This Section occurs mostly in central Idaho extending a short distance into west central Montana. It generally coincides with the Idaho Batholith Uplands geomorphic area previously described. Thirty two LTAs were mapped in this Section. See Appendix F for a complete list of LTAs and their acreages. The map unit descriptions are preceded by the following illustrations:

**Figure 15:** Map showing location of M332A within the Northern Region

**Figure 16:** M332A landscape photograph of Bitterroot Mountain Range, Bitterroot National Forest

**Figure 17:** Map showing distribution of LTAs within M332A

**Figure 18:** Bar chart showing abundance of major landform groups within M332A

**Figure 19:** Bar chart showing abundance of major geologic material groups within M332A
LTA10-M332A

VALLEYS: RECENT, COARSE ALLUVIUM

Location: This unit is located in valley bottoms along larger streams in north central Idaho, in the Salmon and Clearwater River Basins.

Acreage by Section

10-M332A  9,587

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on valley bottom landscape settings and consists of floodplains and terraces. Parent materials are recent alluvial deposits derived from granite, schist, quartzite, or gneiss.

Accessory Characteristics: The primary soils are very deep loams or silt loams over gravelly or cobbly sand or loamy sand substrata. The vegetation is a mosaic of coniferous forest, wet meadows, and hardwood forest or shrubland. Mean annual precipitation ranges from 50 to 100 centimeters (20 to 40 inches). The elevation range is 550 to 1600 meters (1800 to 5300 feet). The dominant slopes gradients are 0 to 10 percent. This unit is moderately dissected by streams; the dominant stream pattern is dendritic. Wetlands are a major component of this unit.

LTA Components: This landtype association consists of stream terraces and floodplains.

Stream terraces are formed in mixed coarse textured alluvium. Slope gradients range from 1 to 10 percent. Soils on this landform are very deep and moderately well drained to somewhat poorly drained. These soils are weakly to moderately developed loams and silt loams over sand and gravel to cobble-sized rocks. The dominant soils are classified as Entic or Aquic Cryumbrepts, frigid Haplumbrepts, and Andic Cryochrepts. Rock outcrops do not occur in this landscape component. The dominant potential natural vegetation is mixed hardwoods at low elevations, and subalpine fir at higher elevations. This component represents about 50 percent of this unit.

Floodplains are formed in mixed volcanic ash influenced loess and gravelly or cobbly, sandy recent alluvium. Slope gradients range from 1 to 3 percent. Soils on this landform are very deep and poorly drained. These soils are weakly developed and consist mostly of cobbles, gravels and sands. The dominant soils are classified as Typic Fluvaquents and Humic Cryaquents. Rock outcrop does not occur on this landscape component. Areas of cobbly to gravelly riverwash make up about 10 percent of this unit. The dominant vegetation is a complex of sedge meadow, willow, or subalpine fir. This component represents about 40 percent of this unit.

Compiled by: Pat Green, Nez Perce National Forest
LTA12-M332A

VALLEYS: OUTWASH AND OTHER OLDER COARSE ALLUVIUM

Location: This unit is located in major river valleys in north central Idaho in the Salmon and Clearwater River Basins.

Acreage by Section

12-M332A  10,308

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on valley bottoms of canyon breaklands and is dominated by old high terraces. These occur with low flood plains and alluvial fans. Parent materials are mixed alluvium underlain by undifferentiated lithology.

Accessory Characteristics: The primary soils are very deep sands, sandy loams, and loams over cobbles and gravels. The vegetation is a mosaic of grassland and coniferous forest with some unvegetated cobble and sand bars. Mean annual precipitation ranges from 51 to 64 centimeters (15 to 25 inches). The elevation range is 450 to 750 meters (1200 to 2500 feet). The dominant slopes have gradients of 1 to 30 percent. This unit is adjacent to large rivers and may be dissected by smaller streams. In low floodplains and fans, wetlands and cobble and sand bars are numerous.

LTA Components: This landtype association consists of floodplains, older terraces, and alluvial fans.

Old terraces are formed in old alluvium and loess. Slope gradients range from 1 percent on terrace floors to near vertical on truncated terrace faces. Soils on these landforms are very deep, moderately developed sandy loams and loams with loamy substrata. These soils are classified as Calcic Haploxerolls. Rock outcrop is uncommon. The dominant potential natural vegetation is bluebunch wheatgrass or ponderosa pine. This component represents 65 percent of this unit.

Floodplains are formed in recent alluvium of mixed lithology. Slope gradients range from 1 to 3 percent. Soils on these landforms are deep to very deep, poorly developed stratified sands, gravels, cobbles and some fine material. These soils are classified as cobbly Typic Xerofluvents. Rock outcrop is uncommon. The dominant potential natural vegetation is bluebunch wheatgrass or ponderosa pine. This component represents 20 percent of this unit.

Alluvial fans are formed in coarse Recent alluvium at the mouth of tributary streams. Slope gradients range from 5 to 30 percent. Soils on these landforms are very deep, poorly developed, poorly stratified sands, gravels, cobbles and boulders. These soils are classified as cobbly Typic Xerofluvents and Udiftluvents. Rock outcrop is uncommon. Plant communities are often dominated by willow, cottonwood, and white alder near streams and Douglas-fir or ponderosa pine series on drier positions. This component represents 15 percent of this unit.

Compiled by: Pat Green, Nez Perce National Forest
LTA14-M332A

VALLEYS: RECENT FINE ALLUVIUM

Location: This unit is located in the Bitterroot Mountains of Idaho west of the Montana border in the upper Lochsa River Basin.

Acreage by Section

14-M332A  8,101

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a valley bottom landscape setting, which is typically composed of floodplains, alluvial basins, and stream terraces. Parent materials are recent, fine, alluvial deposits primarily underlain by granitics of the Idaho Batholith.

Accessory Characteristics: The primary soils are moderately deep to deep with moderately fine to fine textures. The vegetation is a mosaic of moist to wet coniferous forest, riparian shrub communities, and mesic to wet meadows. Mean annual precipitation ranges from 89 to 114 cms. (35 to 45 inches). The elevation range is 914 to 1372 meters (3500 to 4500 feet). The dominant slopes have gradients of 0 to 10 percent. This unit is moderately dissected by streams, with the dominant stream pattern being dendritic. Wetlands and ponds are a major component of this unit.

LTA Components: This landtype association consists of flood plains, alluvial basins, and stream terraces.

Flood plains and alluvial basins are formed in moderately fine-textured recent alluvium. Slope gradients range from 0 to 3 percent. Soils on these landforms are deep, weakly to moderately developed, and consist mostly of silt loam and silty clay loam textures. These soils are classified as Typic Cryaquepts, Aquic Cryochrepts, and Cumulic Cryaquolls. Rock outcrop occurs on less than 1 percent of this landscape component. The dominant potential natural vegetation are mesic to wet grass/sedge associations, willow/alder associations, and western redcedar/subalpine fir series. This component represents 80 percent of this unit.

Stream terraces are formed in mixed alluvium. Slope gradients range from 2 to 10 percent. Soils on these landforms are deep, weakly developed, and consist mostly of medium to moderately fine textures. These soils are classified as Typic Eutrochrepts and Dystric Cryochrepts. Rock outcrop occurs on less than 1 percent of this landscape component. The dominant potential natural vegetation series are western redcedar, grand fir, and subalpine fir. This component represents 20 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
Location: This unit is located in the Bitterroot Mountains of Idaho west of the Montana border in the upper Lochsa River Basin.

Acreage by Section
20-M332A  8,071

LTA Setting and General Characteristics

Differentiating Characteristics: This map unit occurs in a very steep, deeply eroded landscape setting which is typically composed of stream or structural breaks. Parent materials are mixed Mazama volcanic ash underlain by highly metamorphosed metasediments of the Belt Series.

Accessory Characteristics: The primary soils are shallow to deep with textures ranging from silt loams to very gravelly loams. The vegetation is primarily coniferous forest with numerous rock outcrops. Mean annual precipitation ranges from 89 to 114 cms. (35 to 45 inches). The elevation range is 1067 to 1676 meters (3500 to 5500 feet). The dominant slopes have gradients of 60 to 100 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being parallel. Wetlands are generally not present in this unit.

LTA Components: This landtype association consists primarily of stream breaks, some of which formed along structural breaks.

Stream breaks are formed in colluvial materials from highly weathered metasedimentary Belt Series rocks with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 60 to 100 percent. Soils on these landforms are shallow to moderately deep, weakly developed with silt loam to loam surface textures and very gravelly to cobbly subsurface textures. These soils are classified as Typic Dystrochrepts, Andic Dystrochrepts, and Vitrandic Dystrochrepts. Rock outcrop occurs on 10 to 30 percent of this landscape component. The dominant potential natural vegetation series are western redcedar and grand fir. This component represents 100 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
LTA Setting and General Characteristics

Differentiating Characteristics: This map unit occurs in a very steep, deeply eroded landscape setting which is typically composed of stream or structural breaks. Parent materials are a mixed Mazama volcanic ashcap of variable thickness underlain by highly weathered granitics of the Idaho Batholith.

Accessory Characteristics: The primary soils are shallow to and deep with textures ranging from silt loams to extremely gravelly sandy loams and loamy sands. The vegetation is primarily coniferous forest with numerous rock outcrops. Mean annual precipitation ranges from 51 to 152 cms. (20 to 60 inches). The elevation range is 762 to 2286 meters (2500 to 7500 feet). The dominant slopes have gradients of 60 to 100 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being parallel. Wetlands are a minor component on valley floors.

LTA Components: This landtype association consists primarily of stream breaks, some of which formed along structural breaks.

Stream breaks are formed in colluvial materials from highly weathered granitic rocks of the Idaho Batholith with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 60 to 100 percent. Soils on these landforms are shallow to deep, weakly developed with silt loam to gravelly sandy loam surface textures and very gravelly to extremely gravelly or cobbly to extremely cobbly loamy sand to sandy clay loam subsurface textures. These soils are classified as Typic Dystrochrepts, Vitrandic Dystrochrepts, Typic Ustochrepts, and Dystric Cryochrepts. Rock outcrop occurs on 20 to 40 percent of this landscape component. The dominant potential natural vegetation series are western redcedar, grand fir, Douglas-fir, and subalpine fir. This component represents 100 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest, and Ken McBride, Bitterroot National Forest
LTA22-M332A

BREAKS: WEAKLY WEATHERED GRANITICS

Location: This unit is located in the Clearwater and Bitterroot Mountains and of central Idaho in the Clearwater and Salmon River Basins.

Acreage by Section

22-M332A 283,624

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on a very steep, deeply eroded or faulted landscape setting which is typically composed of structural and stream breaks. Parent material is colluvium and residuum derived from weakly weathered granitic and gneissic bedrock.

Accessory Characteristics: The primary soils are shallow to very deep with very gravelly, very cobbly or extremely gravelly coarse to medium textures. The vegetation is a mosaic of grassland, shrublands, and dry coniferous forest. Mean annual precipitation ranges from 51 to 76 cms. (15 to 45 inches). The elevation range is 853 to 2134 meters (2500 to 7500 feet). The dominant slopes have gradients greater than 60 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being parallel. Rock outcrop, talus, and scree combined, are major components of this map unit. Wetlands are a minor component of this unit. Wide valley bottoms occur in this unit, but are generally considered only map unit inclusions.

LTA Components: This landtype association consists of structural and stream breaks.

These landforms are formed in colluvium and residuum. Slope gradients range from 60 to 90 percent. Soils on these landforms are shallow to very deep and well drained. These soils are weakly developed and consist of loam to very gravelly sandy loam surfaces overlying gravelly to extremely gravelly sandy loam or loamy sand substrata. The dominant soils at low to mid elevations are classified as Typic and Lithic Ustochrepts, Ultic Haploxerolls, and Typic Udivitrands. At high elevations, Dystric Cryochrepts occur. Rock outcrop, talus and scree occupy up to about 25 percent of this map unit. The dominant natural potential vegetation at low elevations includes Idaho fescue, bluebunch wheatgrass or shrublands (generally found on shallow soils, rock outcrop, talus, or scree) including curl-leaf mountain mahogany. The dry coniferous forest plant associations are ponderosa pine and Douglas-fir. In moist settings grand fir occurs. In the northwest part of this section, western redcedar occurs and at high elevations, subalpine fir occurs.

Compiled by: Bob Spokas, Bitterroot National Forest
Location: This unit is located in the Clearwater Mountains of north-central Idaho in the lower Selway River Basin.

Acreage by Section

23-M332A 129,750

LTA Setting and General Characteristics

Differentiating Characteristics: This map unit occurs in a very steep, deeply eroded landscape setting which is typically composed of stream or structural breaks. Parent materials are moderately weathered gneisses and schists with a variable thickness of Mazama volcanic ash.

Accessory Characteristics: The primary soils are shallow to moderately deep with textures ranging from silt loams to very gravelly loams. The vegetation is a mosaic of coniferous forest with numerous rock outcrops and grassy openings. Mean annual precipitation ranges from 64 to 89 cms. (25 to 35 inches). The elevation range is 366 to 1524 meters (1200 to 5000 feet). The dominant slopes have gradients of 60 to 100 percent. This unit is moderately dissected by streams, with the dominant stream pattern being parallel. Wetlands are generally not present in this unit.

LTA Components: This landtype association consists primarily of stream breaks, some of which formed along structural breaks.

Stream breaks are formed in colluvial materials from moderately weathered gneisses and schists with a variable thickness of Mazama volcanic ash mixed in the surface layer. Slope gradients range from 60 to 100 percent. Soils on these landforms are shallow to moderately deep, weakly developed with silt loam to loam surface textures and very gravelly to cobbly subsurface textures. These soils are classified as Ultic Haploxerolls, Typic Dystrochrepts, and Andic Dystrochrepts. Rock outcrop occurs on 10 to 30 percent of this landscape component. The dominant potential natural vegetation series are Douglas-fir, grand fir, and Idaho fescue. This component represents 100 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
Location: This unit is located in the Clearwater River Basin of west-central Idaho.

Acreage by Section

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LTA Setting and General Characteristics

Differentiating Characteristics: This map unit occurs in a very steep, deeply eroded landscape setting which is typically composed of stream breaklands. Parent materials are weakly to moderately weathered Columbia flood basalts overlain with a variable thickness of wind-blown loess.

Accessory Characteristics: The primary soils are shallow to moderately deep with textures ranging from silt loams to very cobbly loams. The vegetation is a mosaic of grasslands with some shrubland inclusions. Mean annual precipitation ranges from 51 to 76 cms. (20 to 30 inches). The elevation range is 458 to 914 meters (1500 to 3000 feet). The dominant slopes have gradients of 60 to 80 percent. This unit is moderately dissected by streams, with the dominant stream pattern being parallel. Wetlands are generally not present in this unit.

LTA Components: This landtype association consists primarily of stream breaks.

Stream breaks are formed in colluvial materials from weakly to moderately weathered Columbia flood basalts with a variable layer of loess mixed in the surface layer. Slope gradients range from 60 to 80 percent. Soils on these landforms are shallow to moderately deep, weakly developed with silt loam to loam surface textures and very gravelly to cobbly subsurface textures. These soils are classified as Typic Haploxerolls, Lithic Argixerolls, and Ultic Argixerolls. Rock outcrop occurs on 20 to 40 percent of this landscape component. The dominant potential natural vegetation series are Idaho fescue, bluebunch wheatgrass, with ponderosa pine and Douglas-fir present in the moister settings. This component represents 90 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
LTA26-M332A

BREAKS: MODERATELY WEATHERED GNEISSES, QUARTZITES AND SCHISTS

Location: This unit is located along streams and rivers in north central and central Idaho.

Acreage by Section
26-M332A 215,945

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is composed of dissected stream breaks. Parent materials are moderately weathered gneiss, quartzite, and schist associated with the Idaho Batholith.

Accessory Characteristics: The primary soils are moderately deep to deep sandy loams and loams. The vegetation is a mosaic of grassland and coniferous forest. Mean annual precipitation ranges from 46 to 114 centimeters (18 to 45 inches). The elevation range is 550 to 2000 meters (1800 to 6600 feet). The dominant slopes have gradients of 50 to 80 percent. This unit is moderately dissected by streams, with the dominant stream pattern being parallel.

LTA Components: This landtype association consists of dissected breaks. Breaks are formed in mixed volcanic ash influenced loess, residuum and colluvium of felsic metamorphic lithology. Soils on these landforms are moderately deep to very deep, moderately developed loams and sandy loams with sandy or loamy substrata. These soils are classified as Ultic Haploxerolls, Typic Dystrochrepts, and Dystric Cryochrepts. Rock outcrop is less than 25 percent of the unit. The dominant potential natural vegetation at low elevations is bluebunch wheatgrass and Idaho fescue, at mid-elevations Douglas-fir and grand fir, and at high elevations, subalpine fir.

Compiled by: Pat Green, Nez Perce National Forest
LTA29-M332A

BREAKS: QUARTZITES AND CALC-SILICATES

Location: This unit is located in the Bitterroot Mountains and occurs in the Selway River Basin of central Idaho.

Acreage by Section

29-M332A 10,533

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on a very steep, deeply eroded or faulted landscape setting which is typically composed of structural and stream breaks. Parent material is colluvium and residuum derived from weakly weathered quartzite and calc-silicates of the Belt Supergroup.

Accessory Characteristics: The primary soils are shallow to deep with very gravelly, very cobbly or extremely gravelly coarse to medium textures. The vegetation is a mosaic of dry to moist coniferous forest. Mean annual precipitation ranges from 63 to 102 centimeters (25 to 40 inches). The elevation range is 914 to 2073 meters (3000 to 6800 feet). The dominant slopes have gradients greater than 60 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being parallel. Rock outcrop, talus, and scree combined, are major components of this map unit. Wetlands are a minor component of this unit. Wide valley bottoms occur in this unit, but are generally considered only map unit inclusions.

LTA Components: This landtype association consists of structural and stream breaks.

These landforms are formed in colluvium and residuum. Slope gradients range from 50 to 90 percent. Soils on these landforms are shallow to deep and well drained. These soils are weakly developed, and consist of very cobbly loam surfaces overlying very cobbly sandy loam substrata. The dominant soils are classified as: Typic and Lithic Ustochrepts, Typic Eutroboralfs, Lithic Argiborolls, and Dystric and Lithic Cryochrepts. Rock outcrop, talus and scree occupy about 20 percent of this map unit. On warmer, drier sites the dominant natural vegetation is Douglas-fir series. On cool, mesic sites it is subalpine fir series. Stream and structural breaks represent about 85 percent of this unit.

Compiled by: Bob Spokas, Bitterroot National Forest
LTA39-M332A

STEEP GLACIATED MOUNTAIN SLOPES: GNEISSES, QUARTZITES AND SCHISTS

Location: This unit is located in high elevation glaciated areas of north central and central Idaho in the Salmon River and Selway River basin.

Acreage by Section

39-M332A  42,652

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is composed of steep glacial trough walls and cirques. Parent materials are poorly weathered gneiss, quartzite, and schist associated with the Idaho Batholith.

Accessory Characteristics: The primary soils are shallow to deep gravelly sandy loams and loams. The vegetation is coniferous forest with inclusions of shrub or herbaceous dominated openings. Mean annual precipitation ranges from 76 to 119 centimeters (30 to 47 inches). The elevation range is 1250 to 2500 meters (4100 to 8200 feet). The dominant slopes have gradients of 50 percent to near vertical. This unit is moderately dissected by streams, with the dominant stream pattern being parallel. Wetlands and lakes are significant inclusions in basins and toeslopes.

LTA Components: This landtype association consists of dissected trough walls and cirque headwalls.

Dissected troughwalls are formed in mixed volcanic ash influenced loess, till, residuum and colluvium of felsic metamorphic lithology. Slope gradients range from 50 to 80 percent. Soils on these landforms are moderately deep to deep, weakly developed gravelly loams and sandy loams with cobbly sand substrata. These soils are classified as Dystric Cryochrepts. Rock outcrop is less than 25 percent of the unit. The dominant potential natural vegetation at mid elevations is grand fir, and at high elevations - subalpine fir.

Cirque headwalls are formed in till, residuum, and colluvium of acid metamorphic lithology. Slope gradients range from 50 percent to near vertical. Soils on these landforms are shallow to moderately deep, weakly developed gravelly loams and sandy loams with cobbly sand substrata. These soils are classified as Dystric Cryochrepts and Entic Cryumbrepts. Rock outcrop may be 50 percent of the unit. The dominant potential natural vegetation is subalpine fir, whitebark pine/subalpine fir, and herbaceous or shrub dominated openings.

Compiled by: Pat Green, Nez Perce National Forest
Location: This unit is located in the Bitterroot Mountains of Idaho west of the Montana border in the upper Lochsa River Basin.

Acreage by Section

40-M332A  4,758

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a steep, alpine glacial landscape setting, which is typically composed of steep glacial slopes and headwalls. Parent materials are Mazama volcanic ash underlain by Belt Series metasediments composed of quartzites, siltites, and argillites.

Accessory Characteristics: The primary soils are shallow to moderately deep with textures ranging from silt loam to loam surface textures and very gravelly to cobbly loam subsurface layers. The vegetation is a mosaic of coniferous forest, subalpine meadows, and rock outcrops. Mean annual precipitation ranges from 102 to 165 cms. (40 to 65 inches). The elevation range is 1524 to 2134 meters (5000 to 7000 feet). The dominant slopes have gradients of 30 to 60 percent. This unit is moderate to highly dissected by streams, with the dominant stream pattern being parallel. Wetlands and subalpine ponds are a major component of this unit.

LTA Components: This landtype association consists of a complex of steep, alpine glaciated slopes and headwalls intermixed across the landscape.

Steep, alpine, glaciated slopes and headwalls are formed in Belt Series metasediments with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 30 to 60 percent. Soils on these landforms are shallow to moderately deep, weakly to moderately developed, and consist mostly of silt loam and loam surface textures and very gravelly, cobbly, and bouldery loamy subsurface textures. These soils are classified as Andic Cryochrepts, Dystric Cryochrepts, and Vitric Haplocryands. Rock outcrop occurs on 20 to 50 percent of this landscape component. The dominant potential natural vegetation are subalpine fir, whitebark pine, and wet grass/sedge meadows.

Compiled by: Jim Mital, Clearwater National Forest
LTA41-M332A

STEEP GLACIATED MOUNTAIN SLOPES: GRANITICS

Location: This unit occurs in the Bitterroot Mountain Range, within the Salmon and Clearwater River basins in central Idaho.

Acreage by Section

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LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on steep and very steep alpine glacial landscape settings. Parent material is colluvium, residuum, and scattered alpine glacial till, derived from granitic sources.

Accessory Characteristics: The primary soils are shallow to deep, coarse textured, and contain numerous rock fragments throughout the profile. Additionally, avalanche chutes, rock outcrop, and rubbleland are major components to this map unit. The vegetation is a mosaic of closed to open coniferous forest, and moist shrublands. Mean annual precipitation ranges from 46 to 178 cm. (18 to 70 inches). The elevation range is 1219 to 2896 meters (4000 to 9500 feet). The dominant slopes have gradients of 15 to 100 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being parallel. Wetlands (wet sidehills and avalanche chutes), lakes, and ponds are major components of this unit.

LTA Components: This landtype association consists of glacial trough walls, alpine ridges, and cirques (headwalls and basins).

Glacial trough walls were formed by alpine glacial scouring. After the glaciers retreated the walls were further modified by avalanches creating avalanche chutes. Slope gradients range from 50 to 100 percent and slope shape is straight to concave. Soils on this landform are shallow to deep and poorly to somewhat excessively drained. These soils are weakly developed, and consist of very cobbly loam or gravelly sandy loam surfaces overlying very cobbly loamy sand or very cobbly sandy loam substrata. The dominant soils are classified as: Lithic Cryochrepts, Andic Cryochrepts, Dystric Cryochrepts, Lithic Ustochrepts, and Typic Ustochrepts. Typic Cryaquands comprise extensive areas on northerly aspects in the headwater portions of these troughs. Rock outcrop, rubbleland, and avalanche chutes occupy about 45 percent of this component. The most common potential natural vegetation series are Douglas-fir and grand fir at moderate elevations, and subalpine fir and alpine larch-subalpine fir at higher elevations. Avalanche chutes have a sitka alder community type. The Typic Cryaquands soils that occur in the headwaters portion of trough walls support sitka alder. This landform component represents about 60 percent of this unit.

Cirque headwalls and basins were formed by alpine glacial erosion.Cirque basins have slope gradients of 15 to 60 percent and slope shapes are convex to concave. Cirque headwalls have slope gradients greater than 60 percent (approaching vertical) and slope shapes are concave. Soils on this landform are shallow to very deep, and very poorly drained to well drained. These soils are weakly developed and consist of extremely bouldery silt loam volcanic ash surfaces over very cobbly loamy sand substrata. The dominant soils on cirque headwalls are classified as Andic Cryochrepts and Lithic Cryochrepts. Soils on cirque basins are classified as Typic Cryandepts and Histic Cryaquepts. Rock outcrop, talus, and scree occupy about 40 percent of this component. The dominant natural vegetation series are: alpine larch-subalpine fir, whitebark pine-subalpine fir, and subalpine fir. Holm's Rocky Mountain sedge and beaked
Sedge occur on very poorly drained to ponded alluvial basins. This landform represents about 25 percent of this unit.

Alpine ridges were formed by alpine glacial scouring and/or strong periglacial frost shattering of exposed bedrock. Slope gradients range from 50 to 80 percent and slope shape is convex. Soils on this landform are shallow and somewhat excessively drained. These soils are weakly developed and consist of very stony sandy loam surfaces overlying extremely stony loamy sand substrata. Bedrock occurs at a depth of less than 20 inches. The dominant soil is classified as Lithic Cryorthents; however, only about 20 percent of this landform has a soil cover. Rock outcrop, talus, and scree occupy about 80 percent of this component. The most common plant associations are alpine larch-subalpine fir and whitebark pine-subalpine fir. This landform represents about 15 percent of this unit.

Compiled by: Bob Spokas, Bitterroot National Forest
WEAKLY GLACIATED MOUNTAIN SLOPES AND RIDGES: GRANITICS

Location: This unit is located in the Bitterroot Mountain Range in the Upper Selway River Basin of central Idaho.

Acreage by Section
45-M332A 71,072

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a high elevation broad ridgetop position which is typically composed of weakly expressed glaciated slopes and basins that were formed by ice cap glaciers, minor valley glaciers, and strong periglacial frost shattering. Parent materials are a complex of frost shattered residuum and colluvium, intermixed with glacial till derived from moderately weathered granite.

Accessory Characteristics: The primary soils are shallow and very deep, coarse soils with numerous rock fragments and have a volcanic ash surface layer. The vegetation is a mosaic of coniferous forest, stunted, wind-deformed forest, and occasional small wet meadows. Mean annual precipitation ranges from 102 to 140 centimeters (40 to 55 inches). The elevation range is 2073 to 2591 meters (6800 to 8500 feet). The dominant slopes have gradients of 20 to 55 percent. This unit is slightly dissected by streams, with the dominant stream pattern being dendritic. Wetlands and ponds are a minor component of this unit.

LTA Components: This landtype association consists of weakly developed glacial cirques, and frost shattered mountain ridgetops.

Weakly developed glacial cirques are formed in residuum, colluvium, and till derived from a variety of rock types. Slope gradients range from 20 to 55 percent. Soils on this landform are shallow to very deep and somewhat excessively drained. These soils are weakly developed and consist of extremely bouldery loam volcanic ash surface layers overlying very stony loamy sand substrata. The dominant soils are classified as Lithic and Andic Cryochrepts. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation is alpine larch-subalpine fir, whitebark pine-subalpine fir, and subalpine fir series. This component represents 65 percent of this unit.

Frost shattered mountain ridgetops are formed in residuum and colluvium. Slope gradients range from 20 to 50 percent. Soils on this landform are shallow to very deep and somewhat excessively drained. These soils are weakly developed and consist of very stony loam volcanic ash surface layers overlying very cobbly coarse sandy loam substrata. The dominant soils are classified as Lithic and Andic Cryochrepts. Rock outcrop occurs on about 15 percent of this landscape component. The dominant potential natural vegetation is whitebark pine-subalpine fir, alpine larch-subalpine fir, and subalpine fir series. This component represents 35 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
ALPINE TROUGH AND TROUGHWALLS: GRANITIC

Location: This unit is located in the Bitterroot Mountains of Idaho in the upper Lochsa and Selway River Basins.

Acreage by Section

46-M332A 35,567

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs at higher elevations, in a gentle to steep, alpine glacial landscape setting, which is typically composed of alpine trough bottoms and troughwalls. Parent materials are Mazama volcanic ash overlying weakly weathered granitic tills and bedrock of the Idaho Batholith.

Accessory Characteristics: The primary soils are shallow to moderately deep with textures ranging from silt loam to loam surface textures and very gravelly to cobbly loam subsurface layers. The vegetation is a mosaic of coniferous forest and rock outcrops. Mean annual precipitation ranges from 127 to 203 cms (50 to 80 inches). The elevation range is 1219 to 1981 meters (4000 to 6500 feet). The dominant slopes have range from 1 percent in the trough bottoms to more than 60 percent on the troughwalls. This unit is moderate to highly dissected by streams, with the dominant stream pattern being parallel. Wetlands and moist seeps a major component of this unit.

LTA Components: This landtype association consists of glacial troughwalls, and glacial trough bottoms.

The glacial troughwalls are formed in granitics of the Idaho Batholith with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 40 to more than 60 percent. Soils on these landforms are shallow to moderately deep, weakly to moderately developed, and consist mostly of silt loam and loam surface textures and very gravelly, cobbly, and bouldery loamy subsurface textures. These soils are classified as Andic Cryochrepts, Typic Cryochrepts, and Dystric Cryochrepts. Rock outcrop occurs on 10 to 30 percent of this landscape component. The dominant potential natural vegetation are subalpine fir, grand fir, and alder communities in moist seeps. This component represents about 70 percent of this unit.

The trough bottoms consist of glacial tills and glacio-fluvial materials from Idaho Batholith granitics with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 1 to 30 percent. Soils on these landforms are moderately deep, weakly to moderately developed, and consist mostly of silt loam and loam surface textures and mostly unstratified very gravelly, and cobbly, loamy subsurface textures. These soils are classified as Andic Cryochrepts, Dystric Cryochrepts, and Typic Haplocryands. Rock outcrops are uncommon. The dominant potential natural vegetation are subalpine fir, grass/sedge associations, and alder communities in moist seeps and wetlands. This component represents about 30 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
LTA47-M332A

ALPINE TROUGHS AND TROUGHWALLS: METASEDIMENTARY BELT

Location: This unit is located in the Bitterroot Mountains of Idaho in the upper Lochsa River Basin.

Acreage by Section

47-M332A  6,809

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs at higher elevations, in a gentle to steep, alpine glacial landscape setting, which is typically composed of alpine trough bottoms and troughwalls. Parent materials are Mazama volcanic ash overlying weakly weathered Belt series tills and bedrock.

Accessory Characteristics: The primary soils are shallow to moderately deep with textures ranging from silt loam to loam surface textures and very gravelly to cobbly loam subsurface layers. The vegetation is a mosaic of coniferous forest and rock outcrops. Mean annual precipitation ranges from 127 to 203 cms. (50 to 80 inches). The elevation range is 1219 to 1981 meters (4000 to 6500 feet). The dominant slopes have range from 1 percent in the trough bottoms to more than 60 percent on the troughwalls. This unit is moderately dissected by streams, with the dominate stream pattern being parallel. Wetlands and moist seeps are a major component of this unit.

LTA Components: This landtype association consists of glacial troughwalls, and glacial trough bottoms.

The glacial troughwalls are formed in Belt metasediments with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 40 to more than 60 percent. Soils on these landforms are shallow to moderately deep, weakly to moderately developed, and consist mostly of silt loam and loam surface textures and very gravelly, cobbly, and bouldery loamy subsurface textures. These soils are classified as Andic Cryochrepts, Typic Cryochrepts, and Dystric Cryochrepts. Rock outcrop occurs on 10 to 30 per cent of this landscape component. The dominant potential natural vegetation are subalpine fir, grand fir, and alder communities in moist seeps. This component represents about 65 percent of this unit.

The trough bottoms consist of glacial tills and glacioluvial materials from Belt metasediments with a mixed surface layer of Mazama volcanic ash of varying thickness. Slope gradients range from 1 to 30 percent. Soils on these landforms are moderately deep, weakly to moderately developed, and consist mostly of silt loam and loam surface textures and mostly unstratified very gravelly, and cobbly, loamy subsurface textures. These soils are classified as Andic Cryochrepts, Dystric Cryochrepts, and Typic Haplocryands. Rock outcrops are uncommon. The dominant potential natural vegetation are subalpine fir, grass/sedge associations, and alder communities in moist seeps and wetlands. This component represents about 25 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
GLACIATED MOUNTAIN SLOPES: GRANITICS

Location: This unit is located in the Bitterroot Mountain Range and occurs in the Selway River Basin of central Idaho.

Acreage by Section

<table>
<thead>
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<tbody>
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<td>51-M332A</td>
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LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs on gently to moderately sloping glacial landscape settings. Parent material is alpine glacial till, alluvium, and residuum derived from granitic sources.

Accessory Characteristics: The primary soils are deep and very deep with coarse to moderately coarse textures. Small inclusions of shallow soils, rock outcrop, and rubble land can also be found within this unit. The vegetation is a mosaic of moderately dry, moist, and wet (riparian types) coniferous forest. Mean annual precipitation ranges from 76 to 127 centimeters (30 to 50 inches). The elevation range is 1372 to 2256 meters (4500 to 7400 feet). Slope gradients range from 1 to 50 percent. This unit is slightly to moderately dissected by streams, with the dominant stream pattern being parallel. Wetlands, seeps, bogs and riparian zones are major components of this unit.

LTA Components: This landtype association consists of glacial moraines, and floodplains.

Glacial moraines were formed by alpine glacial till. Slope gradients range from 8 to 50 percent and slope shape is convex. Soils on this landform are shallow to deep, and moderately well to somewhat excessively drained. These soils are weakly developed and consist of bouldery loam volcanic ash surface layers overlying very cobbly loamy sand substrata. The dominant soils are classified as: Andic Cryochrepts, Lithic Cryochrepts, Lithic Ustochrepts, and Typic Ustochrepts. Rock outcrop and rubble land occupy about 10 percent of this component. The dominant potential natural vegetation are subalpine fir and Douglas-fir series. This landform component represents about 75 percent of this unit.

Floodplains were formed in coarse alluvium. Slope gradients range from 1 to 8 percent. Soils on this landform are very deep and moderately well to very poorly drained. These soils are very weakly develop and consist of cobbly loam surface layers overlying very cobbly loamy sand substrata. The dominant soils are classified as Typic Cryaquents, Oxyaquic Cryofluvents, and Andic Cryofluvents. Rock outcrop occurs on less than 5 percent of this component. The dominant potential natural vegetation is western redcedar, grand fir and subalpine fir. This landform represents about 25 percent of this unit.

Compiled by: Bob Spokas, Bitterroot National Forest
LTA57-M332A
LTA57-M333D

GLACIATED MOUNTAIN SLOPES:
GNEISSES, QUARTZITES, AND SCHISTS

Location: This unit is located in mid to high elevation glaciated areas of north central Idaho in the Salmon and Clearwater River basins.

Acreage by Section

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LTA Setting and General Characteristics

Differentiating characteristics: This map unit is composed of gently to moderately sloping alpine glaciated lands, including moraines, cirque basins, and trough bottoms. Parent materials are poorly weathered gneiss, quartzite, and schist associated with the Idaho batholith.

Accessory Characteristics: The primary soils are deep to very deep silt loams, loams and sandy loams. The vegetation is coniferous forest. Mean annual precipitation ranges from 89 to 127 centimeters (35 to 50 inches). The elevation range is 1700 to 2500 meters (5500 to 8200 feet). The dominant slopes have gradients of 10 to 50 percent. This unit is moderately dissected by streams, with the dominant stream pattern being pinnate. Wetlands and lakes are significant inclusions in basins and depressions.

LTA Components: This landtype association consists of moraines, cirque basins, and trough bottoms.

Moraines are formed in volcanic ash influenced loess and glacial till of felsic metamorphic lithology. Slope gradients range from 5 to 50 percent. Soils on these landforms are moderately deep to very deep, weakly developed silt loams and gravelly sandy loams with cobbly loamy sand substrata. These soils are classified as Andic Cryochrepts and Dystric Cryochrepts, and Andic Cryumbrepts. Rock outcrop is less than 15 percent of the unit. The dominant potential natural vegetation at mid elevations is grand fir, and at high elevations subalpine fir. This component is 60 percent of the map unit.

Cirque basins are formed in volcanic ash influenced loess and glacial till of felsic metamorphic lithology. Slope gradients range from 1 to 30 percent. Soils on these landforms are moderately deep to very deep, weakly developed silt loams and gravelly sandy loams with very cobbly loamy sand substrata. These soils are classified as Andic Cryochrepts and Entic Cryumbrepts. Rock outcrop is less than 10 percent of the unit. The dominant potential natural vegetation is subalpine fir, and sedge/shrub complexes. This component is 20 percent of the map unit.

Trough bottoms are formed in mixed volcanic ash influenced loess, glacial till and stratified outwash of felsic metamorphic lithology. Slope gradients range from 1 to 30 percent. Soils are these landforms are deep to very deep, weakly developed silt loams, and gravelly sandy loams with very cobbly loamy sand or sand substrata. These soils are classified as Andic Cryochrepts, Entic Cryumbrepts, and Andic Cryaquepts. The dominant potential natural vegetation is subalpine fir, grand fir and sedge/shrub complexes. This component is 20 percent of the map unit.

Compiled by: Pat Green, Nez Perce National Forest
Location: This unit is located in mountains and canyons of north central Idaho and central Idaho in the Salmon and Clearwater River basins.

Acreage by Section

59-M332A 129,742

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is colluvial mountain slopes. Parent materials are moderately weathered gneiss, schist and quartzite associated with the Idaho batholith.

Accessory Characteristics: The primary soils are deep to very deep silt loams, loams and sandy loams. The vegetation is dominantly coniferous forest, with some grassland at low elevations on south aspects. Mean annual precipitation ranges from 64 to 114 centimeters (25 to 45 inches). The elevation range is 700 to 2000 meters (2300 to 6500 feet). The dominant slopes have gradients of 35 to 50 percent. This unit is moderately dissected by streams, with the dominant stream pattern being parallel.

LTA Components: This landtype association consists of mountain slopes.

Mountain slopes are formed in volcanic ash influenced loess, residuum and colluvium of felsic lithology. Soils on these landforms are deep to very deep, moderately developed silt loams, loams and sandy loams with sandy or substrata. Soils on low elevations on south aspects are Ultic Haploxerolls. At mid elevations soils are classified as Andic Dystrochrepts and Typic Dystrochrepts, and at high elevations they are Andic Cryochrepts and Dystric Cryochrepts. Rock outcrop is less than 25 percent of the unit. The dominant potential natural vegetation at low elevations is bluebunch wheatgrass, at mid elevations, Douglas-fir and grand fir, and at high elevations—subalpine fir.

Compiled by: Pat Green, Nez Perce National Forest
Location: This unit is located in the Bitterroot Mountain Range of central Idaho in the Upper Salmon and Upper Selway River Basins.

Acreage by Section

60-M332A  63,800

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a non glaciated steep mountain slope setting, below the zone of strong frost shattering, which is typically composed of moderately dissected mountain slopes, ridge tops, and narrow valley bottoms. Parent materials are colluvium and residuum underlain by precambrian belt rocks such as argillite, quartzite, and siltite.

Accessory Characteristics: The primary soils are shallow to deep, medium-textured, and have numerous rocks fragments throughout the profile. The vegetation is a mosaic of coniferous forest and native grasslands. Mean annual precipitation ranges from 64 to 89 centimeters (25 to 35 inches). The elevation range is 1463 to 1951 meters (4800 to 6400 feet). The dominant slopes have gradients of 10 to 55 percent. This unit is moderately dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of mountain slopes, and ridge tops.

Mountain slopes are formed in colluvium and residuum. Slope gradients range from 35 to 55 percent. Soils on this landform are shallow to very deep and well drained. Soils are weakly developed in areas underlain by the coarse-textured rock types, such as quartzite, and having cooler forested habitat types. These soils have gravelly fine sandy loam surface layers and extremely cobbly fine sandy loam substrata. Soils that formed in material derived from fine-textured rocks, such as argillite, and having warmer forested or grassland series are well developed. These soils have gravelly loam surface layers and very cobbly sandy clay loam or clay loam substrata. The dominant soils are classified as Typic and Lithic Ustochrepts, Dystric Cryochrepts, Typic Eutroboralfs and Lithic Argiborolls. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir, grand fir, Idaho fescue and subalpine fir. This component represents 75 percent of this unit.

Mountain ridge tops are formed in residuum. Slope gradients range from 10 to 35 percent. Soils on this landform are shallow to deep and well drained. These soils are similar to those described above for the mountain slopes landscape component. Rock outcrop occurs on about 20 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir and Idaho fescue series. This component represents 20 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
LTA61–M332A

MOUNTAIN SLOPES AND RIDGES: HIGHLY WEATHERED GRANITICS

Location: This unit is located in the Clearwater and Bitterroot Mountains of Idaho in the upper Selway and Lochsa River Basins.

Acreage by Section

61–M332A  95,759

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a moderately sloping mountain slope and ridge landscape setting, which is typically composed of moderately to highly dissected mountain slopes and ridgetops. Parent materials are a surface layer of Mazama volcanic ash underlain by highly weathered granitics of the Idaho Batholith.

Accessory Characteristics: The primary soils are moderately deep to deep with silt loam to loam and sandy loam surface textures and very gravelly to cobbly loam to sandy loam subsurface layers. The vegetation is a mosaic of coniferous forest. Mean annual precipitation ranges from 64 to 178 cms (25 to 70 inches). The elevation range is 1219 to 2134 meters (4000 to 7000 feet). The dominant slopes have gradients of 30 to 60 percent. This unit is moderately to highly dissected by streams, with the stream pattern being dendritic to trellis. Wetlands and moist seeps are a common component of this unit.

LTA Components: This landtype association consists of steep mountain slopes, and ridgetops.

Steep mountain slopes are formed in granitic colluvium overlain by Mazama volcanic ash. In the southern portions of this Section many slopes, especially those with southerly to westerly aspects, lack a volcanic ash surface layer. Slope gradients range from 30 to 60 percent. Soils on these landforms are moderately deep to very deep, moderately to highly developed, and consist of silt loam, sandy loam and loam surface textures with gravelly loam to sandy loam subsurface textures. These soils are classified as Andic Dystrochrepts, Typic Dystrochrepts, and Typic Ududirtand. In the southern portion of this Section, soils are colder and drier and have very gravelly to very cobbly loamy sand textured substrata and are classified as Typic Ustochrepts and Dystric Cryochrepts. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation is western redcedar and grand fir in moister climates and is moderately dry to dry Douglas-fir and subalpine fir in the drier climates to the south. This component represents 80 percent of this unit.

Ridgetops are formed in granitic residuum and colluvium overlain by a mixed layer of Mazama volcanic ash. Slope gradients range from 15 to 50 percent. Soils on these landforms are shallow to deep, moderately developed, and consist of silt loam, loam and gravelly sandy loam surface textures with gravelly to cobbly loam or sandy loam subsurface textures. These soils are classified as Andic Dystrochrepts, Typic Dystrochrepts, and Typic Ududirtand. In the southern portions of this Section, the soils have very gravelly or very cobbly loamy sand substrata and are classified as Typic Ustochrepts and Dystric Cryochrepts. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation is western redcedar, grand fir, and Douglas-fir. The subalpine fir series also occurs in the southern part of this Section. This component represents 20 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest, and Ken McBride, Bitterroot National Forest
Location: This unit is located in the Clearwater and Bitterroot Mountain Ranges of north central Idaho in the Clearwater and Salmon River basins.

Acreage by Section

62-M332A 129,836

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a nonglaciated steep mountain slope landscape setting, below the zone of strong frost shattering, and is typically composed of moderately dissected mountain slopes, ridge tops, and minor amounts of narrow valley bottoms. Parent materials are colluvium and residuum underlain by weakly weathered granitic and gneissic bedrock.

Accessory Characteristics: The primary soils are shallow to very deep, moderately coarse textured, and have numerous rock fragments throughout the profile. The vegetation is a mosaic of coniferous forest, native grasslands, and dry shrublands. Mean annual precipitation ranges from 64 to 114 cms (18 to 45 inches). The elevation range is 860 to 2073 meters (2300 to 6800 feet). The dominant slopes have gradients of 20 to 55 percent. This unit is moderately dissected by streams. Low order streams are parallel and higher order streams are dendritic in pattern. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of mountain slopes and ridge tops.

Mountain slopes are formed in colluvium and residuum. Slope gradients range from 35 to 55 percent. Soils on this landform are shallow to very deep and somewhat excessively drained or well drained. These soils are weakly developed except that on warm, southeast to west-facing slopes, soils have a more developed, clay enriched subsoil. The weakly developed soils consist of gravelly sandy loam surface layers overlying very cobbly sandy loam substrata. The more developed soils have a gravelly sandy loam surface layer that overlies very gravelly or very cobbly sandy clay loam substrata. The dominant soils are classified as Typic and Lithic Ustochrepts; Ultic Haploxerolls; Typic Dystrochrepts; Dystric Cryochrepts; Typic Eutroboralfs, and Lithic Argiborolls. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir, Idaho fescue, grand fir and subalpine fir series. This component represents 80 percent of this unit.

Mountain ridge tops are formed in residuum. Slope gradients range from 20 to 35 percent. Soils on this landform are moderately deep to deep and well drained. Soil textures and degree of soil development are similar to those listed above for the mountain slopes landscape position. These soils are Lithic Ustochrepts, Lithic Argiborolls, Andic Dystrochrepts, Andic Cryochrepts, and Dystric Cryochrepts. Rock outcrop occurs on about 20 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir, grand fir, subalpine fir, and Idaho fescue series. This component represents 15 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
Location: This unit is located in the Clearwater Mountains of Idaho in the lower Selway and Lochsa River Basins.

Acreage by Section

63-M332A   96,467

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a moderately sloping mountain slope and ridge landscape setting, which is typically composed of moderately dissected mountain slopes and ridgetops. Parent materials are a surface layer of Mazama volcanic ash underlain by schist and gneiss with high amounts of mica.

Accessory Characteristics: The primary soils are moderately deep to very deep with silt loam to loam surface textures and gravelly loam subsurface layers. The vegetation is a mosaic of coniferous forest. Mean annual precipitation ranges from 30 to 50 inches (76 to 127 cms.) The elevation range is 2500 to 6000 feet (762 to 1829 meters). The dominant slopes have gradients of 30 to 60 percent. This unit is moderately to highly dissected by streams, with the stream pattern being dendritic to trellis. Wetlands and moist seeps are a common component of this unit.

LTA Components: This landtype association consists of steep mountain slopes, and ridgetops.

Steep mountain slopes are formed in schist and gneiss colluvium overlain by Mazama volcanic ash. Slope gradients range from 30 to 60 percent. Soils on these landforms are moderately deep to very deep, highly developed, and consist of silt loam to loam surface textures with gravelly loam subsurface textures. These soils are classified as Andic Dystrochrepts, Andic Xerochrepts, and Vitric Hapludands. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation is western redcedar and grand fir. This component represents 80 percent of this unit.

Ridgetops are formed in gneiss and schist residuum and colluvium overlain by a mixed layer of Mazama volcanic ash. Slope gradients range from 15 to 50 percent. Soils on these landforms are shallow to deep, moderately to highly developed, and consist of silt loam to loam surface textures with gravelly to cobbly loam subsurface textures. These soils are classified as Andic Dystrochrepts, Andic Xerochrepts, and Vitric Hapludands. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation is western redcedar, grand fir, and Douglas-fir. This component represents 20 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest
Location: This unit is located in the Bitterroot Mountain Range of central Idaho in the Selway River Basin.

Acreage by Section

64-M332A  18,316

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a non-glaciated steep mountain slope landscape setting, below the zone of strong frost shattering, which is typically composed of steep mountain slopes, moderately steep ridge tops, and minor amounts of narrow valley bottoms. Parent materials are colluvium and residuum underlain by volcanic andesites and rhyolites.

Accessory Characteristics: The primary soils are shallow to very deep with loamy textures and numerous rock fragments throughout the profile. The vegetation is a mosaic of coniferous forest and dry native grasslands. Mean annual precipitation ranges from 51 to 102 centimeters (20 to 40 inches). The elevation range is 1524 to 2012 meters (5000 to 6600 feet). The dominant slopes have gradients of 20 to 55 percent. This unit is moderately dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of steep mountain slopes, and moderately steep ridge tops.

Steep mountain slopes are formed in colluvium derived from andesite or rhyolite. Slope gradients range from 30 to 55 percent. Soils on this landform are deep and well drained. These soils mostly are well developed and consist of gravelly loam or sandy loam surface layers overlying very gravelly or very cobbly sandy clay loam substrata. Similar soils are less well developed and generally have very cobbly sandy loam substrata. The dominant soils are classified as Typic Cryoboralfs, Typic Eutroboralfs, Typic Ustochrepts, and Lithic Argiborolls. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation is subalpine fir, Douglas-fir and Idaho fescue. This component represents 75 percent of this unit.

Mountain ridge tops and associated spur ridges are formed in residuum and colluvium derived from andesite or rhyolite. Slope gradients range from 20 to 30 percent. Soils on this landform are mostly shallow to moderately deep and well drained. These soils are a mix of weakly developed and well developed soils and consist of gravelly loam surface layers overlying very gravelly or very cobbly sandy loam or sandy clay loam substrata. The dominant soils are classified as Lithic Ustochrepts, Typic Cryoboralfs, and Typic Eutroboralfs. Rock outcrop occurs on about 15 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir and subalpine fir series. This component represents 15 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
Location: This unit is located in the Bitterroot Mountain Range of central Idaho in the Selway River Basin.

Acreage by Section
70-M332A 1,385

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a high elevation mountain ridge landscape setting which is typically composed of frost shattered ridge tops and mountain slopes. Parent materials are colluvium and residuum underlain by Precambrian sedimentary Belt rocks.

Accessory Characteristics: The primary soils are deep with fine sandy loam textures that have numerous rock fragments in the profile. The vegetation is a fairly uniform cover of coniferous forest. Mean annual precipitation ranges from 114 to 152 centimeters (45 to 60 inches). The elevation range is 2012 to 2378 meters (6600 to 7800 feet). The dominant slopes have gradients of 10 to 50 percent. This unit is slightly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit. Small areas of glaciation are also included in this unit.

LTA Components: This landtype association consists of frost shattered mountain slopes, and ridge tops.

Frost shattered mountain slopes formed in colluvium derived from Belt rocks such as quartzite, argillite, and siltite. A thin layer of volcanic ash overlies this colluvium in most of the area. Slope gradients range from 35 to 50 percent. Soils on this landform are deep and well drained. These soils are weakly developed and consist of gravelly or cobbly loam or silt loam surface layers and very cobbly to extremely cobbly fine sandy loam substrata. The dominant soils are classified as Andic Cryochrepts and Dystric Cryochrepts. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation includes subalpine fir and whitebark pine-subalpine fir series. This component represents 60 percent of this unit.

Frost shattered ridge tops formed in residuum and colluvium from quartzite, argillite, and siltite that also has a thin veneer of volcanic ash loess at the surface. Slope gradients range from 10 to 30 percent. Soils on this landform are deep and well drained. These soils are poorly developed and consist of cobbly to extremely cobbly loam or silt loam surface layers that overlie extremely cobbly fine sandy loam substrata. The dominant soils are classified as Andic Cryochrepts and Dystric Cryochrepts. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation includes subalpine fir and whitebark pine-subalpine fir series. This component represents 30 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
LTA71-M332A

FROST SHATTERED MOUNTAIN RIDGE TOPS: HIGHLY WEATHERED GRANITICS

Location: This unit is located in the Bitterroot and Clearwater Mountain Ranges of central Idaho in the Selway and Lochsa River Basins.

Acreage by Section

71-M332A  62,411

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a high elevation mountain ridge landscape setting which is typically composed of frost shattered ridge tops and mountain slopes. Parent materials are Mazama volcanic ash over colluvium and residuum underlain by highly weathered granitic rocks.

Accessory Characteristics: The primary soils are moderately deep to deep with loamy to sandy loam surface textures and gravelly loam and sandy subsurface textures. There are numerous pea-sized and cobble-sized rock fragments in the profile. The vegetation is a fairly uniform cover of coniferous forest. Mean annual precipitation ranges from 76 to 152 cms. (30 to 60 inches). The elevation range is 1372 to 2500 meters (4500 to 8200 feet). The dominant slopes have gradients of 10 to 55 percent. This unit is slightly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit. Small areas of glaciation are included.

LTA Components: This landtype association consists of frost shattered mountain slopes, and ridge tops.

Frost shattered mountain slopes are formed in a layer of wind deposited volcanic ash that overlies colluvium derived from highly weathered granitic rocks. Slope gradients range from 30 to 55 percent. Soils on this landform are deep and somewhat excessively drained. These soils are weakly developed and consist of gravelly sandy loam, loam or silt loam surface layers and very gravelly loamy sand or coarse sandy loam substrata. The dominant soils are classified as Andic Cryochrepts, Dystric Cryochrepts, and Typic Haplocryands.. Bedrock is highly weathered granitics (grus). Rock outcrop varies from less than 5 percent of this landscape component in the eastern part of the area to around 10 percent in the western part. The dominant potential natural vegetation is subalpine fir and whitebark pine-subalpine fir series. This component represents 70 percent of this unit.

Frost shattered ridge tops are formed in residuum and colluvium derived from highly weathered granitic rocks overlain by volcanic ash loess. Slope gradients range from 10 to 40 percent. Soils on this landform are deep and somewhat excessively drained. These soils are poorly developed and consist of gravelly loam, sandy loam, or silt loam surface layers that overlie very gravelly loamy sand or coarse sandy loam substrata. The dominant soils are classified as Andic Cryochrepts, Dystric Cryochrepts and Typic Cryochrepts. Bedrock is highly weathered granitics. Rock outcrop occurs on less than 5 percent of this landscape component in the eastern areas and up to 20 percent in the west. The dominant potential natural vegetation is subalpine fir, and whitebark pine-subalpine fir series. This component represents 25 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest, and Jim Mital, Clearwater National Forest
LTA72-M332A

FROST SHATTERED MOUNTAIN RIDGE TOPS: WEAKLY WEATHERED GRANITICS

Location: This unit is located in the Clearwater and Bitterroot Mountain Ranges of central Idaho in the Clearwater and Salmon River basins.

Acreage by Section

72-M332A 177,263

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a high elevation mountain ridge landscape setting which is typically composed of frost-churned ridge tops and mountain slopes. Parent materials are colluvium and residuum underlain by weakly weathered granitic rocks.

Accessory Characteristics: The primary soils are deep with silt loam to sandy loam textures that have numerous rock fragments in the profile. The vegetation is a fairly uniform cover of coniferous forest. Mean annual precipitation ranges from 76 to 140 cms (30 to 55 inches). The elevation range is 5300 to 8300 feet (1600 to 2530 meters). The dominant slopes have gradients of 15 to 50 percent. This unit is slightly dissected by streams, with the dominant stream pattern being parallel, but grading to weakly dendritic. Wetlands are a minor component of this unit. Small areas of glaciation are included in this map unit.

LTA Components: This landtype association consists of frost shattered mountain slopes, and ridge tops.

Frost shattered mountain slopes are formed in a thin layer of wind deposited volcanic ash that overlies colluvium derived from weakly weathered granitic rocks. Slope gradients range from 35 to 50 percent. Soils on this landform are deep and well drained. These soils are weakly developed and consist of gravelly loam or silt loam surface layers and very gravelly or very cobbly sandy loam to sand substrata. The dominant soils are classified as Andic Cryochrepts and Dystric Cryochrepts. Rock outcrop occurs on less than 5 percent of this landscape component. The dominant potential natural vegetation at mid elevations is grand fir and at higher elevations is subalpine fir and subalpine fir-whitebark pine. This component represents 75 percent of this unit.

Frost shattered ridge tops are formed in residuum and colluvium derived from weakly weathered granitic rocks that has a thin veneer of volcanic ash loess at the surface. Slope gradients range from 15 to 30 percent. Soils on this landform are deep and well drained. These soils are poorly developed and consist of gravelly loam or silt loam surface layers that overlie very gravelly or very cobbly sandy loam substrata. The dominant soils are classified as Andic Cryochrepts and Dystric Cryochrepts. Rock outcrop occurs on less than 5 percent of this landscape component. The dominant potential natural vegetation at mid elevations is grand fir and at higher elevations is subalpine fir and whitebark pine-subalpine fir series. This component represents 20 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
LTA73-M332A

FROST SHATTERED MOUNTAIN RIDGE TOPS: VOLCANICS

Location: This unit is located in the Clearwater Mountains of north central Idaho in the Salmon River Basin.

Acreage by Section

73-M332A  4,171

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a high elevation mountain ridge landscape setting which is typically composed of frost shattered ridge tops and mountain slopes. Parent materials are colluvium and residuum underlain by weakly weathered volcanic rocks, typically basalt.

Accessory Characteristics: The primary soils are deep with loam textures that have numerous rock fragments in the profile. The vegetation is coniferous forest. Mean annual precipitation ranges from 89 to 102 centimeters (35 to 40 inches). The elevation range is 1650 to 2000 meters (5500 to 6700 feet). The dominant slopes have gradients of 10 to 30 percent. This unit is slightly dissected by streams, with the dominant stream pattern being parallel. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of frost shattered mountain ridge tops.

Frost shattered ridge tops are formed in residuum and colluvium derived from weakly weathered basalt that has a thin veneer of volcanic ash loess at the surface. Slope gradients range from 10 to 30 percent. Soils on this landform are deep and well drained. These soils are moderately developed and consist of gravelly loam or silt loam surface layers that overlie very gravelly or very cobbly loam or clay loam substrata. The dominant soils are classified as Andeptic Cryoboralfs. Rock outcrop occurs on less than 5 percent of this landscape component. The dominant potential natural vegetation is grand fir and subalpine fir series. This component represents 85 percent of this unit.

Compiled by: Pat Green, Nez Perce National Forest
LTA77-M332A

FROST SHATTERED MOUNTAIN RIDGE TOPS:
GNEISSES, QUARTZITES, AND SCHISTS

Location: This unit is located on ridges in north central and central Idaho in the Clearwater, Snake, and Salmon River basins.

Acreage by Section

77-M332A  159,797

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is convex frost shattered ridges and sideslopes. Soils form in volcanic ash influenced loess and poorly to moderately weathered gneiss, schist, and quartzite associated with the Idaho Batholith.

Accessory Characteristics: The primary soils are deep to very deep silt loams and sandy loams. The vegetation is coniferous forest and openings dominated by herbaceous plant communities. Mean annual precipitation ranges from 89 to 127 centimeters (35 to 50 inches). The elevation range is 160 to 2300 meters (5200 to 7500 feet). The dominant slopes have gradients of 20 to 50 percent. This unit is poorly to moderately dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a significant component of this unit.

LTA Components: This landtype association consists of convex ridges and sideslopes.

Frost shattered convex ridges and slopes are formed in volcanic ash influenced loess and residuum of felsic metamorphic lithology. Soils on these landforms are deep to very deep, poorly developed silt loams or loams with very gravelly or cobbly loamy sand substrata. These soils are classified as Andic Cryochrepts, Vitric Haplocryands and Vitric Fulvicryands. Rock outcrop is less than 10 percent of the unit. The dominant potential natural vegetation at mid elevations is grand fir, and at high elevations subalpine fir and whitebark pine/subalpine fir series.

Compiled by: Pat Green, Nez Perce National Forest
LOW RELIEF HILLS: METASEDIMENTARY (BELT)

Location: This unit is located in the Clearwater Mountains of Idaho in the upper Lochsa River Basin.

Acreage by Section

80-M332A     1,243

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a mid elevation, gentle to moderately sloping, mountain sideslope and ridge landscape setting, which is composed of highly dissected mountain slopes and associated ridges comprised deeply weathered residuum. Parent materials are surface volcanic ash overlying moderately to highly weathered quartzites, and siltites from Precambrian metasedimentary bedrock.

Accessory Characteristics: The primary soils are deep silt loams and loams. The vegetation is a mosaic of coniferous forest. Mean annual precipitation ranges from 89 to 127 centimeters (35 to 50 inches). The elevation range of this unit is 1068 to 1373 meters (3500 to 4500 feet). The dominant slopes have gradients of 10 to 30 percent. This unit is highly dissected by streams, with the stream pattern being strongly dendritic. Wetlands and moist seeps are a common component of this unit.

LTA Components: This landtype association consists of low relief rolling hills.

Low relief rolling hills with gentle to moderately steep slopes and are formed in metasediments that consist of quartzites, siltites and inclusions of schists overlain by Mazama volcanic ash. The slope gradients range from 10 to 40 percent. Soils on these landforms are deep, moderately to highly weathered and medium textured. The major soils on the well drained sites are classified as Vitric Hapludands, Typic Udivotrands, and Alfic Udivotrands. The dominant potential natural vegetation on the well drained sites are western redcedar and grand fir. This component represents 90 percent of this unit.

Compiled by: Jim Mital, Clearwater National Forest and Jerry Niehoff, Idaho Panhandle National Forests
LOW RELIEF HILLS: HIGHLY WEATHERED GRANITICS

Location: This unit is located in the Bitterroot Mountain Range of central Idaho in the Selway River Basin.

Acreage by Section

81-M332A 139,140

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a moderately steep, highly dissected mountain slope landscape setting which is typically composed of dissected slopes, ridge tops, and noses of spur ridges. Parent materials are colluvium and residuum underlain by highly weathered granitic bedrock.

Accessory Characteristics: The primary soils are shallow to deep with loamy sand to sandy clay loam textures and have numerous rock fragments throughout the profile. The vegetation is a mosaic of dry shrublands, grasslands, and coniferous forest. Mean annual precipitation ranges from 64 to 102cms (25 to 40 inches). The elevation range is 1097 to 1890 meters (3600 to 6200 feet). The dominant slopes have gradients of 10 to 45 percent. This unit is highly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of dissected mountain slopes, and ridge tops.

Dissected mountain slopes are formed in colluvium derived from highly weathered granitics. Slope gradients range from 25 to 45 percent. Soils on this landform are moderately deep to deep and somewhat excessively to well drained. These soils are poorly developed to well developed and consist of gravelly sandy loam surface layer that overlies very gravelly to very cobbly loamy sand or sandy clay loam substrata. The dominant soils are classified as Dystric Cryochrepts, Typic Ustochrepts, and Typic Eutroboralfs. Rock outcrop occurs on about 5 percent of this landscape component. The dominant potential natural vegetation is Douglas-fir and subalpine fir series. This component represents 60 percent of this unit.

Ridge tops and associated noses of spur ridges are formed in residuum and colluvium derived from highly weathered granitics. Slope gradients range from 10 to 25 percent. Soils on this landform are shallow to moderately deep and somewhat excessively drained. These soils are poorly developed to well developed and consist of gravelly or very gravelly sandy loam or loam surface layers over very gravelly or very cobbly loamy sand or sandy clay loam substrata. The dominant soils are classified as Lithic Argiborolls, Typic Eutroboralfs, Typic Ustochrepts, and Dystric Cryochrepts. Rock outcrop occurs on about 10 percent of this landscape component. The dominant potential natural vegetation is Idaho fescue, Douglas-fir, and subalpine fir series. This component represents 20 percent of this unit.

Compiled by: Ken McBride, Bitterroot National Forest
Location: This unit is located on isolated plateaus and broad ridgetops above granitic slopes and canyonlands in west central Idaho.

Acreage by Section

82-M332A 26,996

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is usually isolated plateaus developed primarily in loess and moderately weathered residuum of Columbia River basalt, in a landscape dominated by granitic lithology.

Accessory Characteristics: The primary soils are deep to very deep silt loams and loams. The vegetation is dominantly coniferous forest. Mean annual precipitation ranges from 76 to 127 centimeters (30 to 50 inches). The elevation range is 1070 to 1800 meters (3500 to 5900 feet). The dominant slopes have gradients of 5 to 30 percent. This unit is slightly to moderately dissected by streams with the dominant stream pattern being dendritic.

LTA Components: This landtype association consists of plateaus.

Plateaus are formed in loess and residuum of volcanic lithology. Slope gradients range from 5 to 30 percent. Soils on these landforms are deep to very deep, moderately developed silt loams with clay or silty clay substrata. These soils are classified as Ultic Argixerolls and Andeptic Cryoboralfs. Rock outcrop is less than 10 percent of the unit. The dominant potential natural vegetation is Douglas-fir and grand fir series. Western red cedar is dominant in the north part of the Clearwater basin.

Compiled by: Pat Green, Nez Perce National Forest
Location: This unit is located in west-central Idaho in the South Fork of the Clearwater River Basin.

Acreage by Section

83-M332A 27,852

LTA Setting and General Characteristics

Differentiating characteristics: This map unit occurs in a low to mid elevation, gently to moderately sloping landscape setting which is typically composed of low relief rolling hills and low mountains. Parent materials are Mazama volcanic ash and wind-blown loess underlain by Tertiary alluvial deposits.

Accessory Characteristics: The primary soils are deep to very deep with silt loam surface textures and silt loam to silty clay subsurface textures. The vegetation is a mosaic of coniferous forest. Mean annual precipitation ranges from 64 to 102 cms. (25 to 40 inches). The elevation range is 762 to 1524 meters (2500 to 5000 feet). The dominant slopes have gradients of 5 to 30 percent. This unit is highly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this unit.

LTA Components: This landtype association consists of low relief rolling hills.

Low relief rolling hills are formed in Tertiary alluvium overlain by Mazama volcanic ash and wind-blown loess. Slope gradients range from 5 to 30 percent. Soils on these landforms are deep to very deep, highly developed, and consist of silt loam surface textures and silt loam to silty clay subsurface textures. These soils are classified as Ultic Haploxeralfs, Typic Eutroboralfs, and Andic Argixerolls. Rock outcrops are uncommon on this landscape component. The dominant potential natural vegetation is grand fir and Douglas-fir.

Compiled by: Jim Mital, Clearwater National Forest
LOW RELIEF HILLS: HIGHLY WEATHERED SCHISTS

Location:  This unit is located at middle elevations in north central Idaho in the Clearwater River basin.

Acreage by Section

84-M332A  20,976

LTA Setting and General Characteristics

Differentiating characteristics:  This map unit is rolling uplands developed in volcanic ash influenced loess and highly weathered residuum of Precambrian schist.

Accessory Characteristics:  The primary soils are very deep silt loams. The vegetation is dominantly coniferous forest. Mean annual precipitation ranges from 97 to 127 centimeters (38 to 50 inches). The elevation range is 1000 to 1800 meters (3000 to 5900 feet). The dominant slopes have gradients of 20 to 50 percent. This unit is highly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this map unit.

LTA Components:  This landtype association consists of rolling hills.

Rolling hills are formed in volcanic ash influenced loess and schist residuum. Soils on these landforms are very deep, moderately developed silt loams with gravelly sandy loam substrata. These soils are classified as Typic Udivitrands. Rock outcrop is less than 10 percent of the unit. The dominant potential natural vegetation is western red cedar and grand fir, with Sitka alder communities in moist openings.

Compiled by:  Pat Green, Nez Perce National Forest
LOW RELIEF HILLS: MODERATELY WEATHERED GNEISSES, QUARTZITES AND SCHISTS

Location: This unit is located at middle elevations in north central Idaho in the Salmon River and Clearwater River basins.

Acreage by Section
85-M332A  180,023

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is rolling uplands developed in volcanic ash influenced loess and moderately weathered residuum of gneiss, schist, and quartzite associated with the Idaho batholith.

Accessory Characteristics: The primary soils are deep to very deep silt loams. The vegetation is dominantly coniferous forest. Mean annual precipitation ranges from 76 to 127 centimeters (30 to 50 inches). The elevation range is 750 to 2000 meters (2500 to 6600 feet). The dominant slopes have gradients of 20 to 50 percent. This unit is moderately to highly dissected by streams, with the dominant stream pattern being dendritic. Wetlands are a minor component of this map unit.

LTA Components: This landtype association consists of rolling hills.

Rolling hills are formed in volcanic ash influenced loess and quartzite, gneiss, and schist residuum. Soils on these landforms are very deep, moderately developed silt loams with gravelly sandy loam substrata. These soils are classified as Andic Dystrochrepts. Rock outcrop is less than 10 percent of the unit. The dominant potential natural vegetation at mid elevations is grand fir series, and at upper elevations subalpine fir series. Western red cedar and alder communities in moist openings are common near the north part of the Clearwater River basin.

Compiled by: Pat Green, Nez Perce National Forest
Location: This unit is located in west-central Idaho in the South Fork Clearwater River and Selway River Basins.

Acreage by Section

90–M332A 29,413

LTA Setting and General Characteristics

Differentiating characteristics: This map unit is mass wasted slopes. Parent materials are can be of any lithology, but in this Section they are dominantly volcanics (Columbia flood basalts) and gneisses and schists overlain with a variable thickness of Mazama volcanic ash.

Accessory Characteristics: The primary soils are deep to very deep silt loams to cobbly loams. The vegetation is a mosaic of coniferous forest. Mean annual precipitation ranges from 51 to 102 cms (20 to 40 inches). The elevation range is 610 to 1524 meters (2000 to 5000 feet). The dominant slopes have gradients of 30 to 80 percent. This unit is moderately dissected by streams, with the dominant stream pattern being parallel to dendritic. Wetlands are a minor component of this unit, but moist seeps can be locally common.

LTA Components: This landtype association consists of mass wasted slopes.

Mass wasted slopes are formed in mixed Mazama volcanic ash overlying Columbia River flood basalts and gneisses and schists. Slope gradients range from 30 to 80 percent. Soils on these landforms are deep to very deep, weakly to moderately developed loams to cobbly loams, sometimes with a clayey substrata. These soils are classified as Dystric Xerochrepts, Typic Dystrocrepts, and Vitrandic Dystrochrepts. Rock outcrops occurs on less than 10 percent of this unit. The dominant potential natural vegetation is ponderosa pine, Douglas-fir, and grand fir.

Compiled by: Jim Mital, Clearwater National Forest