

Table 3.13-1. Statewide Soil Zones and the Soil Descriptions Occurring Within them in the RMPPA.

Soil Zone and Soil Descriptions Within Each Zone
Zone 3 (Middle Rocky Mountains)
<ul style="list-style-type: none"> • WY06: Typic Haplocryalfs, Typic Dystrocrepts and Typic Haplocryolls—loamy-skeletal and Histic Cryaquepts, fine-loamy over sandy or sandy-skeletal. On stable slopes which are older than Pinedale (Late Wisconsin), the predominate soils are Haplocryalfs. Dystrocrepts occur on slopes greater than 40%, and on Pinedale and younger surfaces (Pinedale tills and holocene surfaces). Haplocryolls occur under mountain meadow vegetation and are most common on south facing slopes. Cryaquepts are found along narrow riparian areas (Munn & Arneson 1998).
Zone 4 (Bighorn Basin/Intermountain Basin)
<ul style="list-style-type: none"> • WY09: Typic Haplargids and Typic Haplocalcids—fine-loamy over sandy or sandy-skeletal, mesic and Typic Torriorthents, fine-loamy and coarse-loamy, mesic. Aridisols occur on colluvial and alluvial landscapes while Entisols occur on residual landscapes. • WY10: Typic Torripsammets—mesic. These soils are on stabilized dunes. They show little horizon development; thin A horizons are the most apparent change from the parent material (stabilized dune sand). • WY11: Calcic Haplosalids—fine, mesic. These soils are associated with marine shales and occur in topographic depressions where run off water from the surrounding landscape accumulates and evaporates concentrating salt (Munn & Arneson 1998).
Zone 5 (Powder River Basin/Northern Great Plains)
<ul style="list-style-type: none"> • WY17: Typic Torriorthents—loamy-skeletal, mesic and Rock Outcrop. These stony soils occupy ridge crests where coal bed fires have created clinker. The soils tend to be much coarser than the soils on the adjacent lower slopes, and contain hard clasts.
Zone 7 (Southeast Wyoming/Northern Great Plains)
<ul style="list-style-type: none"> • WY10: Typic Torripsammets—as in Zone 4, except soil temperature regime is frigid. • WY23: Typic Argiustolls—fine-loamy and Typic Argiustolls fine-loamy over sandy or sandy-skeletal, mixed, frigid. These soils occur on Tertiary and Pleistocene parent materials (mostly alluvial fan deposits of Tertiary age, or local alluvium of Pleistocene age.) • WY24: Ustic Haplocambids and Ustic Torriorthents—fine, frigid. These moderately and weakly developed soils occur on gentle to steep slopes over the Tertiary White River formation. Profile development is shallow or moderately deep. • WY25: Ustic Torriorthents and Aridic Ustochrepts—loamy-skeletal, frigid. These soils occur along the front of the Laramie Range and the Hartville uplift. The Ustochrepts support scattered stands of Ponderosa Pine. Soils are shallow or moderately deep and coarse textured. • WY26: Ustic Torriorthents and Ustic Haplocambids—fine, frigid. These soils have developed on Cretaceous age bedrock (shale) and are moderately deep or shallow. The Haplocambids are on low gradient fans and slopes; Torriorthents occur on steeper slopes (greater than 15%). • WY27: Typic Torrifluents and Typic Haplaquolls—fine-loamy over sandy or sandy-skeletal, mixed, frigid. These soils occur along riparian areas with the Torrifluents developing along channels scoured by flooding and the Haplaquolls developing on low gradient channel sections where vegetation is well established and high water tables occur during most of the year. • WY44: Ustic Haplargids and Ustic Torrifluents—fine-loamy over sandy or sandy-skeletal, mixed, mesic. These soils occur on alluvium and slopes of Pleistocene and Holocene age over a variety of bedrocks. The Torrifluents occur on the active floodplain; Haplargids occur on more stable

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landscape segments (Munn & Arneson 1998).
Zone 8 (Medicine Bow and Laramie Mountains/ Mountains)
<ul style="list-style-type: none"> • WY28: Typic Haplocryalfs and Typic Dystricrypts—loamy-skeletal, mixed and Typic Haplocryolls, fine-loamy, mixed. Haplocryalfs occur under forest on till parent materials older than Pinedale (140,000 years old and older) and on nonglaciaded landforms where the slope gradient is less than approximately 10%. Dystricrypts occur under forest on till of Pinedale age and on slopes (>10%) that were unstable during the Pinedale glaciation. Haplocryolls occur under grasses and shrubs on west and south aspects and in dry parks on Tertiary age parent materials.
<ul style="list-style-type: none"> • WY29: Histic Cryaquepts and Typic Cryaquolls—fine-loamy over sandy or sandy-skeletal, mixed. These are poorly drained soils along riparian areas. Only A horizon thickness is different between the two soils (thicker in the Mollisols). Depth to water table in the profile varies from 0 to 50 cm over the course of the summer.
<ul style="list-style-type: none"> • WY30: Typic Dystricrypts and Lithic Cryorthents—loamy skeletal, mixed and Rock Outcrop. These soils are found at high elevation and on very resistant parent materials. They are on eroding slopes, or the youngest tills in the region (Neoglacial).
<ul style="list-style-type: none"> • WY31: Typic Dystricrypts and Typic Cryorthents—loamy skeletal, mixed. This unit occurs on Triassic, Permian and Cretaceous sedimentary rock along the flanks of the mountain range. The soils are moderately deep or shallow.
<ul style="list-style-type: none"> • WY32: Typic Dystricrypts—loamy-skeletal, mixed and Rock Outcrop. These soils occur on Precambrian granitic parent materials. The Inceptisols are mostly moderately deep with less than 12% clay in their thin B horizons (Bw). The rock outcrops take the form of rounded boulders and sheets of rock.
<ul style="list-style-type: none"> • WY45: Typic Hapludalfs and Aridic Haplustepts—loamy-skeletal, mixed, frigid. These soils occur along the base of the mountain ranges in the region and support open stands of Ponderosa pine as well as other conifers. The Hapludalfs are on low relief slopes and nearly level surfaces. The Haplustepts are on slopes greater than 15% and on the narrow valley floors of canyons (Munn & Arneson 1998).
Zone 9 (Laramie and Wind River Basins/Intermountain basins)
<ul style="list-style-type: none"> • WY09: Ustic Haplargids and Ustic Haplocalcids—fine-loamy over sandy or sandy-skeletal, frigid and Ustic Torriorthents, fine-loamy and coarse-loamy, frigid. In this region, the soils in this unit have frigid temperature regimes. These soils occur on old alluvial terraces along major rivers. Soils younger than mid-Pleistocene age are an association of Haplargids and Haplocalcids. On older landscapes, Haplocalcids predominate. Torriorthents occur along south facing terrace scarps; textural family is determined by underlying bedrock.
<ul style="list-style-type: none"> • WY10: Typic Torripsammets—frigid. These soils on stabilized dunes show little profile development, but are quite productive under native rangeland.
<ul style="list-style-type: none"> • WY33: Lithic Torriorthents—loamy-skeletal, frigid and Rock Outcrop. These soils occur along both sides of bedrock outcrops that form ridges along the flanks of the basins. The rock outcrop is usually sandstone or limestone.
<ul style="list-style-type: none"> • WY34: Ustic Haplargids and Ustic Natrargids—fine-loamy, frigid. These soils occur as an association on residual landscapes and in local colluvium derived from Tertiary age parent materials. Natrargids show less productivity under sagebrush and grass than Haplargids.
<ul style="list-style-type: none"> • WY35: Typic Natrargids and Typic Torriorthents—fine, frigid. These soils occur on landscapes underlain by Triassic and Cretaceous bedrock (shales). The Torriorthents occur in a badlands type

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<p>topography, while the Natrargids occur on small, local alluvial fans at the foot of badland scarps, and on low gradient slopes.</p>
<ul style="list-style-type: none"> • WY36: Ustic Torriorthents and Ustic Haplocalcids—coarse-loamy, frigid. These soils occur on calcareous sandstone of Permian age (redbeds). Haplocalcids occur on low gradient slopes; Torriorthents on slopes greater than 10%.
<ul style="list-style-type: none"> • WY37: Typic Petrocalcids and Ustic Calciargids—fine-loamy over sandy or sandy-skeletal, frigid. These soils occur on the highest terraces along major streams where the surfaces are mid Pleistocene age or older. On some surfaces, the petrocalcic horizon of the Palecalcids is nearly continuous; on other surfaces, Palecalcids and Haplocalcids occur as a complex.
<ul style="list-style-type: none"> • WY38: Ustic Haplocambids and Ustic Haplargids—coarse-loamy, frigid. These soils occur as a complex on late Pleistocene age terraces along major streams, and on slopes of less than 15% gradient of the same age.
<ul style="list-style-type: none"> • WY44: Ustic Haplargids and Typic Torrifluents—fine-loamy over sandy or sandy-skeletal, mixed, mesic. These soils occur below 5,000 feet in elevation in a relatively small area in the Wind River Basin. The Haplargids occur on alluvial terraces; the Torriorthents occur along the scarp slopes (Munn & Arneson 1998).
<p>Zone 10 (Green River Basin/Intermountain basin)</p>
<ul style="list-style-type: none"> • WY06: Typic Haplocryalfs, Typic Dystrocrepts and Typic Haplocryolls—loamy-skeletal, mixed and Histic Cryaquepts, fine-loamy over sandy or sandy-skeletal, mixed. These soils are similar to those in the same unit in Soil Zone 3. They are confined to the highest elevations of this region.
<ul style="list-style-type: none"> • WY10: Typic Torripsammets—frigid. These soils are very similar to Torripsammets in other areas of the state, except that they are intermingled with active dunes.
<ul style="list-style-type: none"> • WY11: Typic Haplosalids—fine, frigid. These Haplosalids occur in saline playas and are similar to those of this unit in Zone 4, except that they are frigid.
<ul style="list-style-type: none"> • WY17: Rock Outcrop and Typic Torriorthents—loamy-skeletal, mixed, frigid. These soils are similar to those in Soil Zone 5 except that the coarse fraction of the soil consists of clasts of the local bedrock, rather than clinker.
<ul style="list-style-type: none"> • WY39: Ustic Haplargids, Ustic Haplocambids and Ustic Natrargids—fine-loamy, mixed, frigid. On Tertiary parent materials along the flank of the Wyoming Range uplift, the soils are found in an association reflecting slope position and parent material sodium content. The Haplargids occur on stable, low gradient slopes. Haplocambids are on steeper slopes and Natrargids occur on fans where erosional processes have accumulated high sodium materials.
<ul style="list-style-type: none"> • WY40: Ustic Haplocambids and Ustic Torriorthents—coarse-loamy, mixed and Typic Torrifluents, loamy-skeletal, mixed, frigid. This landscape has shallow and moderately deep Haplocambids and Torriorthents occurring on slopes along ephemeral channels and Torrifluents along gully bottoms.
<ul style="list-style-type: none"> • WY41: Aridic Haplustolls and Ustic Haplocambids—fine-loamy, frigid. These soils are on Tertiary age parent materials along the edges of the basins under sagebrush-grasslands. The Haplustolls are on sites with extra moisture which promotes greater productivity (Munn & Arneson 1998).