Site Analysis Resources for Landscape Architects

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Contents

1 Data and image download sources

1.1 Data.wa.gov.au – vector spatial data

https://data.wa.gov.au/

This is for WA spatial data. You need to register to download data from this repository (even the publicly available datasets). To access the datasets that are available under the UWA subscription you need to connect your registered account with UWA. The instructions are here: https://guides.library.uwa.edu.au/c.php?g=569441&p=6625990 The instructions say SLIP, but SLIP is the same repository as data.wa.gov.au (it just changed name at some point).

Download data in Shapefile or Geopackage formats to open in QGIS and convert to dxf. All also available as streamed WMS services that can be visualised in QGIS. Suggested datasets available with a UWA-connected SLIP registration:

- Local Government Authority boundaries
- Large Scale Topo Contour Line (elevation contours)
- Large Scale Topo Building Polygon (2016 building footprints)
- Geomorphic Wetlands Swan Coastal Plain (and equivalent for other areas)
- Medium Scale Topo Water Polygon
- FPM Flood datasets
- Native Vegetation Extent
- Pre-European Vegetation
- Vegetation Complexes Swan Coastal Plain (and other areas)
- Soil Landscape Mapping Best Available
- Soil Landscape Mapping Systems
- Urban Forest Mesh Blocks 2020
- State Heritage Register
- Local Heritage Register
- Local Planning Scheme Heritage List
- Roads Landgate 012
- Road Hierarchy (only Main Roads WA roads)
- Public Transport Authority Stops (with passenger counts)
- Public Transport Authority Routes
- Medium Scale Rail Topo Segments
- Water Corporation (many drainage/sewer/water service asset shapefiles)
- Western Power (many asset shapefiles)
- Reserves
- DBCA Legislated Lands and Waters
- Bush Forever Areas
- Contaminated Sites
- Acid Sulphate Soil Risk
- Clearing Regulations Environmentally Sensitive Areas
- Bush Fire Prone Areas
- Cadastre (LGATE 218 or 002)
- Medium Scale Topo General Facilities (schools, hospitals, recreation areas etc)
- Linear hydrography (water courses)
- Hydrographic catchments (surface water catchments)

- Aboriginal Heritage Places/Surveys
- Perth Regional Ecological Linkages
- Carnabys Cockatoos roosting and feeding sites

1.2   Nearmap – aerial photos

https://www.nearmap.com/au/en

The most up-to-date aerial photos of the metro area. Regional areas may be more out of date and Landgate imagery may be better. Can download images to load to AutoCAD or can add the Nearmap service as a WMS base layer in QGIS.

Login with your UWA email address here: https://admin.nearmap.com/api/identityserver/v1/login?signin=99a8976ff26f6df79c43879475ee4a7b

1.3   State Records Office – Historic map archive

https://archive.sro.wa.gov.au/

State Records Office repository of scanned historic maps. *Very* clunky search tools but some good maps if you can find them. Use advanced search of digital objects to find maps.

1.4   Table Builder Pro, QuickStats, datapacks – Australian Bureau of Statistics

https://www.abs.gov.au/statistics/microdata-tablebuilder/tablebuilder

This is TableBuilder to get ABS data. You can register to access the Pro subscription which gives access to more data. Registration instructions are here: https://guides.library.uwa.edu.au/datastatistics/ABS

You can also access less detailed ABS data via QuickStats https://www.abs.gov.au/census/find-census-data/search-by-area or download summary datapacks https://www.abs.gov.au/census/find-census-data/datapacks.

1.5   Statistical boundaries - Australian Bureau of Statistics

https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/access-and-downloads/digital-boundary-files

Australia Bureau of Statistics geographic boundaries - meshblocks, suburbs, LGAs, urban centre localities, greater capital city statistical areas, SA1 etc.

1.6   Traffic data – Main Roads Western Australia

https://trafficmap.mainroads.wa.gov.au/map

Traffic count web map with data spreadsheet downloads.

1.7   Bike traffic counts - Main Roads Western Australia

 https://portal-mainroads.opendata.arcgis.com/datasets/9da836909be24f76862cf70116fea4f9_0

1.8 Vehicle traffic counts - Main Roads Western Australia

https://portal-mainroads.opendata.arcgis.com/datasets/traffic-digest

1.9 Microsoft Bing Building Footprints

https://github.com/microsoft/AustraliaBuildingFootprints

Free and open building footprint data for all Australia as at 2020. It is a very large file to download and process – you will need to do so in QGIS (or equivalent). Not very accurate so will need editing.

1.10 OpenStreetMap

https://www.openstreetmap.org/

This is a global open webmap and database that often has great small-scale detailed facilities mapped (eg benches, bins, water fountains, playgrounds, walk and cycle paths).

You can search for different types of mapped entities using Overpass Turbo and export the selected data. For example: here is the query for finding footpaths in your specified area (https://overpass-turbo.eu/s/1kQ9) or all cycle paths (https://overpass-turbo.eu/s/1kQa).

You can do the same search and download data directly to QGIS using the QuickOSM plugin.

Some suggested searches for use in QuickOSM:

Key	Value
highway	path
highway	track
highway	footway
highway	cycleway
leisure	playground
amenity	drinking_water
amenity	bench
amenity	bbq
amenity	toilets

1.11 Digital Elevation Models (DEMs)

https://elevation.fsdf.org.au/

Elevation raster data for everywhere in Australia.

2 Data streaming sources

2.1 Data.wa.gov.au - Landgate

Historic aerial photographs (1947 onwards) that you can load as WMS layers in QGIS then export to tif for use in AutoCAD or other programs.

https://catalogue.data.wa.gov.au/dataset/perth-metro

https://catalogue.data.wa.gov.au/dataset/wa-regional-aerial-photography-mosaic

https://catalogue.data.wa.gov.au/dataset/perth-metro-archive

https://catalogue.data.wa.gov.au/dataset/wa-regional-aerial-photography-mosaic-archive

2.2   Base maps for QGIS

For XYZ tiled base layers (eg OSM/Google Maps).

Google hybrid - http://mt0.google.com/vt/lyrs=y&hl=en&x={x}&y={y}&z={z}

Google Satellite - http://mt0.google.com/vt/lyrs=s&hl=en&x={x}&y={y}&z={z}

Google maps - http://mt0.google.com/vt/lyrs=m&hl=en&x={x}&y={y}&z={z}

Bing Satellite Imagery - https://t0.tiles.virtualearth.net/tiles/a{q}.jpeg?g=685&mkt=en-us&n=z

OpenStreetMap - https://tile.openstreetmap.org/{z}/{x}/{y}.png

And use the QGIS plugin QuickMapServices for more streamed layers.

3   Web maps

3.1   Locate Map – Landgate

https://maps.slip.wa.gov.au/landgate/locate/

Landgate web map with many data layers. Most of these datasets (plus more) available for download from data.wa.gov.au with the UWA subscription

3.2   Map Viewer Plus - Landgate

https://map-viewer-plus.app.landgate.wa.gov.au/index.html

Another webmap platform that's particularly good for viewing all Landgate's historic aerial photography.

3.3   Aboriginal Cultural Heritage Inquiry System – Department of Planning, Lands and Heritage

https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS

Aboriginal Heritage Inquiry System is a web map of registered sites and heritage survey report areas. You can order self-destruct pdfs of non-restricted heritage survey and site reports.

Can download shapefiles of mapped site and survey boundaries from data.wa.gov.au.

3.4   Gnarla Boodja Mili Mili – Department of Local Government, Sport and Cultural Industries

https://gnarlaboodjamap.dlgsc.wa.gov.au/#/home

Indigenous names of places around Perth CBD. Many other documents with place name information around (but not as web maps).

3.5 Department of Water and Environmental Regulation (DWER) - Water Information Reporting and Perth Groundwater Map

http://www.water.wa.gov.au/maps-and-data/maps

Series of web maps with ground/ surface water and bore information.

These vector datasets can be requested directly from DWER:

- Minimum and maximum groundwater contours (2019)

3.6 Intramaps and web maps – local governments

https://gispublic01.nedlands.wa.gov.au/intramaps21b/

https://spatialdata-city-fremantle.hub.arcgis.com/

Most local government authorities have an IntraMaps or ArcGIS Online web map site, with varying data content.

3.7 inHerit – State Heritage Register and Local Heritage Register

http://inherit.stateheritage.wa.gov.au/Public/

Information about buildings and sites listed on state and local heritage registers. Built heritage information.

3.8 OpenStreetMap – various renders

https://www.openstreetmap.org

The OpenStreetMap map has various render options. ClyOSM highlights predestrian access routes, Cycle Map highlights cycling routes specifically and Transport OSM highlights public transport routes. Access these under the Layers icon.