



LAND SYSTEM DESCRIPTIONS OF HAMILTON DOWNS

LAND SYSTEM	NT Por	Description
PLATEAUX		
Table Hill	Ta	Slightly undulating, dissected plateaux with gentle breakaway slopes. Shallow, generally red-brown sandy clay loams or plateaux - small areas highly calcareous. Stony red-brown sandy clay loams on slopes. Prominently sparse Mulga over Woollybutt and Mulga grasses on the slopes. Mainly Witchetty Bush, Mulga and shrubs over Spinifex, Cat and Limestone Cat grasses, sides and other forbs.
MOUNTAINS		
Harts	Ha	Steep-sided mountain peaks and ranges dissected by narrow watercourses. Shallow, coarse textured soils. Sparse shrubs including Witchetty Bush, cassia and Mulga over Kangaroo grass or Spinifex.
Sonder	So	Bold ranges. Mainly bare rock with pockets of shallow soil. Absent or sparse Witchetty Bush and cassia, or minor Mulga or Spinifex.
HILLS		
Bond Springs One	Bs1	Bold rocky hills and ridges. Shallow, coarse textured soils amongst rock outcrop. A sparse cover of Witchetty Bush, Mulga and Bromebush over Woollybutt, Mulga and Kerosene grasses and forbs.
Napperty	Na	Low ranges with taller-sloped slopes. Rare summit and limited drainage development. Shallow, gritty soils amongst rock outcrop. Witchetty Bush with Mulga, Bloodwood and hakea over pockets of Woollybutt. Native Park, Cotton Panic and Kangaroo grass.
LOW HILLS		
Bond Springs Two	Bs2	Low story hills and undulating granite plains, below Bond Springs One land system. Many small watercourses. Shallow stony soils on hilltops. A range of soils (alluvial, red earth, texture-contrast) on the plains. Typically supports sparse Witchetty Bush and Mulga with minor Whitebark and Corkwood over Woollybutt grass, minor Mulga grass, scattered perennial grasses (Cotton Panic, Curly Wintonia, Umbrella grasses) and forbs. Curly Wintonia grass along watercourses.
RISES		
Stokes	St	Gravelly terraces and alluvial fans extending from mountain ranges. Drained by small creek channels. Shallow, stony red earths. Mulga annual grass pasture with groved Mulga, some Turkey Bush and Erua Bush over Spinifex and minor Cat, Woollybutt, Mulga and Cotton Panic grasses, sides and forbs.
PLAINS		
Alcotea	Al	Gently undulating plains, dissected by small watercourses. Shallow red earths, often with gravel content. An open woodland of Witchetty Bush, Whitebark, Bloodwood, Ironwood, Mulga and cassia over Cat, Mulga and Umbrella grasses.
Been	Be	Very broad flats with gentle slopes. Red earths, sometimes gravel sometimes present on surface. Dense shrublands of groved Mulga with Witchetty Bush over mulga perennial grasses (Woollybutt, Wire grass, Kerosene grass, with minor Woollybutt and Mulga grasses). Small areas of mulga annual pasture (Mulga and Woollybutt grass over Cotton Panic).
Hamilton Two	Hs2	Gently sloping plains or upper fans occupied by shallow distributary channels. Coarse textured alluvial soils. Sparse Whitebark, Ironwood, Needlewood, Witchetty Bush and cassia over annual Woollybutt and Mulga grasses, sides and perennial Woollybutt, Curly Wintonia grass along creek banks.

LAND SYSTEM DESCRIPTIONS OF MILTON PARK

LAND SYSTEM	NT Por	Description
MOUNTAINS		
Harts	Ha	Steep-sided mountain peaks and ranges dissected by narrow watercourses. Shallow, coarse textured soils. Sparse shrubs and low trees including Witchetty Bush, cassia and Mulga over mainly Kangaroo grass or Spinifex.
Sonder	So	Bold ranges. Mainly bare rock with pockets of shallow soil. Mainly bare rock. Pockets of sparse Witchetty Bush and cassia, or minor Mulga or Spinifex.
HILLS		
Bond Springs One	Bs1	Bold rocky hills and ridges. Shallow, coarse textured soils amongst rock outcrop. Sparse Witchetty Bush, Mulga and Bromebush over Woollybutt, Mulga and Kerosene grasses and forbs.
Napperty	Na	Low ranges with taller-sloped slopes. Rare summit and limited drainage development. Shallow, gritty soils amongst rock outcrop. Mainly Mulga with Witchetty Bush, Bloodwood and hakea over pockets of Woollybutt, Native Park, Cotton Panic and Kangaroo grass.
LOW HILLS		
Bond Springs Two	Bs2	Low story hills and undulating granite plains, below Bond Springs One land system. Many small watercourses. Shallow stony soils on hilltops. A range of soils (alluvial, red earth, texture-contrast) on the plains. Typically supports sparse Witchetty Bush and Mulga with minor Whitebark and Corkwood over Woollybutt grass, minor Mulga grass, scattered perennial grasses (Cotton Panic, Curly Wintonia, Umbrella grasses) and forbs. Curly Wintonia grass along watercourses.
RISES		
Stokes	St	Gravelly terraces and alluvial fans extending from mountain ranges. Drained by small creek channels. Shallow, stony red earths. Mulga annual grass pasture with groved Mulga, some Turkey Bush and Erua Bush over Spinifex and minor Cat, Woollybutt, Mulga and Cotton Panic grasses, sides and forbs.
PLAINS		
Been	Be	Very broad flats with gentle slopes. The landscape drains by surface flows and does not have defined drainage routes. Red earths, sometimes gravel sometimes present on surface. Dense shrublands of groved Mulga with Witchetty Bush over mulga perennial grasses (Woollybutt, Wire grass, Kerosene grass, with minor Woollybutt and Mulga grasses). Small areas of mulga annual pasture (Mulga and Woollybutt grass over Cotton Panic).
Hamilton Two	Hs2	Gently sloping plains or upper fans occupied by shallow distributary channels. Coarse textured alluvial soils. Sparse Whitebark, Ironwood, Needlewood, Witchetty Bush and cassia over annual Woollybutt and Mulga grasses, sides and perennial Woollybutt, Curly Wintonia grass along creek banks.
Undippe	Un	Plain with occasional distributary channels and gullies. Red cracking clay. Mitchell grass with Newbould, Featherfin Wire and Cat grasses, and forbs such as side, Flinders and Button grasses present after summer rains.
ALLUVIAL PLAINS		
Bushy Park One	Bs1	Broad, flat, unchanneled drainage floors. Deep red earths. Dense shrublands of random Mulga, minor Witchetty and occasional hakea and Bloodwood over perennial Woollybutt and Newbould grasses, minor Cat and Mulga grasses and forbs.
Bushy Park Two	Bs2	Extensive, featureless alluvial plain with a very slight slope away from the ranges. Deep red earths. Dense shrublands of groved Mulga with isolated Witchetty Bush over perennial Woollybutt and Newbould grasses, minor Wire and Mulga grasses.
Bushy Park Three	Bs3	Broad, inter-drainage plains. Areas of low sandy rises. Deep red earths, with some red clayey sands on sandy rises. Groved Mulga over annual (Mulga grass, some Woollybutt grass) and perennial species.
Hamilton Three	Hs3	Alluvial plain. Stable, inter-drainage sectors. Red earths, often of sandy clay loam texture. Tall open Mulga woodland with occasional Dead Fish, Witchetty Bush and Bloodwood over annual Cat, Woollybutt, Mulga grasses and forbs. Palatable perennial grasses (Curly Wintonia grass, Umbrella grass, open areas), palatable perennials less common than on Hamilton units One and Two. Minor Wire and Woollybutt grasses.
Hamilton Five	Hs5	Gullied clay plain. Red clay, or siltstones (marked sticky B horizon) soils. Open basins graded or predominantly Newbould with occasional Mitchell grass, minor Cat grass and forbs.
SAND PLAINS		
Hamilton One	Hs1	Flat sandy plains. Predominantly red earths, and non-calcareous earthy sands. Open woodland of Whitebark and Supplejack with other minor trees and shrub species over Woollybutt and Mulga grasses and forbs.
Singerton	Si	Sandplain. Red clayey sands. Sparse Mulga, Witchetty Bush and low shrubs over Spinifex, minor other grasses and forbs.
DRAINAGE SYSTEMS		
Hamilton Four	Hs4	Flat drainage floors and flood plains. Highly erodible texture-contrast soils. Thin surface layer of sandy loam overlying clay substrate. Removal of the surface mantle results in a hard, largely impermeable clay surface (scalding). Sparse Cottonbush and palatable perennial grasses (Curly Wintonia, Umbrella grasses), minor Cat and Mulga grasses and forbs.
McGrath	Mg	Drainage channels or depressions. Neutral red earths, of sandy loam texture. Homestead, minor Supplejack and shrubs over annual Woollybutt grass and perennial Woollybutt, Umbrella and Curly Wintonia grasses. Areas of dense Mulga over palatable perennial and annual grasses.

LAND SYSTEM DESCRIPTIONS OF MILTON PARK (Continued)

LAND SYSTEM	NT Por	Description
ALLUVIAL PLAINS (Continued)		
Bushy Park Three	Bs3	Broad, inter-drainage plains. Areas of low rises. Deep red earths, with some red clayey sands on sandy rises. Several components. Random Mulga over perennial grasses with Witchetty Bush dominant on sandy rises, or groved Mulga over annual grasses (Mulga and some Woollybutt grasses) and perennial species.
Hamilton Three	Hs3	Alluvial plain. Stable, inter-drainage sectors. Red earths, often of sandy clay loam texture. Open woodland of Whitebark and Supplejack with other minor trees and shrub species over Woollybutt and Mulga grasses and forbs. Palatable perennials (Curly Wintonia, Umbrella grasses) present. Small amounts of Wire grass and Woollybutt.
SAND PLAINS		
Hamilton One	Hs1	Flat sandy plains. Predominantly red earths, and non-calcareous earthy sands. Open woodland of Whitebark and Supplejack with other minor trees and shrub species over Woollybutt and Mulga grasses and forbs.
Singerton	Si	Sandplain. Red clayey sands. Sparse Mulga, Witchetty Bush and low shrubs over Spinifex, minor other grasses and forbs.
DRAINAGE SYSTEMS		
Hamilton Four	Hs4	Flat drainage floors and flood plains. Highly erodible texture-contrast soils. Thin surface layer of sandy loam overlying clay substrate. Removal of the surface mantle results in a hard, largely impermeable clay surface (scalding). Sparse Cottonbush and palatable perennial grasses (Curly Wintonia, Umbrella grasses), minor Cat and Mulga grasses and forbs.
McGrath	Mg	Drainage channels or depressions. Neutral red earths, of sandy loam texture. Homestead, minor Supplejack and shrubs over annual Woollybutt grass and perennial Woollybutt, Umbrella and Curly Wintonia grasses. Areas of dense Mulga over palatable perennial and annual grasses.

GENERAL FEATURES

Water Bore	Water Bore	Prisoner Bore	Prisoner Bore
Dam	Dam	Supplejack Dam	Supplejack Dam
Tank	Tank	Long Pit Tank	Long Pit Tank
Trough	Trough	Erua Trough	Erua Trough
Stock Yard	Stock Yard	Yard	Yard
Water pipeline	Water pipeline	Tower	Tower
Relief feature	Relief feature	Drainage	Drainage
Range	Range	Lagoon / waterhole	Lagoon / waterhole
Spot height	Spot height	Relief ridge	Relief ridge

General features data sources:
 Department of Infrastructure, Planning and Logistics, Northern Territory of Australia.
 Pastoral Infrastructure and Parks:
 Department of Environment, Parks and Water Security, Northern Territory of Australia.
 Hydro features:
 Commonwealth of Australia (Bureau of Meteorology) 2014
 Spot heights:
 Geoscience Australia, 2007, Geotitles topo 250K, Series 3.

Cartography by:
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 Northern Territory of Australia.

Map Reference: Map_HamiltonDowns-MiltonPark-Sin_LandRes_100k_m53
 Drawing Number: **DEPNW 2020 110**
 November 2020

Bibliographic Reference:
 Dobbie, W., & Basin, G. (1986).
 Range Condition assessment report:
 Hamilton Downs Station
 Department of Primary Production,
 Alice Springs, Northern Territory

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Example of Land System Description

Map Unit	Land System Description	Vegetation Description
Harts	Steep-sided mountain peaks and ranges dissected by narrow watercourses. Shallow, coarse textured soils. Sparse shrubs and low trees including Witchetty Bush, cassia and Mulga over mainly Kangaroo grass or Spinifex.	Witchetty Bush, cassia and Mulga over mainly Kangaroo grass or Spinifex.
Hamilton Two	Gently sloping plains or upper fans occupied by shallow distributary channels. Coarse textured alluvial soils. Sparse Whitebark, Ironwood, Needlewood, Witchetty Bush and cassia over annual Woollybutt and Mulga grasses, sides and perennial Woollybutt, Curly Wintonia grass along creek banks.	Witchetty Bush and cassia over annual Woollybutt and Mulga grasses, sides and perennial Woollybutt, Curly Wintonia grass along creek banks.
Undippe	Plain with occasional distributary channels and gullies. Red cracking clay. Mitchell grass with Newbould, Featherfin Wire and Cat grasses and forbs such as side, Flinders and Button grasses present after summer rains.	Mitchell grass with Newbould, Featherfin Wire and Cat grasses and forbs such as side, Flinders and Button grasses present after summer rains.

ALLUVIAL PLAINS

Bushy Park One	Bs1	Broad, flat, unchanneled drainage floors. Deep red earths. Dense non groved Mulga woodland, minor Witchetty Bush, corkwood, Needlewood and Bloodwood also present over perennial Woollybutt and Newbould grasses, minor Woollybutt and Mulga grasses and forbs.
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 Access requests should be directed to Aikid Zone Research Institute Library in Alice Springs.
 Email: azri.library@nt.gov.au

MAP LOCALITY

Final mapping is presented at a scale of 1:100,000.

When assessing specific areas within the mapping it is recommended that a site inspection be undertaken to establish unmaped variations and to confirm the mapping accuracy on the ground.

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 Geospatial Information: https://maps.nt.gov.au

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 Department of Environment, Parks and Water Security
 Northern Territory Government

This map was produced on the Geospatial Data of Australia (GDA 94)

LAND RESOURCES OF HAMILTON DOWNS STATION

NORTHERN TERRITORY GOVERNMENT