

Metadata Statement

Metadata Statement to supplement an Asset

Info Asset Details

Enter information about the resource you are attaching to your asset record	
<u>Name</u>	New South Wales River Styles spatial dataset
<u>Description</u>	<p>The NSW River Styles spatial dataset contains over 220,000 km of river length in NSW and records information (attributes) for each discrete section (reach) of river using the River Styles Framework.</p> <p>A River Style is a discrete river type, defined according to its valley setting, planform, bed material and assemblage of geomorphic units. The River Styles Framework is an approach to geomorphologically informed river management that was developed at Macquarie University (https://riverstyles.com/river-styles-framework). The four stages in the River Styles Framework, cover the description of river morphology, interpretation of behaviour, assessment of condition, prediction of river recovery potential and prioritisation of river management</p> <p>Assessments use a range of data including recent and historical imagery, elevation data, along with field assessments to validate the desktop assessments and gather better data on bed material, and geomorphic features and condition. Individual reaches are then considered in context of upstream and downstream reaches and then broader sub-catchment and catchment scale processes, threats and connections, such as erosion and sediment transport, landuse and riparian vegetation.</p>
<u>Format</u>	<input type="text" value="ArcGIS"/> ArcGIS Rest Map Service, ArcGIS Feature Service, WFS/WMS, PDF document
<u>Publish resource as open data?</u>	<input type="text" value="Yes"/>

Scope, coverage and geography

Enter information about the scope, coverage and geography of the Asset(s)	Extent covers the whole of NSW.
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Files, Outputs and Interpretation

<p>Title describing the files:</p>	<ul style="list-style-type: none"> i. ESRI Rest Feature Service of River Styles ii. ESRI Rest Map Services of River Styles iii. WFS of River Styles iv. WMS of River Styles v. New South Wales River Styles spatial dataset companion document
<p>Enter information about the Files, Output and Interpretation</p>	<p>Interpretation:</p> <p>Output:</p> <p>Polyline features defining River Styles in New South Wales.</p> <ul style="list-style-type: none"> 1. ArcGIS REST MAP SERVICE – River Styles <ul style="list-style-type: none"> What is a ESRI map service? https://enterprise.arcgis.com/en/server/10.5/publish-services/windows/what-is-a-map-service.htm 2. ArcGIS REST FEATURE SERVICE – River Styles <ul style="list-style-type: none"> What is a ESRI feature service? https://enterprise.arcgis.com/en/server/10.5/publish-services/windows/what-is-a-feature-service-.htm 3. WFS – River Styles <ul style="list-style-type: none"> https://doc.arcgis.com/en/arcgis-online/reference/ogc.htm 4. WMS – River Styles <ul style="list-style-type: none"> https://doc.arcgis.com/en/arcgis-online/reference/ogc.htm 5. PDF Document- The New South Wales River Styles spatial dataset companion document provides a plain English explanation of the River Style Framework and assessment process used in the spatial dataset.

	<p>Description of Field headings/Attributes</p> <p>Lateral and bed confinement imposed on the channel (CONFINEMENT_LEVEL)– the presence and proportions of non-erosive margins that prevent river migration and/or change in channel form. This field may also include whether the channel is continuous or discontinuous.</p> <p>Valley margin or planform control type (MARGIN_CONTROL) – the types of controls that prevent or limit river migration, bed incision or channel length. These may also describe riverine fragility. This field is only required for confined and partly confined reaches.</p> <p>Channel planform (pattern seen from above) PLANFORM_DESCRIPTOR – planform is a way of seeing a river; a plan of the river channel from above, showing its location, position on any floodplain, meandering pattern, branching, anabranching, paleo-channels, flood channels break out or re-entry points. This field is only required for partly confined and laterally unconfined, continuous channels.</p> <p>Additional constraints on planform controlled reaches (PLANFORM_CONSTRAINT) – additional constraint applied to the river planform via secondary confining features. An example would be a terrace creating an additional constraint on the ability of the channel to migrate. This field is only required for partly confined, planform-controlled reaches, but may contain information that adds information to other margin control types.</p> <p>Distinctive or primary geomorphic descriptor (DISTINCTIVE_DESCRIPTOR) – the dominant or key defining geomorphic unit. For example, occasional floodplain pockets along a bedrock margin-controlled reach, or chain of ponds in a laterally unconfined, discontinuous channel reach.</p> <p>Additional geomorphic descriptor (GEOMORPHIC_DESCRIPTOR) Geomorphic descriptor – an additional descriptor to provide more information or context, or split reaches. For example, to differential a meander cut off or flood channel from the primary channel.</p> <p>Dominant channel bed material or sediment size (BED_MATERIAL_TEXTURE_DESCRIPTOR) – the broad class of bed materials on which the river works, and</p>
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which describes the sediment class for assessment of mobilisation and transport. For discontinuous channels, it is the valley fill texture. Examples include bedrock, boulder, cobble, gravel, sand, fine-grained.

River Style (RIVER_STYLE_FULL_NAME) merges the controls and descriptions to create specific River Styles. It divides rivers into classes based on the hierarchy of geo-attributes. It includes a description of the valley confinement, any margin or planform controls, channel sinuosity (e.g., meandering) and continuity, floodplains (if any), and bed material. For example, a Partly confined, planform controlled, meandering, discontinuous floodplain, gravel bed River Style is usually found in sections of mid catchment landscapes. Whereas a Laterally unconfined, discontinuous channel, valley fill, fine grained River Style is more likely to be found in low slope headwater areas. River Styles may also be described as Anthropogenic, identifying a reach that has been highly modified, such as a reservoir or urban stream.

River Style (abbreviated)
(RIVER_STYLE_ABBREVIATED_NAME) is an abbreviation of the full River Style name

Geomorphic stream condition (STREAM_CONDITION) – the geomorphic condition of the river at time of assessment. It indicates whether river physical form and function is appropriate and expected for the type of river and the environmental/landscape setting in which it is found.

Fragility or sensitivity to disturbance (FRAGILITY) – the likelihood of a river channel to change shape, location, or condition when disturbed.

Potential to recover from its current condition
(RECOVERY_POTENTIAL) – the likelihood that a river reach will improve its geomorphic condition over management timeframes. Recovery potential is then used for conservation and prioritisation of river management.

Priority for river management
(PRIORITISATION_GROUP) - River reaches are prioritised for management according to condition, recovery potential and spatial relationships to other reaches which may affect – or be affected by – processes operating in adjacent reaches.

Priority for river management (Sub group) (PRIORITISATION_SUBGROUP) – Further splitting of the priority for strategic and high recovery potential reaches based on threatening process and spatial connections.

Prioritisation reason (PRIORITISATION_REASON) – may provide more detail or context about the reason for prioritising a reach.

Assessment confidence (CONFIDENCE) – reflects the ability to use remotely sensed imagery (e.g., aerial photography or LiDAR) and field work to verify River Style, geomorphic condition, and recovery potential.

Internal threat to geomorphic condition (THREAT_INTERNAL) and External threat to geomorphic condition (THREAT_EXTERNAL) – Identify any threats to geomorphic condition that are either acting within then reach (internal, e.g., bank slumping leading to channel expansion) or indirectly (external, e.g., landuse change in the catchment leading to a change in run off and increased stream flow)

Sediment yield (relative to an intact reach) (SEDIMENT_YIELD) – an estimation of the amount to sediment being supplied, transported or deposited in a reach, relative to a reference (natural) reach in good condition.

Historical or evolutionary context of the reach (HISTORICAL_CONTEXT) – provides information that can better explain historic (typically post-European settlement) changes to River Styles and considerations for recovery works

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Accuracy and Error

<p>Enter information about accuracy and any known error</p>	<p>Data contained in the geodatabase was generated from River Styles assessments from 2008 to 2023. Newer assessments generally have higher confidence due to improved data quality and availability including higher resolution imagery or elevation data, or more field verification sites. Since many of the first round of River Styles assessments, imagery may have changed from 2 x 2 m ground sample satellite imagery to 0.5 x 0.5 m aerial photographs. In many cases elevation data now has a resolution between 1 m and 5 m (LiDAR or photogrammetry), compared with older 30 m datasets (SRTM satellite) for some areas. However, some of these newer higher-resolution elevation datasets are now ten years old and need to be used with caution and in conjunction with newer aerial imagery or field verification.</p>
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Additional Comments

<p>Enter any additional comments pertaining to the Asset or files within</p>	<p>For instructions on how to add ArcGIS Server map and feature services, refer to the following ESRI instructions:</p> <ul style="list-style-type: none">• ArcGIS10.8 https://desktop.arcgis.com/en/arcmap/latest/map/web-maps-and-services/adding-arcgis-server-map-services.htm• ArcGIS PRO https://pro.arcgis.com/en/pro-app/latest/help/mapping/layer-properties/add-layers-to-a-map.htm
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Contact

For further information on this dataset contact:

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