Green and Blue

link to nature

Overview

Indicator name	**Waterways**		
Indicator number	22	**Indicator type**	Supplementary
Objective	To measure the local and district accessibility of inland waterbodies for both pedestrian and vehicular modes of transport		
Application guidance	Natural systems can complement both movement and place. Waterways and waterbodies are critical for habitat and ecological health and contribute to the recreational and residential amenity in an area. This indicator will support practitioners to understand how far people must travel using different modes to access public inland waterbodies for leisure use. Based on the outcome of the assessment, practitioners can determine how well integrated blue infrastructure is within the local and broader community. Practitioners can use the *pedestrian access to waterbodies* metric to measure the local accessibility of inland waterbodies when accessed by foot. Practitioners can use the *driving access to waterbodies* metric to measure the local accessibility of inland waterbodies when accessed by motor vehicle.		

Metric

- Pedestrian access to waterbodies
- Driving access to waterbodies

Recommendation

N/A

Related indicators

Access and Connection
2 Walking paths

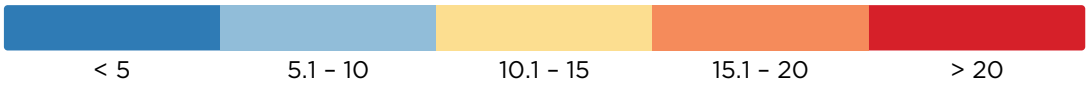
Amenity and Use
9 Public space
10 Local living

Green and Blue
19 Tree canopy
20 Biodiversity

Metric – Pedestrian access to waterbodies

Metric unit	Metres (m)
Description	To measure the local accessibility of inland waterbodies when accessed by foot
Spatial coverage	Applicable to all NSW
Spatial application	This metric is most suitable for link-based analysis based on the road network
Calculation methodology	**Obtain waterbodies data** 1. Using hyrdroarea data from the NSW Hydrography dataset, clip the waterbody based on the land zone, including E1, E2, E3, E4, SP2, SP3, RE1, W1, W2 and W3 and unzoned land **Perform network analysis** 2. Extract vertices from waterbody outline 3. Run network analysis by using vertices as access point and setting 250m as searching threshold when snapping vertices to nearest road **Data representation** 4. Assign colour based on the classification below Unit: Metres (m)  < 800 | 801 – 1,600 | 1,601 – 1,800 | 1,801 – 2,400 | > 2,400
Assumption	• Vertices from geometry will be treated as access point and snapped to road edge within 250m for GIS network analysis • Waterbodies sitting in land zones including E1, E2, E3, E4, SP2, SP3, RE1, W1, W2, W3 and unzoned land, are all assumed to be publicly accessible • Waterbodies with areas less than 5000 square metres have been excluded, as there are some minor manmade farm water storage or dam which is not suitable to access from the public
Limitation	• Analysis is limited to inland waterbodies, including rivers, creeks, lakes, lagoons, dams and harbours • Coastal waterbodies such as beaches have been excluded from analysis (beaches are captured in indicator 9 Public space) • Access points to the waterbodies should be confirmed by practitioner • Other benefits of proximity to waterbodies such as microclimate, ecological health, amenity value is not considered
Data source	• TfNSW Road Track Path Network • NSW Hydroarea: maps.six.nsw.gov.au/clipnship.html

Metric – Driving access to waterbodies

Metric unit	Kilometres (km)
Description	To measure the district accessibility of inland waterbodies when accessed by motor vehicle
Spatial coverage	Applicable to all NSW
Spatial application	This metric is most suitable for link-based analysis based on the road network
Calculation methodology	**Obtain waterbodies data** 1. Using hyrdroarea data from the NSW Hydrography dataset, clip the waterbody based on the land zone, including E1, E2, E3, E4, SP2, SP3, RE1, W1, W2, W3 and unzoned land **Perform network analysis** 2. Extract vertices from waterbody outline to snap the vertices to nearest road edge 3. Run network analysis by using vertices as access point and setting 250m as searching threshold when snapping vertices to nearest road **Data representation** 4. Assign colour based on the classification below Unit: Kilometres (km)  < 5 | 5.1 – 10 | 10.1 – 15 | 15.1 – 20 | > 20
Assumption	• Vertices from geometry will be treated as access point and snapped to road edge within 250m for GIS network analysis • Waterbodies sitting in land zones including E1, E2, E3, E4, SP2, SP3, RE1, W1, W2, W3 and unzoned land, are all assumed to be publicly accessible • Waterbodies with areas less than 5000 square metres have been excluded, as there are some minor manmade farm water storage or dam which is not suitable to access from the public
Limitation	• Analysis is limited to inland waterbodies, including rivers, creeks, lakes, lagoons, dams and harbours • Coastal waterbodies such as beaches have been excluded from analysis (beaches are captured in indicator 9 Public space) • Access points to the waterbodies should be confirmed by practitioner • Other benefits of proximity to waterbodies such as microclimate, ecological health, amenity value is not considered
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Reference

N/A