

DEPARTMENT OF WATER AND ENVIRONMENTAL REGULATION (DWER)
Metadata Statement

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CITATION INFORMATION
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DATASET TITLE:
full_site_listing (.xlsx)
Site identifier popup window
Contextual layer metadata (refer to end of this statement):

- Hydrogeology, Statewide - DWER
- Groundwater Contours, Minimum
- Hydrographic Catchments – Catchments
- Local Government Authorities

CUSTODIAN:
Department of Water and Environmental Regulation (DWER) – Science Data Branch – Water Data Management section

JURISDICTION:
Western Australia

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TEXTUAL DESCRIPTION
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ABSTRACT:

The full_site_listing dataset represents the locations (Sites) where a measurement or measurements have been or could potentially be taken.

Site locations are derived from the Hydstra system, which stores a range of information about each site including geographical location. Information detailed in the data dictionary below may not be inclusive of all available data.

Additional information such as; Measurements of water table depth, stream height, water quality, construction details such as bore logs for Ground Water sites, etc. is not detailed in this dataset.

Please contact the Custodian if more information is required.

ANZLIC SEARCH WORDS:
WATER Groundwater, WATER Hydrology, WATER Hydrochemistry, WATER Lakes, WATER Rivers, WATER Salinity, WATER Supply, WATER Surface, WATER Quality, WATER Wetlands

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SPATIAL EXTENT
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GEOGRAPHIC EXTENT: Western Australia

GEOGRAPHIC BOUNDING BOX:
(All coordinate values expressed in Decimal Degrees)

North Bounding Latitude: -10.8000
South Bounding Latitude: -35.7000
East Bounding Longitude: 138.1500
West Bounding Longitude: 112.1200

The bounding box encloses the maximum extents of the dataset. There may be voids or gaps within the bounding box, depending on the defined coverage of the dataset.

HORIZONTAL COORDINATE SYSTEM:
Geographic System

GEODETTIC MODEL:
Geocentric Datum of Australia 2020

VERTICAL COORDINATE SYSTEM:
Australian Height Datum (1971) in meters

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DATA CURRENCY & STATUS
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BEGINNING DATE:
Unknown

ENDING DATE:
Current

PROGRESS:
In Progress

UPDATE FREQUENCY:
Daily (overnight)

ADDITIONAL METADATA:
Catalogue of Water Resources Information 1996 Vol 1-3, and Explanatory Notes

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DATA QUALITY
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LINEAGE:

Information is updated directly from the Hydstra database each night.

Updates:

Site attribute information and associated measurement information is updated directly from the Hydstra database each night.

NOTE: The data in this listing was up to date at the time of capture.

Updates to the data may not have been supplied to DWER and consequently some attributes may not be current.

POSITIONAL ACCURACY:

Dictated by method employed - usually determined from topographical maps, survey and GPS

ATTRIBUTE ACCURACY:

Varied

LOGICAL CONSISTENCY:

Good

COMPLETENESS:

Directly reflects sites registered in the Hydstra database that DWER is authorised to publish

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CONTACT INFORMATION
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CUSTODIAN:

-- CONTACT ORGANISATION: Department of Water and Environmental Regulation

-- CONTACT POSITION: Program manager, Science Data Branch

-- POSTAL ADDRESS: Locked Bag 10, Joondalup DC, WA 6919

-- LOCALITY: 8 Davidson Terrace, Joondalup WA 6027

-- STATE: Western Australia

-- COUNTRY: Australia

-- POSTCODE: 6027

-- TELEPHONE: (08) 6364 7000

-- EMAIL ADDRESS: wir@dwer.wa.gov.au

SPATIAL CUSTODIAN:

- CONTACT ORGANISATION: Department of Water and Environmental Regulation
- CONTACT POSITION: Geospatial and Data Services Manager, Information Services Branch
- POSTAL ADDRESS: Locked Bag 10, Joondalup DC, WA 6919
- LOCALITY: 8 Davidson Terrace, Joondalup, WA 6027
- STATE: Western Australia
- COUNTRY: Australia
- POSTCODE: 6000
- TELEPHONE: (08) 6364 7000
- EMAIL ADDRESS: spatial.data@dwer.wa.gov.au

DATA EXCHANGE CUSTODIAN:

- CONTACT ORGANISATION: Department of Water and Environmental Regulation
- CONTACT POSITION: Spatial Data Exchange Officer, Information Services Branch
- POSTAL ADDRESS: Locked Bag 10, Joondalup DC, WA 6919
- LOCALITY: 8 Davidson Terrace, Joondalup, WA 6027
- STATE: Western Australia
- COUNTRY: Australia
- POSTCODE: 6000
- TELEPHONE: (08) 6364 7000
- EMAIL ADDRESS: spatial.data@dwer.wa.gov.au

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DATA DICTIONARY
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FIELD NAME: Site Ref

FIELD DESCRIPTION: The primary unique reference code (numeric) used to identify the site. Based on the River Basin number for Surface and Ground sites, and the Rainfall District number for Meteorological sites.

CODE VALUES: Textual Value

FIELD NAME: Site Name (Site identifier popup window: Context)

FIELD DESCRIPTION: The full name for the site, generally including its geographic context.

CODE VALUES: Textual Value

FIELD NAME: Site shortname (Site identifier popup window: Name)

FIELD DESCRIPTION: The short name for the site, often abbreviated, and without the geographic context.

CODE VALUES: Textual Value

FIELD NAME: All Site References

FIELD DESCRIPTION: A listing of all the references (codes, numbers) by which a site may be known. The reference type is shown in square brackets, e.g. "610022 [SITE_REF]; VASE1DS [TEXT_REF]; 15379169 [WIN_ID]"

CODE VALUES: Textual Value

FIELD NAME: Site Type

FIELD DESCRIPTION: Broad categorization of the site in relation to the earth's surface and the primary type of water system (source) it relates to; Ground; Surface; Meteorological; Unknown.

CODE VALUES: Textual Value

FIELD NAME: Site Subtype

FIELD DESCRIPTION: Narrow categorization of the site type, based on the type of asset or infrastructure at the site or its primary usage; Bore or Well; Rainfall; Climate; Stream Gauging; Transect; Trench, etc.

CODE VALUES: Textual Value

FIELD NAME: Site Geographic Feature

FIELD DESCRIPTION: The dominant geographical feature the site is located in; Atmosphere; Catchment; Cave; Drain; Ground; Estuary; Lake; Ocean; River/Stream, etc.

CODE VALUES: Textual Value

FIELD NAME: Zone

FIELD DESCRIPTION: The longitudinal Zone for site coordinates using the Map Grid of Australia (MGA2020) projection.

CODE VALUES: Numeric value

FIELD NAME: Easting

FIELD DESCRIPTION: Easting coordinate of the sampling site. Map Grid of Australia (MGA2020) projection of the GDA2020 coordinates (Lat/Long).

CODE VALUES: Numeric Value

FIELD NAME: Northing

FIELD DESCRIPTION: Northing coordinate of the sampling site. Map Grid of Australia (MGA2020) projection of the GDA2020 coordinates (Lat/Long).

CODE VALUES: Numeric Value

FIELD NAME: Latitude

FIELD DESCRIPTION: Latitude in decimal degrees using the Geocentric Datum of Australia 2020. The latitude of a feature is its angular distance on a Meridian, measured northwards or southwards from the terrestrial Equator.

CODE VALUES: Numeric Value

FIELD NAME: Longitude

FIELD DESCRIPTION: Longitude in decimal degrees using the Geocentric Datum of Australia 2020. An angular distance measured east or west from a reference meridian (usually Greenwich) on the earth's surface.

CODE VALUES: Numeric Value

FIELD NAME: Spheroid

FIELD DESCRIPTION: The geodetic datum in which the Latitude and Longitude are expressed; e.g. "GDA2020"

CODE VALUES: Textual Value

FIELD NAME: Position accuracy

FIELD DESCRIPTION: The accuracy of the site coordinates in +/- metres.

CODE VALUES: Textual Value

FIELD NAME: Catchment Area

FIELD DESCRIPTION: The area of the catchment above the position of a stream gauging station in square kilometers. Values only apply to stream gauging stations, and may not be entirely accurate due to limitations of the available topographic information at the time the areas were calculated. The entire area of the catchment may not contribute to the streamflow recorded at the gauging station.

CODE VALUES: Textual Value

FIELD NAME: Site owner

FIELD DESCRIPTION: The person, group or organization primarily responsible for collecting data the site.

CODE VALUES: Textual Value

FIELD NAME: Department owned

FIELD DESCRIPTION: A 'Yes/No' flag to indicate whether DWER is the site owner.

CODE VALUES: Textual Value

FIELD NAME: Currently monitored

FIELD DESCRIPTION: A 'Yes/No' flag to indicate whether the site is currently being measured or sampled.

CODE VALUES: Textual Value

FIELD NAME: Infrastructure owner

FIELD DESCRIPTION: The primary person, group or organization who owns installed measurement infrastructure at the site.

CODE VALUES: Textual Value

FIELD NAME: Current infrastructure status

FIELD DESCRIPTION: The current status of measurement infrastructure installed at the site.

CODE VALUES: Textual Value

FIELD NAME: Discrete measurement first available

FIELD DESCRIPTION: The first date on which discrete measurement (vs. time-series) occurred at the site. (Refer to [Glossary](#) for definitions of discrete and time-series.)

CODE VALUES: Date-time Value

FIELD NAME: Discrete meast last avail

FIELD DESCRIPTION: The last date on which discrete measurement occurred at the site. (Does not necessarily indicate that measurement has ceased.)

CODE VALUES: Date-time Value

FIELD NAME: Time-series meast first avail

FIELD DESCRIPTION: The first date on which time-series measurement (vs discrete) occurred at the site. (Refer to [Glossary](#) for definitions of discrete and time-series.)

CODE VALUES: Date-time Value

FIELD NAME: Time-series meast last avail

FIELD DESCRIPTION: The last date on which time-series measurement occurred at the site. (Does not necessarily indicate that measurement has ceased.)

CODE VALUES: Date-time Value

FIELD NAME: Projects

FIELD DESCRIPTION: A listing of the Projects (measuring programs) under which data may have been collected at a site over time.

CODE VALUES: Textual Value

FIELD NAME: Tot construction depth (mbgl)

FIELD DESCRIPTION: The total depth of constructed elements in a bore, in meters below ground level.

CODE VALUES: Numeric Value

FIELD NAME: Drilled depth (mbgl)

FIELD DESCRIPTION: The total depth to which a bore was drilled, in meters below ground level.

CODE VALUES: Numeric Value

FIELD NAME: AHD datum

FIELD DESCRIPTION: Latest AHD Depth Measurement Points for the site and the date of effect. Does not display historical AHD Depth Reference points. E.g."TOC:35.95mAHD-28/10/1996, GL:35.08mAHD-28/10/1996".

CODE VALUES: Textual Value

FIELD NAME: Aquifers (Dept)

FIELD DESCRIPTION: The DWER-defined aquifer(s) intersected by a bore. Identified by a departmental hydrogeologist.

CODE VALUES: Textual Value

FIELD NAME: Aquifers (as in reports)

FIELD DESCRIPTION: The aquifer(s) intersected by the bore, as described in non-DWER data sources such as drilling forms and external hydrogeological reports. May not be the same as a DWER- defined aquifer, and will not have been identified by a departmental hydrogeologist.

CODE VALUES: Textual Value

FIELD NAME: Bore inlets

FIELD DESCRIPTION: A listing of all inlets (screens) recorded for a bore, with upper and lower depth of each inlet from a specified reference point, and screen type and aperture sizes provided where available. E.g. "13.15 to 19.3 mbGL, type: screen, apr: 0.5mm"

CODE VALUES: Textual Value

FIELD NAME: Catchment

FIELD DESCRIPTION: The name of the DWER Catchment that site resides in, if applicable; e.g. "Moore River". Derived from GIS layer '*Hydrographic Catchments*'

CODE VALUES: Textual Value

FIELD NAME: Department Region

FIELD DESCRIPTION: The departmental (DWER) management region that site resides in, if applicable. e.g. "Mid West-Gascoyne". Derived from GIS layer '*Department of Water and Environmental Regulation (DWER) Regional Boundaries*'.

CODE VALUES: Textual Value

FIELD NAME: Estuary

FIELD DESCRIPTION: The name of the estuary that site resides in, if applicable. Derived from the GEOSCIENCES Geomorphology, MARINE Estuaries, © *Geoscience Australia*.

CODE VALUES: Textual Value

FIELD NAME: Geographic name

FIELD DESCRIPTION: The name of the geographic locality that site resides in, if applicable. Derived from Landgate GEONOMA Data . © *Western Australian Land Information Authority trading as Landgate (2009)*'

CODE VALUES: Textual Value

FIELD NAME: Groundwater Province

FIELD DESCRIPTION: The name of the groundwater province that site resides in, if applicable; e.g. "Perth". Derived from GIS layer '*Groundwater Provinces - DWER*'

CODE VALUES: Textual Value

FIELD NAME: Groundwater Area

FIELD DESCRIPTION: The name of the groundwater area that site resides in, if applicable; e.g. "Arrowsmith". Derived from GIS layer '*DWAID Groundwater Areas – DWER*'

CODE VALUES: Textual Value

FIELD NAME: Local govt authority

FIELD DESCRIPTION: The name of the Local Government Authority that site resides in, if applicable; e.g. "SHIRE OF CARNAMAH". Derived from the Spatial Cadastral Database (SCDB)- Landgate. © *Western Australian Land Information Authority trading as Landgate* .

CODE VALUES: Textual Value

FIELD NAME: Locality

FIELD DESCRIPTION: The name of the Locality that site resides in, if applicable. e.g. "CARNAMAH". Derived from the Spatial Cadastral Database (SCDB)- Landgate. © *Western Australian Land Information Authority trading as Landgate*

CODE VALUES: Textual Value

FIELD NAME: Rainfall district BOM

FIELD DESCRIPTION: The name of the Bureau of Meteorology rainfall district that site resides in, if applicable; e.g. "9A - South Coast". Derived from GIS layer '*Rainfall District Coverage - BOM 1997*', Copyrighted to the Bureau of Meteorology

CODE VALUES: Textual Value

FIELD NAME: River Basin

FIELD DESCRIPTION: The name of the AWRC River Basin that site resides in, if applicable; e.g. "806 - King Edward River". Derived from GIS layer '*Hydrographic Basins*.'

CODE VALUES: Textual Value

FIELD NAME: Surfacewater Area

FIELD DESCRIPTION: The name of the surface water area that site resides in, if applicable; e.g. "Lower Blackwood". Derived from GIS layer '*Surface Water Allocation Areas (DWAID)*'
CODE VALUES: Textual Value

FIELD NAME: Surfacewater Subarea
FIELD DESCRIPTION: The name of the surface water subarea that site resides in, if applicable; e.g. "Scott". Derived from GIS layer '*Surface Water Allocation Subareas (DWAID)*'
CODE VALUES: Textual Value

FIELD NAME: Site Comment
FIELD DESCRIPTION: General comments about the site, sourced from site comments if the field is populated; e.g. "BORE NOT OPERATING, NO SAMPLE COLLECTED, SITUATED IN GULLY."
CODE VALUES: Textual Value

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METADATA FOR TABLE OF CONTEXTUAL LAYERS

TABLE OF CONTEXTUAL LAYER: **Hydrogeology, Statewide -DWER**

DESCRIPTION: Hydrogeological Map of WA, published 1989. Digitised from 1:2 500 000 hard copy. Shows aquifer type lithology. Amended June 2001 with addition of superficial aquifer in the Ord and Ashburton Rivers. Please see Legend for information. e.g. "Basalt, intermediate and acid volcanics", "Calcrete", etc. There are no plans to update this dataset.

CODE VALUES: Textual Value

LITHOLOGY	AQUIFER
Basalt, intermediate and acid volcanics	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Dolerite, gabbro and ultrabasic intrusions	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Dolomite	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Gneiss, migmatite	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Granitoid	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
help	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Limestone (EDA)	Sedimentary Rocks - Extensive And Deep Aquifers
Limestone (LA)	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Limestone, calcrete	Surficial Sediments - Shallow Aquifers
Metamorphic rocks	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Sand	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Sand, gravel	Surficial Sediments - Shallow Aquifers
Sand, sandstone	Sedimentary Rocks - Extensive And Deep Aquifers
Sandstone	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Sedimentary rocks, undifferentiated	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Shale	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Surficial sediments	Surficial Sediments - Shallow Aquifers
Undifferentiated extensive sedimentary	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Volcanic and sedimentary rocks in greenstone belts, undifferentiated	Rocks of Low Permeability, Fractured and Weathered Rocks - Local Aquifers
Water Body	Water Body

TABLE OF CONTEXTUAL LAYER: Groundwater Contours, Minimum

FIELD DESCRIPTION: The water table contours are based upon May 2003 (end of summer) measurement of superficial aquifer groundwater levels from 816 monitoring bores within the superficial aquifer. These values have been used in association with estimated water levels for end of summer 2003 based on hydrographs for 71 additional selected bores.

When drawing the superficial aquifer watertable contours the following conditions and assumptions were applied:

- 1) The superficial aquifer (Swan Coastal Plain) is bounded by the Indian Ocean and the Darling Scarp/Gingin Scarp.
- 2) The watertable contours were drawn to conform to end of summer (May) 2003 measurements.
- 3) The watertable contours have been generally constructed by proportional triangulation between data points.
- 4) The contours were manually manipulated to best fit the most likely hydrogeology of the area, particularly around lakes and rivers.
- 5) Surface water, such as rivers and lakes, was interpreted as a surface expression of the superficial groundwater system.
- 6) The surface of the superficial aquifer (watertable) appears as a uniform continuous surface across the landscape.

WATERTABLE CONTOUR CONFIDENCE:

Areas where the land-surface elevation contour set from the Department of Land Information has been determined on a 5 metre land-surface elevation contour interval. The increased contour interval reduces the ability to determine both depth to groundwater and depth to the base of the superficial aquifer. Bore density is indicative of the watertable contour confidence. Areas of relatively high density of monitoring bores generally have higher confidence watertable contours than those areas with a lower density of monitoring bores.

GEOGRAPHIC EXTENT: Perth Metropolitan Region, Shire of Gingin and Shire of Waroona, Western Australia.

CODE VALUES: Numeric Value in Meters (e.g. '22')

TABLE OF CONTEXTUAL LAYER: Hydrographic Catchments – Catchments

FIELD DESCRIPTION: The name of the DWER Catchment; e.g. "Moore River".

Catchment boundaries have been defined for more than 3400 key sites on streams throughout Western Australia. The Subcatchments dataset contains polygons from which the Catchment boundaries have been derived, revised in June 2007

PROGRESS: Complete. (Within current limitations on funding, further updates will be done as necessary)

CODE VALUES: Textual Value

TABLE OF CONTEXTUAL LAYER: Local Government Authorities

FIELD DESCRIPTION: Local Government Authority and Locality Boundaries for the State of Western Australia as at 02 May 2013. Generally, Post Code boundaries coincide with the Locality boundaries. Updated regularly when amendments/changes are formalised. Derived from the Spatial Cadastral Database (SCDB)- Landgate. © *Western Australian Land Information Authority trading as Landgate.*

CODE VALUES: Textual Value