Implementing CHJV Forest and Woodland Habitat Objectives:
Recommendations for Kentucky and Ohio

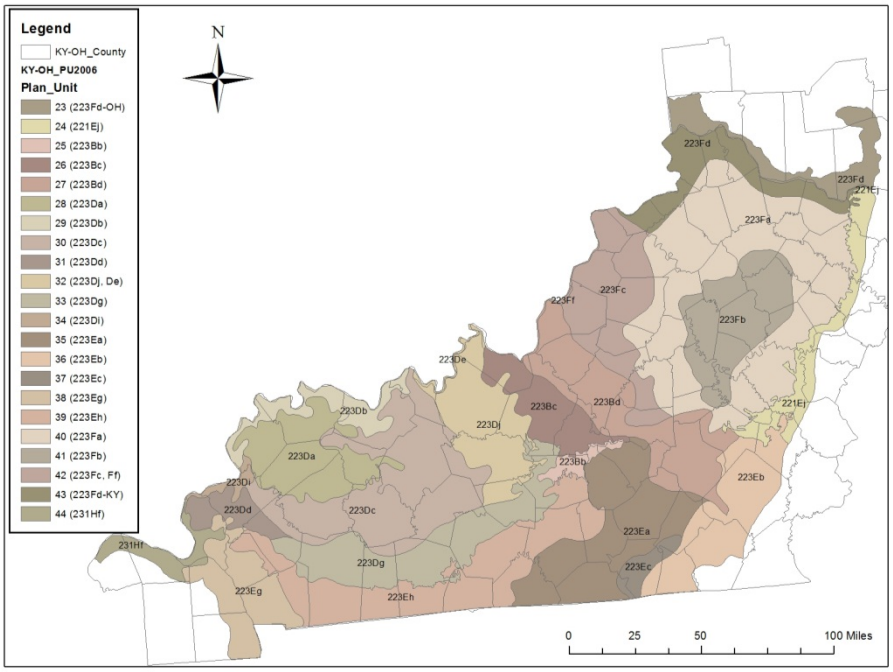
Overview

The Central Hardwoods Joint Venture (CHJV) is a partnership of state and federal government agencies and non-governmental organizations who work together to ensure the long-term viability of native bird populations within the Central Hardwoods Bird Conservation Region (CHBCR). The CHJV pursues this mission by striving towards 2 primary goals: (1) implement conservation actions based on sound science and principals of adaptive management, and (2) target landscapes with the greatest ecological and socioeconomic potential to support viable populations of priority birds. In pursuit of these goals the CHJV Staff and cooperators have developed a suite of decision support tools (DSTs) aimed at assessing habitat conditions, linking bird populations to habitat condition, forecasting potential future habitat conditions, and simulating population impacts of conservation scenarios.

CHJV partners have produced population objectives for priority forest and woodland associated bird species. CHJV staff have used the DSTs to estimate the amount of habitat restoration needed to support those populations and allocated the habitat objectives to State sub-regions and the conservation actors (i.e. agencies) within them. Uncertainty in the allocation process requires an iterative and adaptive approach to translating CHBCR objectives into an implementation plan (i.e. on-the-ground projects). This document builds off the Implementation Framework document by summarizing DST and other information to help partners within the Kentucky and Ohio sub-region develop the strategic (where to work) and tactical (what work to do) components of their implementation plan.

Planning Units

The CHJV uses Bailey's ecological subsections as planning units. Kentucky is divided into 21 planning units and Ohio has 1 (map at right). Table 1 ranks each unit relative to others within Kentucky and Ohio on attributes relevant to conservation planning, and each attribute is mapped in Figures 1-10. Table 2 lists the calculated habitat objectives by natural community type, along with information on forested area, proportion of public ownership and an estimate of area in condition for each community.



From a CHBCR perspective, Kentucky has some relatively important areas for the woodland and riparian bird groups. Planning Units 27 and 38 were identified as a source landscapes for Wood Thrush, Worm-eating Warblers, and Prairie Warblers by the CHJV population viability model. These units currently have moderate-to-high levels of many attributes, but urbanization is likely to be an increasing threat to these planning units.

Table 1. The 22 planning units (i.e. landscapes) within the Kentucky and Ohio sub-region and their relative rank based on attributes relevant to conservation planning. Units are ranked from “1” (best) to “22” (worst) relative to conservation perspective. A composite rank will not be calculated until partners determine which attributes are most important.

Plan Unit	Subsection	Short Name	ST	Public [a]	Natural-ness [a]	In Condition [a]	Forest Proportion [a]	GPI [a]	Forest Loss ('01-'06) [a]	Urban 2030 [a]	Ensemble Model Scores [a]		
											Woodland	Forest	Riparian
23	223Fd	Northern Bluegrass	OH	11	6	22	9	9	15	10	16	15	14
24	221Ej	E. Knobs Transition	KY	14	1	10	8	8	20	21	18	13	18
25	223Bb	Brush Creek Hills	KY	21	2	8	2	2	1	22	4	1	1
26	223Bc	Mitchell Karst Plains	KY	12	14	17	16	16	14	16	15	16	16
27	223Bd	W. Knobs	KY	2	5	6	4	4	13	8	11	5	4
28	223Da	Interior W. Coalfields	KY	15	22	15	19	19	10	6	21	19	19
29	223Db	Wabash Alluvial	KY	13	21	19	21	21	18	1	22	21	21
30	223Dc	Outer W. Coalfields	KY	3	13	1	5	5	11	7	7	3	3
31	223Dd	Marion Hills	KY	20	17	3	10	10	7	2	8	12	5
32	223Dj & De	N. Dripping Springs	KY	8	8	12	6	6	3	18	5	9	10
33	223Dg	S. Dripping Springs	KY	5	12	11	7	7	4	9	9	8	7
34	223Di	Lsr. Shawnee Hills	KY	22	16	13	14	14	5	5	6	10	13
35	223Ea	E. Highland Rim	KY	7	9	5	13	13	9	20	3	11	8
36	223Eb	E. Karst Plain	KY	4	4	7	12	11	22	11	12	7	6
37	223Ec	Outer Nashville Basin	KY	18	3	14	1	1	2	13	1	2	2
38	223Eg	W. Pennyroyal Karst Plain	KY	1	11	20	3	3	6	3	14	4	9
39	223Eh	Pennyroyal Karst Plain	KY	10	19	18	20	20	12	12	19	22	22
40	223Fa	Outer Bluegrass	KY	6	10	4	15	15	8	19	2	14	12
41	223Fb	Inner Bluegrass	KY	17	20	16	22	22	17	15	20	20	20
42	223Fc & Ff	W. Bluegrass	KY	16	15	9	17	17	21	17	13	17	15
43	223Fd	N. Bluegrass	KY	19	7	2	11	12	16	14	10	6	11
44	231Hf	OH and Cache Alluvial	KY	9	18	21	18	18	19	4	17	18	17

[a] Attributes are defined as the quantity of protected lands (Public), overall landscape conditions (Naturalness), extant forest community conditions (In Condition), quantity of forested (i.e. restorable) lands (Forest Proportion), forest fragmentation / avian productivity (GPI), forest loss from 2001-2006 (Loss), urbanization threat (Urban 2030), and current capacity-productivity weighted ensemble model scores for suites of birds. Full definitions are available in the companion Framework document.

Table 2. CHJV Habitat Objectives (targets) by planning unit and natural community type for public lands and for the entire units, along with information on forested area, proportion of public ownership and an estimate of area in condition for each community.

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
23	Forested/Restorable	-	-	-	-	-	-	212,018	25,735	237,753
	Protected	-	-	-	-	-	-	15,371	4,387	19,758
	Plan Unit Target (10 sp)	-	-	-	-	-	-	27,264	4,517	31,781
	Plan Unit Target (21 sp)	-	-	-	-	-	-	35,573	13,076	48,649
	Public Target (10 sp)	-	-	-	-	-	-	15,371	4,387	19,758
	Public Target (21 sp)	-	-	-	-	-	-	15,371	4,387	19,758
	In Character/Restored	-	-	-	-	-	-	-	-	-
	Public In Character	-	-	-	-	-	-	-	-	-
24	Forested/Restorable	-	-	-	40,209	-	-	187,520	25,979	253,708
	Protected	-	-	-	2,229	-	-	3,591	375	6,195
	Plan Unit Target (10 sp)	-	-	-	2,096	-	-	22,010	4,786	28,892
	Plan Unit Target (21 sp)	-	-	-	4,802	-	-	28,718	13,855	47,375
	Public Target (10 sp)	-	-	-	2,096	-	-	3,591	375	6,062
	Public Target (21 sp)	-	-	-	2,229	-	-	3,591	375	6,195
	In Character/Restored	-	-	-	2,109	-	-	62,902	-	65,011
	Public In Character	-	-	-	305	-	-	743	-	1,048
25	Forested/Restorable	472	-	-	23,375	-	-	43,897	7,843	75,587
	Protected	99	-	-	-	-	-	15	122	236
	Plan Unit Target (10 sp)	162	-	-	1,188	-	-	3,501	792	5,644
	Plan Unit Target (21 sp)	363	-	-	2,723	-	-	4,568	2,293	9,947
	Public Target (10 sp)	99	-	-	-	-	-	15	122	236
	Public Target (21 sp)	99	-	-	-	-	-	15	122	236
	In Character/Restored	46	-	-	-	-	-	16,301	-	16,347
	Public In Character	-	-	-	-	-	-	2	-	2

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
26	Forested/Restorable	77,659	-	-	20,550	-	-	57,144	28,056	183,408
	Protected	13,389	-	-	464	-	-	3,439	2,451	19,742
	Plan Unit Target (10 sp)	19,394	-	-	1,104	-	-	5,208	4,812	30,518
	Plan Unit Target (21 sp)	43,308	-	-	2,530	-	-	6,795	13,930	66,563
	Public Target (10 sp)	13,389	-	-	464	-	-	3,439	2,451	19,742
	Public Target (21 sp)	13,389	-	-	464	-	-	3,439	2,451	19,742
	In Character/Restored	2,344	-	-	8	-	-	15,046	1	17,399
	Public In Character	289	-	-	-	-	-	280	-	569
27	Forested/Restorable	9,364	-	-	79,602	-	0	457,611	127,704	674,281
	Protected	16,658	-	-	19,283	-	-	43,705	37,650	117,296
	Plan Unit Target (10 sp)	1,040	-	-	3,660	-	0	45,261	18,392	68,353
	Plan Unit Target (21 sp)	2,323	-	-	8,387	-	0	59,054	53,243	123,008
	Public Target (10 sp)	1,040	-	-	3,660	-	-	43,705	18,392	66,798
	Public Target (21 sp)	2,323	-	-	8,387	-	-	43,705	37,650	92,065
	In Character/Restored	294	-	-	31	-	-	182,825	51	183,201
	Public In Character	294	-	-	-	-	-	11,413	22	11,729
28	Forested/Restorable	-	-	68	838	-	-	137,842	80,779	219,527
	Protected	-	-	-	-	-	-	4,580	1,299	5,879
	Plan Unit Target (10 sp)	-	-	19	52	-	-	27,090	23,050	50,210
	Plan Unit Target (21 sp)	-	-	42	118	-	-	35,346	66,728	102,235
	Public Target (10 sp)	-	-	-	-	-	-	4,580	1,299	5,879
	Public Target (21 sp)	-	-	-	-	-	-	4,580	1,299	5,879
	In Character/Restored	-	-	-	1	-	-	87,707	55	87,763
	Public In Character	-	-	-	-	-	-	2,481	-	2,481

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
29	Forested/Restorable	-	-	626	892	-	-	17,745	47,323	66,586
	Protected	-	-	-	36	-	-	634	11,250	11,921
	Plan Unit Target (10 sp)	-	-	101	97	-	-	2,916	18,492	21,606
	Plan Unit Target (21 sp)	-	-	225	223	-	-	3,805	53,532	57,785
	Public Target (10 sp)	-	-	-	36	-	-	634	11,250	11,921
	Public Target (21 sp)	-	-	-	36	-	-	634	11,250	11,921
	In Character/Restored	-	-	-	44	-	-	10,434	21	10,500
	Public In Character	-	-	-	-	-	-	294	-	294
30	Forested/Restorable	-	-	382	110,143	-	-	628,775	210,353	949,653
	Protected	-	-	-	2,912	-	-	58,442	23,638	84,992
	Plan Unit Target (10 sp)	-	-	65	6,073	-	-	62,180	30,221	98,539
	Plan Unit Target (21 sp)	-	-	144	13,916	-	-	81,130	87,487	182,678
	Public Target (10 sp)	-	-	-	2,912	-	-	58,442	23,638	84,992
	Public Target (21 sp)	-	-	-	2,912	-	-	58,442	23,638	84,992
	In Character/Restored	-	-	-	540	-	-	354,509	161	355,210
	Public In Character	-	-	-	1	-	-	23,273	20	23,294
31	Forested/Restorable	16,691	-	8,945	4,192	-	-	73,210	20,839	123,878
	Protected	9	-	64	-	-	-	200	70	344
	Plan Unit Target (10 sp)	2,302	-	1,317	219	-	-	8,722	2,448	15,008
	Plan Unit Target (21 sp)	5,140	-	2,936	501	-	-	11,380	7,086	27,044
	Public Target (10 sp)	9	-	64	-	-	-	200	70	344
	Public Target (21 sp)	9	-	64	-	-	-	200	70	344
	In Character/Restored	829	-	-	48	-	-	40,587	6	41,469
	Public In Character	-	-	-	-	-	-	77	-	77

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
32	Forested/Restorable	5,011	-	18	127,290	-	-	272,835	71,899	477,054
	Protected	4	-	-	5,253	-	-	9,661	12,256	27,174
	Plan Unit Target (10 sp)	1,311	-	2	8,972	-	-	25,714	10,266	46,266
	Plan Unit Target (21 sp)	2,928	-	5	20,559	-	-	33,550	29,720	86,762
	Public Target (10 sp)	4	-	-	5,253	-	-	9,661	10,266	25,184
	Public Target (21 sp)	4	-	-	5,253	-	-	9,661	12,256	27,174
	In Character/Restored	472	-	-	215	-	-	107,059	4	107,751
	Public In Character	-	-	-	4	-	-	2,684	-	2,688
33	Forested/Restorable	16,215	-	122	152,245	-	-	314,199	74,909	557,690
	Protected	84	-	-	19,133	-	-	32,732	5,308	57,257
	Plan Unit Target (10 sp)	4,972	-	14	9,233	-	-	30,199	13,873	58,290
	Plan Unit Target (21 sp)	11,103	-	31	21,156	-	-	39,402	40,161	111,853
	Public Target (10 sp)	84	-	-	9,233	-	-	30,199	5,308	44,823
	Public Target (21 sp)	84	-	-	19,133	-	-	32,732	5,308	57,257
	In Character/Restored	610	-	-	212	-	-	135,158	0	135,980
	Public In Character	2	-	-	1	-	-	8,887	-	8,890
34	Forested/Restorable	2,306	-	627	3,280	-	-	16,142	9,560	31,915
	Protected	3	-	-	66	-	-	75	59	204
	Plan Unit Target (10 sp)	274	-	73	180	-	-	1,580	1,983	4,091
	Plan Unit Target (21 sp)	613	-	164	412	-	-	2,061	5,741	8,991
	Public Target (10 sp)	3	-	-	66	-	-	75	59	204
	Public Target (21 sp)	3	-	-	66	-	-	75	59	204
	In Character/Restored	97	-	-	6	-	-	8,041	11	8,155
	Public In Character	-	-	-	-	-	-	28	-	28

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
35	Forested/Restorable	996	-	14,817	91,554	-	-	425,306	85,274	617,947
	Protected	27	-	243	1,490	-	-	15,159	15,600	32,518
	Plan Unit Target (10 sp)	204	-	1,273	6,559	-	-	55,463	10,217	73,716
	Plan Unit Target (21 sp)	455	-	2,838	15,030	-	-	72,365	29,578	120,266
	Public Target (10 sp)	27	-	243	1,490	-	-	15,159	10,217	27,135
	Public Target (21 sp)	27	-	243	1,490	-	-	15,159	15,600	32,518
	In Character/Restored	70	-	-	11,816	-	-	190,646	-	202,532
	Public In Character	-	-	-	278	-	-	7,258	-	7,536
36	Forested/Restorable	-	-	1,393	81,131	-	-	297,328	40,370	420,222
	Protected	-	-	42	970	-	-	46,936	9,359	57,307
	Plan Unit Target (10 sp)	-	-	110	3,988	-	-	37,950	8,263	50,311
	Plan Unit Target (21 sp)	-	-	245	9,137	-	-	49,516	23,921	82,820
	Public Target (10 sp)	-	-	42	970	-	-	37,950	8,263	47,225
	Public Target (21 sp)	-	-	42	970	-	-	46,936	9,359	57,307
	In Character/Restored	-	-	-	12,442	-	-	122,985	-	135,427
	Public In Character	-	-	-	131	-	-	19,733	-	19,864
37	Forested/Restorable	-	-	8,961	30,223	-	-	52,464	13,175	104,822
	Protected	-	-	155	317	-	-	2,377	337	3,188
	Plan Unit Target (10 sp)	-	-	686	1,292	-	-	4,082	2,028	8,088
	Plan Unit Target (21 sp)	-	-	1,529	2,960	-	-	5,326	5,871	15,686
	Public Target (10 sp)	-	-	155	317	-	-	2,377	337	3,188
	Public Target (21 sp)	-	-	155	317	-	-	2,377	337	3,188
	In Character/Restored	-	-	-	6,262	-	-	9,675	-	15,937
	Public In Character	-	-	-	75	-	-	899	-	974

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
38	Forested/Restorable	89,003	-	11,832	107,239	-	-	96,066	82,228	386,368
	Protected	23,580	-	2,634	49,445	-	-	29,735	32,333	137,727
	Plan Unit Target (10 sp)	8,311	-	1,232	4,989	-	-	8,414	13,985	36,931
	Plan Unit Target (21 sp)	18,559	-	2,745	11,431	-	-	10,979	40,487	84,201
	Public Target (10 sp)	8,311	-	1,232	4,989	-	-	8,414	13,985	36,931
	Public Target (21 sp)	18,559	-	2,634	11,431	-	-	10,979	32,333	75,936
	In Character/Restored	4,191	-	-	3,561	-	-	11,084	14	18,850
	Public In Character	406	-	-	1,482	-	-	1,428	2	3,318
39	Forested/Restorable	103,837	-	9,929	40,475	-	-	102,786	62,474	319,501
	Protected	13,939	-	598	1,855	-	-	787	3,472	20,651
	Plan Unit Target (10 sp)	51,067	-	1,752	3,635	-	-	17,772	11,854	86,080
	Plan Unit Target (21 sp)	114,037	-	3,905	8,328	-	-	23,188	34,318	183,776
	Public Target (10 sp)	13,939	-	598	1,855	-	-	787	3,472	20,651
	Public Target (21 sp)	13,939	-	598	1,855	-	-	787	3,472	20,651
	In Character/Restored	3,106	-	-	2,316	-	-	43,066	2	48,491
	Public In Character	720	-	-	231	-	-	244	-	1,194
40	Forested/Restorable	-	-	-	956	-	-	1,047,585	178,911	1,227,451
	Protected	-	-	-	-	-	-	34,018	6,235	40,253
	Plan Unit Target (10 sp)	-	-	-	272	-	-	144,379	21,561	166,212
	Plan Unit Target (21 sp)	-	-	-	623	-	-	188,380	62,418	251,420
	Public Target (10 sp)	-	-	-	-	-	-	34,018	6,235	40,253
	Public Target (21 sp)	-	-	-	-	-	-	34,018	6,235	40,253
	In Character/Restored	-	-	-	254	-	-	432,934	1	433,188
	Public In Character	-	-	-	-	-	-	10,651	-	10,651

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
41	Forested/Restorable	-	-	-	6,836	-	-	96,626	30,332	133,793
	Protected	-	-	-	592	-	-	1,907	837	3,336
	Plan Unit Target (10 sp)	-	-	-	6,824	-	-	37,861	8,343	53,028
	Plan Unit Target (21 sp)	-	-	-	15,636	-	-	49,399	24,154	89,189
	Public Target (10 sp)	-	-	-	592	-	-	1,907	837	3,336
	Public Target (21 sp)	-	-	-	592	-	-	1,907	837	3,336
	In Character/Restored	-	-	-	6,555	-	-	58,065	-	64,619
	Public In Character	-	-	-	7	-	-	767	-	775
42	Forested/Restorable	-	-	-	729	-	-	277,380	66,743	344,852
	Protected	-	-	-	-	-	-	2,905	1,027	3,932
	Plan Unit Target (10 sp)	-	-	-	62	-	-	51,292	10,763	62,118
	Plan Unit Target (21 sp)	-	-	-	143	-	-	66,924	31,159	98,225
	Public Target (10 sp)	-	-	-	-	-	-	2,905	1,027	3,932
	Public Target (21 sp)	-	-	-	-	-	-	2,905	1,027	3,932
	In Character/Restored	-	-	-	-	-	-	150,002	0	150,002
	Public In Character	-	-	-	-	-	-	994	-	994
43	Forested/Restorable	-	-	-	3	-	-	233,809	43,494	277,305
	Protected	-	-	-	-	-	-	1,643	513	2,157
	Plan Unit Target (10 sp)	-	-	-	0	-	-	27,567	6,907	34,474
	Plan Unit Target (21 sp)	-	-	-	0	-	-	35,968	19,995	55,963
	Public Target (10 sp)	-	-	-	-	-	-	1,643	513	2,157
	Public Target (21 sp)	-	-	-	-	-	-	1,643	513	2,157
	In Character/Restored	-	-	-	-	-	-	104,911	-	104,911
	Public In Character	-	-	-	-	-	-	643	-	643

Plan Unit	Acreage Estimate Class	Savanna / Barrens	Glade / Savanna Mosaic (< 20% canopy)	Oak Open Woodland (20-50% canopy)	Oak Closed Woodland (50-80% canopy)	Pine / Bluestem Open Woodland (20-50% canopy)	Pine / Oak Closed Woodland (50-80% canopy)	Forest (> 80% canopy)	Floodplain Forests	Total Area
44	Forested/Restorable	1,463	-	4,970	4,248	-	-	11,164	51,744	73,588
	Protected	1	-	-	24	-	-	129	21,097	21,251
	Plan Unit Target (10 sp)	281	-	587	265	-	-	1,359	10,685	13,177
	Plan Unit Target (21 sp)	627	-	1,307	608	-	-	1,774	30,931	35,247
	Public Target (10 sp)	1	-	-	24	-	-	129	10,685	10,839
	Public Target (21 sp)	1	-	-	24	-	-	129	21,097	21,251
	In Character/Restored	65	-	-	400	-	-	3,987	71	4,524
	Public In Character	-	-	-	12	-	-	17	12	40
KY Total	Forested/Restorable	323,016	-	62,691	926,010	-	0	4,847,433	1,359,988	7,519,138
	Protected	67,792	-	3,736	104,071	-	-	292,670	185,290	653,558
	Plan Unit Target (10 sp)	89,319	-	7,231	60,760	-	0	620,521	233,721	1,011,553
	Plan Unit Target (21 sp)	199,457	-	16,116	139,225	-	0	809,627	676,609	1,841,034
	Public Target (10 sp)	36,905	-	2,334	33,958	-	-	259,830	128,803	461,831
	Public Target (21 sp)	48,436	-	3,736	55,161	-	-	273,913	185,290	566,536
	In Character/Restored	12,124	-	-	46,820	-	-	2,147,924	399	2,207,267
	Public In Character	1,711	-	-	2,526	-	-	92,796	56	97,089

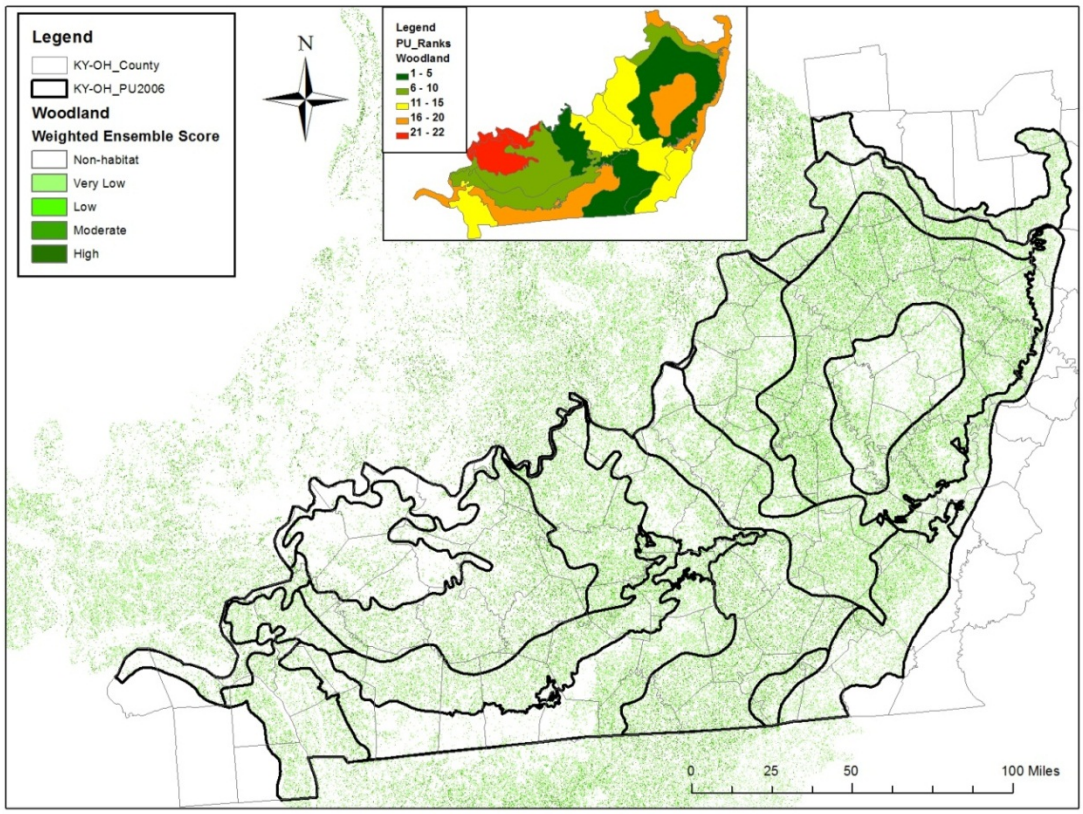


Figure 1. (Q2) Raw scores from the combination of Woodland species habitat models (n=7) weighted by the priority class of each species. Mean scores for each planning unit were used to produce ranks (inset) from high (1) to low (22).

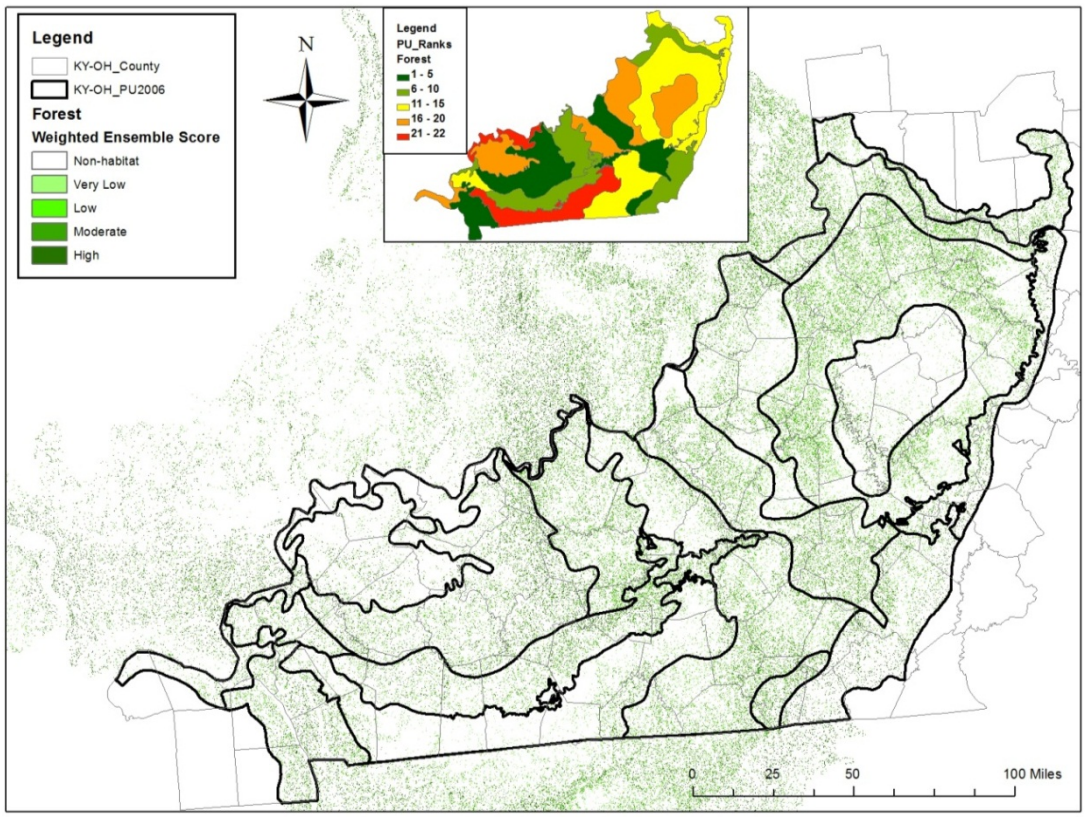


Figure 2. (Q2) Raw scores from the combination of Forest species habitat models (n=7) weighted by the priority class of each species. Mean scores for each planning unit were used to produce ranks (inset) from high (1) to low (22).

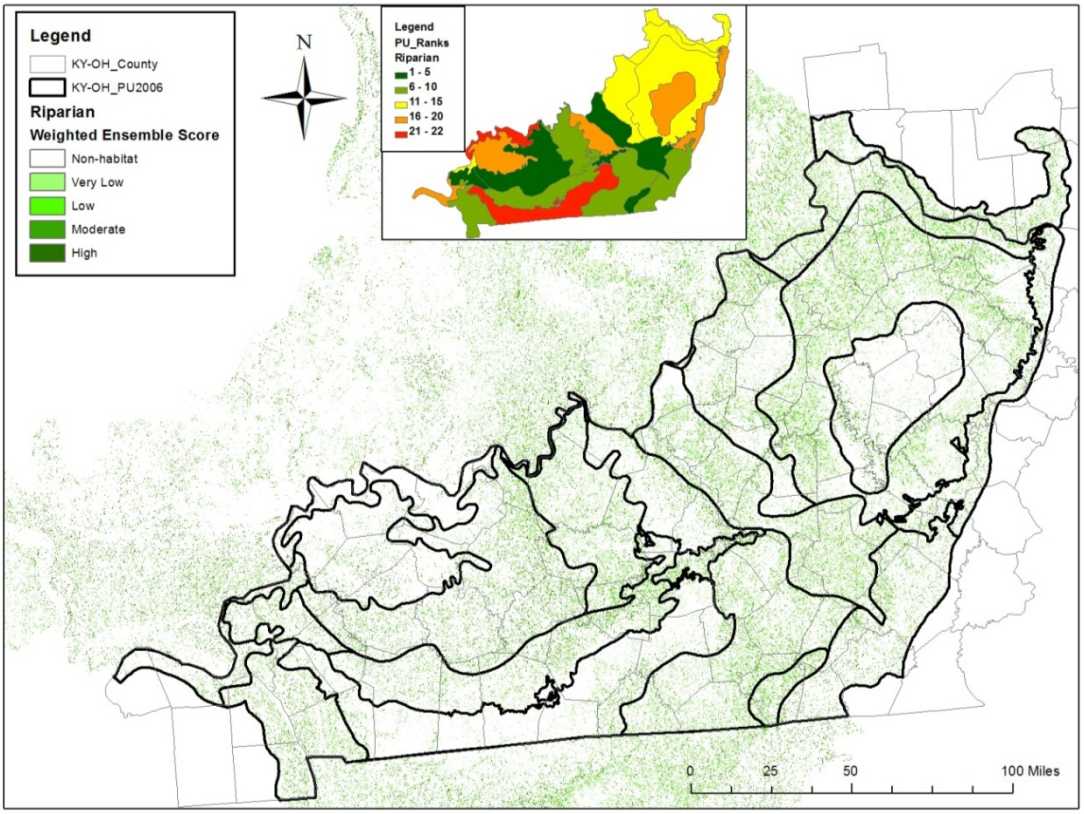


Figure 3. (Q2) Raw scores from the combination of Riparian species habitat models (n=4) weighted by the priority class of each species. Mean scores for each planning unit were used to produce ranks (inset) from high (1) to low (22).

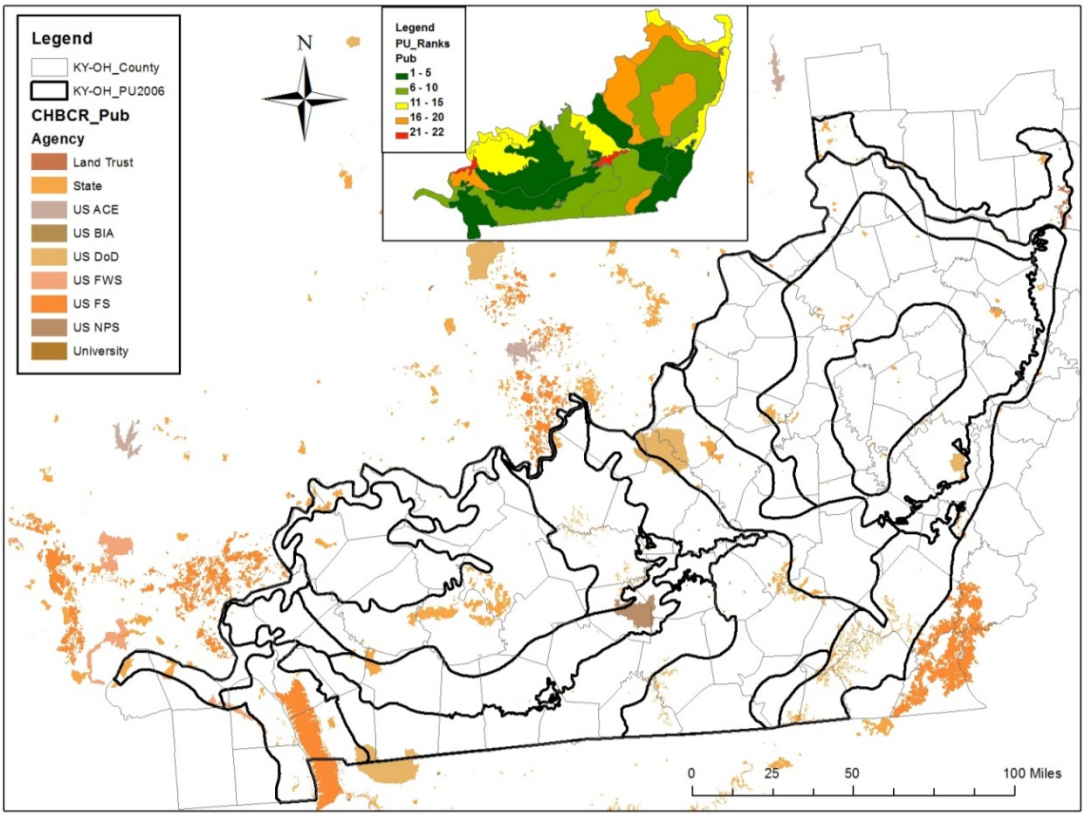


Figure 4. (Q3) Distribution of public lands within the KY-OH Sub-region by agency or organization. Total area of public ownership for each planning unit was used to produce ranks (inset) from high (1) to low (22).

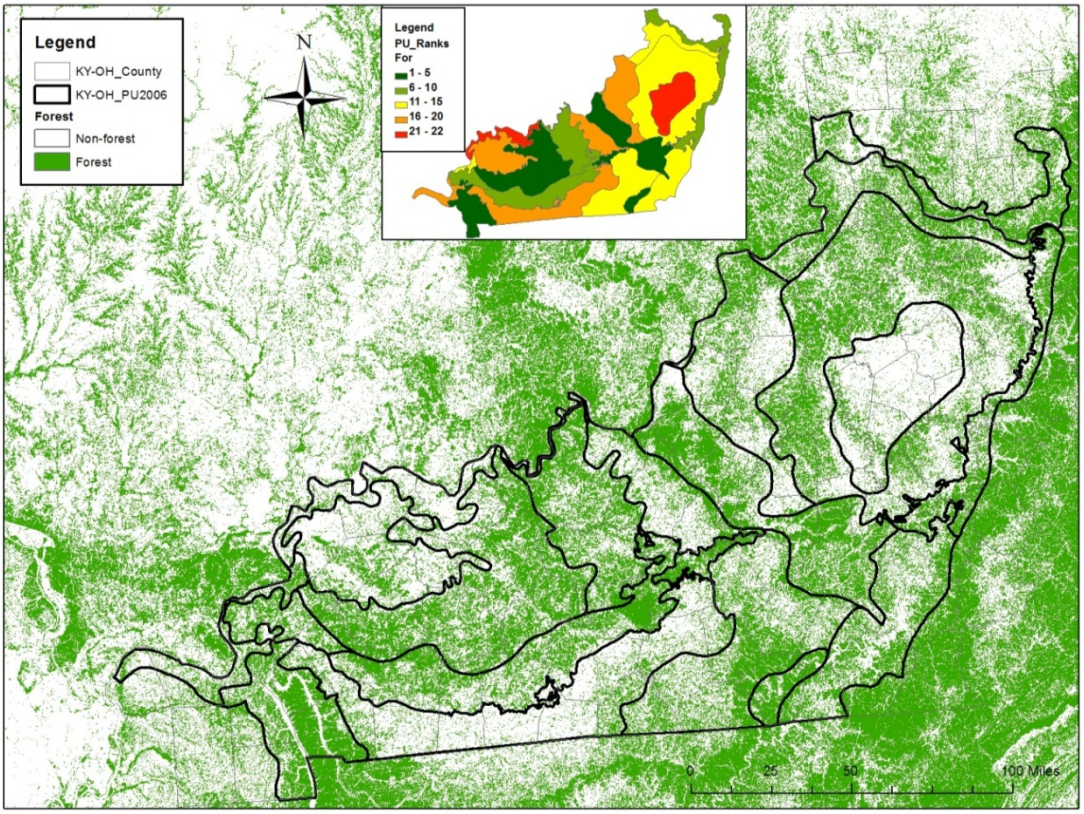


Figure 5. (Q4) Distribution of lands classified as a forested type within the KY-OH Sub-region by the 2006 NLCD. Proportion of forested land for each planning unit was used to produce ranks (inset) from high (1) to low (22).

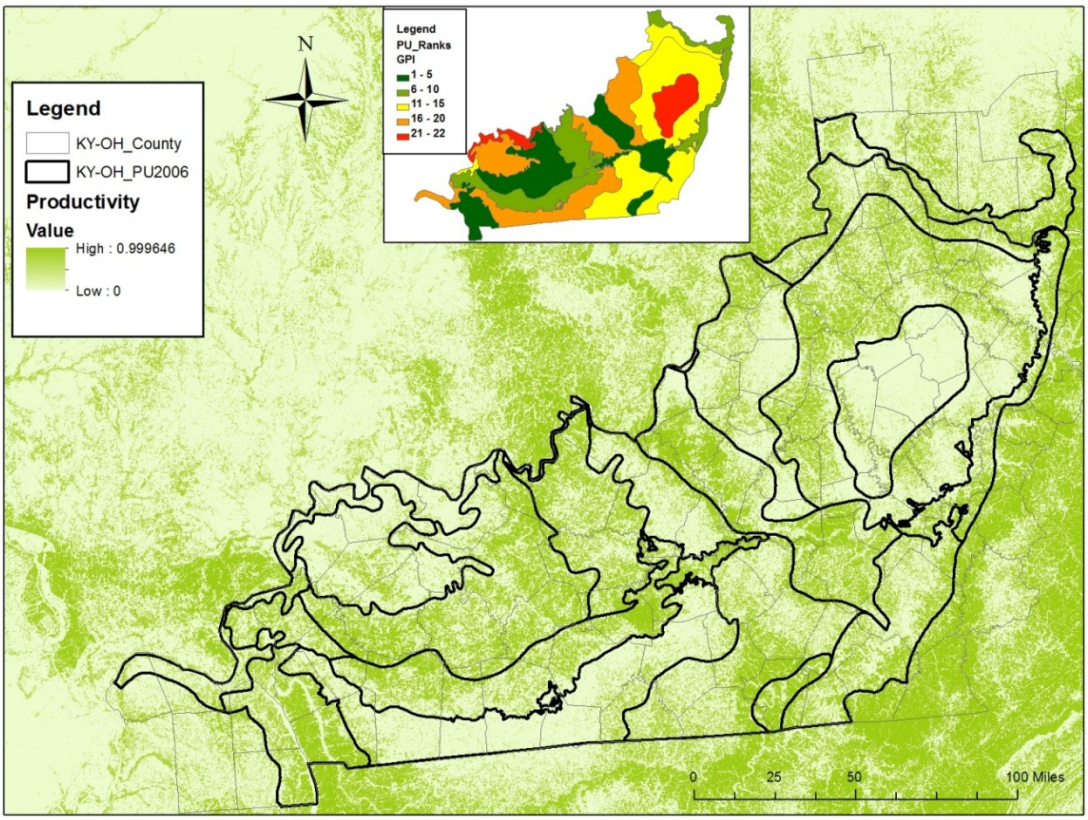


Figure 6. (Q4) Fragmentation of forested lands as measured by the General Productivity Index within the KY-OH Sub-region. Mean score on forested lands for each planning unit was used to produce ranks (inset) from high (1) to low (22).

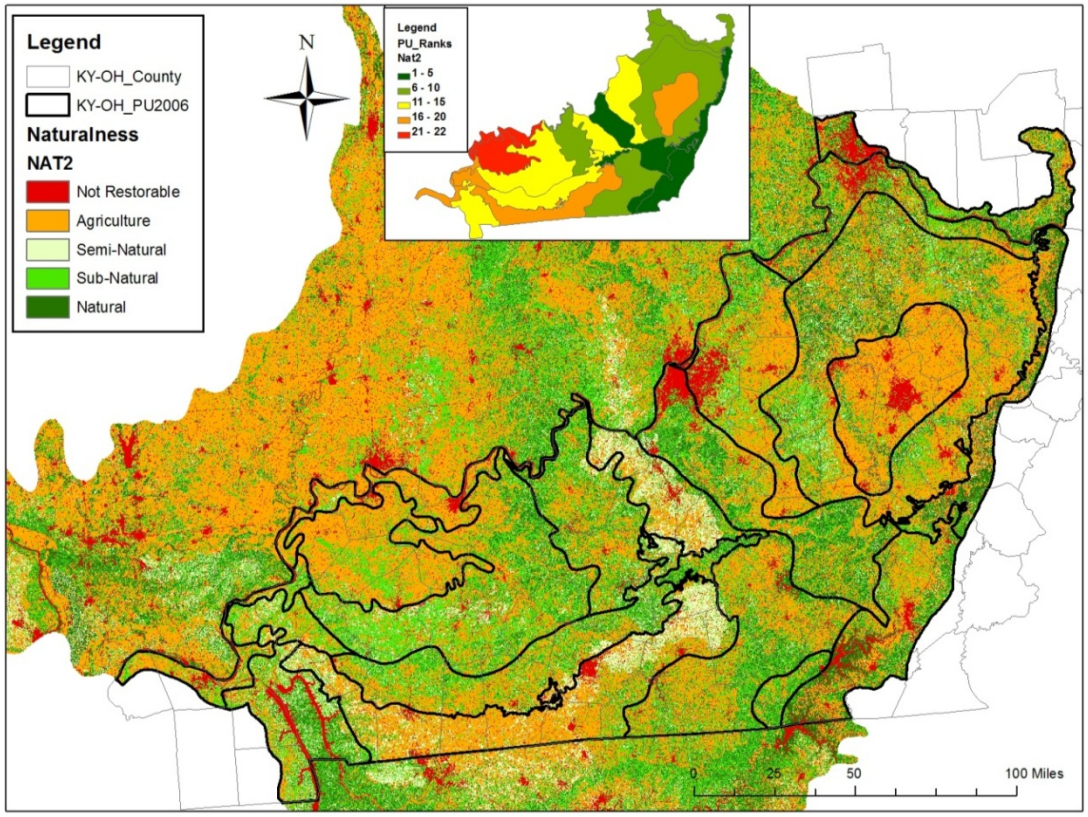


Figure 7. (Q4) Classification of the relative naturalness of lands within the KY-OH Sub-region following Ferrari et al. 2008. Proportion of each planning unit in the "Natural" class was used to produce ranks (inset) from high (1) to low (22).

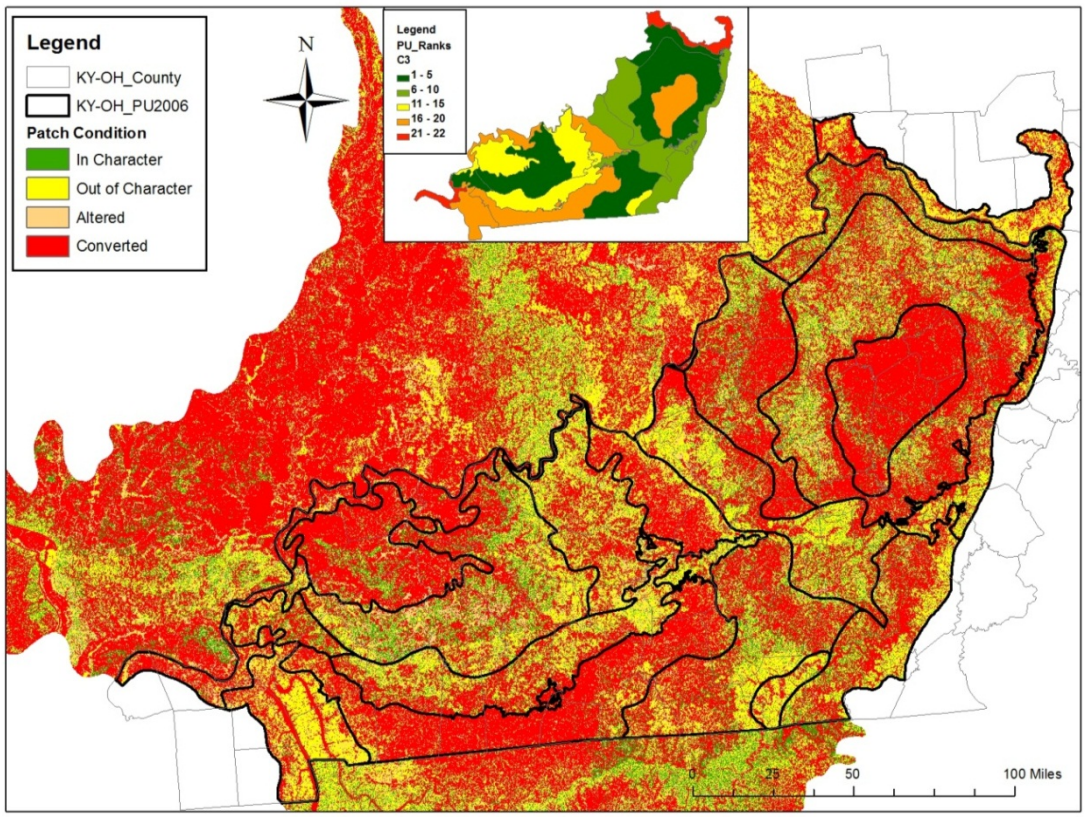


Figure 8. (Q4) Comparison between current and expected landscape patch conditions within the KY-OH Sub-region. Proportion of each planning unit in the "In Character" class was used to produce ranks (inset) from high (1) to low (22).

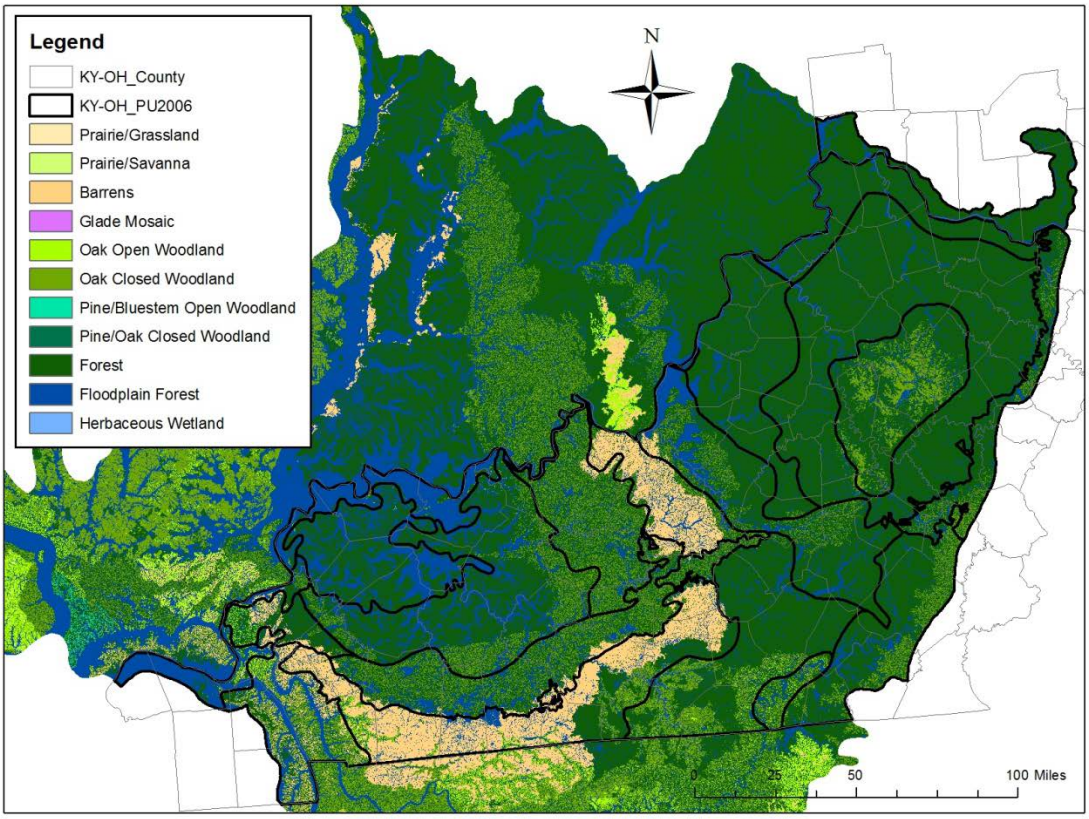


Figure 9. (Q5) The distribution of sites suitable for the restoration of broad natural communities within the KY-OH Sub-region.

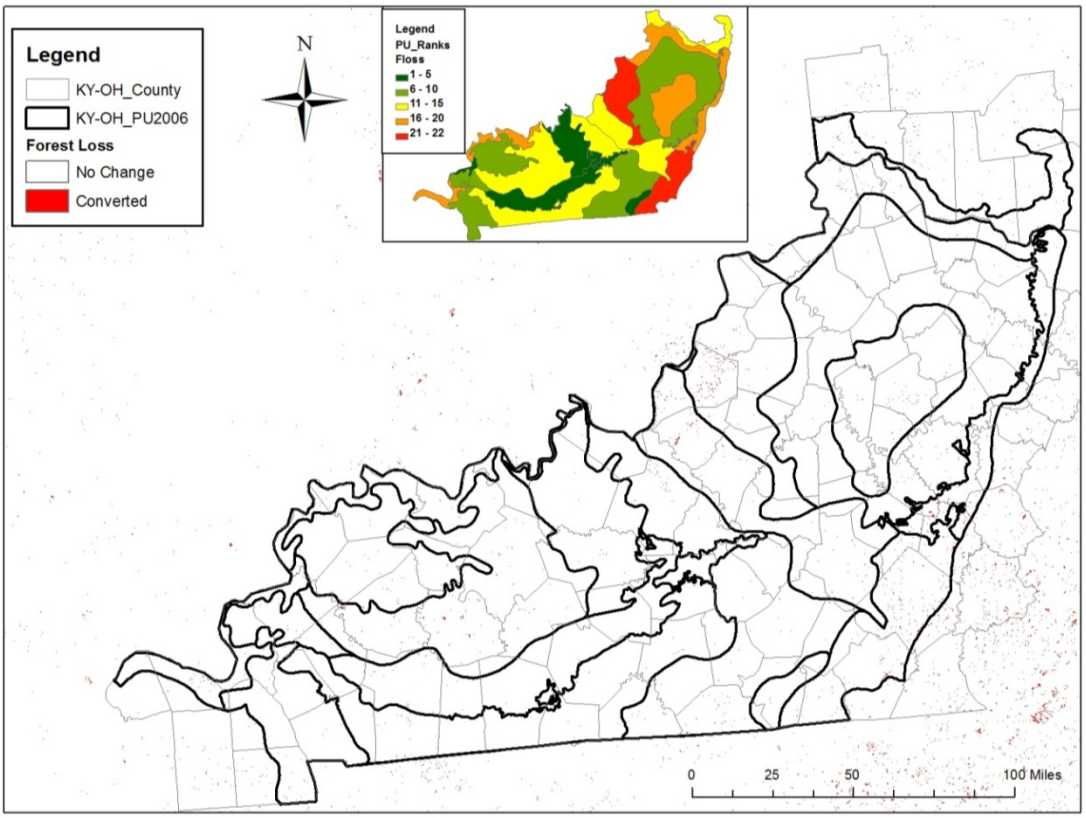


Figure 10. (Q6) Locations of cover class change from a forest type (2001) to a non-forest type (2006) within the KY-OH Sub-region. Proportion of forest converted was used to produce ranks (inset) from low (1) to high (22).

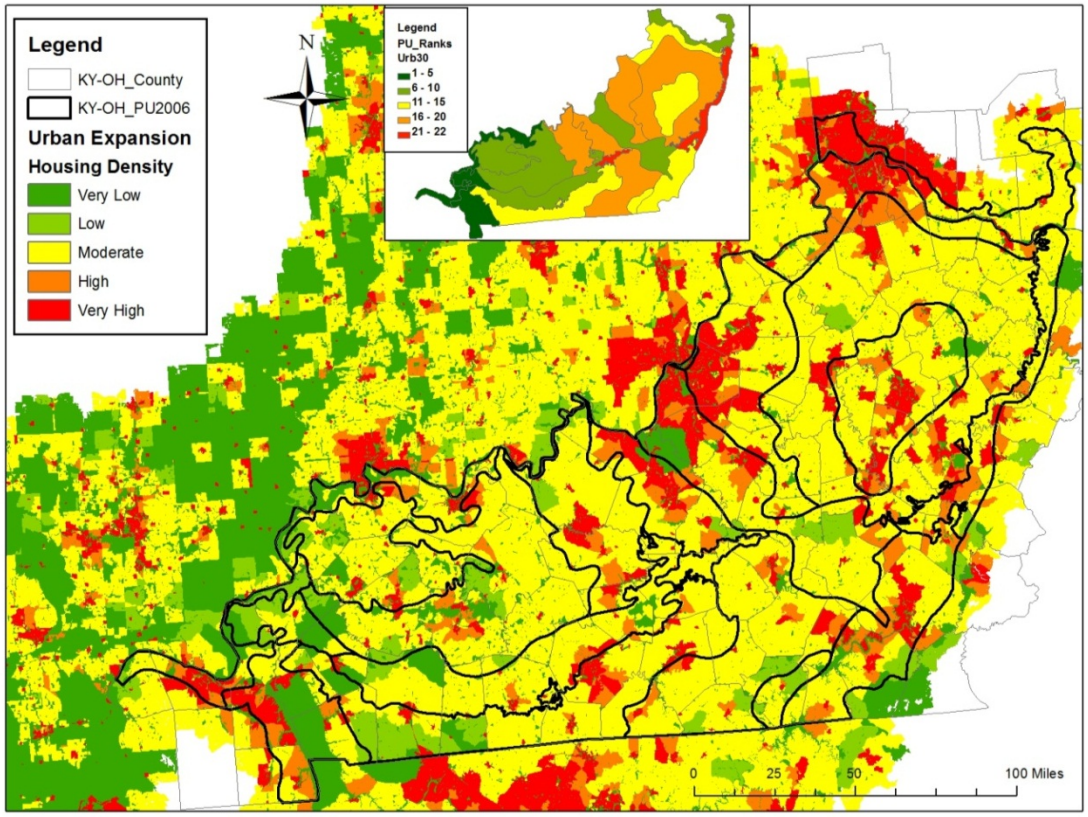


Figure 11. (Q6) The relative impact of current and projected housing density on management actions within the KY-OH Sub-region. Proportion of each planning unit in the "Very Low" class was used to produce ranks (inset) from high (1) to low (22).