changing frequency, duration, and intensity of floods	50.0	57	36.8	42	8.8	10	1.8	2	2.6	3	114	77.7	87	15.2	17	0.0	0	7.1	8	112
Shifting and alteration of habitats due to climate change	36.8	42	45.6	52	16.7	19	0.0	0	0.9	1	114	72.3	81	17.0	19	0.0	0	10.7	12	112
Temperature extremes	31.3	35	42.9	48	24.1	27	0.9	1	0.9	1	112	73.6	81	19.1	21	0.0	0	7.3	8	110
Shifting seasons/phenology	34.5	39	41.6	47	16.8	19	2.7	3	4.4	5	113	69.4	77	18.9	21	0.0	0	11.7	13	111

Other responses listed:

Response text:	N
species range shifts vs mobility	1
Total responses:	1

Other Stressors

Corn Belt (Region 3)	To what extent is this issue a current threat to fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?										How will the significance of this threat change over the next 10 years?									
	Significant threat		Moderate Threat		Minor Threat		Not a threat		I don't know		Total Responses	Increase		Remain the same		Decrease		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	%	N	
Low genetic diversity (due to reduced population size, species inbreeding, etc.)	40.4	38	25.5	24	20.2	19	6.4	6	7.4	7	94	64.1	59	28.3	26	0.0	0	7.6	7	92
Diseases	33.8	25	52.7	39	8.1	6	1.4	1	4.1	3	74	77.3	58	17.3	13	0.0	0	5.3	4	75

Other responses listed:

Response text:	N
CWD	1
Fragmentation from small dams	1
High number of Bonus County Tags	1
species range shift and organism mobility limitations	1
Total responses:	4

16. Please use the box below to indicate other **emerging/anticipated** threats over the next 10 years to fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) that have not been previously identified. Please provide **specific examples** of the emerging/anticipated threats that you indicate.

Response text:	N
The growing disconnect between people and natural systems inhibits the ability of the public to make informed decisions related to natural resources. More conservation education is needed to increase the public's knowledge, experiences and skills to result in informed decisions, a commitment and constructive actions for	6

wildlife resources.	
don't know	2
Agronomic practices will increase in intensity because greater output per acre is necessary to provide adequate product for increasing population, and provide a profit to producers. If implemented using precision farming techniques reduced environmental impact may occur, but this must be promoted. It also means increased scale of operations, e.g. ever larger fields. This makes buffers and corridors increasingly important.	1
Blue green alga that produce toxins.	1
Continued destruction of forested landsand forest edges and wildlife corridors due to all types of development including conversion to crop lands.	1
Continued impacts from white nose syndrome. Additional light and radiation polution	1
Depletion of aquifers combined with increased withdrawal, affecting surface water flows. Please see WATER AND ECONOMIC DEVELOPMENT IN INDIANA: MODERNIZING THE STATE'S APPROACH TO A CRITICAL RESOURCE - Indiana Chamber, Aug. 2014	1
Development of wind energy	1
Expiration / downsize of farm bill programs	1
Forests are aging across the state and moving towards more shade tolerant and deer-browse tolerant species. Increased forest management on a landscape scale will be needed to maintain species and habitat diversity. Management of deer and invasive species will be needed to sustain forest health and regeneration as well.	1
fragmentation	1
Fragmentation ie smaller parcels of properties with a larger number of owners leads to fewer economies of scale = less likelihood of habitat management including invasive control and harvesting to create openings, edge, early successional. Fragmentation also reduces quality of habitat in general. Also expect a big shift in owners with the aging population - new and younger owners may be less likely to engage in management, usually due to lack of knowledge, also lack of time.	1
Fragmentation of woodlots from one another. Little or no conective habitat from one woodlot to another.	1
Habitats established next to agricultural areas are likely attractive sinks.	1
I am concerned about IDEM potentially imposing restrictions on use of prescribed fire due to ambient air quality issues related to transportation and industry.	1
I can not think of any that have not been previously identified. The threat of climate change .	1
I fear a cascade effect of small and increasingly isolated populations being impacted by longer and more severe droughts and failing to recover and recolonize due to loss of genetic robustness.	1
I feel we will have a serious issue with our native deer herd from exsposure to CWD introduction through Captive Cervid Farming. I also feel that the crop dusting is a very likely source of polutions to both humans and Our Wildlife!!	1
I think the reliance on coal for energy, nutrients for farming and the impacts of climate change (seeing this now) with no perceived plans to address these issues will take our natural resources to new stress levels. These nutrients not only include fertilizers but also CAFO/CFO dumping of waste. There does not seem to be much enforcement for the meager regulations for our natural resources. / / One other area that needs continued emphasis is the mute swan situation in the tippecanoe watershed. IDNR along with lots of help from the USDA have started to control this invasive situation.	1
Increased prevalence of complex irrigation and comprehensive field tiling need to be studied. Transfer of commercially applied fertilizers to aquifers via tile systems demands more study. / / Education relating to less intensive mowing of field waterways needs to happen.	1
Invasive species in large water bodies and fights over water usage.	1
It has come to my attention that region health departments have significant variations of evaluation and enforcement of state codes for pollution.	1
It would be really nice (forward-thinking) if the state could plan for the losses we can expect to our native black walnut trees due to the walnut bark beetle and Thousand Cancre disease. When that hits, walnut trees will die faster than the market can absorb them, and most will rot. Many Hoosier farmers have woodlots planted with walnut trees as a sort of retirement account. When EAB hit the market was flooded with ash trees, now they are not worth taking to the mill. In a few years they will be unavailable, and potentially much more valuable. / / What are the implications of this to wildlife that eat the walnuts and on up the food chain?	1
Loss of metapopulation corridors is a significant threat that will increase in the next 10 years.	1
Minimal native grassland left.	1
new GMO that uses 24D. Volitalization and spray drift onto other plants.	1
Poor ability of regulators to protect resources due to social and political issues. This has been increasing over time and appears to be continuing.	1

Primary threat is loss of natural and anthropomorphic grasslands to corn production, including loss of conservation setasides. Second issue is summer mowing of hayfields, etc., that impacts breeding of grassland birds including Bobolinks.	1
The biggest threat to our lake is algae bloom. It seems to get worse every year.	1
The clearing and modification of streambanks through excavation is another threat that will continue to emerge. This is done frequently on regulated drains and primarily for agricultural purposes. One specific example of this happened on a highly-visible stretch of the Little River that flows close to U.S. highway 24 between Huntington and Roanoke, Indiana. The excavation or dredging of streambeds eliminates / disturbs the natural riffle-run-pool habitats that occur and oftentimes creates unshaded braded streams. When the trees are cleared along the streambanks, the water warms and the macro communities change from a macro-invertebrate dominated community to algae-dominated communities. Fish populations decline, floods downstream of these dredging activities are more intense, leading to more pollution by flooding the City of Huntington and its suburban areas. Education of local county drainage boards and partnership programs may play a key role in reducing these situations.	1
The forested areas in the corn belt are shrinking with the same amount of people, or more, putting increased demands for recreation and home building sites. This along with the increasing effects of invasive species are putting on these areas is severely degrading the habitat. Finding ways to decrease these impacts in these areas will take a big educational effort.	1
The mounds reservoir project threatens the entire fish community upstream of Indianapolis on the White River. The Indiana DNR and private parties spent millions to restore the ecosystem after the 1999 Guide Corporation fish kill. Now special interests want to dam the river and undo all the great work we've done, by converting a riverine ecosystem into a lentic one, in the pursuit of poorly-devised economic development opportunities. F&W needs to be vocal in our opposition to this project making protecting the white river from further fragmentation part of the SWAP. / / Habitat Fragmentation vs spread of invasive asian carp. Asian carp are a huge threat to the riverine ecosystems of this region. One saving grace has been the large amounts of dams in the region, slowing the advance upstream of the asian carps. Attempts to increase habitat connectivity by removing dams should be balanced with the need to slow the advance of the asian carp. One approach would be to only remove dams in areas where asian carp are both upstream and downstream of the barrier. Hopefully the SWAP can help us with this. / / Pollution from CAFO/CFOs, particularly the increased in emphasis on hog production, has both acute and chronic effects on health of small streams. We have fewer fish kills in small streams now than 10 years ago. The reason why is uncertain, but one theory is that excessive pollution from agriculture has decreased the quality of small streams to the point where fish cannot live there anymore. When a manure spill or run-off event occurs, there are simply fewer fish to suffer the acute effects of manure's effect on BOD. Researching why we have fewer fish kills could be part of the SWAP. /	1
The threats to fish and wildlife habitats in the corn belt come from many and varied sources. These threats are a by product of the increase in the human population and the changing landscape.	1
Water availability throughout Area 3 as the population grows and communities and industry expand. Area 3 is in the mid to upper watershed of three big river systems. Expanded use and re-use of water in these systems to support these communities is will further degrad overall water qualtiy. These communities should develope strategies for water usage into their long term development plans.	1
We continue to lose forest cover (especially savanna woodlands) to conversion to farm production, mostly corn for ethanol. We still see people cutting down fence rows and tree lines along field edges, increasing isolation of remaining forest patches. Bush honeysuckle, garlic mustard and other invasives are uncontrolled on many privately owned forests and will continue to increase.	1
We could get CWD in this state and laws could change that would allow landoners to destroy more habitat and degrade water quality.	1
Total Responses:	42

Section IV: Conservation Actions for Fish and Wildlife Habitats

Directions:

When responding to the questions in this section, please think about conservation actions for fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3).

17. Please indicate (1) the importance of the following general categories of conservation actions for fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) over the next 10 years, and (2) considering your responsibility within your agency/organization, whether you have taken a general category of conservation actions for fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) since 2005 or have plans to do so.

<i>Corn Belt (Region 3)</i>	To what extent do you think this category of conservation action is important for fish and wildlife habitats within HABITAT in The Corn Belt (Region 3) over the next 10 years?										Have you taken (since 2005) or do you currently plan to take conservation actions in this category for fish and wildlife habitats within HABITAT in The Corn Belt (Region 3)?							
	Very Important		Moderately Important		Somewhat Important		Not Important		I don't know		Total Responses	Yes		No		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N		%	N	%	N	%	N	
Land/water protection	60.4	128	24.1	51	11.8	25	2.4	5	1.4	3	212	57.4	105	32.8	60	9.8	18	183
Land/water/species management	66.5	141	24.5	52	7.5	16	.0	0	1.4	3	212	72.5	129	18.0	32	9.6	17	178
Education and awareness	64.4	141	23.7	52	11.4	25	.0	0	0.5	1	219	84.4	152	10.0	18	5.6	10	180
Law and policy	48.8	104	27.7	59	17.8	38	1.9	4	3.8	8	213	40.0	72	41.1	74	18.9	34	180
Livelihood, economic, and other incentives	40.8	87	34.7	74	12.7	27	7.0	15	4.7	10	213	33.3	60	42.8	77	23.9	43	180
External capacity building	43.6	92	27.5	58	18.5	39	5.7	12	4.7	10	211	39.7	71	35.8	64	24.6	44	179

18. You indicated that in your opinion conservation actions relating to the following general categories would be very or moderately important for fish and wildlife habitats within **HABITAT** in The Corn Belt (Region 3) over the next 10 years. Please indicate the importance of the following specific conservation actions within these general categories for fish and wildlife habitats within HABITAT in The Corn Belt (Region 3). You may add additional conservation actions you think are important using the “Other, please specify” option. (Check one for each line item)

Land/Water Protection

	<i>Corn Belt (Region 3)</i>										Total Responses
	Very important		Moderately important		Somewhat important		Not important		I don't know		
	%	N	%	N	%	N	%	N	%	N	
Acquire currently unprotected aquatic systems (manage and/or educate for easement habitat values)	57.4	27	31.9	15	6.4	3	2.1	1	2.1	1	47
Acquire currently unprotected barren lands	50.0	3	33.3	2	16.7	1	0.0	0	0.0	0	6
Acquire currently unprotected forests	54.1	20	21.6	8	21.6	8	2.7	1	0.0	0	37
Acquire currently unprotected grasslands	77.8	14	16.7	3	5.6	1	0.0	0	0.0	0	18
Acquire currently unprotected wetlands	79.2	19	12.5	3	0.0	0	4.2	1	4.2	1	24
Acquire currently unprotected subterranean habitats	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Preserve currently existing corridors	73.9	130	17.6	31	8.0	14	0.0	0	.6	1	176
Acquire conservation easements to protect important wildlife habitats	59.9	106	26.0	46	10.2	18	4.0	7	0.0	0	177
Reduce conversion to cropland	68.9	122	18.6	33	8.5	15	4.0	7	0.0	0	177
Build/strengthen CRP partnerships	55.9	99	26.0	46	9.6	17	6.8	12	1.7	3	177

Other responses listed:

Response text:	N
Develop a backyard habitat effort and monitor its effectiveness	1
develop alternative crops and markets for local foods (e.g. persimmon)	1
identify and educate about specific high need areas	1
manage habitats	1
Set up program on inventory, cataloging, and / or modelling rare wetland habitats such as fens, bogs, and calcareous seeps	1
Total responses:	5

Land/Water/Species Management

	<i>Corn Belt (Region 3)</i>		Very important		Moderately important		Somewhat important		Not important		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N			
Control invasive species in agricultural lands	47.4	18	34.2	13	15.8	6	2.6	1	0.0	0			38
Control invasive species in aquatic systems (e.g., Asian carp, zebra mussels, invasive aquatic plants)	64.0	32	18.0	9	16.0	8	2.0	1	0.0	0			50
Control invasive species in barren lands	100.0	4	0.0	0	0.0	0	0.0	0	0.0	0			4
Control invasive species in developed lands	76.9	10	15.4	2	7.7	1	0.0	0	0.0	0			13
Control invasive species in forests	78.0	32	17.1	7	4.9	2	0.0	0	0.0	0			41
Control invasive species in grasslands	68.2	15	18.2	4	4.5	1	9.1	2	0.0	0			22
Control invasive species in wetlands	69.6	16	17.4	4	13.0	3	0.0	0	0.0	0			23
Control invasive species in subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A
Control problematic species (e.g., deer, raccoon, geese, domestic cat, feral hog) in agricultural lands	34.2	13	34.2	13	31.6	12	0.0	0	0.0	0			38
Control problematic native species in aquatic systems	32.0	16	26.0	13	38.0	19	4.0	2	0.0	0			50
Control problematic species (e.g., deer, raccoon, skunk, coyote, domestic cat, feral hog) in barren lands	50.0	2	25.0	1	25.0	1	0.0	0	0.0	0			4
Control problematic species (e.g., deer, raccoon, geese, domestic cat, feral hog, exotic/aggressive vegetation) in developed lands	46.2	6	38.5	5	15.4	2	0.0	0	0.0	0			13
Control problematic species (e.g., deer, raccoon, domestic cat, feral hog) in forests	39.0	16	36.6	15	22.0	9	2.4	1	0.0	0			41
Control problematic species (e.g., raccoon, skunk, coyote, domestic cat) in grasslands	27.3	6	27.3	6	36.4	8	9.1	2	0.0	0			22
Control problematic species (e.g., deer, raccoon, domestic cat, feral hog, exotic/aggressive vegetation) in wetlands	31.8	7	27.3	6	31.8	7	9.1	2	0.0	0			22
Control problematic native species in subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A
Dam removal	20.5	15	24.7	18	26.0	19	20.5	15	8.2	6			73
Decrease E. coli counts	36.6	26	23.9	17	28.2	20	7.0	5	4.2	3			71
Decrease number of combined sewer overflow events	54.8	40	34.2	25	8.2	6	1.4	1	1.4	1			73
Develop and promote farming technologies and practices that have conservation benefits (e.g., cover crops, no till)	64.9	124	23.6	45	7.3	14	4.2	8	0.0	0			191
Ex situ conservation (protection of a species outside of its natural habitat). Please specify:	10.8	20	10.8	20	21.0	39	23.7	44	33.9	63			186

Improve drainage management	47.6	89	31.0	58	14.4	27	4.3	8	2.7	5	187
Improve integrated pest management	42.1	16	36.8	14	15.8	6	0.0	0	5.3	2	38
Increase acres of riparian buffers	59.4	111	31.6	59	7.5	14	0.5	1	1.1	2	187
Increase acres enrolled in the Classified Forest and Wildlands Program	41.8	79	33.3	63	17.5	33	4.8	9	2.6	5	189
Link existing habitat blocks through corridor enhancement in agricultural lands	68.4	26	23.7	9	2.6	1	2.6	1	2.6	1	38
Link existing habitat blocks through corridor enhancement in aquatic systems	54.0	27	32.0	16	4.0	2	0.0	0	10.0	5	50
Link existing habitat blocks through corridor enhancement in barren lands	75.0	3	0.0	0	0.0	0	0.0	0	25.0	1	4
Link existing habitat blocks through corridor enhancement in developed lands	53.8	7	30.8	4	15.4	2	0.0	0	0.0	0	13
Link existing habitat blocks through corridor enhancement in forests	39.0	16	46.3	19	14.6	6	0.0	0	0.0	0	41
Link existing habitat blocks through corridor enhancement in grasslands	63.6	14	27.3	6	4.5	1	4.5	1	0.0	0	22
Link existing habitat blocks through corridor enhancement in wetlands	63.6	14	22.7	5	13.6	3	0.0	0	0.0	0	22
Enhance corridors in subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manage biofuel grasslands	16.7	10	23.3	14	38.3	23	13.3	8	8.3	5	60
Manage urban woodlots	61.5	8	30.8	4	7.7	1	0.0	0	0.0	0	13
Mine reclamation	16.9	25	21.6	32	15.5	23	33.1	49	12.8	19	148
Promote diversity of forest types and successional stages	57.5	23	20.0	8	17.5	7	5.0	2	0.0	0	40
Promote diversity of grassland types and successional stages	61.9	13	28.6	6	4.8	1	4.8	1	0.0	0	21
Promote diversity of wetland types and successional stages	60.9	14	13.0	3	17.4	4	0.0	0	8.7	2	23
Protect and enhance undeveloped shorelines	52.2	36	30.4	21	13.0	9	1.4	1	2.9	2	69
Protect natural water regimes (e.g., withdraws, warm-water discharge)	56.2	41	32.9	24	6.8	5	2.7	2	1.4	1	73
Protect adjacent buffer zones	57.9	44	34.2	26	6.6	5	1.3	1	0.0	0	76
Reduce losses of fish and wildlife habitats (due to agriculture, urban sprawl, commercial development, etc.)	77.4	147	16.3	31	5.8	11	0.0	0	0.5	1	190
Reduce nutrient and toxin loads (e.g., heavy metals, pharmaceuticals, fertilizers, insecticides)	61.3	117	25.1	48	12.6	24	1.0	2	0.0	0	191
Reduce recreational overuse of aquatic systems	20.0	10	32.0	16	22.0	11	24.0	12	2.0	1	50
Reduce recreational overuse of forests	20.0	8	27.5	11	32.5	13	20.0	8	0.0	0	40
Reduce recreational overuse of grasslands	22.7	5	36.4	8	22.7	5	13.6	3	4.5	1	22
Reduce recreational overuse of wetlands	34.8	8	30.4	7	17.4	4	17.4	4	0.0	0	23
Reduce recreational overuse of subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reduce stream bank erosion	59.2	29	32.7	16	6.1	3	2.0	1	0.0	0	49
Reduce stream head cutting	39.1	9	30.4	7	8.7	2	4.3	1	17.4	4	23
Reestablish natural disturbance regimes in barren lands	100.0	4	0.0	0	0.0	0	0.0	0	0.0	0	4
Reestablish natural disturbance regimes in forests	36.6	15	36.6	15	17.1	7	4.9	2	4.9	2	41
Reestablish natural disturbance regimes in grasslands	68.2	15	31.8	7	0.0	0	0.0	0	0.0	0	22
Reestablish natural disturbance regimes in wetlands	47.8	11	34.8	8	8.7	2	0.0	0	8.7	2	23
Reestablish natural disturbance regimes in subterranean systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Remove log jams	10.0	5	14.0	7	38.0	19	32.0	16	6.0	3	50
Restore and integrate diversity of habitats into crop-production dominated landscapes	76.3	29	18.4	7	2.6	1	0.0	0	2.6	1	38

Restore and integrate diversity of habitats into developed landscapes	84.6	11	7.7	1	7.7	1	0.0	0	0.0	0	13
Restore habitats and natural systems in aquatic systems	58.0	29	32.0	16	10.0	5	0.0	0	0.0	0	50
Restore habitats and natural systems in barren lands	75.0	3	25.0	1	0.0	0	0.0	0	0.0	0	4
Restore habitats and natural systems in forests	41.5	17	36.6	15	19.5	8	2.4	1	0.0	0	41
Restore habitats and natural systems in grasslands	81.8	18	13.6	3	4.5	1	0.0	0	0.0	0	22
Restore habitats and natural systems in wetlands	68.2	15	22.7	5	4.5	1	0.0	0	4.5	1	22
Restore habitats and natural systems in subterranean systems	N/A	N/A	N/A								
Species reintroduction. Please specify:	26.6	17	9.4	6	15.6	10	15.6	10	32.8	21	64

Ex situ conservation

Response text	N
captive breeding	1
Depends on the species and it depends on if the species has moved to a habitat that has turned unnatural for the species and has followed the climate to a new habitat that is now natural	1
mussels	1
Once climate change takes a strong hold, we have to ask is this species NOW in its natural habitat or has it moved to its natural habitat due to climate change	1
Protecting endangered mussel species	1
yellowwoods	1
zoos	1
Total responses:	7

Species reintroduction listed by respondents:

Response text:	N
enhance T/E spp	2
quail	1
mussels	1
aquatic	1
bats	1
Bobwhite Quail	1
Chestnut, potentially ashes at some point in future	1
Cisco	1
Enhance T/E spp	1
Mussels	1
Need species the help wildlife, shelter belts	1
nut varieties	1
Our licences entitle us to good fishing in our state and if it is not up to par, it is the responsibility of the DNR to improve it.	1
Restore species to historic range where appropriate	1
restoring species across historic range	1
species that once occurred in an area when there is sufficient land or control of what may have caused its loss	1
support non game species	1
Total Responses:	18

Other responses listed:

Response text:	N
Ensure that grassland managers are given and allowed the use of all the proper tools to manage grasslands	1
more openings for wildlife	1
Total Responses:	2

Education and Awareness

	<i>Corn Belt (Region 3)</i>		Very important		Moderately important		Somewhat important		Not important		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N			
Educational programs in general	62.8	118	28.7	54	8.5	16	0.0	0	.0	0		188	
Educational programs specifically for K-12	58.5	110	26.1	49	14.4	27	1.1	2	0.0	0		188	
Improvement of signage and other communication materials in conservation areas	25.9	49	37.6	71	31.7	60	4.8	9	0.0	0		189	
Training programs for stakeholders	47.6	89	35.8	67	13.9	26	2.7	5	0.0	0		187	

Other responses listed:

Response text:	N
>12, i.e. college	1
education at college level	1
Get public to support habitat conservation and mgmt	1
get public to support resource conservation and mgmt	1
get public to value conservation	1
get public to value resources	1
getting people out on the land	1
Hoosier Riverwatch	1
Spanish Language Signage	1
There can never be enough education for the "general population"	1
training of volunteer firefighters on grassland management	1
Total responses:	11

Law and Policy

	<i>Corn Belt (Region 3)</i>		Very important		Moderately important		Somewhat important		Not important		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N			
Increase regulations on invasive species	48.4	78	30.4	49	17.4	28	3.7	6	0.0	0		161	
Change current laws, policies, and regulations. Please specify:	34.5	50	20.0	29	13.8	20	4.1	6	27.6	40		145	
Set private sector standards and codes	27.5	44	30.6	49	19.4	31	6.3	10	16.3	26		160	
Improve compliance with and enforcement of current policies	50.3	81	33.5	54	13.0	21	0.0	0	3.1	5		161	

Reduce urban sprawl through planning and zoning	46.3	74	36.9	59	11.3	18	4.4	7	1.3	2	160
Establish legal lake levels	17.8	8	20.0	9	31.1	14	8.9	4	22.2	10	45
Establish rules and guidelines for piers and other structures	13.3	6	24.4	11	28.9	13	11.1	5	22.2	10	45
Increase compliance of existing rules and regulations for aquatic systems	42.2	19	24.4	11	22.2	10	2.2	1	8.9	4	45
Establish submergent vegetation control guidelines	28.9	13	31.1	14	20.0	9	2.2	1	17.8	8	45

Change current laws, policites, and regulations responses:

Response text	N
drainage code	2
Ban Captive deer and exotic species	1
Ban importstion of captive deer	1
Ban known invasive exotic species.	1
beef up MS4	1
clear up language that may be unclear and close loopholes which may permit undesirable activities	1
commercial sale of invasives	1
economic incentives strengthened or maintained for woodland management ie tax incentives and cost share for invasive controls	1
encourage native grasses	1
Enforcement of existing laws	1
Esp.re overabundant species	1
Expand the earn-a-buck mandate beyond the urban deer control areas	1
Greater regulation of bat kills at wind turbines at the state level	1
Implement new EPA CWA rules on tributaries/headwaters	1
Improve planning and zoning to incorporate natural resource considerations.	1
Increase CAFO setbacks	1
Increase fines for draining/developing wetlands.	1
Increase oversight and regulation of confined feeding operations	1
Indiana Drainage Code	1
invasive plant control	1
Known invasive plant species are still being sold by nurseries	1
Known invasives should not be sold as they currently are.	1
Laws are no good when they are not followed, bought out, or interpreted for money as opposed to natural systems. Regulations currently appear to be misunderstood and mismanaged by those who enforce them. We do not need MORE of that.	1
less logging public lands	1
LOWER Bonus County permits for deer	1
make makers pay for externalities	1
Manure regulations (IDEM & State Chemist)	1
minimal CAFO regs. Need to make stronger	1
Modify multiple uses of forests for recreation	1
more extensive earn-a-buck mandate	1
more targeted	1
Need qualification for county surveyers that approve and deny work in watershed	1

oppose penned hunting	1
ORV's on public & private lands	1
outlaw canned hunts	1
Prohibit commercial sales of bush honeysuckle, callery pear, Japanese honeysuckle, winter creeper.	1
rule prohibiting number of boats on a lake when drought conditions exist	1
Stop sales of invasive species	1
stop selling invasives at garden stores	1
stop wetland loss	1
strengthen nutrient controls	1
Work to promote more long-term conversion to grasslands from row crops	1
Total responses	43

Other responses listed:

Response text	N
increase prairie filter strips in ag fields for water quality AND invertebrate diversity	1
Instead of more laws, better outreach and education could motivate citizens to do the right things.	1
reform "Indiana Drainage Code"	1
rewrite "Indiana Drainage Handbook"	1
tax mowed lawn, subsidize native grassland restoration	1
Total responses:	5

Livelihood, Economic, and Other Incentives

	<i>Corn Belt (Region 3)</i>		Very important		Moderately important		Somewhat important		Not important		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N			
Link natural resources to livelihoods through nature tourism	20.8	33	44.0	70	28.3	45	5.0	8	1.9	3	159		
Support substitution of alternatives for environmentally harmful products and processes	32.1	51	38.4	61	25.2	40	0.6	1	3.8	6	159		
Promote market forces (e.g., creation of a nitrogen trading market, promotion of alternative agricultural markets) as a tool for conservation	22.6	36	35.2	56	25.8	41	4.4	7	11.9	19	159		
Promote conservation payment programs (e.g., payment for ecosystem services, conservation easements)	40.3	64	39.6	63	13.8	22	5.0	8	1.3	2	159		
Promote nonmonetary values of natural systems within the state	49.7	78	29.3	46	16.6	26	1.9	3	2.5	4	157		
Manage recreational opportunities to be compatible with fish and wildlife habitats	50.3	80	28.3	45	18.9	30	1.9	3	0.6	1	159		

Other responses listed:

Response text	N
Fine/ticket lawn owners for poor land and livestock practices	1
Increase recycling	1
reduce LITTER, especially plastics/styrofoam	1
tax jet skis and ski boats on most natural lakes	1
Total responses:	4

External Capacity Building

	<i>Corn Belt (Region 3)</i>		Very important		Moderately important		Somewhat important		Not important		I don't know		Total Responses
	%	N	%	N	%	N	%	N	%	N			
Develop institutions and civil society	26.4	39	26.4	39	25.0	37	3.4	5	18.9	28		148	
Develop alliances and partnerships (e.g., between producers, landowners, and conservation professionals)	64.4	96	28.2	42	6.7	10	0.0	0	0.7	1		149	
Strengthen conservation financing	66.9	99	23.6	35	8.1	12	0.0	0	1.4	2		148	
Increase state's capacity for research and monitoring of conservation actions	52.1	76	35.6	52	11.6	17	0.7	1	0.0	0		146	
Promote green infrastructure	41.6	62	34.9	52	19.5	29	2.7	4	1.3	2		149	
Promote use of research and science in conservation decision-making processes	67.8	101	23.5	35	8.7	13	0.0	0	0.0	0		149	

Other responses listed:

Response text	N
develop markets for producing crops compatible with sustainable grassland management (e.g. prairie hay or Bison ranching)	1
Formulate Umbrella plan / stepped-down strategic plans for DNR properties	1
foster local food economies	1
Reform/eliminate unscientific/destructive local bodies - Surveyors/Drainage boards/Conservation districts/Flood districts/etc	1
Set up umbrella plan with stepped-down strategic plans at each DNR property to manage for a variety of habitats according to science, and large-scale plans pertinent to Indiana	1
Umbrella plan / stepped down management plans for DNR properties	1
Watershed-based planning/regulation	1
Total responses:	7