Summary Table: Characteristics of the Ecoregions of Idaho

10. COLUMBIA PLATEAU

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964; Franklin and Dyrness, 1969)	Land Use and Land Cover
10f. Dissected Loess Uplands	224	Unglaciated. Rolling, hills, flat plateau remnants, and canyons.	1500-3600/ 400-1000	Quaternary loess on plateaus with colluvium and alluvium on canyon slopes and floors, respectively. Fractured Tertiary basalt.	Mollisols (Argixerolls, Durixerolls, Argialbolls, Haploxerolls)	Endicott, Kettenbach, Thatuna, Uhlorn, Broadax, Waha, Palouse, Gwin, Naff	Mesic/ Xeric	12-28	90-170	24/39; 59/89	Wheatgrass–bluegrass/ Bluebunch wheatgrass, Idaho fescue, bluegrass. North-facing slopes and higher, moister sites: snowberry, rose.	Grass- or brush-covered or cropland. Small grain, pea, and hay farming, grazing, and wildlife habitat.
10h. Palouse Hills	453	Unglaciated. Western foothills of the Northern Rocky Mountains.	2500-3000/ 100-500	Quaternary loess and alluvium. Tertiary basalt.	Mollisols (Argixerolls, Argialbolls, Haploxerolls), Alfisols (Fragixeralfs)	Palouse, Southwick, Taney, Santa, Naff, Larkin, Joel, Lahtahco. Soils are rich in organic matter and productive.	Frigid, Mesic/ Xeric	18-30	80-160	24/39; 47/83	Fescue–wheatgrass, fescue–snowberry, fescue–hawthorn, open ponderosa pine–Douglas-fir forest, ponderosa pine savanna/ Idaho fescue, bluebunch wheatgrass, wild rose, snowberry, riparian woodlands.	Extensive small grain farming; also cropland growing peas, lentils, and hay and pastureland. Intermittent, loess-bottomed streams are often plowed and tiled.
10j. Nez Perce Prairie	725	Unglaciated. Rolling plateau.	2000-4100; buttes to 5700/ 100-1000	Quaternary loess and colluvium. Tertiary extrusive rocks, Cretaceous granitic rocks, and Permian metamorphosed volcanic rock.	Mollisols (Argixerolls, Argialbolls)	Nez Perce, Uhlorn, Shebang, Taney, Boles, Suloaf	Frigid, Mesic/ Xeric	19-28	70-140	22/36; 50/79	Fescue–wheatgrass/ Idaho fescue, bluebunch wheatgrass. North-facing slopes: Douglas-fir, ponderosa pine.	Cropland growing small grains, peas, and hay, pastureland, rangeland, and woodland.
10l. Lower Snake and Clearwater Canyons	80	Unglaciated. Deep canyons.	1000-2400/ 1000-1400	Quaternary alluvium and colluvium. Fractured Tertiary basalt.	Mollisols (Haploxerolls, Argixerolls)	Chard, Bridgewater, Alpowa, Kuhl, Bluesprin, Kettenbach	Mesic/ Xeric	12-25	100-190	24/38; 60/90	Wheatgrass–bluegrass/ Bluebunch wheatgrass, Idaho fescue, bluegrass, Wyoming big sagebrush.	Grass-covered. Grazing, recreation, and wildlife habitat.

11. BLUE MOUNTAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F) or Seasonality	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
11d. Melange	285	Unglaciated. Dissected mountains.	4200-7500/ 800-3100	Quaternary colluvium. Tertiary basalt with a core of Tertiary metavolcanics, volcaniclastics, and metasediments and Jurassic granitic, metasedimentary, and sedimentary rocks.	Mollisols (Haplocryolls, Argicryolls, Haploxerolls, Argixerolls)	Bluebell, Ticanot, McDaniel, Rockly	Mesic, Frigid, Cryic/ Xeric, Udic	14-30	60-150	24/38; 62/94	Western ponderosa pine forest, sagebrush steppe/ Douglas-fir, ponderosa pine, lodgepole pine, mountain mahogany, snowberry, serviceberry, Idaho fescue, bluebunch wheatgrass.	Partly forested. Mostly livestock grazing and wildlife habitat.
11e. Wallowas/Seven Devils Mountains	251	Partly glaciated. Mountains. Steep gradient streams following fault lines have steep longitudinal gradients and have eroded deep canyons.	4000-9200/ 1200-2500	Quaternary colluvium. Mostly Tertiary basalt with a core of Permian metavolcanic, volcanic, pyroclastic, and volcaniclastic rocks.	Mollisols (Argixerolls), Andisols (Haplocryands)	Vay, Klickson, Suloaf, Bluesprin, Gaib	Frigid, Mesic, Cryic/ Xeric, Udic	12-55	30-160	Long, cold winters.	Grand fir–Douglas-fir, western ponderosa pine, and western spruce–fir forests/ Douglas-fir, ponderosa pine, lodgepole pine, mountain big sagebrush, low sagebrush, Idaho fescue, bluebunch wheatgrass. Higher sites: subalpine fir.	Covered in dry forests with a shrub understory. Livestock grazing, recreation, logging, and wildlife habitat.
11f. Canyons and Dissected Highlands	535	Unglaciated. Deep river canyons and dissected highlands in the rain shadow of mountains.	4000-6400/ 200-1400	Quaternary colluvium, alluvium and glacial deposits. Tertiary basalt. Many faults.	Mollisols (Argixerolls, Haplocryolls, Argicryolls), Alfisols (Haploxeralfs)	Suloaf, Uptmor, Telcher, Bluesprin, Klickson, Bluebell, Ticanot, Cramont	Frigid, Mesic, Cryic/ Xeric	14-30	80-100	Bottoms: 28/42; 59/94. Uplands: 20/37; 50/83	Western ponderosa pine forest/ Douglas-fir, ponderosa pine, Idaho fescue, bluebunch wheatgrass, bluegrass.	Forested. Woodland grazing, logging, recreation, and wildlife habitat.
11g. Canyons and Dissected Uplands	859	Unglaciated. Deep river canyons and dissected uplands.	1000-4900/ 800-3400	Quaternary colluvium. Tertiary basalt and Tertiary metamorphic, metavolcanic, metasedimentary, and sedimentary rocks.	Mollisols (Argixerolls), Alfisols (Haploxeralfs)	Bluesprin, Klickson, Tannahill, Suloaf, Agatha, Keuterville, McDaniel, Rockly. On canyon slopes: stony soils.	Frigid, Mesic/ Xeric	12-30	70-180	28/42; 58/92	Wheatgrass–bluegrass, western ponderosa pine forest/ Bluebunch wheatgrass, bluegrass, snowberry, Idaho fescue, open Douglas-fir–ponderosa pine forest.	Mostly grass- or brush-covered. Livestock grazing and recreation.
11i. Continental Zone Foothills	591	Unglaciated. Foothills.	3000-5500/ 600-2500	Quaternary colluvium. Mostly Tertiary basalt. Also some Jurassic graywackes and granitics.	Mollisols (Argixerolls), Aridisols (Haplargids),Vertisols (Haploxererts)	McDaniel, Riggins, Meland, Reywat, Gem, Bakeoven, Glasgow, Agerdelly, Rockly	Mesic/ Xeric	10-22	90-145	12/31; 54/92	Mostly wheatgrass–bluegrass, sagebrush steppe/ Idaho fescue, bluebunch wheatgrass, bluegrass, sagebrush, snowberry, mountain mahogany; scattered Douglas-fir, ponderosa pine.	Shrub- and grass-covered. Rangeland and wildlife habitat.
11l. Mesic Forest Zone	47	Glaciated. Mountains.	6000-7400/ 800-1400	Quaternary colluvium and glacial deposits. Mostly Permian metavolcanics and volcanics and Tertiary basalt. Also some Jurassic granitics.	Mollisols (Haplocryolls), Andisols (Haplocryands), Alfisols (Haplocryalfs)	Bluebell, Sudpeak, Culdecole, Shilla, Webbridge	Cryic/ Xeric	14-32. Precipitation falls mostly as snow.	65-75	7/30; 42/84	Grand fir–Douglas-fir forest, western spruce–fir forest, western ponderosa pine forest/ Douglas-fir, grand fir, subalpine fir, mountain big sagebrush, mountain brush. Lower, drier sites: ponderosa pine.	Forested. Logging, livestock grazing, recreation, and wildlife habitat.
11m. Subalpine-Alpine Zone	71	Glaciated. High mountains and crests. Rockland, tarns, and talus are common.	6500-8500/ 600-2000	Quaternary colluvium. Mostly Permian metavolcanics and volcanics and Tertiary basalt. Rock outcrops common.	Inceptisols (Cryochrepts), Andisols (Haplocryands), Mollisols (Haplocryolls)	Vay. Soils are stony or rocky.	Cryic/ Udic	30-40+. Deep winter snowpack.	30-90	Long, cold winters.	Mixed high elevation vegetation, western spruce–fir forest/ Alpine meadows, subalpine parkland, very open subalpine fir, Engelmann spruce, whitebark pine.	Alpine grassland, meadowland, open high altitude forest, or just rockland. Watershed, summer grazing, recreation, and wildlife habitat.

12. SNAKE RIVER PLAIN

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
12a. Treasure Valley	1302	Unglaciated. Valley with many canals and reservoirs.	2100-2800/ 0-400	Quaternary alluvium, loess, lacustrine, alluvial fan deposits, basalt and sedimentary rock. Tertiary sedimentary rock.	Aridisols (Haplocalcids, Calciargids, Argidurids, Haplocambids, Haplodurids), Mollisols (Argixerolls, Haplaquolls, Haploxerolls)	Power, Elijah, Haw, Moulton, Baldock, Greenleaf, Owyhee, Purdam, Harpt, Scism, Minidoka, Bram	Mesic/ Aridic	6-15	90-170	20/37; 55/90	Sagebrush steppe/ Wyoming–basin big sagebrush, bluebunch wheatgrass, cheatgrass, basin wildrye, Thurber needlegrass, rabbitbrush. Saline areas: shadscale, greasewood, saltgrass.	Irrigated cropland, pastureland, suburban and urban developments, and industrial areas. Wheat, barley, sugar beets, potatoes, beans, and specialty crops are grown. Elsewhere: grazing. Land use has affected water quality.
12b. Lava Fields	1122	Unglaciated. Irregular plains with flows, cinder cones, and spatter cones. Surface water availability is extremely limited.	3800-5500/ 0-400	Quaternary basalt, loess, and volcanic ash mixed with alluvium. Rock outcrops are common.	Aridisols (Haplocalcids), Mollisols (Argixerolls, Durixerolls), Andisols (Vitrixerands)	Pancheri, Cinderhurst, Polatis, Deerhorn, McCarey, Rehfield. Exposed lava flows, cinder cones, and very shallow soils are common.	Mesic, Frigid/ Aridic, Xeric	7-16	55-160	10/29; 52/84	Sagebrush steppe/ Open basin sagebrush, mountain sagebrush, Wyoming big sagebrush, rabbitbrush, bluegrass, bluebunch wheatgrass, squirreltail, Thurber needlegrass, Indian ricegrass.	Sparsely covered by grass and brush or just barren. Rangeland, wildlife habitat, and recreation. Low livestock carrying capacity. Craters of the Moon National Monument is located in the ecoregion.
12c. Camas Prairie	530	Unglaciated. Valley containing nearly level to rolling terraces, bottomlands, basalt plains, and, on the periphery, alluvial fans. Flooding is a local and seasonal problem.	4700-5100/ 0-200	Quaternary alluvium, colluvium, terrace gravels, and basalt.	Mollisols (Argixerolls, Calcixerolls, Durixerolls, Haploxerolls, Calciaquolls)	Little Wood, Picabo, Peevywell, Balaam, Hapur, Muldoon, Manard, Simonton, Roanhide. Soil wetness is a local and seasonal problem.	Frigid/ Xeric; small areas of Aquic	12-20	50-110	6/29; 46/85	Sagebrush steppe/ Fans and terraces: bluebunch wheatgrass, Idaho fescue, bluegrass, basin big and mountain sagebrush. Bottomlands: rushes, sedges, meadow grasses, and willows. On lava plains: alkali sagebrush, bluegrass, squirreltail, Idaho fescue.	Grass- and brush-covered, cropland, or pastureland. Non-irrigated and irrigated agriculture, rangeland, pastureland, and wildlife habitat. Alfalfa hay and small grains are the principal crops.
12d. Dissected Plateaus and Teton Basin	1059	Unglaciated. Dissected plateaus, alluvial fans, low terraces, bottomlands, outwash plains, and nearly flat, poorly-drained basins.	4700-6300/ 0-600	Quaternary loess, alluvium, and glacial outwash deposits. Quaternary and Tertiary extrusive igneous rocks.	Mollisols (Haploxerolls, Argixerolls, Haplocryolls, Argicryolls, Cryaquolls), Inceptisols (Durixerepts)	Rexburg, Marystown, Rin, Ririe, Robinlee, Tetonia, Driggs, Foxcreek, Newdale, Swanner, Panmod. Loessial soils are subject to wind erosion.	Frigid, Cryic/ Xeric; small areas of Aquic	10-22	50-100	7/28; 46/81	Sagebrush steppe/ Mountain big sagebrush, threetip sagebrush, bluebunch wheatgrass, bluegrass, Idaho fescue, cheatgrass. Teton Basin: sedges, wet meadows.	Cropland or rangeland. Sprinkler-irrigated potato and alfalfa farming and pastureland. Non-irrigated winter wheat and spring barley farming. Potatoes are an important cash crop.
12e. Upper Snake River Plain	1463	Unglaciated. Nearly level river terraces, floodplains, and lake plains containing many canals and reservoirs.	4400-5000/ 0-200	Quaternary mixed alluvium, lake deposits, and basalt.	Mollisols (Haploxerolls, Calcixerolls), Entisols (Xerofluvents, Torriorthents), Aridisols (Haplocalcids)	Bannock, Bock, St. Anthony, Labenzo, Heiseton, Terreton, Declo, Tindahay	Frigid, Mesic/ Aridic	7-16	80-130	11/30; 50/86	Sagebrush steppe. In southwest: saltbush–greasewood/ Big sagebrush, bluebunch wheatgrass, bluegrass, cheatgrass, rabbitbrush, squirreltail, needleandthread, Indian ricegrass, fourwing saltbush. Riparian areas: sedges, perennial grasses, willows, cottonwood.	Irrigated cropland, pastureland, suburban and urban developments, and industrial areas. Small grains, sugar beets, potatoes, and alfalfa are grown. Some rangeland occurs. Land use has affected water quality.
12f. Semiarid Foothills	1559	Unglaciated. Foothills, alluvial fans, hills, and intervening valleys. A few perennial streams occur.	2900-6500/ 200-1500	Quaternary alluvium, colluvium, loess, sedimentary rocks, and extrusive rocks. Tertiary basalt flows, rhyolite tuffs, quartz latite lavas, and sedimentary rocks and Cretaceous granitics.	Mollisols (Argixerolls, Haploxerolls, Durixerolls), Aridisols (Haplargids)	Gem, Gwin, Newell, Mehlhorn, Gaib, Elkcreek, Bakeoven, Reywat, Glasgow, Brownlee, Riggins, Shoepeg, Appledellia. Shallow, clayey soils with a high shrink swell potential are common.	In the west: Mesic; elsewhere: Frigid/ Aridic, Xeric	9-28	90-170	16/34; 52/91	Sagebrush steppe/ Cheatgrass, medusahead wildrye, bluebunch wheatgrass, bluegrass, Idaho fescue, big sagebrush, bitterbrush. Wetter areas: bunch grasses, sedges, rushes, clovers. Enough available moisture to allow native plants to regenerate except NE of Weiser.	Shrub- and grass- covered; wildfire frequency is high. Rangeland and wildlife habitat with some irrigated alfalfa farming in valleys.
12g. Eastern Snake River Basalt Plains	6426	Unglaciated. Irregular plain.	3700-6400; isolated buttes to 7500/ 0-800	Quaternary loess, alluvium, basalt flows, and cinder cones. Rock outcrops occur.	Aridisols (Haplocalcids, Haplodurids, Haplocambids, Haplargids), Mollisols (Argixerolls, Haploxerolls, Calcixerolls), Entisols (Xeropsamments)	Pancheri, McCarey, Portneuf, Minidoka, Jipper, Juniperbute, Grassyridge, Scoon, Trevino, Portino, Whiteknob, Malm, Eaglecone. Shallow, stony soils occur.	Frigid, Mesic/ Aridic, Xeric	6-16	75-140	11/30; 51/87	Sagebrush steppe/ Bluebunch wheatgrass, basin and Wyoming big sagebrush, Thurber needlegrass, Indian ricegrass, bitterbrush, bluegrass, cheatgrass. Saline areas: fourwing saltbush, shadscale, winterfat.	Shrub- and grass-covered. Mostly rangeland. Small, sprinkler-irrigated areas of deep soil occur and are used for pasture or small grain, potato, sugar beet, bean, and alfalfa farming.
12h. Mountain Home Uplands	2945	Unglaciated. Plains with hills and basalt-capped buttes.	Mostly 2500-4300; some buttes to 5000/ 50-700	Quaternary alluvium, loess. Lacustrine deposits, basalt flows, sedimentary rocks. Tertiary basalt.	Aridisols (Calciargids, Haplargids, Durargids, Argidurids, Paleargids, Haplocambids, Haplodurids)	Power, Tenmile, Colthorp, Gooding, Chilcott, Kunaton, Royal, Truesdale, Timmerman	Mesic/ Aridic	6-12	90-170	21/39; 58/94	Mostly sagebrush steppe; some saltbush–greasewood in SW/ Cheatgrass, crested wheatgrass, medusahead wildrye, Wyoming and basin big sagebrush, alkali sagebrush, antelope bitterbrush. Native plant regeneration limited by low available moisture.	Shrub- and grass-covered. Primarily livestock grazing and wildlife habitat. Stock carrying capacity is low. Some areas at lower elevations are irrigated for pasture and hay.
12i. Magic Valley	1700	Unglaciated. Valley with many canals and reservoirs.	3200-4500/ 0-400	Quaternary alluvium, loess, and basalt. Tertiary basalt and Tertiary quartz latite.	Aridisols (Haplocalcids, Haplocambids, Calciargids, Paleargids), Entisols (Torriorthents), Mollisols (Durixerolls)	Portneuf, Trevino, Paulville, Tindahay, Weeks, Buko, Gooding, Fathom, Minveno, Power, Purdam	Mesic/ Aridic	7-13	110-145	18/36; 54/88	Mostly sagebrush steppe. Lower terraces: saltbush-greasewood/ Wyoming and basin big sagebrush, alkali sagebrush, bluebunch wheatgrass, Thurber needlegrass, squirreltail, bluegrass, needleandthread, Indian ricegrass, fourwing saltbush.	Irrigated wheat, barley, alfalfa, potatoes, sugar beets, beans, and pastureland. Dairy and livestock farms, rangeland, and residential, commercial, and industrial developments also occur. Land use has affected water quality.
12j. Unwooded Alkaline Foothills	1598	Unglaciated. Rolling foothills, hills, benches, alluvial fans, and scattered badlands. Perennial streams are rare.	2200-3900/ 0-1200	Quaternary sandy, alkaline lacustrine sediments are characteristic and alluvium also occurs. Quaternary sedimentary rocks and Tertiary basalt.	Aridisols (Argidurids, Calciargids, Haplocalcids, Durargids), Mollisols (Haploxerolls, Argixerolls), Entisols (Torripsamments, Torriorthents)	Chilcott, Haw, Power, Lolalita, Payette, Quincy, Cashmere, Mazuma, Shoofly, Bram	Mesic/ Aridic, Xeric	4-16	80-160	22/36; 56/88	Saltbush–greasewood; sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, crested wheatgrass, cheatgrass, bluegrass, Thurber needlegrass, and Indian ricegrass. In saline-alkaline areas: Bailey's greasewood, black greasewood, bud sagebrush, shadscale, inland saltgrass, and seepweed.	Shrub- and grass-covered. Mostly rangeland and wildlife habitat. Some irrigated hayland, pastureland, and cropland growing alfalfa, sugar beets, and small grains at lower elevations near reservoirs and the Snake River.

13. CENTRAL BASIN AND RANGE

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
13b. Shadscale-Dominated Saline Basins	110	Unglaciated. Nearly flat, basins that are internally-drained. Pleistocene Lake Bonneville inundated the ecoregion.	4500-5000/ 0-100	Quaternary alluvium, colluvium, and lacustrine deposits from Pleistocene Lake Bonneville. Upper Paleozoic undifferentiated sedimentary rocks.	Aridisols (Haplargids, Natrargids, Haplocalcids)	Heydlauff, Mellor, Bram, Hiko Peak. Soils are dry for extended periods and have a high salt and alkali content.	Mesic/ Aridic	8-13	100-150	12/31; 52/88	Saltbush–greasewood/ Greasewood, shadscale, basin big sagebrush, squirreltail. Less saline sites: Wyoming big sagebrush, Indian ricegrass, wheatgrasses.	Covered mostly by alkaline and saline tolerant brush and grasses. Primarily rangeland and wildlife habitat with some irrigated wheat, barley, and alfalfa farming.
13c. Sagebrush Basins and Slopes	36	Unglaciated. Valleys containing lake terraces, alluvial fans, bajadas, and mountain flanks that are internally-drained by ephemeral streams.	5000-7700/ 200-2700	Quaternary alluvium, colluvium, and lacustrine sediments. Paleozoic sandstone, siltstone, limestone, and dolomite.	Mollisols (Haploxerolls, Argixerolls) Aridisols (Haplocalcids)	Hymas, Ridgecrest, Hondoho, Kearns, Parleys	Frigid, Mesic/ Xeric, Aridic	8-18	50-110	8/30; 50/88	Sagebrush steppe/ Wyoming and mountain big sagebrush, bluebunch wheatgrass, cheatgrass, bluegrass, rabbitbrush, bitterbrush.	Shrub- and grass-covered. Primarily rangeland and wildlife habitat.
13d. Woodland- and Shrub-Covered Low Mountains	23	Unglaciated. Low, rocky, fault-block mountains, ridges, and hills. Ephemeral streams occur.	6000-7800/ 200-1800	Quaternary colluvium. Pennsylvanian and Mississippian sandstone, limestone, dolomite, siltstone, and shale.	Mollisols (Haploxerolls, Palecryolls, Haplocryolls, Argicryolls, Cryoborolls)	Hymas, Povey, Northwater, Clayburn, Pavohroo. Rocky, shallow soils are common.	Frigid, Cryic/ Xeric; can border on Aridic	12-26	50-80	7/28; 48/83	Sagebrush steppe/ Mountain big sagebrush, mountain snowberry, antelope bitterbrush, Utah juniper, pinyon with an understory of bluebunch wheatgrass, western wheatgrass, mountain bromegrass, bluegrass.	Woodland-, brush-, and grass-covered. Rangeland and wildlife habitat.
13i. Malad and Cache Valleys	365	Unglaciated. Valleys containing wide terraces, narrow flood plains, and alluvial fans. Mountain-fed perennial streams and canals occur.	4500-5400/ Mostly 10-200; sometimes to 800	Quaternary alluvium and lacustrine silt and sand from Pleistocene Lake Bonneville. Tertiary siltstone.	Mollisols (Calcixerolls, Calciaquolls, Endoaquolls, Argixerolls, Haploxerolls), Inceptisols (Haploxerepts)	Collinston, Inkom, Oxford, Banida, Parleys, Layton, Samaria, Logan	Mesic, Frigid/ Xeric	8-20	90-165; shortest in Cache Valley.	12/32; 51/89	Sagebrush steppe/ Basin big sagebrush, mountain big sagebrush, bluebunch wheatgrass, prairie junegrass, slender wheatgrass, basin wildrye, bluegrass.	Brush- and grass-covered. Irrigated cropland and pastureland, dryland farming, and rangeland. Alfalfa, barley, and wheat are grown.

15. NORTHERN ROCKIES

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F) or Seasonality	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964; Franklin and Dyrness, 1969)	Land Use and Land Cover
15f. Grassy Potlatch Ridges	451	Unglaciated. Hills, ridges, and isolated buttes.	2000-4000; a few buttes to 4700/ 200-800	Quaternary loess and volcanic ash. Tertiary basalt.	Mollisols (Argixerolls), Alfisols (Fragixeralfs), Andisols (Udivitrands)	Southwick, Taney, Santa, Helmer, Larkin, Joel, Johnson	Mesic, Frigid/ Xeric, Udic	22-30	100-130	19/35; 46/76	Fescue–wheatgrass, wheatgrass–bluegrass, fescue–snowberry, western ponderosa forest/ Idaho fescue, bluebunch wheatgrass, bluegrass, snowberry, ponderosa pine, Douglas-fir, grand fir.	Grass-, brush-, or forest-covered. Mostly wheat and barley farming, hay operations, and livestock grazing.
15h. High Northern Rockies	291	Glaciated. High mountains and crests. Rockland and talus are common. Cirques and tarns occur.	5000-7700/ 700-1700	Quaternary glacial till, colluvium and volcanic ash. Tertiary granitics and Precambrian argillite, quartzite, siltite, schist, gneiss. Rock outcrops occur.	Inceptisols (Dystrocryepts, Eutrocryepts), Andisols (Haplocryands, Fulvicryands)	Holloway, Latour, Phillcher, Vay, Joebaldy. Soils are very stony and contain volcanic ash.	Cryic/ Udic	25-80. Deep winter snowpack.	30 or less	Long cold winters, short summers.	Alpine meadows–barren/ Above treeline: tundra, alpine grassland, meadows, wetlands. In glacial cirques or at treeline: very open parklands or scattered subalpine fir, lodgepole pine, whitebark pine, mountain hemlock, alpine larch.	Tundra, alpine grasslands, meadowlands, wetlands, open high altitude forest, or just rockland. Wildlife habitat and recreation.
15i. Clearwater Mountains and Breaks	1386	Unglaciated. Dissected mountains composed of mountain slopes, mountain summits, ridges, foothills, breaks, narrow valleys, and canyons.	3000-6800/ 600-3000	Quaternary volcanic ash deposits and colluvium. Tertiary granitics and Precambrian gneiss and micaceous schists.	Andisols (Udivitrands, Haplocryands, Vitricryands), Inceptisols (Eutrudepts), Alfisols (Hapludalfs)	Jacot, Brodeer, Brequito, Rettig, Trappercreek, Aldermand, Vaywood, Fico	Frigid, Cryic/ Udic	30-55	50-100	17/33; 45/81	Cedar–pine forest/ Grand fir, Douglas-fir, western redcedar, lodgepole pine, white pine, western larch, mountain hemlock, subalpine fir, Engelmann spruce.	Forested. Logging, wildlife habitat, livestock grazing, and recreation.
15j. Lower Clearwater Canyons	593	Unglaciated. Deep canyons.	1000-3400/ 800-2000	Thin Quaternary loess deposits. Tertiary basalt.	Mollisols (Argixerolls)	Klickson, Bluesprin, Kettenbach, Johnson	Frigid, Mesic/ Xeric	12-32. Drier than nearby mountains.	70-160 (N facing: 70-120, S facing: 100-160)	24/38; 54/91. Warmer than nearby mountains.	Wheatgrass–bluegrass and western ponderosa pine forest/ Savanna of Idaho fescue, bluebunch wheatgrass, scattered ponderosa pine; also, Douglas-fir–ponderosa pine forests. Riparian areas: western redcedar, western white pine, grand fir.	Forest- and savanna-covered. Logging, livestock grazing, small grain farming, recreation, and residential and commercial development.
15m. Kootenai Valley	207	Glaciated. Broad valley containing the meandering Kootenai River. Dikes and levees are found on the flood plain.	1800-3600/ 200-1800	Quaternary alluvium and glacial lake sediments with minor amounts of volcanic ash. Cretaceous granitics.	Alfisols (Haploxeralfs, Hapludalfs), Entisols (Fluvaquents)	Rubson, Wishbone, Ritz, Schnoorson, Porthill, Crash	Frigid, Mesic/ Xeric	20-30. In rain shadow of N. Selkirks.	100-140	18/32; 50/83	Western ponderosa pine forest, Douglas-fir forest/ Douglas-fir, ponderosa pine, grand fir, western hemlock, western redcedar, western white pine, western larch.	Small grain, alfalfa hay, hop, and clover seed farming. Tree nurseries, woodlands, wildlife habitat, recreation, and pastureland. Logging is common in eastern areas.
15n. Weippe Prairie	269	Gently sloping to rolling plateau dissected by canyons.	2800-3700; canyons to 2200/ Mostly 50-400; canyons up to 1000	Quaternary volcanic ash, loess, silty alluvium, and lacustrine sediments. Tertiary basalt.	Mollisols (Argialbolls, Argixerolls, Fragixerolls), Alfisols (Fragiudalfs, Hapludalfs, Ochraqualfs)	Kauder, Kooskia, Reggear, Lewhand, Carlinton, Taney	Frigid, Mesic/ Xeric, Udic	23-40	70-150	20/38; 54/92	Western ponderosa pine forest, cedar–pine forest/ Ponderosa pine, Douglas-fir, grand fir, western redcedar, western larch, western white pine. South and west aspects: grass or open ponderosa pine–Douglas-fir forest with a grass understory.	Forest, cropland, or pastureland. Logging, grazing, hayland, tree nurseries, and small grain farming.
15o. Coeur d'Alene Metasedimentary Zone	1766	Rugged mountains containing steep mountain slopes,.peaks, ridges, and foothills with narrow valleys.	2400-6600/ 1000-2900	Quaternary volcanic ash and colluvium. Precambrian quartzite and argillaceous rock.	Andisols (Udivitrands, Haplocryands, Vitrixerands)	Bouldercreek, Vay, Ahrs, Pinecreek, Honeyjones, Hugus	Frigid, Cryic/ Udic, Xeric	30-60	30-120	20/34; 49/82.	Cedar–hemlock–pine forest/ Douglas-fir, grand fir, western redcedar, Engelmann spruce, subalpine fir, western hemlock, mountain hemlock, whitebark pine.	Forested. Logging, grazing, wildlife habitat, and recreation. Smelter emissions and acidic drainage from mines have locally impacted flora and fauna.
15p. St. Joe Schist-Gneiss Zone	2881	Partly glaciated. Slide-prone mountains dissected by a large number of high gradient streams that receive episodic sedimentation from landslides.	2000-6400/ 800-3000	Quaternary volcanic ash and colluvium. Mostly Precambrian micaceous schist, gneiss, and quartzite.	Andisols (Udivitrands, Vitricryands), Inceptisols (Eutrudepts), Alfisols (Fragiudalfs)	Bouldercreek, Nakarna, Aldermand, Honeyjones, Ahrs, Kauder, Brodeer, Grandad, Vaywood, Township	Frigid, Cryic/ Udic	24-65	30-110	20/33; 47/82	Cedar–hemlock–pine forest/ Lower altitudes: western redcedar, grand fir, western larch, Douglas-fir, western white pine, lodgepole pine, western hemlock (in northern 2/3). Higher elevations: mountain hemlock, subalpine fir, Engelmann spruce, whitebark pine.	Forested. Logging, livestock grazing, mining, recreation, and wildlife habitat. Nineteenth century logging practices, including log drives down rivers, impacted and continue to impact stream morphology and aquatic ecosystems.
15q. Purcell-Cabinet-North Bitterroot Mountains	670	Glaciated. Dissected, rugged mountains containing steep mountain slopes,.peaks, ridges, foothills, narrow valleys, and a few lakes.	2900-6000/ 600-1500	Quaternary volcanic ash, glacial till, glacio-fluvial deposits, and colluvium. Precambrian quartzite, argillite, and siltite.	Andisols (Udivitrands, Vitricryands)	Pend Oreille, Marblecreek, Dufort, Vay	Frigid, Cryic/ Udic	30-50	70-110	16/30; 48/84	Mostly cedar–hemlock–pine forest; higher elevations: western spruce–fir forest/ Western redcedar, grand fir, western hemlock, Douglas-fir, western larch, western white pine, ponderosa pine, lodgepole pine, black cottonwood. Birch–aspen grow on floodplains and are seral species on moist, low to mid-elevation uplands.	Forested. Logging, wildlife habitat, and recreation.
15s. Spokane Valley Outwash Plains	352	Unglaciated. Gently rolling plains that include the southern end of the Purcell Trench, Rathdrum Prairie, and the Spokane Valley.	2100-2800/ 0-600	Pleistocene glacial outwash, flood gravels, and terrace gravels overlain in the south by lacustrine sediments. Tertiary quartz monzonite.	Inceptisols (Dystroxerepts, Haploxerepts), Andisols (Vitrixerands), Mollisols (Haploxerolls)	Avonville, Kootenai, Garrison, Bonner	Frigid, Mesic/ Xeric	15-35	90-170	21/34; 51/82	Western ponderosa pine forest, fescue–wheatgrass/ Mostly open-canopied ponderosa pine–Douglas-fir woodlands with a grassy understory.	Forests, pastureland, rangeland, and cropland. Logging, home sites, grazing, wildlife habitat, recreation, small grain and hay farming.
15u. Inland Maritime Foothills and Valleys	1061	Partly glaciated. Foothills, low hills, and wide floodplains of the Pend Oreille and Priest rivers.	2100-4900/ 400-2500	Quaternary volcanic ash, glacio-fluvial deposits, alluvium, and terrace deposits. Cretaceous hornblende and granodiorite and Precambrian schist, quartzite, and argillite.	Andisols (Udivitrands, Vitrixerands), Inceptisols (Haploxerepts)	Pend Oreille, Bonner, Jacot, Ardtoo	Frigid/ Xeric, Udic	30-55	50-120	19/31; 47/82	Western ponderosa pine forest, Douglas-fir forest, cedar–hemlock–pine forest/ Western hemlock, western redcedar, western larch, western white pine, grand fir, Douglas fir, ponderosa pine, lodgepole pine, black cottonwood. On floodplains and low to mid-elevation upland sites: birch, aspen.	Forested or pastureland. Logging, ranches, grazing, hay farming, wildlife habitat, and recreation.
15v. Northern Idaho Hills and Low Relief Mountains	1193	Unglaciated. Hills and low mountains.	2000-5500/ 200-1800	Quaternary volcanic ash, loess, and, in river valleys, alluvium. Tertiary basalt and Precambrian schist, gneiss, quartzite, argillite and siltite.	Mollisols (Argixerolls, Haploxerolls), Alfisols (Fragixeralfs, Haploxeralfs, Hapludalfs), Andisols (Vitrixerands, Udivitrands), Inceptisols (Haploxerepts)	Taney, Santa, Southwick, Lenz, Kruse, Ardenvoir, Threebear, Kauder, Riswold, Lado, Poorman, Jaype	Frigid-Mesic/ Xeric, Udic	22-45	50-130	23/35; 50/86	Cedar–hemlock–pine forest, western ponderosa pine forest/ Grand fir, western redcedar, ponderosa pine, Douglas fir, western larch, lodgepole pine, western white pine, western hemlock (in northern 2/3).	Forested and some cropland and pastureland. Logging, small grain and hay farming, grazing, wildlife habitat, and recreation.

15. NORTHERN ROCKIES

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
15w. Western Selkirk Maritime Forest	113	Unglaciated. Mountain slopes, crests, and ridgetops with narrow valleys. Lakes and springs occur.	2100-5000/ 600-2800	Quaternary volcanic ash, loess, and colluvium. Cretaceous and Precambrian gneiss, granite, and schist. Rock outcrops occur.	Andisols (Vitricryands, Haplocryands), Inceptisols (Haploxerepts), Mollisols (Haplocryolls)	Vassar, Moscow, Divers, Brickel	Frigid, Cryic/ Udic, Xeric	22-50	50-120	22/35; 50/86	Douglas-fir forest/ Moist sites: Douglas-fir, grand fir, western redcedar, western hemlock, western larch. Drier sites: ponderosa pine, Douglas-fir. Colder sites: lodgepole pine, subalpine fir.	Forested. Logging, wildlife habitat, and recreation; some areas cleared for grazing.
15y. Selkirk Mountains	812	Partly glaciated. Dissected, rugged mountains with narrow, high relief valleys. Avalanche chutes are common.	2600-6200/ 1000-2800	Quaternary glacial deposits, thick volcanic ash, colluvium, and loess. Tertiary granitic rocks and Precambrian metamorphic rocks including micaceous schist and quartzite.	Inceptisols (Dystrudepts, Dystrocryepts, Haploxerepts), Andisols (Haplocryands, Udivitrands)	Marblecreek, Priestlake, Jeru, Vay, Ardtoo, Nakarna	Frigid, Cryic/ Udic, Xeric	30-55	30-110	16/29; 48/84	Douglas-fir, cedar–hemlock–pine, western spruce–fir forests/ Western redcedar, grand fir, western larch, Douglas-fir, western hemlock, western white pine, ponderosa pine, subalpine fir, whitebark pine, lodgepole pine, Engelmann spruce, mountain larch.	Forested. Logging, wildlife habitat, grazing, and recreation. Erosion hazard is high after disturbance.

16. IDAHO BATHOLITH

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
16b. Lochsa Uplands	698	Partly glaciated. Mountains.	4000-7200/ 600-2200	Quaternary volcanic ash and colluvium. Cretaceous granitic rocks, Tertiary granite, and Precambrian schist.	Andisols (Haplocryands, Udivitrands), Inceptisols (Eutrocryepts, Dystrocryepts), Entisols (Cryorthents), Mollisols (Haplocryolls)	Vay, Nakarna	Frigid, Cryic/ Udic, Xeric	35-55	30-100	8/31; 46/80	Mostly grand fir–Douglas-fir forests; higher sites: western spruce–fir forests/ Grand fir, Douglas-fir, western larch, western redcedar, western white pine. Higher sites: Engelmann spruce, subalpine fir.	Forested. Logging, livestock grazing, wildlife habitat, and recreation. Logging and road building cause land sliding and stream sedimentation.
16c. Lochsa-Selway-Clearwater Canyons	1150	Unglaciated. Deep, precipitous, dissected canyons containing cold, fast-flowing rivers.	1400-7800/ up to 4000	Quaternary loess and volcanic ash. Tertiary granite, Cretaceous granitic rocks, and Precambrian schists, gneiss, and quartzite. Rock outcrops occur.	Andisols (Udivitrands), Inceptisols (Dystrocryepts, Dystrudepts), Entisols (Xerorthents), Mollisols (Haploxerolls)	Lochsa, Suttler, Honeyjones, Bouldercreek, Quartzburg	Frigid, Cryic/ Xeric, Udic	19-60	30-150	19/33; 48/85	Cedar–pine; lower, drier sites: western ponderosa pine forest/ Douglas-fir, grand fir, western redcedar, western larch, western white pine, lodgepole pine. Lower, drier slopes: Douglas fir, ponderosa pine.	Forested. Logging, livestock grazing, recreation, and wildlife habitat.
16d. Dry, Partly Wooded Mountains	1412	Partly glaciated. Mountains in rain shadow of the central Idaho mountains.	4000-9000/ 600-2600	Quaternary glacial deposits and colluvium. Tertiary extrusive volcanics, Paleozoic siltstone, dolomite, slate, quartzite and argillite. Rock outcrops occur.	Mollisols (Calcicryolls, Argicryolls, Haplocryolls, Argixerolls, Durixerolls), Inceptisols (Eutrocryepts)	Hagenbarth, Dawtonia, Koffgo, Vitale, Povey, Peevywell, Starhope, Zeelnot, Gany, Mitring, Ketchum, Dollarhide	Frigid/ Xeric	8-25. In the rain shadow of high mountains.	40-100	3/31; 41/81	Sagebrush steppe; some western spruce–fir forest, grand fir–Douglas-fir forest/ Wyoming and mountain and basin big sagebrush, snowberry, bluebunch wheatgrass, Idaho fescue; scattered Douglas-fir, aspen, juniper, lodgepole pine, Douglas fir.	Shrub- and open forest-covered. Rangeland, recreation, woodland, mining, and wildlife habitat. Residential, commercial, and second home developments are expanding in the Ketchum area.
16e. Glaciated Bitterroot Mountains and Canyons	412	Glaciated. North-south trending mountains containing jagged peaks, lakes, wetlands, and deep glaciated valleys.	3600-7600/ 800-3000	Quaternary volcanic ash and glacial deposits. Cretaceous granitic rock.	Inceptisols (Haplocryepts, Eutrocryepts), Entisols (Cryorthents), Mollisols (Haplocryolls)	Lolopeak, Petty. Very gravelly to stony soils.	Cryic/ Xeric, Udic	35-50	30-70	8/30; 44/79	Western spruce–fir forest, grand fir–Douglas-fir forest/ Grand fir, Douglas-fir, western larch, lodgepole pine. Higher sites: subalpine fir, Engelmann spruce, whitebark pine.	Forested. Recreation and wildlife habitat. Limited logging.
16f. Foothill Shrublands-Grasslands	1420	Unglaciated. Foothills, hills, benches, and ridges.	5000-7000/ 600-2000	Quaternary alluvium and colluvium. Cretaceous granitics, Paleozoic sandstone, Tertiary basalt, tuffs, quartz monzodiorite, and sedimentary rocks.	Mollisols (Haploxerolls, Argixerolls, Argicryolls, Haplocryolls), Inceptisols (Eutrocryepts)	Roanhide, Rainey, Vitale, Elksel, Moonstone, Mulshoe, Povey, Friedman, Starhope, Ketchum, Dollarhide	Mesic, Frigid, Cryic/	12-22	60-120	20/35; 57/91	Sagebrush steppe/ Bluebunch wheatgrass, mountain and Wyoming big sagebrush, Thurber needlegrass, bluegrass, Idaho fescue, bitterbrush, snowberry.	Grass- and brush-covered. Mostly rangeland, wildlife habitat, and expanding rural residential development.
16g. High Glacial Drift-Filled Valleys	584	Glaciated. High elevation valleys with terraces, flood plains, outwash plains, moraines, alluvial fans, hills, wetlands, and lakes.	4700-8000/ 0-1000	Quaternary alluvium, glacial outwash, and glacial till. Tertiary rhyolite and Cretaceous granitic rocks.	Inceptisols (Cryaquepts, Dystrocryepts, Eutrocryepts), Mollisols (Cryaquolls, Haplocryolls, Argicryolls), Histosols (Cryosaprists)	Roseberry, Archabal, Donnel, Melton, McCall, Swede, Gestrin, Busterback, Castlepeak, Langer, Struggle, Redfish, Lilylake, Grandjean	Frigid, Cryic/ Xeric, Udic, and small areas of Aquic	Mostly 22-27	Mostly 60-80	8/30; 42/81	Sagebrush steppe, grand fir–Douglas-fir forest/ Moist sites: sedges, rushes, redtop, willows, aspen. Drier sites: Idaho fescue, mountain brome, mountain big sagebrush, snowberry, bluegrass. Valley floors: open stands of ponderosa pine, Douglas fir, lodgepole pine.	Grazing, logging, and small grain, clover, and seed potato farming. Expanding housing developments. Land use practices have increased sediment loads and elevated phosphorus levels in surface waters.
16h. High Idaho Batholith	1272	Glaciated. Jagged peaks and high mountain slopes with numerous cirques and tarns.	6000-11000/ 800-3000	Quaternary glacial till, colluvium, and alluvium. Tertiary extrusive and intrusive rocks, Cretaceous granitics, and Precambrian sedimentary and metamorphic rocks. Rock outcrops occur and talus deposits are common.	Inceptisols (Dystrocryepts, Eutrocryepts), Mollisols (Haplocryolls), Entisols (Cryopsamments, Cryorthents)	Bryan, Pyle, Hanks, Busterback, Castlepeak, Langer, Struggle, Yankeefork. Very stony soils are common.	Cryic/ Xeric, Udic	19-50+	10-60	0/28; 38/78	Alpine meadows–barren, western spruce–fir forest/ Above treeline: tundra, alpine grassland, meadows, wetlands. Rocky glacial cirques or exposed sites: subalpine fir, lodgepole pine, whitebark pine, mountain hemlock, and alpine larch as scattered trees, very open-canopied parklands, or krummholz.	Tundra, alpine grassland, meadowland, open high altitude forest, or just rockland. Wildlife habitat, grazing, recreation and some logging.
16i. South Clearwater Forested Mountains	2672	Partly glaciated. Dissected mountains. Lakes occur.	4100-9100/ 600-3000	Quaternary loess and volcanic ash. Cretaceous granitics, Precambrian metamorphic, metasedimentary, and sedimentary rocks; also some Tertiary igneous basalt and granite.	Inceptisols (Haploxerepts, Cryaquepts), Entisols (Cryorthents), Mollisols (Haplocryolls), Alfisols (Haploxeralfs), Andisols (Udivitrands)	Quartzburg, Cramont, Honeyjones, Ligget, Jughandle	Cryic, Frigid/ Xeric, Udic	22-45	Less than 30-90	9/31; 41/81	Mostly grand fir–Douglas-fir forest and western spruce-fir forest/ Grand fir, Douglas-fir, Pacific yew, western larch, ponderosa pine, subalpine fir.	Forested. Logging, livestock grazing, recreation, wildlife habitat, and mining. Streams are subject to sediment loading when soils are disturbed. Gold mining has heavily affected rivers.
16j. Hot Dry Canyons	1509	Unglaciated. Deep, precipitous canyons.	2000-7800/ 1900-5000	Pleistocene glacial drift, alluvium, and colluvium. Tertiary intrusives and rhyolite, Cretaceous granitics, Jurassic granitics, Permian schist, and Precambrian quartzite, gneiss, and schist. Rock outcrops occur.	Mollisols (Argixerolls)	Howcan, Klickson, Bluesprin, Tannahill, Suloaf	Frigid, Mesic/ Xeric	12-35. Lowest in deepest canyons.	30-100+	16/33; 48/89. Warmer with increasing canyon depth.	Western ponderosa pine forest/ South-facing slopes: mountain big sagebrush, bluebunch wheatgrass, Idaho fescue, ponderosa pine. North-facing slopes: Douglas-fir, ponderosa pine.	Forest-, brush-, and grass-covered. Logging, livestock grazing, wildlife habitat, mining, transportation, and recreation.
16k. Southern Forested Mountains	10071	Partly glaciated. Mountains. A few lakes occur.	3400-8500/ 1000-4000	Quaternary glacial deposits and alluvium. Mostly Cretaceous igneous rocks. Also, Tertiary basalt and Precambrian quartzite, phyllite, and undifferentiated metamorphics.	Mollisols (Haplocryolls), Entisols (Cryopsamments), Inceptisols (Eutrocryepts, Dystrocryepts). Often andic.	Pyle, Jugson, Bryan, Broad Canyon, Bluebell, Ticanot. Droughty, highly erodible soils of low fertility have developed from granitic rocks.	Cryic/ Mostly Udic; also, some Xeric	14-45	Less than 30-80	8/32; 40/80	Grand fir–Douglas-fir forest, western ponderosa pine forest/ Douglas-fir, grand fir, western larch (in north), white fir, subalpine fir. In canyons: ponderosa pine, mountain mahogany, Idaho fescue, bluebunch wheatgrass.	Forested. Timber, mining, recreation, livestock grazing, and wildlife habitat. Streams subject to sediment loading when soils are disturbed.

17. MIDDLE ROCKIES

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F) or Seasonality	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
17e. Barren Mountains	1817	Partially glaciated. Block faulted mountains with high basal elevations.	6800-10000+/ 600-3000	Quaternary glacial deposits and colluvium. Tertiary volcanics, faulted Mesozoic and Paleozoic sedimentary and metasedimentary rocks including quartzite and carbonate-rich rocks, and Precambrian metamorphics. Rock outcrops occur.	Inceptisols (Eutrocryepts), Mollisols (Calcicryolls, Argicryolls), Alfisols (Palecryalfs)	Gany, Koffgo, Edgway, Fitzwill	Cryic/ Udic, Xeric	18-30; lower elevations are usually semiarid	25-70	Long cold winters, moist springs.	Western spruce–fir forest, Douglas-fir forest/ North-facing slopes: open-canopied Douglas-fir–lodgepole pine–subalpine fir stands, aspen groves, sparse shrubs and grasses. South-facing slopes: mountain big sagebrush, mountain brush, sparse grasses. Over limestone: curlleaf mountain mahogany.	Covered by open-canopied coniferous forests, aspen groves, sagebrush, mountain brush, and grasses. Grazing, logging, mining, recreation, and wildlife habitat.
17h. High Elevation Rockland Alpine Zone	391	Glaciated. Very high, often severely exposed mountains. Jagged peaks and tarns occur.	9000-12600+/ 400-2600	Quaternary glacial deposits and colluvium. Mesozoic and Paleozoic sedimentary and metasedimentary rocks. Rock outcrops are very common.	Mollisols (Haplocryolls), Entisols (Cryorthents), Inceptisols (Eutrocryepts)	Very gravelly to stony soils are common.	Cryic/ Udic	30+	30-60	Very long, cold winters.	Alpine meadows–barren/ Above timberline: tundra, alpine grassland, meadows, wetlands. At timberline: krummholz. In cirques: subalpine fir, whitebark pine.	Tundra, alpine grassland, meadowland, open high altitude forest, or just rockland. Summer grazing, recreation, and wildlife habitat.
17j. West Yellowstone Plateau	876	Glaciated. Volcanic plateau containing hot springs, springs, lakes, moraines, outwash plains, canyons, and scattered ridges and buttes.	6000-7800/ 200-1200	Quaternary loess, aeolian deposits, alluvium, colluvium, outwash deposits, and glacial till. Quaternary rhyolite, tuff, and basalt.	Inceptisols (Eutrocryepts, Cryaquepts), Mollisols (Argicryolls), Andisols (Vitricryands), Alfisols (Palecryalfs)	Fourme, Trude, Bootjack, Turnerville, Bradco, Castan, Island Park	Cryic/ Udic	15-40	50-95	2/26; 43/79	Douglas-fir forest, sagebrush steppe/ North-facing slopes or uplands: Douglas-fir, lodgepole pine, aspen, mountain mahogany. South-facing slopes: mountain big sagebrush, mountain brush, Idaho fescue.	Covered by a mix of trees, mountain brush, and sagebrush grassland. Recreation, logging, mining, grazing, and wildlife habitat.
17l. Gneissic-Schistose Forested Mountains	9	Glaciated. Mountains. Short time lag between rainfall and runoff peaks; flashy storm hydrographs. Low stream flows during droughts and freezing periods.	7500-9500/ 1600-2000	Quaternary glacial deposits and colluvium. Precambrian metamorphic rocks including dolomite, schist, and quartzite.	Mollisols (Haplocryolls, Argicryolls), Inceptisols (Dystrocryepts)	Raynoldson, Fourme, Trude, Lionhead, Kitchell	Cryic/ Udic, Xeric	18-40	30-70	1/26; 43/79	Western spruce–fir forest, Douglas-fir forest/ Douglas-fir, lodgepole pine, subalpine fir, mountain big sagebrush, Idaho fescue, bluebunch wheatgrass.	Forested. Grazing, wildlife habitat, recreation, logging, grass hay production.
17n. Cold Valleys	383	Unglaciated. Floodplains, stream terraces, wetlands, alluvial fans, and foothills.	5000-7500/ 0-800	Quaternary loess, alluvium, colluvium, and basalt. Tertiary conglomerate, Mesozoic sandstone, shale, mudstone, siltstone, claystone and limestone, and Paleozoic limestone and mudstone.	Mollisols (Argicryolls, Haploxerolls, Palecryolls, Cryaquolls, Haplocryolls)	Enochville, Ririe, Lanark, Tetonia, Rin, Robin, Dranyon, Nielsen	Mostly Cryic, also Frigid/ Xeric	13-22	40-90	11/30; 48/84	Mostly sagebrush steppe; some Douglas-fir forest/ Uplands: mountain big sagebrush, bluebunch wheatgrass, Idaho fescue, needlegrass, bluegrass, serviceberry, aspen. Bottomlands: basin wildrye, rushes, willows, sedges.	Mostly brush- and grass-covered or marshland. Native grasslands are grazed, but sizeable areas grow winter wheat, spring barley, alfalfa, potatoes. Contains Grays Lake National Wildlife Refuge.
17o. Partly Forested Mountains	1867	Partly glaciated. Steep mountains.	6000-9000+/ 400-2600	Quaternary loess, colluvium, alluvium, and ground moraines. Tertiary volcanics and tuffaceous sediments, Mesozoic limestone, sandstone, mudstone, and shale. Some Paleozoic limestone.	Mollisols (Haplocryolls, Argicryolls, Calcicryolls), Alfisols (Haplocryalfs, Palecryalfs), Inceptisols (Eutrocryepts, Dystrocryepts)	Dranyon, Judkins, Paulson, Pavohroo, Stringam, Koffgo, Lasac, Huckridge, Fritz, Sessions. Shallow, stony soils common.	Cryic/ Xeric, Udic	16-30	30-75	8/29; 45/82	Douglas-fir forest. Lower sites: sagebrush steppe/ North-facing sites, flatter uplands: Douglas-fir, aspen, lodgepole pine, mountain mahogany. South-facing sites: mountain big sagebrush, mountain brush, fescue.	Partly forested. Timber production, summer range, and wildlife habitat.
17aa. Dry Intermontane Sagebrush Valleys	1957	Unglaciated. Stream terraces, floodplains, benches, and alluvial fans in the rain shadow of mountains. Limited mountain runoff, highly permeable valley fill deposits, and low precipitation cause water availability to be low.	3800-6800/ 200-1000	Quaternary alluvium and thick, highly permeable valley fill deposits. Tertiary andesite, latite, basalt, tuffaceous conglomerate, sandstone, siltstone, and limestone, and Precambrian quartzite.	Aridisols (Haplocalcids, Natrargids, Haplocambids, Calcicryids, Haplodurids, Petrocryids), Mollisols (Endoaquolls, Haploxerolls)	Millhi, Leadore, Pahsimeroi, Mitring, Ringle, Paint, Arbus, Bartonflat, Whiteknob, Bluedome, Fandow, Leatherman	Frigid, Cryic/ Mostly Aridic; by springs and streams: Aquic	6-12	30-90	6/30; 48/85	Mostly sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, Indian ricegrass, squirreltail, sedges, tufted hairgrass, rushes. On alkaline or saline soils: shadscale, greasewood.	Mostly brush- and grass-covered. Grazing, hay, pastureland, and small grain crops.
17ab. Dry Gneissic-Schistose-Volcanic Hills	2799	Unglaciated. Hills.	4000-9000/ 1100-2600	Quaternary alluvium, colluvium, and alluvial fan deposits. Quaternary rhyolite and basalt. Tertiary basalt, tuffs, andesite flows, and sedimentary rocks.	Aridisols (Natrargids, Haplocalcids, Haplodurids), Mollisols (Argixerolls, Argicryolls, Calcicryolls), Inceptisols (Eutrocryepts)	Millhi, Hagenbarth, Dacore, Koffgo, Farvant, Mitring, Parkalley, Zeelnot, Howcan	Frigid, Cryic/ Aridic, Xeric	7-22	30-100	-2/28; 40-79	Mostly sagebrush steppe/ Wyoming and mountain big sagebrush, Idaho fescue, low sagebrush, bluebunch wheatgrass, shadscale, Indian ricegrass; scattered pinyon pine, Utah juniper.	Shrub- and grass-covered. Primarily grazing, recreation, woodland, wildlife habitat; also, some irrigated alfalfa, barley, and pasture farming.
17ad. Western Beaverhead Mountains	240	Glaciated. Mountains.	6000-9100/ 1000-3100	Pleistocene glacial till, alluvium, and colluvium. Precambrian quartzite and argillite. Tertiary intrusive igneous rocks. Rock outcrops occur.	Inceptisols (Eutrocryepts), Mollisols (Calcicryolls, Haplocryolls, Argicryolls)	Koffgo, Hagenbarth, Gany, Lag, Clug. Shallow stony soils.	Cryic/ Xeric, some Udic	12-44	30-100	4/26; 44/84	Western spruce–fir forest/ South-facing slopes: mountain big sagebrush, mountain brush, bluebunch wheatgrass, and Idaho fescue. North aspects: Douglas-fir, aspen, lodgepole pine, subalpine fir.	Partly forested. Grazing, mining, logging, recreation, and wildlife habitat.

18. WYOMING BASIN

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
18c. Wet Valleys	207	Unglaciated. High elevation valleys containing nearly flat floodplains, low terraces, and flanking foothills and alluvial fans. Bottomlands are characterized by lakes, canals, and many wetlands.	Mostly 5900-6600/ 5-600	Quaternary alluvium and loess. Tertiary sandstone, Mesozoic limestone and shale, and Paleozoic limestone and mudstone.	Mostly Mollisols (Calciaquolls, Calcixerolls, Argixerolls)	Bear Lake, Lago, Bancroft. Many bottomland soils are poorly- to very poorly-drained. Some soils are affected by alkali.	Frigid/ West: Xeric. East: Ustic. Near streams: Aquic	10-16. In the rain shadow of mountains.	55-110	6/30; 47/85. Cold winters.	Sagebrush steppe/ Floodplains or terraces: sedges, rushes, cattails, bluegrass, clover. Alluvial fans or foothills: mountain big sagebrush, bluebunch wheatgrass, slender wheatgrass, Idaho fescue.	Brush- and grass-covered or marshland. Irrigated hayland, pasture, rangeland, and wildlife habitat.
18d. Semiarid Bear Hills	248	Unglaciated. Footslopes, alluvial fans, hills, ridges, and valleys.	6000-7400/ 50-1200	Quaternary alluvium and colluvium. Tertiary sandstone, siltstone and limestone. Rock outcrops occur.	Mollisols (Haploxerolls, Duricryolls, Calcixerolls), Inceptisols (Calcixerepts), Alfisols (Haploxeralfs)	Boundridge, Dagan, Sprollow, Richville, Bezzant, Cokeville, Cooley	Frigid, Cryic/ Xeric	12-20. In the rain shadow of mountains.	65-100	8/28; 44/84	Sagebrush steppe/ Bluebunch wheatgrass, bluegrass, mountain big sagebrush, serviceberry, snowberry. Ridgetops: low sagebrush, black sagebrush, bluebunch wheatgrass, bluegrass. Rocky areas: Utah juniper, curleaf mountain mahogany.	Mostly brush- and grass-covered. Mostly grazing and wildlife habitat.

19. WASATCH AND UINTA MOUNTAINS

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
19d. Wasatch Montane Zone	240	Partially glaciated mountains and plateaus. Perennial streams provide water to lower, more arid areas.	7000-9600/ 600-2600	Quaternary colluvium. Paleozoic quartzite, limestone, mudstone, and dolomite.	Mollisols (Argicryolls, Haploxerolls, Calcicryolls)	Dranyon, Nielsen, Aspen, Zeale, Dateman, Ireland	Frigid, Cryic/ Xeric, Udic	11-25. Deep winter snow pack.	10-90	8/28; 46/84	Douglas-fir forest, western spruce–fir forest/ North-facing slopes, flatter areas: Douglas-fir, aspen. South-facing slopes: mountain big sagebrush, snowberry, Idaho fescue, mountain bromegrass, needlegrass. Highest elevations: Englemann spruce, subalpine fir.	Forested. Primarily wildlife habitat and livestock grazing.
19f. Semiarid Foothills	398	Partially glaciated. Foothills.	5500-8200/ 600-2000	Quaternary alluvium, colluvium, loess, and lacustrine sediments. Tertiary siltstone and Paleozoic quartzite and limestone.	Mollisols (Haploxerolls, Calcicryolls, Argixerolls, Cryaquolls), Inceptisols (Calcixerepts), Vertisols (Calcixererts)	Aspen, Zeale, Sprollow, Bancroft, Joes, Brifox, Niter, Enochville	Frigid, Cryic/ Mostly Xeric; some Aquic	12-18	60-100	8/30; 48/84	Sagebrush steppe/ Mountain big sagebrush, bluebunch wheatgrass, and scattered Utah juniper.	Shrub- and grass-covered. Livestock grazing, wildlife habitat, and small grain and alfalfa farming.

80. NORTHERN BASIN AND RANGE

Level IV Ecoregion	Area (square miles)	Physiography	Elevation/ Local Relief (feet)	Geology: Surficial and bedrock	Soil: Order (Great Groups)	Soil: Common Soil Series	Soil: Temperature/ Moisture Regimes	Climate: Precipitation Mean annual (inches)	Climate: Frost Free Mean annual (days)	Climate: Mean Temperature January min/max; July min/max (°F)	Potential Natural Vegetation*/ Present Vegetation (*Source: Kuchler, 1964)	Land Use and Land Cover
80a. Dissected High Lava Plateau	5364	Unglaciated. Alluvial fans, rolling plains, hills, and shear-walled canyons cut into extrusive rocks. Externally-drained.	4000-6000/ 0-900	Quaternary alluvium, colluvium, and loess. Tertiary rhyolite, basalt, and tuffaceous rocks.	Aridisols (Argidurids, Haplodurids, Haplargids, Haplocalcids, Durargids), Mollisols (Haploxerolls)	Purdam, Colthorp, Raftriver, Xerxes, Aysees, Bruncan, Heckison, Roseworth, Arbidge	Frigid, Mesic/ Aridic, Xeric	8-18	75-145	15/38; 48/87	Sagebrush steppe/ Wyoming big sagebrush, Thurber needlegrass, bluebunch wheatgrass, bluegrass, western wheatgrass, cheatgrass. Rocky uplands: Utah juniper.	Brush- and grass-covered. Mostly rangeland and wildlife habitat. Some pastureland and cropland primarily producing hay and small grains.
80b. Semiarid Hills and Low Mountains	3567	Unglaciated. Mountain slopes, hills, and alluvial fans.	4600-7000/ 200-2000	Quaternary loess, alluvium, colluvium, and basalt. Tertiary volcanics, tuffaceous rocks, and sedimentary rock, Paleozoic schist, quartzite, siltstone, sandstone, and limestone.	Mollisols (Haploxerolls, Argixerolls, Calcixerolls), Entisols (Torriorthents), Aridisols (Haplocambids)	Newdale, Swanner, Coalbank, Pocatello, Neeley, Mackey, Ririe, Camelback, Rexburg, Ireland, Jimsage, Cedarhill	Frigid, Mesic/ Xeric, Aridic	8-20	50-110	11/33; 46/80	Mostly sagebrush steppe/ Mountain big sagebrush, low sagebrush, bluebunch wheatgrass, cheatgrass, bluegrass, Idaho fescue, needleandthread, snowberry, serviceberry, Utah juniper. Alluvial fans and by drainages: aspen, lodgepole pine, Douglas-fir.	Mostly brush- and grass-covered. Primarily livestock grazing and wildlife habitat. Some dryland farming of small grains and irrigated farming for potatoes, sugar beets, and alfalfa. A few feedlots occur.
80c. High Elevation Forests and Shrublands	943	Partly glaciated. Steep mountain slopes and peaks.	6000-9000/ 600-2200	Quaternary alluvium and colluvium, loess, and basalt. Tertiary volcanics, Paleozoic schists, quartzite, limestone, dolomite, sandstone, siltstone, and Precambrian quartzite.	Mollisols (Haplocryolls, Haploxerolls, Argicryolls), Inceptisols (Eutrocryepts), Entisols (Torriorthents)	Pavohroo, Ridgecrest, Sedgway, Moohoo, Nagitsy, Povey, Dranyon	Frigid, Cryic/ Xeric, Udic	12-30+	25-90	9/31; 50/86	Mostly western spruce–fir forest/ North-facing slopes and flats: Douglas-fir, aspen, snowberry, lodgepole pine. South-facing slopes: mountain big sagebrush, serviceberry, snowberry, Idaho fescue, chokecherry, mountain brome, bluegrass, bluebunch wheatgrass.	Covered by a mix of conifers, mountain brush, and sagebrush grassland. Livestock grazing, wildlife habitat, recreation, and timber production.
80e. High Desert Wetlands	105	Unglaciated. High desert lakes and surrounding wetlands. Water levels fluctuate seasonally and from year to year.	5300-5400/ 0-100	Quaternary alluvium and basin-fill deposits. Pliocene basalt flows.	Mollisols (Endoaquolls, Haploxerolls), Alfisols (Durixeralfs, Haploxeralfs)	Welch, Tucker, Bluecreek, Thacker, Soonahbe	Frigid/ Xeric, Aquic	9-16	60-100	13/37; 49/86	Wheatgrass–bluegrass, sagebrush steppe/ Sedges, meadow barley, creeping wildrye, basin wildrye, Idaho fescue, basin big sagebrush, Nevada bluegrass. bluebunch wheatgrass.	Brush- and grass-covered. Mostly rangeland and wildlife habitat. Lakes and wetlands provide critical habitat for nesting and migratory birds.
80f. Owyhee Uplands and Canyons	1293	Unglaciated. Deep, precipitous river canyons, lava fields, badlands, and tuffaceous outcrops that are riddled by caves.	3000-6600/ 200-2000	Quaternary colluvium and alluvium. Tertiary rhyolite, tuffaceous rocks, basalt flows, and sedimentary rock and Cretaceous granitic intrusions.	Alfisols (Durixeralfs, Haploxeralfs), Aridisols (Petroargids, Calcids), Mollisols (Argixerolls)	Gariper, Snell, Fairylawn, Willhill, Hat, Kanlee, Wickahoney	Frigid, Mesic/ Aridic, Xeric	10-20	50-115	20/39; 52/86	Mostly sagebrush steppe/ Wyoming big sagebrush, bluebunch wheatgrass, low sagebrush, Idaho fescue, bluegrass, squirreltail, bitterbrush, western juniper.	Mostly brush- and grass-covered. Mostly rangeland and wildlife habitat. Some hay and small grain farming.
80h. Saltbush-Dominated Valleys	438	Unglaciated. Gently sloping valleys that drain to the Snake River.	4500-5400/ 0-400	Quaternary alluvium and lacustrine sediments.	Aridisols (Haplocalcids, Natrargids)	Declo, Strevell, Darkbull, Mellor. Soils are dry for extended periods, light-colored, and moderately to strongly alkaline.	Mesic/ Aridic	8-12	95-135	16/34; 52/88	Saltbush–greasewood/ Mostly shadscale, greasewood, Nuttall saltbush, squirreltail, winterfat; also, basin sagebrush, Wyoming big sagebrush, bluebunch wheatgrass, needlegrass, bluegrass, Indian ricegrass.	Covered by alkaline-tolerant brush and grass. Rangeland, irrigated cropland, and wildlife habitat. Principal crops are alfalfa, small grains, pasture, sugar beets, and corn.
80i. Sagebrush Steppe Valleys	1865	Unglaciated. Gently sloping terraces, valley bottoms, basin rims, and alluvial fans.	4600-6500/ 0-800	Quaternary loess, silty alluvium, basalt, Tertiary siltstone and Paleozoic quartzite, dolomite, and limestone.	Mollisols (Palecryolls, Argicryolls, Haploxerolls), Aridisols (Haplocalcids, Haplargids)	Robin, Lanark, Neeley, Newdale, Bedke, Bahem, Bancroft, Conneridge, Arimo, Ririe, Rexburg	Frigid, Mesic/ Xeric, Aridic	8-25	80-135	10/30; 47/84	Sagebrush steppe/ Mountain big sagebrush, bluebunch wheatgrass, streambank wheatgrass, Idaho fescue, cheatgrass, bluegrass, aspen.	Brush- and grass-covered. Primarily livestock grazing, dryland wheat and barley farming, and irrigated alfalfa production.
80j. Semiarid Uplands	614	Unglaciated. Hills, low mountains, volcanic cones, buttes, and rocky outcrops rising from high lava plains as well as mid-elevation zones of the Owyhee and Jarbidge mountains.	5500-7500/ 200-2000	Quaternary colluvium and alluvium. Tertiary volcanics including rhyolite, latite, and basalt flows, Cretaceous granitic intrusions, and Paleozoic metamorphic rock.	Mollisols (Haplocryolls, Argixerolls), Alfisols (Haploxeralfs)	Keman, Cleavage, Avtable, Hat. Rock outcrops occur.	Frigid, Cryic/ Xeric	12-20	40-90	13/38; 48/85	Juniper steppe woodland, sagebrush steppe/ Mountain big sagebrush, snowberry, low sagebrush, antelope bitterbrush, bluebunch wheatgrass, squirreltail, bluegrass, Idaho fescue, mountain bromegrass. Rocky sites: western juniper. Jarbidge Mountains: juniper woodlands can be of limited extent or entirely absent.	Woodland-, brush-, and grass-covered. Livestock grazing and wildlife habitat.
80k. Partly Forested Mountains	38	Unglaciated. Higher elevations of the Owyhee mountains.	6500-8000/ 600-1500	Quaternary alluvium and colluvium. Tertiary rhyolite, latite, and basalt flows and Cretaceous granitic intrusions.	Mollisols (Argicryolls, Haplocryolls)	Parkay, Wareagle, Naz, Nazaton, Povey, Foxmount	Cryic/ Xeric	16-30+	25-80	18/38; 53/80	Grand fir–Douglas-fir forest/ Douglas-fir, ponderosa pine, mountain big sagebrush, serviceberry, snowberry, Idaho fescue, bluebunch wheatgrass, bluegrass.	Partly forested. Livestock grazing and wildlife habitat.

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