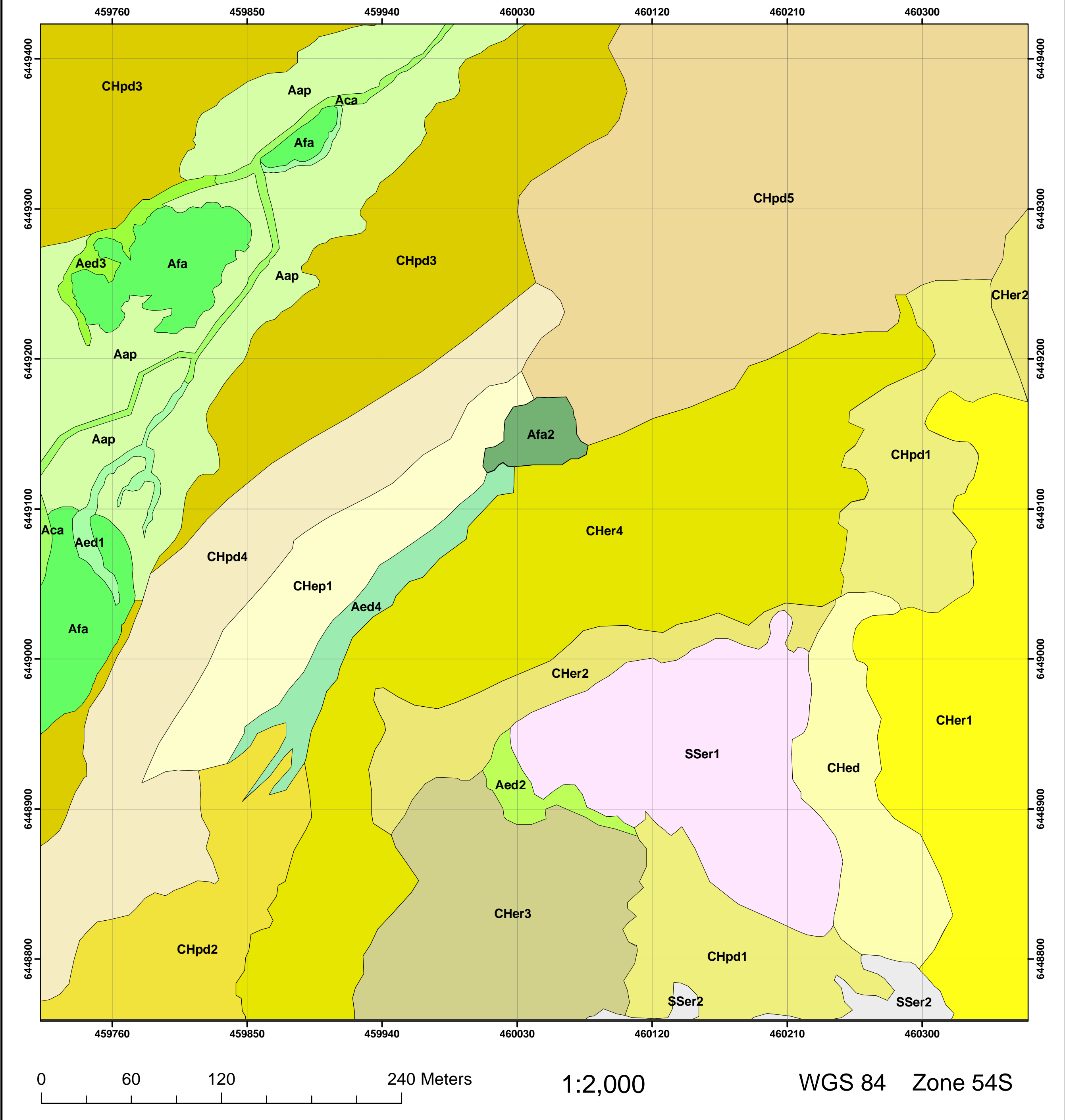


# White Dam Prospect Regolith-Landforms

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## Regolith-Landform Unit Descriptions

### Alluvial Sediments

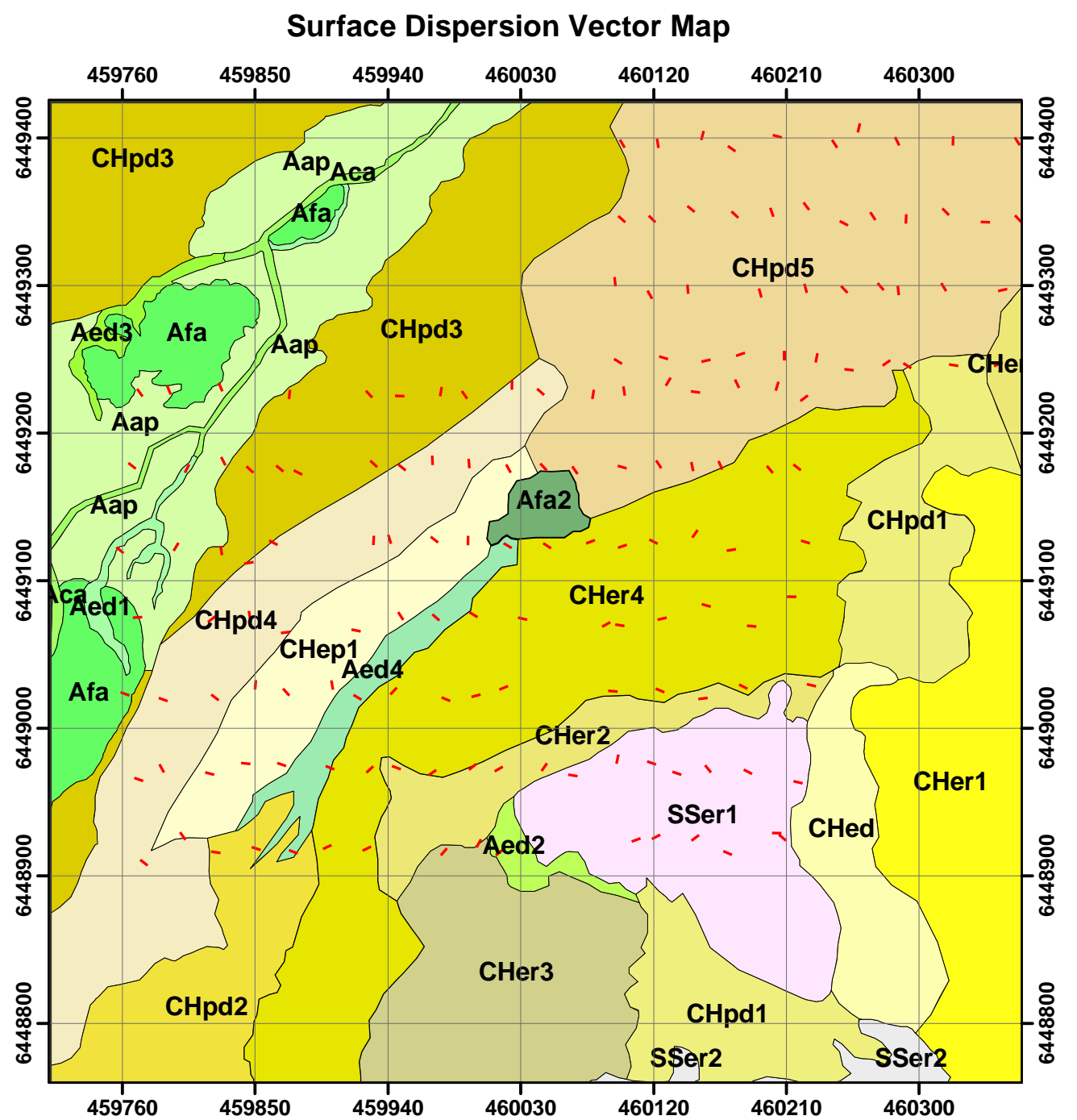
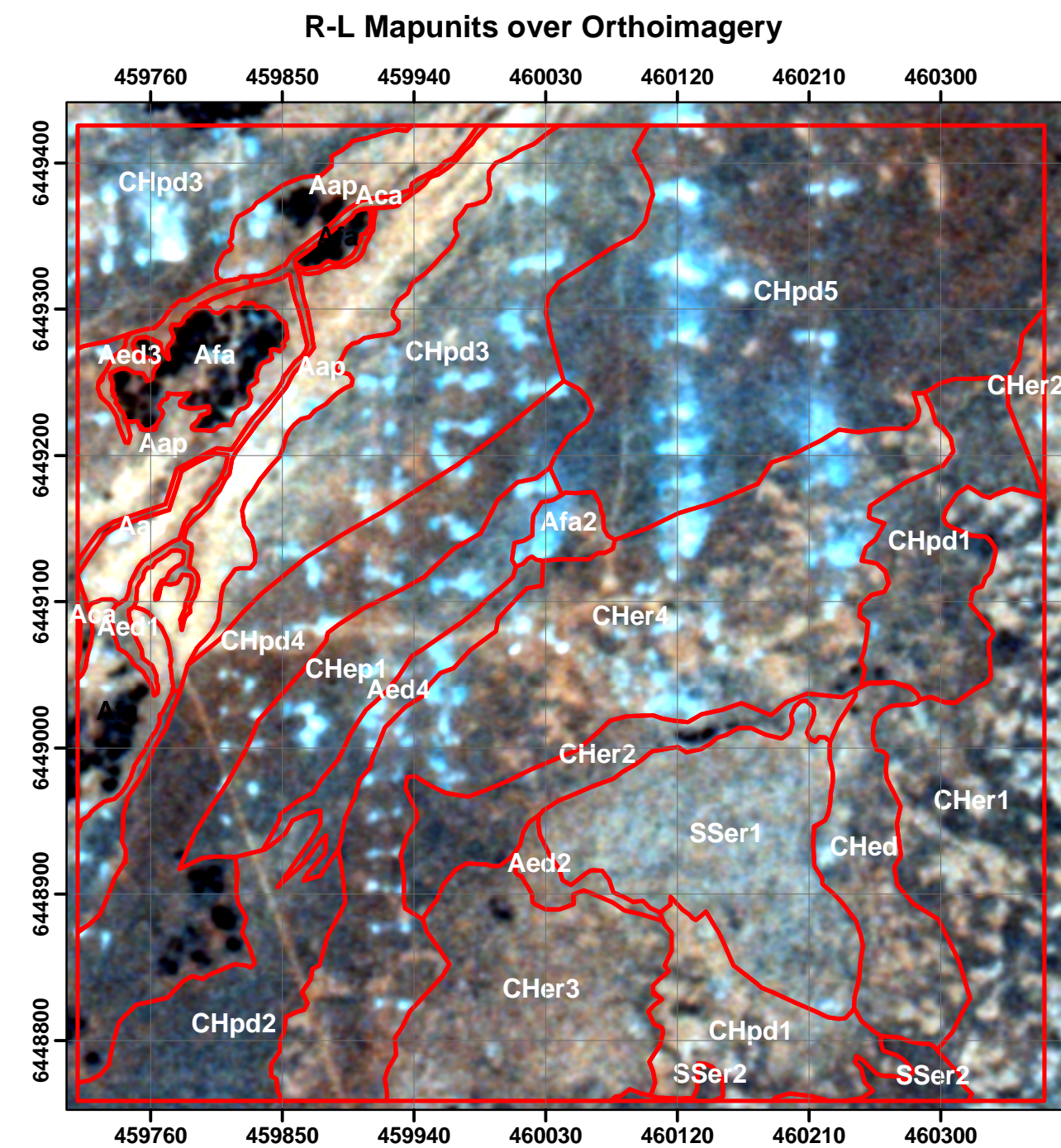
- Aap** (alluvial sediments / alluvial plain): low relief alluvial plain with yellow-brown silt and clay, minor sub-angular to sub- rounded, fine to very coarse quartzose sands, with minor feldspar, magnetite and other oxide minerals. Minor rills close at boundaries with adjacent regolith-landform units. Vegetation occurs within an open to very open chenopod shrubland with large bare patches, with bladder saltbush dominant and scattered black bluebush. Vegetation density increases markedly along the boundary with the main channel of Bulloo Creek (Aca) with bladder saltbush (*Atriplex vesicaria*), black bluebush (*Maireana pyramidata*) and Bathurst burr (*Xanthium spinosum*). Accretion mounds occur under most chenopod shrubs.
- Aca** (alluvial sediments / alluvial channel): Sandy dendritic alluvial channel draining bedrock rises to north and west, up to 3 m wide and 2 m deep with occasional bedrock exposures. Angular to sub-rounded, poorly bedded, fine to coarse sands and gravels, arranged in fining upward sequences. Predominately consisting of quartz, with lesser feldspar and minor micaceous flakes and carbonate fragments. Spatially variable fine to medium sand composed of magnetic and non magnetic oxide minerals. Vegetation consists of localised colonies of bladder saltbush (*Atriplex vesicaria*), black bluebush (*Maireana pyramidata*), copperburr (*Sclerolaena* spp) and Bathurst burr (*Xanthium spinosum*).
- Aed1** (alluvial sediments / drainage depression): Shallow sandy drainage depression up to 1 m wide and deep with fine to very coarse quartzose sands with lesser feldspar, minor magnetic and non-magnetic oxides and occasional regolith carbonate fragments. Vegetation consists of occasional bladder saltbush (*Atriplex vesicaria*), and unidentified low forbs in channel, with thick bladder saltbush and black bluebush (*Maireana pyramidata*) on banks.
- Aed2** (alluvial sediments / drainage depression): Broad and very shallow (< 10 cm) drainage depression with yellow-brown silts and clays and powdery regolith carbonate. Surface veneer of fine to very coarse quartzose sands with lesser feldspars, and minor very fine to medium sand sized magnetic grains and very fine to medium pebbles of non-magnetic oxide minerals. Scattered granules to large pebble sized quartz fragments and very large pebbles to large cobbles of calc-albite lithic fragments. Scattered calc-albite subcrop. Vegetation consists of an open chenopod shrubland dominated by pearl bluebush (*Maireana sedifolia*) with occasional black bluebush (*Maireana pyramidata*).
- Aed3** (alluvial sediments / drainage depression): Drainage depression up to 1 m wide and deep. Fine to very coarse quartzose sands with lesser feldspars, minor magnetic and non-magnetic oxides and regolith carbonate fragments. Vegetation consists of minor bladder saltbush (*Atriplex vesicaria*) shrubs and belah (*Casuarina pauper*) trees.
- Aed4** (alluvial sediments / drainage depression): Very shallow (<10 cm) drainage depression, consisting of multiple narrow (<1 m) rills. Pale red-brown silts and clays with abundant medium to coarse quartz-feldspathic sands and non magnetic oxides, and medium to fine sand sized magnetic oxides. Vegetation debris and minor cryptogam mats on land surface. Vegetation consists of open chenopod shrubland with bladder saltbush (*Atriplex vesicaria*) and black bluebush (*Maireana pyramidata*).
- Afa** (alluvial sediments / alluvial fan): Alluvial fan with minor surface rills and mud flakes. Yellow-brown silts and clays with sub-angular to sub-rounded, fine sand to granule sized quartz and feldspar with minor lithic fragments and oxide minerals. Most grains show either ferruginous staining or a covering of red-brown silt-clays. Abundant fine to medium sand sized magnetite grains. Vegetation is an open belah (*Casuarina pauper*) woodland, with an understorey of bladder saltbush (*Atriplex vesicaria*), and minor black bluebush (*Maireana pyramidata*).
- Afa2** (alluvial sediments / alluvial fan): Small alluvial fan with minor rilling between vegetation accretion mounds. Red-brown silts and clays, with fine to coarse quartzo-feldspathic sands, fine to medium sand sized magnetic and non-magnetic oxides. Vegetation is within an open chenopod shrubland with bladder saltbush (*Atriplex vesicaria*), and minor black bluebush (*Maireana pyramidata*).

### Colluvial Sediments

- CHed** (sheetflow sediments / drainage depression): Shallow drainage depression with sheetflow dominated transport and minor <50 cm wide channels. Yellow-brown silts and clays. Fine sand to large pebbles of angular to sub-angular quartz and calc albite lithic fragments, with occasional very large pebbles to small cobbles. Fine sand to large pebbles of angular to sub-angular carbonate fragments and carbonate coated lithic fragments. Vegetation exists within an open chenopod shrubland, dominated by pearl bluebush (*Maireana sedifolia*) with occasional bladder saltbush (*Atriplex vesicaria*) and black bluebush (*Maireana pyramidata*).
- CHep** (sheetflow sediments / erosional plain): Sheetflow dominated erosional plain with pedal red-brown silts and clays and a surface veneer of yellow-brown silts and clays. Fine to very coarse quartzo-feldspathic sands and occasional lithic fragments. Fine to medium sand sized magnetic and non-magnetic oxide minerals and minor medium sand sized micaceous flakes. Vegetation occurs within an open chenopod shrubland with bladder saltbush (*Atriplex vesicaria*), and scattered black bluebush (*Maireana pyramidata*) and pearl bluebush (*Maireana sedifolia*).
- CHer1** (sheetflow sediments/ erosional rise): Sheetflow dominated erosional rise with banded vegetation. Yellow-brown silts and clays (~10 cm thick) overlying apedal red-brown silts and clays. Surface features include abundant fine sand to small cobbles of angular to sub-angular quartz. Minor fine to medium sand sized feldspar and magnetic oxides, and medium to very large sub-rounded pebbles of ferruginous lag. Vegetation bands consist of black bluebush (*Maireana pyramidata*) and bladder saltbush (*Atriplex vesicaria*), with minor *Sclerolaena* spp. within rills in interband areas.
- CHer2** (sheetflow sediments/ erosional rise): Sheetflow dominated erosional rise with minor rills between vegetation. Apedal red-brown silts and clays with abundant fine sand to medium pebbles of sub-angular to angular quartz, minor fine-medium sand sized feldspar, magnetic oxides and micaceous flakes. Scattered medium pebbles to large cobbles of calc-albite lithic fragments. Vegetation occurs within an open chenopod shrubland with black bluebush (*Maireana pyramidata*) and bladder saltbush (*Atriplex vesicaria*).
- CHer3** (sheetflow sediments/ erosional rise): Low erosional rise with yellow-brown silts and clays and abundant fine powdery regolith carbonate. Surface features include fine to coarse quartzo-felspathic sands, and fine to medium sand sized magnetic oxides. Abundant fine to medium sand sized carbonate coated fragments and granules to large cobbles of quartz, K-feldspar, and calc-albite lithic fragments. Scattered small (< 1m) outcrops of granitic and calc-albite lithologies, especially on the upper slope facets of erosional rise. Vegetation consists of an open chenopod shrubland with pearl bluebush (*Maireana sedifolia*) and minor black bluebush (*Maireana pyramidata*), and bladder saltbush (*Atriplex vesicaria*). A small stand of rosewood (*Alectryon oliefolius*) occurs on the boundary between this unit and SSer1 close to the position of the southern bounding fault of the mineralised gneissic unit.
- CHer4** (sheetflow sediments/ erosional rise): Sheetflow dominated low erosional rise with narrow shallow channels between vegetation. Red-brown to yellow-brown silts and clays, with abundant angular to sub-angular, medium sand to large pebbles sized quartz, feldspar and oxides. Moderate very fine to medium sand sized magnetic oxides and small pebbles to small cobbles of quartz and calc-albite lithic fragments. Minor medium to large pebbles of ferruginised fragments. Vegetation consists of a chenopod shrubland with bladder saltbush (*Atriplex vesicaria*) and lesser black bluebush (*Maireana pyramidata*).
- CHpd1** (sheetflow sediments/ depositional plain): Low sheetflow dominated erosional rise with abundant cryptogam mats. Yellow-brown silt and clay with abundant powdery regolith carbonate. Medium to coarse quartzo-feldspathic sands and regolith carbonate coated fragments, with fine to coarse sand sized magnetic oxides. Small to large pebbles of quartz and oxide minerals with up to 30% carbonate coated. Vegetation consists of an open to very open chenopod shrubland with pearl bluebush (*Maireana sedifolia*) and minor bladder saltbush (*Atriplex vesicaria*).
- CHpd2** (sheetflow sediments/ depositional plain): Depositional plain with < 1 m wide, shallow anastomosing channels between vegetation accretion mounds. Yellow-brown silt and clays, fine to very coarse quartz sands with minor feldspar. Abundant granules to large pebbles quartz lag in the east of the unit. Minor sub-angular regolith carbonate fragments and sand to medium pebbles of feldspar and non-magnetic oxide minerals. Litter dams in channels indicate that sheetflow is the dominant transport activity. Vegetation consists of a chenopod shrubland with pearl bluebush (*Maireana sedifolia*), bladder saltbush (*Atriplex vesicaria*) and black bluebush (*Maireana pyramidata*).
- CHpd3** (sheetflow sediments/ depositional plain): Sheetflow dominated depositional plain with pedal red-brown silts and clays and moderate fine to medium sand sized sub-angular quartz and lesser feldspar. Minor fine sand sized magnetic oxides and a thin yellow-brown silt and clay surface layer with abundant mud flakes. Vegetation consists of an open chenopod shrubland with bladder saltbush (*Atriplex vesicaria*) and minor black bluebush (*Maireana pyramidata*) and pearl bluebush (*Maireana sedifolia*).
- CHpd4** (sheetflow sediments/ depositional plain): Sheetflow dominated depositional plain with a thin veneer of yellow-brown silts and clays on moderately pedal red-brown silts and clays. An abundant veneer of fine to very coarse quartzo-feldspathic sands with lesser fine to medium sand sized magnetic non magnetic oxide minerals. Vegetation consists of an open chenopod shrubland with bladder saltbush (*Atriplex vesicaria*) and black bluebush (*Maireana pyramidata*), and minor pearl bluebush (*Maireana sedifolia*).
- CHpd5** (sheetflow sediments/ depositional plain): Depositional plain with moderately pedal red-brown silts and clays under a 2-3 cm veneer of finely laminated, yellow-brown silts and clays. Fine to very coarse quartzo-feldspathic sands widespread, with occasional fine to medium sand sized magnetic oxides. Vegetation consists of a bladder saltbush (*Atriplex vesicaria*) dominated chenopod shrubland with minor black bluebush (*Maireana pyramidata*) and occasional pearl bluebush (*Maireana sedifolia*).

### In Situ Regolith

- SSer1** (slightly weathered bedrock / erosional rise): Erosional rise with slightly weathered calc-albite outcrop, with granitic units and scattered amphibolitic inclusions. A thin yellow-brown silt-clay is abundant between outcrop, with abundant fine sands to large pebbles of quartz, feldspar and lithic fragments. Widespread, locally developed medium sand to large pebbles of angular regolith carbonate and carbonate coated fragments, and very large pebbles to boulders of angular quartz and lithic fragments. Cryptogam mats are associated with carbonate rich localities. Vegetation consists of a very open chenopod shrubland with pearl bluebush (*Maireana sedifolia*) and scattered bladder saltbush (*Atriplex vesicaria*).
- SSer2** (slightly weathered bedrock / erosional rise): Slightly weathered pelitic metasediments with occasional cross-cutting quartz and pegmatite veins. Red-brown silts and clays between outcrops with abundant fine to medium sand sized quartz and feldspar, and minor fine to medium sand sized magnetic oxides. Small to large pebbles of angular to subangular quartz and lithic fragments are common, as are scattered very large pebbles to boulders of lithic fragments. Vegetation consists of a very open mulga (*Acacia aneura*) woodland with an open chenopod shrubland understorey populated by black bluebush (*Maireana pyramidata*) and lesser bladder (*Atriplex vesicaria*).



Key	
Regolith	Landforms
A Alluvial	ap Alluvial plain
CH Sheetflow deposit	ca Alluvial channel
SS Slightly weathered bedrock	fa Alluvial fan
	ed Drainage depression
	ep Erosional plain (<1 m local relief)
	er Erosional rise (1-10 m relief)
	pd Depositional plain