Summary Table: Characteristics of the Ecoregions of Wyoming

12.		SNA	KE RIVER PLAIN										
Level I	Level IV Ecoregions		Physiography		Geology	Soils			Climate			Potential Natural Vegetation	Land Use
		Area (square miles)		Elevation/ Local Relief (feet)	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes		Mean annual			and Land Cover
	ected eaus and n Basin		Unglaciated. Nearly flat, alluvial fans, low terraces, and poorly drained outwash plains. Perennial and intermittent streams originating from headwaters in the Middle Rockies (17). Moderate gradient, riffle/run morphology. Substrate is cobble-sized, glacial outwash material comprised primarily of limestone and dolomite.	0-200	Quaternary loess and alluvium. Clay, silt, sand, and gravel in floodplains and fans. Tertiary sediments and igneous rocks in small area closer to footslopes,	Mollisols (Haplocryolls, Argicryolls)	Lantonia, Tetonia, Rin, Driggs, Badgerton	Cryic/ Xeric	24-32	25-40	44/80	Sagebrush steppe dominated by mountain big sage- brush with Idaho fescue, slender wheatgrass, blue- bunch wheatgrass, sedges, and wet meadows.	Irrigated hayland, barley fields, and pasture. Resort and recreation area for nearby ski areas.

	Level IV Ecoregion	ns	Physiography		Geology		Soils			Climat	e	Potential Natural Vegetation	Land Use
		Area (square		Elevation/ Local Relief	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes		Frost Free Mean annual	Mean Temperature January min/max;		and Land Cover
17a.	Black Hills Foothills	miles) 1925	Unglaciated. Foothills (the "Hogback" and "Racetrack") surrounding the Black Hills' mountainous core. The Dakota Hogback separates the foothills from the plains. The Red Valley (Racetrack) inside the Hogback encircles the Black Hills dome. Some perennial streams ususally fed by springs and seeps from higher elevations. Low order streams have intermittent surface flows.		Mesozoic sandstone and shale. Underlain by the Cretaceous Cloverly Formation (around the outer edge of the region): rusty to light-gray sandstone containing lenticular chert-pebble conglomerated inter-bedded with variegated bentonitic claystone, and the Triassic Spearfish Formation of red shale, red siltstone, and white gypsum beds.	Entisols (Torriorthents, Ustorthents), Mollisols (Argiustolls, Haplustolls)	Butche, Boneek, Nevee, Tilford, Rhoame, Tassel, Gaynor, Spearfish, Nevee, Vale, Shingle, Thedalund, Grummit, Louviers, rock outcrops	Mesic/ Ustic, Aridic	(inches) 15-20	(days) 100-125	8/32 56/84	Ponderosa pine woodland and savanna with grass understory. Western wheatgrass, green needlegrass, needle-and-thread, little bluestem, buffalo grass, blue grama, and leadplant. Some burr oak in the north and Rocky Mountain juniper in the south. Mountain mahogany woodlands.	Livestock grazing, ranching, recreation, and wildlife habi Gypsum and copper mining.
17b.	Black Hills Plateau	331	Unglaciated. Plateau with broad ridges, entrenched canyons. In metamorphic areas, highly dissected, tilted rock faces, steep canyon slopes. In limestone areas, caves and springs, with consistent yearly streamflow. Streams fed primarily by springs and seeps, and many low order streams have intermittent surface flows.	5000-6800/ 600-1000	Paleozoic limestone of the Englewood Formation. Underlain by Paleozoic sediments, pink slabby dolomite limestone and Mississipian Pahasapa Formation: gray massive dolomite limestone. Metamorphic and granite outcrops at lower elevations.	Alfisols (Hapludalfs), Mollisols (Haplustolls)	Maitland, Corpening, Citadel, Vanocker, rock outcrops	Frigid/ Ustic	18-24	90-100	4/32 52/84	Ponderosa pine forest dominant. Also areas of aspen, easterb boxelder, boreal paper birch, some white spruce. The understory is shrubs (juniper, snowberry, bearberry, and russet buffaloberry), grasses (timber oatgrass), and sedges.	Recreation, hunting, timber production, wildlife habital seasonal woodland grazing and ranches in valley botto prairie openings.
17c.	Black Hills Core Highlands	29	Mountains with highly eroded outcrops, broad valleys, and plateaus.	5900-6900/ 800-1000	Exposed bedrock. Precambrian igneous and sedimentary rock and metamorphic schist, slates, quartize; granite and pegmatite. Higher elevations contain limestone and granitic intrusions form the major peaks.	Alfisols (Haplocryalfs), Mollisols (Argicryolls)	Stovho, Trebor, Heath, rock outcrops	Cryic/ Ustic	20-22	80-100	12/34 52/80	Mostly ponderosa pine with white spruce, paper birch and aspen on north facing slopes, moist areas, and at higher elevations. Also potential for lodgepole pine. Understory: sedges, bearded wheatgrass, oatgrass, bromegrass, common juniper, juniper, snowberry, Oregon grape, bearberry, and iris.	Aggregate mining in the metamorphic areas. Recreat hunting, timber production seasonal woodland grazing wildlife habitat.
17g.	Mid-Elevation Sedimentary Mountains	2581	Glaciated. Steep to moderately steep mountains. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates.	5000-8500/ 500-1100	Quaternary drift and colluvium. Faulted and folded Mesozoic-Paleozoic sedimentary (limestone, shale, sandstone, claystone) rocks.	Alfisols (Haplocryalfs, Glossocryalfs), Mollisols (Haplocryolls, Argicryolls), Entisols (Cryorthents)	Sapphire, Redfeather, Tongue River, Starley, Farlow, Nathrop, Starman, Turnerville	Cryic/ Ustic, Udic	24-32	25-50	-8/20 34/72	Dense to open forests of Douglas-fir, lodgepole pine or subalpine fir. Groves of quaking aspen may occur at lower edges of conifer forest. Understory species include snowberry, serviceberry, pinegrass, birchleaf spirea, and blue huckleberry in moister sites.	Timber production, recreat hunting, and wildlife habit
17h.	Alpine Zone	2713	Glaciated. High exposed mountains and jagged peaks above timberline. Dominated by glacial features including tarns, moraines, u-shaped valleys, and cirques. Headwaters to many streams of the Middle Rockies (17), Wyoming Basin (18), and Northwestern Great Plains (43) ecoregions. Small, high gradient perennial streams of low biological productivity, snowmelt dominated.	12000+/	Quaterary glacial deposits, colluvium and rock outcrops underlain by Tertiary volcanic (basalt and rhyolite in Yellowstone area, andesite in Absaroka Range), Precambrian granitic (gneiss, quartz, and metamorphics in the Wind River and Beartooth ranges, and Bighorn Mountains) and Mesozoic-Paleozoic sedimentary (limestone, sandstone, claystone, and shale) rocks in the remaining ranges.	Inceptisols (Eutrocryepts, Dystrocryepts)	Rock outcrop and rubble, Cowood, Teewinot	Cryic/ Udic	40-70+ Deep winter snowpack	25-30	long cold winters, short summers.	Alpine meadows and barren rock outcrops. Vegetation dominated by alpine avens, alpine bistort, alpine timothy, and other grasses, sedges, and forbs. Trees if present are krummholz and include spruce, fir and pine. Willow thickets occur in depressions and wet meadows.	Recreation, wildlife habitate native pastureland. Snow n provides water source to lo ecoregions.
17i.	Absaroka - Gallatin Volcanic Mountains	1891	Glaciated. Steep to moderately steep mountains and plateaus. Deeply cut valleys. Moderate to high gradient perennial streams with heavy sediment loading, especially after storm events and during spring snowmelt.		Quaternary drift and colluvium. Tertiary pyroclastic material, volcanic flows including andesitic rock, and water-laid volcanics.	Mollisols (Argicryolls), Inceptisols (Eutrocryepts)	Nielsen, Blaine, Shadow, Taglake, Clayburn, Garlet, rock outcrops	Cryic/ Ustic, Udic, Xeric	22-36	25-75	-4/32 40/84	Dense to open forests dominated by Douglas-fir and areas of lodgepole pine with an understory of blue huckleberry, birchleaf spirea, elk sedge, pinegrass, and heart leaf amica.	Recreation, hunting, timber production, and wildlife h
l7j.	Yellowstone Plateau	2066	Glaciated. Plateau, mountains, moraines, outwash plains, canyons, and scattered ridges and buttes. Many geothermic features including geysers, hot springs, thermal vents, and mud pots. Moderate to high gradient perennial streams. Springs and lakes are also found.	6400-9200/ 300-1200	Quaternary alluvial fill deposits, terrace deposits, colluvium, glacial drift, and outwash plains. Quaternary extrusive rocks that are mostly rhyolite, but also including basalt and tuff.	Inceptisols (Eutrocryepts), Mollisols (Argicryolls, Haploxerolls)	Rammel, Hechtman, Swanner, Cowood, Taglake, Garlet, rock outcrops and rubble	Cryic, Frigid/ Xeric, Udic, Ustic	22-80+	25-50	-8/24 36/80	Dense to open forests dominated by lodgepole pine, subalpine fir, Engelmann spruce, and white bark pine found at moist sites and highest elevations. South facing slopes support mountain big sagegrush and mountain shrubs. Sparse understory includes elk sedge, pinegrass, birchleaf spirea, grouse whortleberry, and heartleaf armica.	Tourism, recreation, and w habitat. Timber production hunting outside of Yellows National Park.
7k.	Granitic Subalpine Zone	2145	Heavily glaciated, lake studded, high mountains. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates with low productivity due to granitic parent material.	8500- 10000/ 600-1000	Quaternary drift, colluvium, and rock outcrops. Underlain by Precambrian, pre-belt metamorphic rock.	Wind River and Teton ranges, and Beartooth Mountains: Alfisols (Glossocryalfs, Haplocryalfs), Mollisols (Argicryolls), Bighorn Mountains: Alfisols (Haplocryalfs, Glossocryalfs), Mollisols (Haplocryolls)	Wind River and Teton ranges, and Beartooth Mountains: Redfeather, Frisco, Ansel, Gelkie, rock outcrops. Bighorn Mountains: Indart, Handran, Mathers, Hazton, rock outcrops.	Cryic/ Ustic, Udic, Aridic	20-60	50-75	0/24 40/76	Subalpine forests dominated by Englemann spruce and subalpine fir. May include limber pine and whitebark pine at highest elevations. lodepole pine is a seral species. Understory growth in not diverse; grouse whortleberry, Oregon grape, birchleaf spirea, and heartleaf armica predominate	Recreation, timber product hunting, seasonal livestocl and wildlife habitat.
7m.	Dry Mid-Elevation Sedimentary Mountains	1806	Glaciated. Steep to moderately steep mountains. Flat irons are extensive especially in the Bighorn Mountains. Deep canyons with high gradient perennial streams. Boulder, cobble, and bedrock substrates with moderate to high biological productivity.		Quaternary drift and colluvium. Mesozoic-Paleozoic sedimentary rocks of limestone, siltstone, shale and sandstone. Triassic Chugwater and Dinwoody Formations in the Bighorn Mountains. Cambrian Gros Ventre and Gallatin Formations in the Wind River Range.	Wind River Range: Alfisols (Haplocryalfs, Glossocryalfs), Mollisols (Argicryolls, Calcicryolls, Haplocryolls), Bighorn Mountains: Alfisols (Glossocryalfs), Mollisols (Argicryolls, Haplocryolls), Entisols (Dystrocryepts)	Wind River Range: Cloud Peak, Sapphire, Cowdrey, Starley, Farlow, Auzqui, Nathrop, Owen Creek, Duncom, rock outcrops. Bighorn Mountains: Auzqui, Lymanson, Nathrop, Burgess, Jenkins, Starley, Dell, rock outcrops.	Cryic/ Ustic, Aridic	18-24	50-75	4/28 40/84	Dense forests to open woodlands dominated by Douglas-fir, with an understory of grasses, forbs, and shrubs. Wind River Range: Douglans-fir with a fringe of aspen or subalpine fir with an understory of mountain juniper, buffaloberry, wheeler bluegrass and yarrow. Bighorn Mountains: Ponderosa pine or limber pine may be present. Understory of mountain big sagebrush and mountain mahogany	Timber production, recreat hunting, seasonal livestocand wildlife habitat.
17n.	High Elevation Valleys	710	Unglaciated. High elevation valleys with wet bottomlands, marshes, stream terraces, alluvial fans, and lower foothill slopes.	5000-8000/ 50-500	Quaternary loess, alluvium, colluvium, basalt. Tertiary conglomerate, Mesozoic sandstone, shale, mudstone, siltstone, claystone and limestone, and Paleozoic limestone and mudstone.	Mollisols (Haplocryolls, Argicryolls, Cryaquolls)	Thayne, Greyback, Willow Creek, Hobacker, Robana, Paulson, Turson, Dipman	Cryic/ Ustic, Aquic	12-30	25-35	-4/24 40/76	Shrubland dominated by sagebrush steppe, which may include big, mountain, and silver sagebrush, Idaho fescue, bearded wheatgrass, sticky geranium, bluegrass, cirque foil, lambs tail, and fringed sage. Douglas-fir with an understory of snowberry and pinegrass grows in mesic areas and on north-facing slopes. Some aspen groves also occur.	Recreation, wildlife habita grasslands are grazed by v including elk, bison, and r Elk refuge located outside Jackson, WY. Livestock g also common in valleys of Yellowstone National Parl
70.	Partly Forested Mountains	387	Partly glaciated. Steep to moderately steep mountains. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates.	6500-7800/ 400-1800	Quaternary loess, colluvium, alluvium, and ground moraine. Tertiary volcanics and tuffaceous sediments, Mesozoic limestone, sandstone, mudstone, and shale. Some Paleozoic limestone.	Alfisols (Palecryalfs, Haplocryalfs, Glossocryalfs), Mollisols (Argicryolls), Entisols (Dystrocryepts)	Judkins, Mikesell, Dranyon, Turnerville, Leighcan	Cryic/ Xeric, Ustic, Udic	20-32	25-50	0/28 40/80	Open forests to open woodlands dominated by Douglas-fir. Limber pine, quaking aspen, lodgepole pine, and mountain mahogany may also be present, especially on north facing slopes. Mountain mahogany, big sagebrush, snowberry, and rose grow on treeless south facing slopes and beneath open canopied woodland with an understory of Idaho fescue.	Timber production, season livestock grazing and wild habitat.
7ao.	Absaroka Volcanic Subalpine Zone	1353	Glaciated. Steep mountains and plateaus. Moderate to high gradient perennial streams with heavy sediment loading, especially after storm events and during spring snowmelt.	8500- 10000/ 600-1000	Quaternary drift and colluvium. Tertiary pyroclastic material, volcanic flows including andestic rock, and water-laid volcanics.	Entisols (Cryorthents), Mollisols (Argicryolls)	Starman, Clayburn, Dranyon	Cryic/ Udic	30-50	25-50	4/28 34/80	Subalpine forests dominated by Englemann spruce and subalpine fir. May include lodgepole pine, limber pine, Understory species include mountain juniper, mountain gooseberry, buffaloberry, heartleaf armina, milk vetch, and sagebrush in droughty soils. At highest elevations whitebark pine, with an understory of Idaho fescue, Ross sedge, wheeler bluegrass, and silvery lupine.	Timber production, recre hunting, and wildlife hab
7ap.	Sedimentary Subalpine Zone	1989	Glaciated. Mountains with steep slopes. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates.	8500- 10000/ 400-1000	Quaternary drift and colluvium. Faulted and folded Mesozoic-Paleozoic sedimentary rocks (limestone, shale, sandstone, claystone).	Alfisols (Glossocryalfs, Haplocryalfs), Inceptisols (Eutrocryepts), Entisols (Cryorthents)	Cowdrey, Tongue River, Hechtman, Starman, rock outcrops and rubble	Cryic/ Ustic, Udic	30-50	25-50	4/28 34/80	Subalpine forests dominated by Englemann spruce and subalpine fir. May include lodgepole pine, limber pine, aspen, and whitebark pine. Interspersed mountain meadows contain wolf willow, potentilla, larkspur, alpine timothy, Idaho fescue, and yampa	Timber production, recreation hunting, livestock grazing wildlife habitat.

]	Level IV Ecoregion	S	Physiography		Geology		Soils			Climat	te	Potential Natural Vegetation	Land Use
		Area (square miles)		Elevation/ Local Relief (feet)	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes	Precipitation Mean annual (inches)	Frost Free Mean annual (days)	Mean Temperature January min/max; July min/max (°F)		and Land Cover
18a.	Rolling Sagebrush Steppe	22857	Unglaciated. Plains with hills, Nearly level floodplains and terraces, and rolling alluvial fans. Streams and rivers originating in mountains have moderate gradient with cobble substrates of granite or limestone. Streams originating in the center of the basin are more incised, low gradient with finer gravel substrates derived from shales. Small streams are ephemeral or weakly intermittent with sand or platy shale substrates.	4900-7200/ 50-400	Quaternary alluvium, colluvium, outwash deposits, and eolian deposits derived from Tertiary and Cretaceous claystone, sandstone and sedimentary rock. Areas of lenticular coal, oil and shale marlstone. Rock outcrops also occur.	Entisols (Torriorthents, Torripsamments), Aridisols (Haplargids, Haplocalcids, Calciargids)	Haterton, Ryark, Almy, Blackhall, Alcova, Blazon, Delphill, Garsid, Cotopaxi, Cambarge, Pepal, Huguston, Teagulf, Ryan Park, Bosler, Bowbac, Shingle	Frigid, Mesic/ Ardic, Udic	6-16	75-100	-8/24 44/88	Shrubland dominated by sagebrush steppe, which may include western wheatgrass, needle-and-thread grass, blue grama, Sandberg bluegrass, junegrass, rabbitbrush, fringed sage, Wyoming big sagebrush, silver and black sagebrush in lowlands and mountain big sagebrush in the higher elevations.	Oil and gas production. Oil shal and bitumens, in the southwest corner of region. Uranium mini in the Shirley Basin and northw of the Granite Mountains. Exter coal mining. Rangeland: livesto grazing and wildlife habitat.
18b.	Bighorn Basin	3285	Unglaciated. Basin with rolling plains, terraces, and alluvial fans. Streams and rivers originating in mountains have moderate gradient with cobble-sized substrates of granite, volcanic rock or limestone. Incised stream channels. Many ephemeral streams. Severely altered hydrology due to mosaic of irrigation diversion ditches. Many ephemeral streams become perennial during irrigation season due to return flows.		Quaternary alluvium, colluvium, outwash deposits, and eolian deposits derived from Tertiary and Cretaceous sedimentary rock. Cretaceaous Cody Formation: shale and bentonite clay. Mesa Verde Formation: light-colored massive to thin-bedded sandstone, gray sandy shale, and coal beds. Rock outcrops occur.	Entisols (Ustifluvents, Torrifluvents, Torriorthents), Aridisols (Haplargids, Haplocalcids)	Haverson, Glenberg, Griffy, Garland, Worland, Hiland, Bowbac, Blackhall, Thermopolis, Haverdad, Forkwood, Shingle, Copeman, Trook, Wall, rock outcrops	Mesic, Frigid/ Aridic, Udic	8-14	110-130	0/36 46/92	Shrubland dominated by sagebrush steppe, which may include Wyoming big sagebrush, western wheatgrass, bluebunch wheatgrass, needle-and-thread grass, blue grama, Sandberg bluegrass, junegrass, rabbitbrush, fringed sage, and other grasses, forbs, and shrubs.	Oil and gas production. Areas o bentonite clay production. Rangeland: livestock grazing an wildlife habitat.
18c.	Sub-Irrigated High Valleys	2259	Unglaciated. High elevation valleys, nearly flat floodplains, and low terraces. Many wetlands. Streams and rivers are moderate gradient, riffle/run. Substrate is generally cobble-sized, glacial outwash material consisting of granite, limestone, and quartzite.	5200-8000/ 25-175	Quaternary alluvium, colluvium, outwash deposits, and eolian deposits over Tertiary and Cretaceous sedimentary bedrock. Rock outcrops occur.	Entisols (Ustifluvents, Ustorthents), Aridisols (Haplocalcids, Calciargids, Haplargids), Mollisols (Haplustolls, Argiustolls, Haplocryolls, Cryaquolls, Argicryolls)	Havre, McFadden, Bosler, Patent, Forelle, Lander, Evanston, Outlet, Dobrow, Greyback, Gelkie	Frigid, Cryic/ Ustic, Aridic, Aquic	12-16	25-75	-4/28 36/84	Wet meadows and riparian areas may include, willows, narrow leaf alders, cottonwood, horsetail, spikerush sedges, and tufted hairgrass. Shrubland dominated by sagebrush steppe, which may include Wyoming big sagebrush, western wheatgrass, needle-and-thread grass, blue grama, Sandberg bluegrass, junegrass, rabbitbrush, and fringed sage.	Rangeland: livestock grazing an wildlife habitat. Irrigated cropla with hay as main crop. Non-irrigated uplands are shrub grass covered rangeland.
18d.	Foothill Shrublands and Low Mountains	6911	Unglaciated. Footslopes, alluvial fans, hills, ridges, and valleys. Streams originate in adjacent Rocky Mountains or are small spring-fed streams that originate on the flanks of higher basin ranges. They are steep gradient with riffle/run and plunge pools. Substrate is generally cobble or larger, composed of limestone and granite material.	200-800	Quaternary alluvium and colluvium derived from Tertiary sedimentary and older crystalline rocks of the surrounding mountains. Underlain by Tertiary sandstone and conglomerate, oil shale, siltstone, and limestone. Precambrian granitic rocks in the Owl Creek, Granite, and Seminoe mountains. Rock outcrops occur.	Aridisols (Haplargids, Haplocalcids, Haplocambids), Entisols (Torriorthents, Cryorthents), Mollisols (Argicryolls, Haplocryolls), Inceptisols (Dystrocryepts, Calciustepts), Alfisols (Glossocryalfs, Haplocryalfs)	Nathrop, Lymanson, Saddle, Worland, Starman, Burgess, Jenkins, Starley, Dell, Amsden, Decross, Poker, Indart, Farlow, Owen Creek, Fossilon, Langspring, Chittum, Glassner, Uhl, Woosley, Rentsac, rock outcrops	Cryic, Frigid, Mesic/ Ustic, Aridic	14-20	75-100	0/34 44/88	Rocky Mountain juniper, lodgepole pine, limber pine, aspen, and Douglas-fir forests are found at higher elevations. Ponderosa pine is also found at the higher elevations in the west. Rocky Mountain juniper, Utah juniper and mountain mahogany woodlands occur on rock outcrops. Sagebrush steppe and grassland dominated by big sagebrush, rabbitbrush, prickly pear, bluebunch wheatgrass, Idaho fescue at lower elevations.	Rangeland: livestock grazing ar wildlife habitat. Timber product in Green, Owl Creek, and Shirle mountains.
18e.	Salt Desert Shrub Basins	3858	Unglaciated. Plains, nearly level floodplains and terraces, and rolling alluvial fans. Streams are ephemeral or weakly intermittent. Many streams are incised and flow into playa areas. Substrate is commonly fine textured material or platy shale gravels. Playas are seasonal and have high level of soluble salts.		Quaternary alluvium and colluvium. Gravel and fan deposits. Areas of active and stabilized dune sand and loess. Underlain with Tertiary and Cretaceous siltstone, sandstone, claystone, and areas of oil and shale marlstone.	Entisols (Torriorthents, Torripsamments), Aridisols (Haplocalcids, Haplocambids, Natrargids)	Dines, Chrisman, Kandaly, Teagulf, Shellcreek, Debone, Blazon, Moyerson	Frigid/ Aridic	6-10	75-100	0/32 42/88	Desert shrublands dominated by alkaline tolerant shrubs and grasses; greasewood, Gardner saltbush, shadescale, bud sage, and big sagebrush. Areas with stabilized sand dunes are dominated by alkali cordgrass, Indian ricegrass, blowout grass, alkali wildrye, and needle-and-thread grass.	Rangeland: livestock grazing and wildlife habitat. Gas and coal production. Trona mining i southwest. Uranium mining in t Red Desert.
18f.	Laramie Basin	1719	Unglaciated. High elevation valley, nearly flat floodplains, and low terraces. Streams and rivers are moderate gradient, riffle/run. Substrate is generally cobble, glacial outwash material consisting of granite, limestone, and quartzite.	10-150	Quaternary alluvium and colluvium, Tertiary gravels and fan deposits in stream and floodplain areas. Areas of Tertiary soft marine shale, claystone and silty sandstone.	Aridisols (Haplocalcids, Calciargids, Haplargids, Argicryids, Haplocambids), Entisols (Torriorthents, Ustifluvents)	McFadden, Bosler, Forelle, Sinkson, Rawah, Thermopolis, Glendive, Chaperton, Alcova, Diamondville	Frigid, Cryic/ Aridic, Ustic	10-16	75-90	8/32 44/80	Mixed-grass prairie dominated by blue grama, Indian ricegrass, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and various forb and shrub species.	Rangeland: livestock grazing an wildlife habitat.
18g.	Bighorn Salt Desert Shrub Basins	4624	Unglaciated. Plains, nearly level floodplains and rolling alluvial fans. Incised stream channels. Many ephemeral streams. Severely altered hydrology due to mosaic of irrigation diversion ditches. Many ephemeral streams become perennial during irrigation season due to return flows. Heavy sediment loading during run off events.	10-100	Quaternary alluvium and colluvium. Tertiary gravels derived from the Willwood Formation. Tertiary variegated claystone, shale, and sandstone; some lenticular goldbearing quartzite conglomerates. Cretaceaous Cody Formation in the east: shale and bentonite clay.	Entisols (Torriorthents, Torrifluvents), Aridisols (Haplargids, Natrargids)	Persayo, Haverdad, Kishona, Griffy, Garland, Chipeta, Greybull, Sayles, Stutzman, Worland, Torchlight, Youngston, Apron, Wallson, Mudray, rock outcrops	Mesic/ Aridic, Udic	5-9	100-125	0/32 54/88	Desert shrublands dominated by alkaline tolerant shrubs and grasses; greasewood, Gardner saltbush, shadescale, birdfoot sagebrush, bud sage, saltgrass, and alkali sacaton. Riparian vegetation along the major rivers consists of open deciduous woodland with plains cottonwood, narrow leaf cottonwood, peachleaf willow, and wild plum. Introduced woody species such as Russian olive and tamarisk are common invaders.	Irrigated agriculture along majorivers and streams producing barley, sugarbeets, alfalfa, corn, and big northern beans. Bentoniclay mining. Rangeland: livesto grazing and wildlife habitat. Oil gas, and coal production.

Order (Great Group)

Climate

(inches) (days) July min/max (°F

4/28

Temperature/ Precipitation Frost Free Mean Temperature

20-30

snowfall

exceeds

Cryic/

Common Soil Series

Uinta, Handran, Gelkie, Lail

Potential Natural Vegetation

understory of sagebrush, grasses, forbs and shrubs. and wildlife habitat.

Dense to open forests dominated by Douglas-fir,

Subalpine fir, Engelmann spruce, and aspen are also

lodgepole pine, and ponderosa pine with an

Land Use

Land Cover

Timber production, seasonal range

and livestock grazing, recreation,

WASATCH AND UINTA MOUNTAINS

Glaciated. Moderate to steep mountains. Moraines

outwash material comprised primarily of quartzite.

and a few lakes. Streams are moderate to steep

gradient, riffle/run. Substrate is cobble, glacial

Physiography

Local Relief

Geology

Surficial and Bedrock

Precambrian quartzite; also some Tertiary

97000/ alluvium. Mostly Tertiary sedimentary rocks, Mollisols (Argicryolls,

8000- Quaternary glacial till, colluvium, and

400-2000 Mesozoic sedimentary rocks, and

igneous rocks.

Level IV Ecoregions

19c Mid-Elevation

Uinta Mountains

]	Level IV Ecoregic		Physiography		Geology	Soils				Climate	e	Potential Natural Vegetation	Land Use
		Area (square miles)	re L	Elevation/ Local Relief (feet)	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes	Precipitation Mean annual (inches)	Mean annual	Mean Temperature January min/max; July min/max (°F)		and Land Cover
21a.	Alpine Zone	33	Glaciated. Steep slopes, ridges and exposed rocky peaks above timberline. Wet meadows are common. Headwaters to many streams of the Southern Rockies (21), Wyoming Basin (18), Western High Plains (25), and Northwestern Great Plains (43) ecoregions.	10500- 12000/ 800-1150	Exposed bedrock. Precambrian metasedimentary rocks: pelitic schist, amphibole schist, quartzite, diamictite, quartzpebble conglomerate, and marble.	Alfisols (Haplocryalfs, Glossocryalfs)	Frisco, Granile, rock outcrops	Cryic/ Aridic, Udic	25-50+ Deep winter snowpack	25-35	0/24 36/72	Alpine meadows and barren rock outcrops. Vegetation dominated by alpine avens, alpine bistort, alpine timothy, cushion plants, and other grasses, sedges, and forbs. Trees if present are krummholz and include spruce, subalpine fir and limber pine. Willow thickets occur in depressions.	Recreation, wildlife habitat, and pastureland. Snow cover is a majo source of water for lower, more a ecoregions.
21b.	Subalpine Mountains	685	Glaciated. Steep mountains. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates.	8500- 10800/ 600-1200	Quaternary glacial till and colluvium. Precambrian and Tertiary metasedimentary, metavolcanic, and intrusive rocks: pelitic schist, amphibole schist, quartzite, diamictite, quartz-pebble conglomerate, and marble. Precambrian granitic gneiss, felsic gneiss, amphibolite, and granitic rocks. Copper, silver, and gold deposits.	Alfisols (Haplocryalfs, Glossocryalfs), Inceptisols (Dystrocryepts), Spodosols (Haplocryods), Mollisols (Haplocryolls)	Frisco, Ansel, Hazton, Endlich, Rogert, Grenadier, Moran, Granile, Leighcan, rock outcrops	Cryic/ Aridic, Udic, Ustic	26-46	25-50	long cold winters, short summers.	Subalpine forests dominated by Englemann spruce and subalpine fir. Often inter-dispersed with aspen groves, lodgepole pine forest, or mountain meadows, and with Douglas-fir at lower elevations. May include limber pine, aspen, and whitebark pine. Understory plants include dwarf huckleberry, whortleberry and various grasses, forbs and other low shrubs. Subalpine meadows also occur in some areas.	Timber production, recreation, hunting, wildlife habitat and seasonal grazing. Some copper, silve and gold mining. Snow cover is a major source of water for lower, more arid ecoregions.
21c.	Mid-elevation Forests and Shrublands	2366	Partially glaciated. Low mountain slopes and outwash fans. Moderate to high gradient perennial streams. Boulder, cobble, and bedrock substrates.	400-1000	Quaternary glacial till, colluvium, and alluvium. Precambrian and Tertiary metasedimentary, metavolcanic, and intrusive rocks: pelitic schist, amphibole schist, quartzite, diamictite, quartz-pebble conglomerate, and marble. Precambrian granitic gneiss, felsic gneiss, amphibolite, and granitic rocks. Copper, silver, and gold deposits.	Mollisols (Haplocryolls, Argiustolls, Argicryolls), Inceptisols (Dystrocryepts)	Starley, Boyle, Farlow, Nathrop, Lininger, Simmont, Moran, rock outcrops	Cryic, Frigid/ Aridic, Ustic, Udic	18-26	75-90	4/32 40/80	Lodgepole pine forest, Douglas-fir forest with areas of limber pine. Understory of grasses, forbs, and shrubs. Aspen forests occur, especially in the Sierra Madre range. Ponderosa pine woodlands in the northern Laramie Mountains.	Wildlife habitat, livestock grazing logging, recreation and mineral extraction. Some copper, silver, a gold mining.
21d.	Foothill Shrublands	2903	Unglaciated. Hills, ridges, and footslopes. Low to high gradient perennial, intermittent, and ephemeral streams. Coarse to fine gravel and cobble substrates.	5000-7500/ 200-900	Quaternary glacial till, colluvium, and alluvium. Precambrian and Tertiary metasedimentary and metavolcanic rocks: amphibolite, pelitic schist, amphibole schist, quartzite, diamictite, quartz-pebble conglomerate, and marble. Granitic gneiss, felsic gneiss, amphibolite, and granitic rocks.	Entisols (Torriorthents), Mollisols (Haplustolls, Argiustolls), Aridisols (Haplargids, Haplocambids)	Epping, Corpening, Mitchel, Keota, Lantis, Forelle, Poposhia, Chaperton, Blackdraw, rock outcrops	Mesic, Frigid/ Aridic, Ustic, Ustic	12-18	75-100	4/34 44/80	Sagebrush steppe, mountain mahogany woodland often interspersed with mountian big sagebrush, blue grama, prairie junegrass, western wheatgrass, and ponderosa pine savanna in the Laramie foothills. Pockets of aspen, limber pine, and Douglas-fir on north-facing slopes. Riparian vegetation may include willow species and narrowleaf cottonwood with boxelder and wild plum in the north.	Rangeland: livestock grazing and wildlife habitat.

]	Level IV Ecoregion	ıs	Physiography		Geology	Soils				Climate	2	Potential Natural Vegetation	Land Use
		Area (square miles)		Elevation/ Local Relief (feet)	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes	Precipitation Mean annual (inches)	Mean annual	Mean Temperature January min/max; July min/max (°F)		and Land Cover
25c.	Moderate Relief Rangeland	2104	Irregular plains with moderate slope. Intermittent streams, a few large perennial streams which mostly originate in mountains or higher relief areas. Silty and sandy substrates.	4700- 7600/ 50-200	Quaternary sandy, gravely and loamy colluvium. Tertiary deposits of light colored tuffaceous claystone, sandstone and conglomerate. Underlain by claystones and sandstones of the Tertiary Arikaree and Ogallala formations.	Mollisols (Argiustolls, Haplustolls), Entisols (Torripsamments, Torriorthents)	Ascalon, Jayem, Vetal, Trelona, Shingle, Dwyer, Manter, Dix, Valent, Bayard, Treon, Nucla, rock outcrops	Mesic/ Aridic, Ustic	12-16	100-125	8/32 52/88	Mixed-grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and various forbs, shrubs, and other grasses. Some mountain mahogany and skunkbush sumac on bluffs near Laramie Mountains	Rangeland: livestock grazing a wildlife habitat. Small areas of dryland farming.
25d.	Flat to Rolling Cropland	1343	Flat to rolling plains. Intermittent streams, a few large perennial streams which mostly originate in mountains or higher relief areas. Silty and sandy substrates.	4700- 5700/ 10-150	Quaternary colluvim. Localized loess deposits in the southeast corner of the region. Tertiary gravel, claystone, sandstone and sand deposits. Underlain by claystones and sandstones of the Tertiary White River and Ogallala formations.	Mollisols (Argiustolls, Hapustolls), Entisols (Ustorthents, Torriorthents, Tottpsamments)	Rosebud, Ascalon, Albinas, Shingle, Dwyer, Altvan, Nucla, Bayard, Dunday, Colby, Mitchell, Alliance, Keith, Creighton	Mesic/ Aridic, Ustic	12-16	100-125	12/38 52/88	Mixed-grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and various forbs, shrubs, and other grasses. Small tracts of shortgrass prairie with buffalo grass.	Dryland cropland with areas of irrigated cropland. Major crop is winter wheat. Areas in rangelar livestock grazing and wildlife habitat.
25f.	Pine Bluffs and Hills	720	Dissected plateaus, bluffs, hills, escarpments, and steep valley side-slopes. Perennial springs along base of bluffs.	4300- 6200/ 150-800	Quaternary sandy residuum, white tuffaceous claystone and siltstone. Underlain by the Tertiary Arikaree Formation: light colored porous sandstone, and the Tertiary White River formation. In the northwest, red and white sandstone is underlain by the Pennsylvanian Hartville Formation: gray dolomite and limestone, red shale, and red and gray sandstone.	Mollisols (Argiustolls, Haplustolls), Entisols (Torriorthents)	Brownrigg, Featherlegs, Wendover, Wibaux, Busher, Shingle, Tassel, Motoqua, Treon, Taluce, rock outcrops	Mesic/ Aridic, Ustic	12-14	100-125	12/40 54/88	Ponderosa pine woodlands with understory of grasses, forbs, and shrubs. Common species include little bluestem, common juniper, and bearberry. Some areas of limber pine and silver sagebrush. Areas of juniper woodland on calcareous substrates of the Hartville Uplift.	Rangeland: livestock grazing a wildlife habitat.
25g.	Sandy and Silty Tablelands	1637	Irregular plains and tablelands with areas of moderate relief. Intermittent streams, with a few large perennial streams which mostly originate in mountains or higher relief areas. Sandy and silty substrates.	4100- 5200/ 100-300	Quaternary sandy residuum, white tuffaceous claystone and siltstone. Underlain by the Tertiary Arikaree Formation: light colored porous sandstone.	Mollisols (Haplustolls, Argiustolls), Entisols (Torripsaments, Ustorthents, Torriorthents)	Hargreave, Manter, Busher, Jayem, Satanta, Vetal, Dwyer, Bridget, Valent, Dailey, Otero, Recluse, Taluce, Palmer Canyon, Dix, Nihill, rock outcrops	Mesic/ Ustic, Aridic	14-17	100-125	10/36 56/88	Mixed-grass prairie dominated by blue grama, western wheatgrass, junegrass, prairie sandreed, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and various forbs, shrubs, and other grasses. Small tracts of shortgrass prairie with buffalo grass and some areas of silver sagebrush.	Rangeland: livestock grazing a wildlife habitat. Limited cropla
25h.	Platte River Valley and Terraces	1022	Broad flat alluvial valley, bluffs, and terraces. Intermittant low gradient streams, and few major perennial rivers, such as the North Platte River. Silt, sand, and gravel substrates.	4200- 5050/ 5-100	Quaternary sandy and silty alluvial deposits. Underlain by the Tertiary White River Formation: light-gray to dark-red tuffaceous claystone, sandstone, and lenticular conglomerate and the Cretaceaous Lance Formation: brown and gray sandstone and shale, thin coal and carbonaceous shale beds.	Entisols (Torriorthents, Torripsamments, Ustorthents),Aridisols (Hapargids), Mollisols (Haplustolls, Argiustolls)	Epping, Vetal, Jayem, Trelona, Creighton, Cushman, Anselmo, Mitchell, Bayard, Otero, Dwyer, Satanta, Featherlegs, Dunday	Mesic/ Aridic, Ustic	12-14	100-125	12/40 56/88	Mixed-grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and various forbs, shrubs, and other grasses. Small tracts of shortgrass prairie with buffalo grass and some areas of silver sagebrush. Along the North Platte River, deciduous forest of plains cottonwood, snowberry, wild plum, and silver buffalo-berry.	Irrigated cropland in the river valleys, and dryland and irriga cropland on terraces.

	Level IV Ecoregion	S	Physiography		Geology		Soils			Climate		Potential Natural Vegetation	Land Use
		Area (square miles)		Elevation/ Local Relief (feet)	Surficial and Bedrock	Order (Great Group)	Common Soil Series	Temperature/ Moisture Regimes	Precipitation Mean annual (inches)	Mean annual J	Mean Temperature anuary min/max; uly min/max (°F)		and Land Cover
43e.	Sagebrush Steppe	212	Unglaciated. Nearly level to rolling, erosion-prone plains. Streams are ephemeral or intermittent. Intermittent streams consist of a series of pools separated by shallow glides or dry areas. Many impoundments occur. Silt and clay substrates.	3600- 4000/ 50-200	Quaternary alluvium along channels. Upper Cretaceous sandstone and shale.	Entisols (Ustorthents, Torriorthents), Alfisols (Haplustalfs)	Cabbart, Yawdim, Hesper, Samday	Frigid, Mesic/ Ustic, Aridic	14-16	100-125	8/30 56/86	Sagebrush steppe dominated by dusky gray sagebrush, dwarf sagebrush, big sagebrush, with western wheatgrass, green needlegass, blue grama, Sandberg bluegrass, and buffalograss, bluebunch wheatgrass, needle-and-thread grass, Sandberg bluegrass, junegrass, rabbitbrush, fringed sage, and other grasses, forbs, and shrubs.	Rangeland: livestock grazing a wildlife habitat. Bentonite claymining.
43g.	Semiarid Pierre Shale Plains	1483	Unglaciated. Undulating to rolling plains. Steep-sided, incised stream channels. Few perennial streams, many ephemeral or intermittent streams. Low gradient intermittent streams consist of a series of pools separated by shallow glides or dry areas. Silt and clay substrates.	3600- 4500/ 100-350	Quaternary alluvium along channels. Cretaceous Pierre Formation shale: dark gray concretionary marine shale; contains several bentonite beds.	Entisols (Torriorthents, Ustorthents, Ustifluvents), Vertisols (Haplusterts), Aridisols (Haplargids), Mollisols (Haplustolls)	Orella, Samsil, Limon, Lohmiller, Stetter, Samday, Pierre, Grummit, Ulm, Winler, Maggin, rock out- crops	Mesic/ Ustic, Aridic	14-16	100-125	4/32 56/90	Mixed grass prairie and isolated areas of sagebrush steppe dominated by buffalograss, western wheatgrass, bluebunch wheatgrass, needle-and-thread grass, blue grama, Sandberg bluegrass, junegrass, rabbitbrush, fringed sage, and other grasses, forbs, and shrubs.	Rangeland: livestock grazing wildlife habitat.
43n.	Montana Central Grasslands	139	Unglaciated. Dissected, rolling plains. Few perennial streams, many ephemeral or intermittent streams. Many impoundments occur. Sand, silt and fine gravel substrates.	3500- 5300/ 50-200	Quaternary terrace deposits and, along channels, alluvium. Tertiary Fort Union Formation: light colored massive sandstone, and shale.	Entisols (Ustorthents), Inceptisols (Haplustepts), Mollisols (Paleustolls), Alfisols (Haplustalfs)	Wayden, Doney, Shaak, Cabbart, Yawdim, Thurlow	Frigid, Mesic/ Ustic, Aridic	14-16	100-125	8/32 52/88	Mixed grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and other forbs, shrubs and grasses.	Rangeland: livestock grazing wildlife habitat. Some isolate areas of dryland farming in w wheat and alfalfa.
43p.	Pine Scoria Hills	1088	Unglaciated. Dissected rolling plains and low hills. Clinker and scoria mounds. Perennial springs along base of bluffs.	3700- 6000/ 250-1000	Quaternary alluvium along channels. Tertiary Fort Union Formation: light colored massive sandstone, shale, and thick coal beds. Lebo member: dark gray clay shale and concretionary sandstone. Rock outcrops.	Entisols (Torriorthents, Ustorthents), Mollisols (Argiustolls)	Rock outcrops, Shingle, Wibaux, Taluce, Tolman, Abac, Theedle, Neldore	Mesic, Frigid/ Aridic, Ustic	12-16	100-125	8/32 56/88	Ponderosa pine-Rocky Mountain juniper forest or ponderosa pine savanna with understory of grasses, forbs, and shrubs. Species include little bluestem, bluebunch wheatgrass, western wheatgrass, blue grama, and Sandberg bluegrass, Idaho fescue, and needle-and-thread. Skunkbush sumac and western snowberry are common shrubs.	Rangeland: livestock grazing wildlife habitat. Small woodla areas. Scattered coal mining.
43q.	Mesic Dissected Plains	1481	Unglaciated. Dissected plains. Perennial streams are generally of montane origin. Low flows during late summer exacerbated by irrigation withdrawals. Other streams largely ephemeral with many impoundments. Sand, silt, and fine gravel substrates.	3900- 5100/ 120-600	Quaternary alluvium along channels. Tertiary sandstones, siltstones, and shales of the Tongue River Member of the Fort Union Formation and the Wasatch Formation.	Entisols (Torriorthents, Ustorthents, Ustifluvents), Aridisols (Haplargids, Haplocambids), Mollisols (Argiustolls, Paleustolls)	Shingle, Tassel, Samsil, Wibaux, Kim, Renohill, Forkwood, Havre, Zigweid, Samday, Wolf, Platsher, Moskee	Mesic, Frigid/ Aridic, Ustic	14-18	100-125	8/34 52/88	Mixed grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage. Boxelder and chokecherry occur in riparian areas. Shrubs such as snowberry, serviceberry, and bullberry grow upslope of riparian areas.	Mostly rangeland: livestock and wildlife habitat, with are of sub-irrigated agriculture a major stream valleys. Coal be methane production.
43v.	Pryor - Big Horn Foothills	215	Unglaciated. Dissected sedimentary foothills and high benches. Cool, biologically productive streams with coarse to fine gravel and cobble-sized substrates.	5300- 7500/ 75-1000	Quaternary alluvium and colluvium. Paleozoic and Mesozoic sediments including carbonates.	East: Mollisols (Haplocryolls, Paleustolls, Argiustolls), Inceptisols (Haplustepts), Entisols (Ustorthents). West: Mollisols (Haplocryolls), Entisols (Ustorthents), Aridisols (Haplocambids, Haplocalcids).	East: Starley, Doney, Shaak, Wayden, Wolf. West: Starley, Cabbart, Pultney, Stormitt.	East: Cryic, Frigid, Mesic/ Ustic, Aridic West: Cryic, Frigid, Mesic/ Ustic, Aridic	10-20	75-100	4/32 48/84	Foothills mixed grass prairie and shrublands dominated by fescues, western wheatgrass, prairie junegrass, curlleaf mountain mahogany, Utah juniper, and fringed sagewort. Also some scattered ponderosa pine and juniper woodlands.	Rangeland: livestock grazing wildlife habitat.
43w.	Powder River Basin	13394	Unglaciated. Irregular and dissected plains. Perennial streams are generally of montane origin with sand, gravel, and cobble substrates. Other streams ephemeral or intermittent with sandy or silty substrates and many impoundments.	4100- 6500/ 100-500	Quaternary alluvium along channels. Underlain by Tertiary Fort Union Formation: light colored massive sandstone, shale, and thick coal beds. Lebo member: dark gray clay shale and concretionary sandstone. Eastern edge: Cretaceous Lance Formation, brown and gray sandstone and shale, thin coal and carbonaceous shale beds.	Entisols (Torriorthents, Ustorthents), Aridisols (Haplargids, Paleargids), Mollisols (Paleustolls)	Cushman, Ulm, Shingle, Samsil, Samday, Mitchell, Briggsdale, Thedalund, Bidman, Tassel, Renohill, Limon, Terry, Taluce, Platsher, Kishona	Mesic/ Aridic, Ustic	12-18	100-125	0/36 52/88	Mixed-grass prairie dominated by blue grama, western wheatgrass, junegrass, Sandberg bluegrass, needle-and-thread grass, rabbitbrush, fringed sage, and other forbs, shrubs and grasses.	Oil, gas, and coal deposits are scattered throughout region. O mining is extensive and production is higher than in any other region the United States. Coal-bed methane production has increthroughout the region in recer years. Uranium mining in the Pumpkin Buttes and southern Powder River districts. Range livestock grazing and wildlife habitat.
43x.	Casper Arch	1317	Unglaciated. Gently rolling plains with isolated low cuestas. Few perennial streams, many ephemeral or intermittent streams. Sandy or silty substrates.	5000- 5800/ 50-200	Quaternary colluvium with isolated areas of dune sand and loess. Underlain by Cretaceous sandstone and Cody shale, a weak marine shale that is easily eroded.	Entisols (Torriorthents), Aridisols (Natrargids, Haplargids, Haplocambids)	Lolite, Keyner, Amodac, Hiland, Bowbac, Forkwood, Zigweid, Moret, rock outcrops	Mesic/ Aridic, Udic	10-14	100-125	12/36 56/88	Shrubland dominated by sagebrush steppe, which may include, Wyoming big sagebrush, Gardner saltbush, Indian ricegrass, birdfoot sagebrush, western wheatgrass, bluebunch wheatgrass, needle-and-thread grass, blue grama, Sandberg bluegrass, junegrass, rabbitbrush, fringed sage, and other grasses, forbs, and shrubs. Some ponderosa pine on escarpments.	Rangeland: livestock grazing and wildlife habitat. Oil and production.

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