Summary Table: Characteristics of Ecoregions of Indiana and Ohio

54. CENTRAL CORN BELT PLAINS

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
54a. Illinois/Indiana Prairies	1938	Glaciated. Undulating to nearly level plain; hummocky on the Valparaiso End Moraine. A few low gradient streams with silty bottoms, warm summer temperatures, and flashy hydrographs occur.	590-900 / 20-200	Loamy, calcareous, late-Wisconsinan glacial till, lacustrine material, and mixed drift; also clayey glacial till in north. Deposits overlie Paleozoic shale, sandstone, siltstone, limestone, and dolomite.	Mollisols (Endoaquolls, Argiaquolls, Argiudolls, Hapludolls), Alfisols (Epiaqualfs, Hapludalfs)	Elliot, Markham, Drummer, Corwin, Pewamo, Darroch, Odell, Morley.	Mesic/ Aquic, Udic	35-39	160-170	17-23/34-40; 63/89	Mostly prairies (wet, mesophytic, and dry) and oak-hickory forest.	Corn, soybean, and livestock farming. Riparian woodland.
54b. Chicago Lake Plain	217	Glaciated. Nearly level paleolake plain with beach ridges, swales, and dunes.	581-690 / 10-90	Extensive artificially filled lands. Quaternary dune sand, beach deposits, lacustrine material, clayey glacial till, and scattered organic material overlie Paleozoic limestone, dolomite, and shale.	Mollisols (Endoaquolls, Argiaquolls), Entisols (Udipsamments); also Histosols (Medisaprists)	Oakville, Plainfield, Brems, Maumee, Newton, Adrian, Morocco.	Mesic/ Aquic, Udic	34-37	170-190; max. near Lake Michigan	19/35; 63/86	Oak-hickory forest and prairie with beach, dune, oak savanna, marsh, and swamp communities.	Extensive residential, urban, industrial, and port development at Gary, Hammond, and East Chicago.
54c. Kankakee Marsh	458	Glaciated. Sloping to depressional plain with glacial outwash, alluvial deposits, low gradient streams, and many ditches.	620-725 / 5-50	Quaternary glacial outwash, alluvium, organic material, and scattered sand dunes overlie Paleozoic shale, limestone and dolomite.	Mollisols (Endoaquolls), Histosols (Medisaprists), Entisols (Fluvaquents, Udipsamments)	Maumee, Prochaska, Gilford, Adrian, Morocco.	Mesic/ Aquic, Udic	35-39	155-165	18/35; 61/88	Northern swamp forest, wet prairies, and bulrush-cattail marshes.	Corn, soybean, and livestock farming. Wooded corridor along the Kankakee River.
54d. Kankakee Sand Area	1064	Glaciated. Discontinuous sand dunes, sand plains, and swales with low channel gradients. Drainage ditches common.	650-750 / 15-75	Quaternary blanket sand; also dune sand, lacustrine deposits, glacial outwash, and organic material. Deposits overlie Silurian and Devonian shale, limestone, and dolomite.	Mostly Mollisols (Endoaquolls), Entisols (Udipsamments); also Alfisols (Hapludalfs), Histosols (Medisaprists)	Coloma, Oakville, Maumee, Brems.	Mesic/ Udic, Aquic	35-38	147	17/33-38; 61/89	Dry prairies and mixed oak savannas dominated by black oak on well-drained areas; also northern swamp forest, marsh, and wet prairie in swales.	Corn, soybean, livestock, and mint farming. Woodland concentrated on dunes.

55. EASTERN CORN BELT PLAINS

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
55a. Clayey, High Lime Till Plains	10520	Glaciated. Broad nearly level glacial till plain; also basins and end moraines. Low gradient streams.	700-1300 / <15-200	Clayey, high lime, late-Wisconsinan glacial till, lacustrine deposits, and scattered loess overlie Paleozoic shales, carbonates, and sandstones.	Alfisols (Epiaqualfs, Hapludalfs), Mollisols (Argiaquolls, Endoaquolls)	Widespread: Blount, Pewamo, Glynwood, Morley. In east: Bennington, Cardington. In west: Del Rey, Eel. On lake plains: Nappanee, Milford.	Mesic/ Aquic, Udic	34-40	150-180	19-24/35-40; 59-63/83-89	Mostly beech forest. Scattered elm-ash swamp forest in lacustrine basins and other poorly-drained areas. Wet prairies behind end moraines in Wyandot-Marion counties.	Extensive corn, soybean, wheat, livestock, and dairy farming on artificially drained soils; also scattered pin oak-swamp, white oak woodland, and beech-maple woodland. Urban activity in Fort Wayne.
55b. Loamy, High Lime Till Plains	13978	Glaciated. Level to rolling glacial till plain with low gradient streams; also end moraines and glacial outwash landforms.	500-1550 / 15-300	Loamy, high lime, late-Wisconsinan glacial till and also glacial outwash and scattered loess overlie Paleozoic carbonates and shale.	Alfisols (Hapludalfs, Epiaqualfs, Endoaqualfs), Mollisols (Argiaquolls, Endoaquolls, Argiudolls), Entisols (Fluvaquents)	Widespread: Miamian, Crosby. Ohio: Celina, Kokomo, Bennington, Cardington. Indiana: Fincastle, Treaty, Cyclone, Xenia, Ockley, Shoals.	Mesic/ Udic, Aquic	36-43	150-185	20-25/37-43; 61-65/86-90	Mostly beech forest; also, oak-sugar maple forest, elm-ash swamp forest on poorly-drained valley bottoms and ground moraines, mixed oak forest on Pickaway Plains.	Extensive corn, soybean, and livestock farming; also scattered beech-maple, pin oak-swamp, white oak woodlands. Urban-industrial activity in Columbus, Indianapolis, and Dayton.
55c. Mad River Interlobate Area	657	Glaciated. Level to hilly interlobate area with moderate stream gradients, and sand, gravel, or bedrock channels. Abundant ground water feeds cold, perennial, high volume streams.	700-1425 / 50-325	Loamy, high lime, late-Wisconsinan glacial till and coarse glacial outwash cover Paleozoic carbonates of the Salina Undifferentiated Group. Glacial outwash deposits are high yielding aquifers.	Alfisols (Hapludalfs, Epiaqualfs), Mollisols (Argiaquolls)	Widespread: Miamian, Kokomo, Crosby, Celina. On glacial outwash: Eldean, Westland.	Mesic/ Udic, Aquic	35-38	155-165	21/37-41; 63/87	West of Mad River: Mostly beech forest; scattered elm-ash swamp forest. East of Mad River, mixed oak forest interspersed with extensive fen/wet prairie.	Extensive corn and soybean farming; also dairy and livestock farming. Wooded where steep. Residential, commercial, industrial activity; also sand-gravel mining. Freshwater fen/wet prairie habitat occur and several thousand acres are under protection.
55d. Pre-Wisconsinan Drift Plains	4234	Glaciated. Dissected glacial till plain with low to medium gradient streams with biotic diversity. Ohio's Pin Oak-Crawfish Flats and Indiana's Muscatatuck Flats are poorly-drained.	400-1300 / 50-500	Deeply leached, acidic pre-Wisconsinan clay-loam glacial till and thin loess overlie Paleozoic carbonates. Fragipans often restrict drainage, sometimes severely.	Alfisols (Fragiudalfs, Hapludalfs, Fragiaqualfs, Glossaqualfs), Entisols (Fluvaquents)	Widespread: Rossmoyne, Avonburg, Cincinnati. Ohio: Clermont. Indiana: Cobbsfork, Hickory, Dubois, Stendal, Bonnie.	Mesic/ Aquic, Udic	39-45	165-195	23-27/40-45; 62-67/86-91	Mostly beech forest, elm-ash swamp forest; also oak-sugar maple forest.	Soybean, livestock, corn, general, and tobacco farming; where poorly-drained or rugged, pin oak-swamp, white oak flatwoods, and beech-maple woodland or idle.
55e. Darby Plains	1132	Glaciated. Level to undulating drift plain punctuated by the Esboro, Reesville, Cable, London and Bloomingburg end moraines and a few streams. Often more poorly-drained than the soils of 55b.	800-1200 / 20-100	Loamy, high lime, late-Wisconsinan drift covers Paleozoic carbonates of the Salina Undifferentiated Group.	Mollisols (Argiaquolls), Alfisols (Epiaqualfs, Hapludalfs)	Widespread: Kokomo, Crosby, Miamian, Celina, Lewisburg. On glacial outwash: Eldean, Westland. On flood plains: Sloan.	Mesic/ Aquic, Udic	37-41	160-175	22/42; 61-65/87	Mixed oak forest interspersed with wet prairies on moraines, gravel-filled valleys, and seasonal ponds; in south, broad poorly-drained areas had elm-ash swamp forest, wet prairies.	Extensive corn, soybean, and wheat farming; some pastures. Average farm size and yields per acre are greater than elsewhere in Ohio.
55f. Whitewater Interlobate Area	1185	Glaciated. Undulating, dissected interlobate area with moderate gradient streams and sand, gravel, or rock beds. Abundant ground water feeds cold, perennial, high volume streams.	775-1200 / 25-225	Loamy, high lime Wisconsinan glacial till, mixed drift, glacial outwash, and alluvium overlie Paleozoic limestone, calcareous shale, and dolomitic mudstone. Glacial till has high magnesium carbonate content.	Alfisols (Hapludalfs, Epiaqualfs), Mollisols (Endoaquolls, Argiaquolls); also Inceptisols (Eutrochrepts)	Crosby, Treaty, Miamian, Celina, Losantville, Eldean, Ockley, Eel.	Mesic/ Udic, Aquic	39-41	150-165	22/38-42; 61/89	Mostly beech forest and elm-ash swamp forest; also oak-hickory forest.	Corn, soybean, and livestock farming; also riparian woodland.

56. SOUTHERN MICHIGAN/NORTHERN INDIANA DRIFT PLAINS

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
56a. Lake Country	1943	Glaciated. Hummocky plain. End moraines with many lakes, ponds, marshes, bogs, kettles, kames, and relict meltwater channels are present. Low to medium gradient streams with sand and gravel bottoms, and low sediment loads.	750-1200 / 90-230	Late-Wisconsinan drift; also organic material. Deposits overlie Paleozoic shale, limestone, and dolomite.	Alfisols (Epiaqualfs, Hapludalfs), Mollisols (Argiaquolls, Endoaquolls), Histosols (Medisaprists)	Glynwood, Morley, Fox, Oshtemo, Rawson, Houghton, Wawasee, Boyer.	Mesic/ Udic, Aquic	34-38	150-165	19/37; 61/89	Oak-hickory forest on well-drained morainal ridges and kames; also northern swamp forest, beech forest, tamarack swamps, cattail-bulrush marshes, sphagnum bogs.	Corn, soybean, livestock farming; also mint and vegetable farms on muck. Marshes, woodland, gravel quarries, and recreational-residential development near lakes.
56b. Elkhart Till Plains	1999	Glaciated. Nearly level to rolling drift plain with end moraines, glacial outwash landforms, lacustrine flats, and scattered potholes.	675-1050 / 25-250	Loamy glacial till; also Quaternary glacial outwash, dune sand, lacustrine deposits, organic material, and alluvium overlie Paleozoic shale, limestone, and dolomite.	Mostly Alfisols (Hapludalfs, Endoaqualfs, Epiaqualfs); also Mollisols (Argiaquolls, Argiudolls), Entisols (Udipsamments), Histosols (Medisaprists)	Riddles, Crosier, Brookston, Metea, Oshtemo, Tyner, Brady, Tracy.	Mesic/ Aquic, Udic	35-39	150-170	18/36; 62/87	Mostly oak-hickory forest and beech forest; also dry prairie and tamarack swamp.	Corn, soybean, and wheat farming; also pastures, woodland, mint and vegetable farms on muck, and residential development.
56c. Middle Tippecanoe	1076	Glaciated. Level to rolling glacial till plains with dunes, end moraines, lake flats, and scattered potholes. Cold streams have abundant year-around flow; Tippecanoe River is warmer and rich in species.	575-900 / 25-200	Late-Wisconsinan glacial tills, glacial outwash, and mixed drift; also dune sand, alluvium, blanket sand, lacustrine deposits, and organic material. Deposits overlie Paleozoic shale, limestone and dolomite.	Mostly Alfisols (Hapludalfs, Epiaqualfs); also Mollisols (Argiaquolls, Endoaquolls), Histosols (Medisaprists), Entisols (Udipsamments)	Riddles, Rensselaer, Crosier, Brookston, Fox, Oshtemo, Oakville, Brems.	Mesic/ Udic, Aquic	35-37	160	19/37; 62/89	Mostly oak-hickory forest and northern swamp forest; also scattered prairie.	Corn, soybean, livestock farming; also woodland and residential development.
56d. Michigan Lake Plain	143	Glaciated. Sandy coastal strip with beaches, high dunes, mucky interdunal depressions, sandy beach ridges, and swales.	581-725 / 15-125	Quaternary beach deposits, dune sand, lacustrine material, and clayey glacial till. Made land (fill) and scattered organic material also occur. Deposits overlie Silurian and Devonian shale, dolomite, and limestone.	Mollisols (Endoaquolls, Argiaquolls), Entisols (Udipsamments), Alfisols (Hapludalfs, Epiaqualfs); scattered Histosols (Medisaprists)	Oakville, Maumee, Brems, Houghton, Adrian, Palms, Morley, Blount, Pewamo.	Mesic/ Aquic, Udic	36-42	165-190; max. near Lake Michigan	19/35; 63/86	Oak-hickory forest and prairie with beach, dune, oak savanna (with some conifers), and fen communities.	Urban-industrial development; also vegetable and fruit farming. Woodland on lee side of dunes and in some poorly-drained areas.

57. HURON/ERIE LAKE PLAINS

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
57a. Maumee Lake Plains	2857	Glaciated. Nearly level to depressional glacial lake plain with paleobeach ridges, limestone ridges, and end moraines. Sluggish, low-gradient streams, many with high loads of suspended clay. Channelized streams and ditches with clayey channels are common.	575-800 / 10-75, maximum relief on carbonate ridges	Fine, poorly-drained, water-worked glacial till and lacustrine sediment; also coarser end moraine and beach ridge deposits. Occasional outcrops of underlying Silurian and Devonian limestone and dolomite occur.	Mostly Alfisols (Epiaqualfs); also Alfisols (Hapludalfs), Inceptisols (Epiaquepts, Endoaquepts)	On water-worked glacial till: Hoytville, Nappanee, Blount, Miamian. On clayey to very clayey lake deposits: Toledo, Latty. On coarser sediments above lacustrine material: Mermill.	Mesic/ Aquic, Udic	30-36, max. snow near Lake Erie	150-190, max. along Lake Erie	19-23/37; 61-65/83-89	Mostly elm-ash swamp forest of the Black Swamp; also, beech forest. Scattered mixed oak forests on dolomitic ridges and on sandy-silty areas. Fens along portions of the Lake Erie shoreline. Scattered wet prairies.	Extensive corn, soybean, and livestock farming on artificially drained land; also tomatoes, sugar beets, beans, and cucumbers. Near Lake Erie are residential, commercial, and industrial developments. Scattered woodlands.
57b. Oak Openings	336	Glaciated. Low, relict sand dunes, paleobeach ridges, sand sheets, and intervening pans occur.	580-825 / 20-75	Late-Wisconsinan sand dunes, sandy beach ridges, clayey glacial till, and fine lacustrine material overlie Devonian and Mississippian carbonates and shale.	Entisols (Udipsamments), Mollisols (Endoaquolls), Alfisols (Epiaqualfs)	On sandy sediments: mostly Ottokee, Granby, and Tedrow. In scattered loamy areas: Colwood, Mermill.	Mesic/ Udic, Aquic	31-34	160-175	19/37; 61/87	Mixed oak forest and oak savanna on dunes and beach ridges; also wet or dry prairies.	General farming, residential-urban-industrial development, and some sand mining. Oak-hickory dry woodland, red maple-black ash seepage swamps, black oak savanna, coastal plain marsh, pin oak-swamp forest, and dry dune communities occur. Many areas reforested; some areas protected.
57c. Paulding Plains	560	Glaciated. Nearly level, level, and depressional lake plain characterized by extensive areas of poor to very poor natural drainage on high clay material. Very sluggish, often channelized, low-gradient streams and ditches with clayey channels and very high loads of suspended clay are common.	660-730 / <10-40, maximum 60	Mostly fine to very fine, calcareous lacustrine sediment and some glacial till overlie Silurian and Devonian limestone, dolomite, and shale.	Mostly Inceptisols (Epiaquepts); also Alfisols (Epiaqualfs)	Paulding, Roselms, Latty, Fulton. Fine to very fine, somewhat poorly-drained to very poorly-drained, illitic soils.	Mesic/ Aquic	33-35	151-155	19/37; 61/88	Elm-ash swamp forest; also, beech forest.	Soybeans, small grain, some corn, and hay on artificially drained land.
57d. Marblehead Drift/Limestone Plain	893	Glaciated. Mostly a broad lake plain with exposures of carbonate bedrock, end moraines, beach ridges, sand dunes at Cedar Point, marl prairies near Castalia, and sink holes. Streams often flow on carbonate bedrock.	575-970 / 10-100	Sometimes thin, fine, poorly-drained, water-worked, glacial till and lacustrine sediment; also coarser end moraine and beach ridge deposits. Outcrops of the underlying Silurian and Devonian carbonate bedrock occur.	Mostly Alfisols (Hapludalfs, Epiaqualfs), Inceptisols (Endoaquepts), Mollisols (Argiaquolls, Rendolls)	On glacial lake sediments: Kibbie, Toledo. On water-worked glacial till: Hoytville, Nappanee, Blount. On or near dolomitic limestone bedrock: Castalia, Milton, Millsdale.	Mesic/ Aquic, Udic	31-34, max. snow near Lake Erie	160-197; 205 at Put-in-Bay on South Bass Island	21/37; 61-65/83-87	Mostly elm-ash swamp forest; also beech forest. Mixed oak forest on carbonate ridges and well-drained areas. Scattered prairies on thin-soiled carbonate ridges and marl plains. Fens along Lake Erie and Sandusky Bay.	Corn, small grains, soybeans, hay, on artificially drained land; vegetable and fruit farming is well adapted to the relatively mild shoreline climate. Near Lake Erie are residential, commercial, and industrial developments.

61. ERIE/ONTARIO DRIFT AND LAKE PLAIN

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
61a. Erie Lake Plain	660	Depositional lake plain with swales, beach ridges, and coastal cliffs that are prone to slumping.	570-800 / 10-50; maximum 100	Wave-washed glacial till, lacustrine-beach deposits overlies mainly Devonian-age Ohio Shale.	Mostly Alfisols (Hapludalfs); also Inceptisols (Epiaquepts)	On beach ridges and glacial outwash: Conotton. On silty glacial till: Conneaut. On thin glacial till and lake deposits: Allis.	Mesic/ Udic, Aquic	33-38; max. snow near Lake Erie	175-190; max. along Lake Erie	22/37; 61-65/78-85	Mostly mixed mesophytic forest; also mixed oak forest on sandy sites, and beech forest and elm-ash swamp forest on wetter sites.	Vegetable and fruit farming is well adapted to the relatively mild shoreline climate; also urban-industrial activity and woodland.
61b. Mosquito Creek/ Pymatuning Lowlands	974	Glaciated. Level to rolling lake and glacial till plains with flat-bottomed valleys, end moraines, and wetlands. Low-gradient, sluggish streams with few riffles.	700-1200 / 25-150; maximum 225	Mostly late-Wisconsinan, clayey Hiram Till with some areas of alluvium and lacustrine material. Deposits overlie Paleozoic shale and sandstone.	Alfisols (Fragiaqualfs, Epiaqualfs, Hapludalfs)	On lake deposits: Canadice, Canadea. On clay glacial till: Mahoning, Ellsworth, Geeburg. On silt glacial till: Sheffield, Platea.	Mesic/ Aquic, Udic	37-42; max. snow near Lake Erie	150-180; max. near Lake Erie	20/38; 59/80-84	Dominantly beech forest; also mixed mesophytic forest, elm-ash swamp forests, and sphagnum peat bogs.	Dairy and feed crop farming, sugar maple-red oak forests, and hemlock swamp forests. Natural gas production.
61c. Low Lime Drift Plain	5928	Glaciated. Rolling plains with low rounded hills, gentle slopes, and broad valleys; end moraines and outwash landforms occur locally.	600-1500 / 50-350	Mostly clayey-loamy late-Wisconsinan glacial till; also lacustrine and coarse outwash material. Deposits overlie Mississippian and Pennsylvanian shale and sandstone.	Alfisols (commonly Fragiudalfs, Fragiaqualfs; also Epiaqualfs)	Mostly Mahoning, Canfield, Rittman; also, Bennington, in westernmost area.	Mesic/ Udic, Aquic	34-41; max. snow near Lake Erie	138-175; max. near Lake Erie	19-23/35-40; 59/82-87	Mixed mesophytic forest, mixed oak forest, beech forest, oak-sugar maple forest; also elm-ash swamp forests.	Dairy, livestock, corn, oat, hay, soybean, wheat farming; also, urban and industrial activity, sugar maple-red oak woodlands. Gas wells, coal mining.
61d. Erie Gorges	329	Glaciated. Very dissected area of high relief, steep slopes, and rocky outcrops. Gorges occur along the Cuyahoga, Chagrin, and Grand rivers where erosion rates are high.	575-1300 / 200-500+	Glacial drift and colluvium overlie Paleozoic conglomerate, sandstone, and shale. Cliffs form in Sharon Conglomerates of Pennsylvanian age.	Mostly Alfisols (Hapludalfs, Fragiaqualfs, Epiaqualfs); also Inceptisols (Eutrochrepts)	Mahoning, Ellsworth, and the clayey Geeburg on glacial till. Platea and Darien on less clayey glacial till. Chagrin on flood plains.	Mesic/ Aquic, Udic	39-42; max. snow near Lake Erie	145-170	21/37; 59/80-85	Mixed mesophytic forest.	Mostly woodland. Also recreational developments, public land, scattered farms, and residential areas. Urban-industrial activity on fringe.
61e. Summit Interlobate Area	536	Glaciated plain. Numerous kames, kettles, lakes, bogs, deranged stream networks, and sluggish streams.	900-1300 / 50-150	Sandy late-Wisconsinan glacial outwash and glacial till overlie Pennsylvanian sandstone and shale of the Pottsville and Allegheny Groups.	Alfisols (mostly Hapludalfs; also Fragiudalfs, Fragiaqualfs), some Histosols (Medisaprists)	On glacial outwash: Chili. On kames: Chili, Wooster. On bogs-kettles: Carlisle. On glacial till: Canfield, Ravenna, Wooster.	Mesic/ Udic, Aquic	36-41	145-160	19/38; 61/85	Mostly mixed oak forests (on sandy soils); also mixed mesophytic forest, oak-sugar maple forest (on soils derived from glacial till), extensive sphagnum peat bogs.	Residential-urban-industrial activity, dairy and feed crop farming, and extensive gravel mining. Sugar maple-red oak woodland, protected and unprotected peatlands (bogs/fens) occur.

70. WESTERN ALLEGHENY PLATEAU

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
70a. Permian Hills	1665	Unglaciated, except in the extreme west and northeast. Highly dissected plateau with rounded hills, ridges, landslips. Steep slopes of high relief along Ohio River. Stream flow can be low in summer.	550-1400 / 200-800	Leached Illinoian glacial till (in the northeast and west), colluvium, and Permian shale, sandstone, and coal of the Dunkard Group; also Pennsylvanian shale, sandstone, and coal of the Monongahela Group.	Alfisols (Hapludalfs), Ultisols (Hapludults)	Gilpin, Upshur, Lowell, and Vandalia. Upshur and Vandalia prone to land slippage.	Mesic/ Udic	39-42	160-175	22-27/42-47; 62/89	Mostly mixed oak forest; also mixed mesophytic forest, oak-sugar maple forest; beech forest in broad valleys of Meigs, Athens counties.	Mostly dairy, livestock, and general farming; also mixed oak forests with some red maple understory and hemlock-hardwood ravine forests. Coal mining in north.
70b. Monongahela Transition Zone	3064	Unglaciated. Dissected plateau, rounded hills and ridges, narrow valleys, and steep slopes of high relief near Ohio River in Jefferson County. Landslips occur. Some streams impacted by mine drainage.	515-1400 / 100-650, maximum at Ohio River	Colluvial deposits and Pennsylvanian shale, sandstone, and coal of the Monongahela and Conemaugh Groups.	Alfisols (Hapludalfs), Ultisols (Hapludults), Entisols (Udorthents)	Gilpin, Lowell; also, landslide-prone, high clay Upshur, Guernsey, Vandalia, and Brookside.	Mesic/ Udic	39-42	150-180	21-29/39-48; 61-66/85-91	Mixed mesophytic forest and mixed oak forest; beech forest in wide valleys of Guernsey, Morgan, Athens, Meigs counties.	Mostly mixed oak forests with some red maple understory and red maple-black ash seepage swamps; also dairy, livestock, and general farming. Gas wells, many bituminous coal mines.
70c. Pittsburgh Low Plateau	406	Unglaciated, except in the north. Rounded hills and ridges, narrow valleys, high gradient streams with gravelly or rocky bottoms. Steep slopes near the Ohio River.	650-1400/ 125-650, maximum at Ohio River	Leached Illinoian glacial till (in the north), colluvium, and Pennsylvanian sandstone, shale, limestone, and coal of the Conemaugh Group.	Inceptisols (Dystrochrepts), Ultisols (Hapludults), Alfisols (Hapludalfs)	Gilpin, Berks, Westmoreland, Hazleton, and Coshocton.	Mesic/ Udic	39-41	135-155	19-23/37-41; 59/83-87	Mostly mixed oak forest; oak-sugar maple forest and beech near Ohio River.	Mosaic of dairy, livestock, and general farming, mixed oak forests with some red maple understory, hemlock-white pine forests. Gas wells, coal mining.
70d. Lower Scioto Dissected Plateau	1758	Unglaciated except in the extreme north. Strongly dissected plateau with ridges, steep slopes, high relief, narrow valleys, high drainage density, and streams unaffected by mine effluent. The Scioto and Paint rivers are under-fit.	490-1350 / 300-800	Leached Illinoian glacial till (in the north), colluvium, and Mississippian shale and sandstone.	Ultisols (Hapludults), Inceptisols (Dystrochrepts), Alfisols (Fragiudalfs)	Shelocta, Brownsville, Latham, and Steinsburg. Omulga on remnants of the Teays valley.	Mesic/ Udic	39-43	150-185	22-29/42-46; 61-67/87-91	Mostly mixed mesophytic forest (in west) and mixed oak forest (in east). Bottomland hardwood forests in Scioto River valley and abandoned Teays valley; oak-sugar maple forests on Illinoian outwash terraces.	Mostly mixed oak forests with some red maple understory, hemlock-hardwood ravine forests; also livestock, general, and tobacco farming.
70e. Unglaciated Upper Muskingum Basin	2910	Unglaciated. Dissected plateau. Major valleys are often broad, flat-bottomed, and near base level. Streams have low gradients, few riffle sections and higher quality than in 70f; they are often under-fit.	660-1350 / 200-550	Colluvium and Pennsylvanian sandstone, shale, siltstone, limestone, and coal of the Allegheny and Conemaugh Groups.	Alfisols (Hapludalfs, Epiaqualfs), Inceptisols (Dystrochrepts)	Coshocton, Westmoreland, Berks, and Guernsey. Fitchville on silty stream terrace deposits.	Mesic/ Udic, Aquic	37-41	140-170	19-23/36-41; 59-63/83-89	Mostly mixed oak forest. Mixed mesophytic forests were concentrated in south. A few beech forests, oak-sugar maple forests, and elm-ash swamp forests.	Mosaic of dairy, livestock, and general farming, mixed oak forests with some red maple understory. Bituminous coal mining, oil-gas wells.
70f. Ohio/Kentucky Carboniferous Plateau	2100	Unglaciated except in the extreme northwest. Dissected plateau with broad, flat-bottomed, hanging, abandoned pre-glacial valleys. Some streams are impacted by mine drainage.	500-1200 / 200-500	Leached Illinoian glacial till (in the north), colluvium, and Pennsylvanian sandstone, shale, siltstone, limestone, and coal of the Pottsville and Allegheny Groups.	Inceptisols (Dystrochrepts), Ultisols (Hapludults), Alfisols (Hapludalfs, Fragiudalfs), Entisols (Udorthents)	Shelocta, Latham, Steinsburg, Wharton, Rarden; also Westmoreland, Guernsey in north. Omulga on relict Teays valley.	Mesic/ Udic	38-42	150-185	22-29/43-48; 61-67/87-90	Extensive mixed oak forest. Mixed mesophytic forests grew in wide, clayey, Teays-age valleys and beech forests grew in the wide valleys of the Hocking River system.	Mostly mixed oak forests with some red maple understory, hemlock-hardwood ravine forests, and red maple-ash flood plain swamps; also livestock and general farming. Coal mining, oil production (in north), gas production.

71. INTERIOR PLATEAU

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
71a. Crawford Uplands	2363	Unglaciated. Heavily dissected hills with narrow valleys and medium to high gradient channels. Terrain is especially rugged in the east and cliffs occur.	350-1000 / 300-350+	Quaternary loess or colluvium may overlie Mississippian and Pennsylvanian shale, sandstone, and limestone (Raccoon Creek and West Baden Groups are common).	Inceptisols (Dystrochrepts), Ultisols (Hapludults), Alfisols (Hapludalfs, Fragiudalfs)	Zanesville, Ebal, Wellston, Gilpin, Berks, Stendal, Haymond.	Mesic/ Udic	41-46	170-200	23-27/40-45; 64/91	Mostly oak-hickory forest on uplands; also beech forest in north and a few barrens.	Mostly forests; some general farming especially in the west and in wider valleys.
71b. Mitchell Plain	1555	Unglaciated, except in extreme north. Gently rolling plains, karst terrain with entrenched streams, and wooded hills on periphery. Stream density is low where sinkholes and underground drainage are present.	380-960 / 50-350+	Quaternary colluvium and Mississippian limestone of, primarily, the Blue River Group.	Alfisols (Paleudalfs, Hapludalfs, Fragiudalfs), Mollisols (Argiudolls), Ultisols (Paleudults)	Crider, Hagerstown, Bedford, Caneyville, Baxter, Frederick, Haymond.	Mesic/ Udic	41-45	170-200	23-27/40-45; 64/90	Western mesophytic forest. Also, karst wetlands; limestone glades on stony Corydon soil.	General farming and residential-urban development; also woodland in rugged areas and many limestone quarries.
71c. Norman Upland	1273	Unglaciated, except in extreme north. Deeply dissected high hills and knobs with narrow valleys and medium to high gradient stream channels.	385-1000 / 100-400+	Quaternary loess, colluvium, or alluvium may overlie Mississippian siltstone, shale, and sandstone of the Borden Group.	Alfisols (Fragiudalfs, Hapludalfs), Inceptisols (Dystrochrepts), Ultisols (Hapludults, Fragiudults)	Wellston, Stonehead, Tilsit, Gipin, Berks, Stendal, Steff.	Mesic/ Udic	40-45	170-195	23-27/40-45; 64/90	On uplands, oak-hickory forest with American chestnut common; in valleys, beech forest.	Mostly forests. On well-drained upper slopes, chestnut oaks; on the southern uplands, chestnut oaks and Virginia pines. In valleys, beech-sugar maple.
71d. Northern Bluegrass	1403	Unglaciated and glaciated. Dissected plains and hills with medium gradient, gravel bottom streams. Steep slopes, high relief near Ohio River.	420-1000 / 50-550	Discontinuous loess and leached pre-Wisconsinan glacial till deposits. Ordovician limestone and shale.	Alfisols (Hapludalfs, Fragiudalfs), Mollisols (Hapludolls)	Bonnell, Carmel, Dearborn, Eden, Bratton, Brushcreek, Rossmoyne, Switzerland, Weisburg.	Mesic/ Udic	40-43	160-195	23-27/40-45; 61-66/86-91	In Indiana, western mixed mesophytic forest, oak-hickory forest. In Ohio, mixed mesophytic forest, mixed oak forest, oak-sugar maple forest; along Ohio River, bottomland hardwoods.	Mosaic of forest, agriculture, and urban-industrial activity near Cincinnati and elsewhere along Ohio River. Wooded where steep; general, dairy, and tobacco farming on less rugged sites.

72. INTERIOR RIVER LOWLAND

Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
	Area (square miles)		Elevation / Local Relief (feet)	Surficial material and bedrock	Order (Great Groups)	Common Soil Series	Temperature / Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max, (˚F)		
72a. Wabash Bottomlands	877	Glaciated and unglaciated. Nearly level alluvial plain with terraces, oxbow lakes, and low gradient rivers with silt bottoms.	350-525 / 10-175	Quaternary alluvium and glacial outwash. Pennsylvanian shale, sandstone, and some limestone.	Inceptisols (Eutrochrepts, Dystrochrepts, Endoaquepts), Alfisols (Hapludalfs)	Nolin, Haymond, Zipp, Evansville, Wheeling, Vincennes.	Mesic/ Udic, Aquic	41-45	180-200	24-28/42-46; 66/92	Mostly bottomland hardwood forest; also beech forest, swamp, pond, slough communities.	Corn, soybean, wheat, and livestock farming; also woodlands, wetlands, oil production, sand and gravel mining.
72b. Glaciated Wabash Lowlands	2796	Glaciated. Undulating to rolling lowland plain with wide, shallow, low gradient valleys; dunes in west.	400-800 / 25-200	Pre-Wisconsinan loamy glacial till. Quaternary alluvium, loess, dune sand, or lacustrine deposits. Mostly Pennsylvanian shale and sandstone; also coal and limestone beds.	Mostly Alfisols (Endoaqualfs, Fragiudalfs, Hapludalfs); also Entisols (Fluvaquents), Mollisols (Argiudolls) near Wabash R.	Ava, Alford, Cincinnati, Hickory, Vigo, Iva, Wakeland, Bloomfield.	Mesic/ Udic, Aquic	40-43	165-200+	21-26/38-43; 63/91	Oak-hickory forest, beech forest; also scattered prairies.	Corn, soybean, wheat, vegetable, and livestock farming; also surface coal mining, scattered woodland.
72c. Southern Wabash Lowlands	1810	Unglaciated and glaciated (glacial till not extensive). Undulating to rolling terrain, wide shallow valleys with low to medium gradient stream channels; paleodunes in west.	390-600 / 25-150	Quaternary alluvium, loess, dune sand, and lacustrine deposits. Pennsylvanian shale, sandstone, coal with bedrock exposures common in east.	Alfisols (Fragiaqualfs, Fragiudalfs, Hapludalfs); also Entisols (Udorthents; in south along streams, Fluvaquents)	Hosmer, Zanesville, Dubois, Stendal, Wellston, Alford.	Mesic/ Udic, Aquic	41-43	175-200+	25/45; 65/91	Oak-hickory forest, western mixed mesophytic forest, southern swamp forest.	Corn, soybean, wheat, livestock, vegetable farms; also, woodland, oil wells, and surface coal mines, especially in Warrick and Pike counties.

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