Australian Government

Bureau of Meteorology

National Groundwater Information System

Data Model Version 2.3.4

Geodatabase NGIS Data Model v2.3.4*

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Geodatabase Summary

Point feature class **NGIS_Bore** — Point that represents the location of a bore and pipe

Line feature class **NGIS_BoreLine** — 3D line that represents the hydrogeologic units along a borehole

Line feature class **NGIS_ConstructionLine** — 3D line that represents the construction information along a borehole e.g. casing, screen, packing material, cement

Polygon feature class **NGIS_ManagementZone** — Polygon that represents groundwater management zones

Core Feature Dataset

MultiPatch feature **NGIS_Geovolume** — MultiPatch feature for storing 3D HGU volumes

Hydrostratigraphy Feature Dataset

Table **NGIS_BoreholeLog** — Table with strata classified into hydrogeological units along a borehole i.e. interpreted bore logs

Table **NGIS_ConstructionLog** — Table with bore construction information along a borehole e.g. casing, screen

Table **NGIS_HydrogeologicUnit** — Reference table describing the hydrologic units and their relationship to aquifers

Table **NGIS_LithologyLog** — Table with driller's or geologist's description of lithology along a borehole

Raster catalog **NGIS_GeoRasters** — Raster catalog for storing HGU rasters

Relationship class **BoreHasBoreholeLogs** (One to many)

Relationship class **BoreHasBoreLines** (One to many)

Relationship class **BoreHasConstructionLine** (One to many)

Relationship class **BoreHasConstructionLogs** (One to many)

Relationship class **BoreHasLithologyLog** (One to many)

Relationship class **HGUHasBoreLines** (One to many)

Relationship class **HGUHasGeoRasters** (One to many)

Relationship class **HGUHasGeoVolumes** (One to many)

** Schema diagram does not include full list of attributes for NGIS_Bore nor does it include NGIS_Aquifer. Please refer to the NGIS Data Dictionary for relevant details; http://www.bom.gov.au/water/groundwater/ngis/documents/NgisDataDictionary.pdf*

Note: for numeric data types (e.g. integer and double) where precision and scale are described as 0 in the schematic diagram, the precision and scale are set to the default for the data type as specified in: http://resources.arcgis.com/en/help/main/10.1/index.html#//019v00000002000000

Geodatabase Details

Core Feature Dataset

Simple feature class NGIS_Bore — Geometry: Point; Contains M values: No; Contains Z values: No

Point that represents the location of a bore and pipe

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
HydroID	Long integer	Yes			0		
HydroCode	String	Yes					30
StateBoreID	String	Yes					30
StatePipeID	String	Yes					30
StateTerritory	Long integer	Yes		StateTerritory	0		
Agency	Long integer	Yes		Agency	0		
WCode	Long integer	Yes		WCode	0		
BoreDepth	Double	Yes			0	0	
DrilledDepth	Double	Yes			0	0	
Status	String	Yes					30
DrilledDate	Date	Yes			0	0	8
HGUID	Long integer	Yes			0		
HGUNumber	Long integer	Yes			0		
NatHGUNumber	Long integer	Yes			0		
FType	String	Yes					50
Latitude	Double	Yes			0	0	
Longitude	Double	Yes			0	0	
Easting	Double	Yes			0	0	
Northing	Double	Yes			0	0	
Projection	Long integer	Yes	1	Projection	0		
ProjectionZone	Long integer	Yes		ProjectionZone	0		
CoordMethod	String	Yes					30
HeightDatum	String	Yes					30
RefElev	Double	Yes			0	0	
RefElevDesc	String	Yes					30
RefElevMethod	String	Yes					30
TsRefElev	Double	Yes			0	0	
TsRefElevDesc	String	Yes					30
TsRefElevMethod	String	Yes					30
LandElev	Double	Yes			0	0	
LandElevMethod	String	Yes					30
IsMultiPipe	Long integer	Yes		IsMultiPipe	0		
BoreLineCode	String	Yes					10
WorksID	Long integer	Yes			0		
LicenceExtractID	Long integer	Yes			0		
LicenceExtractVolume	Double	Yes			0	0	
LicenceUseID	Long integer	Yes			0		

Unique feature identifier within NGIS geodatabase
Jurisdictional bore and pipe/oscilet identifier (if relevant)
Jurisdictional bore identifier
Jurisdictional hole, pipe or outlet identifier (if relevant)
Abbreviated name for State or Territory within which the bore is located
Name of agency responsible for managing the bore
Code for organisations listed in the Water Regs 2008
Maximum completed depth of bore
Maximum drilled depth of bore
Status of bore
Date record of bore construction
Hydro ID of HGUs screened by bore
Jurisdictional ID for HGUs screened by bore
NAF number for the HGUs screened by bore
Feature type based on bore purpose
Latitude (Geographics GDA94)
Longitude (Geographics GDA94)
Easting (MGA GDA94)
Northing (MGA GDA94)
Projection for northing and easting
Zone for MGA GDA94
Method for co-ordinates
Height datum for elevation attributes
Reference elevation for NGIS (mAHD)
Description of measuring point for reference elevation
Method for reference elevation
Reference elevation for time series measurements (mAHD)
Measuring point for time series reference elevation
Method for time series reference elevation
Land surface elevation (mAHD)
Method for land surface elevation
Flag indicating multi-pipe bores
Code for bores drilled in a line
Identifier for license to drill and construct bore
License for groundwater extraction
Maximum volume that is licensed to be extracted
License for using groundwater

Relationship class BoreHasLithologyLogs

Type: Simple; Forward label: NGIS_LithologyLog; Cardinality: One to many; Backward label: NGIS_Bore; Notification: None

Origin feature class: NGIS_Bore (Primary key: HydroID; Foreign key: BoreID)

Destination table: NGIS_LithologyLog

No relationship rules defined.

Table NGIS_LithologyLog

Table with driller's or geologist's description of lithology along a borehole

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
BoreID	Long integer	Yes			0		
HydroCode	String	Yes					50
RefElev	Double	Yes			0	0	
RefElevDesc	String	Yes					30
FromDepth	Double	Yes			0	0	
ToDepth	Double	Yes			0	0	
TopElev	Double	Yes			0	0	
BottomElev	Double	Yes			0	0	
MajorLithCode	String	Yes					50
MinorLithCode	String	Yes					50
Description	String	Yes					255
Source	String	Yes					100
LogType	Long integer	Yes		LithLogType	0		

Numeric identifier corresponding to HydroID of NGIS_Bore feature
Jurisdictional bore and pipe identifier
Reference elevation for lithology log
Description of measuring point for reference elevation
Depth to top of strata below reference elevation
Depth to base of strata below reference elevation
Elevation for top of strata
Elevation for bottom of strata
Codes used to describe the major lithology
Codes used to describe the minor lithology
Description of lithology
Source of lithology information
Type of lithology log

Simple feature class NGIS_BoreLine — Geometry: Polyline; Contains M values: No; Contains Z values: Yes

3D line that represents the hydrogeologic units (HGUs) along a borehole

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
HydroID	Long integer	Yes			0		
HydroCode	String	Yes					30
BoreID	Long integer	Yes			0		
TopElev	Double	Yes			0	0	
BottomElev	Double	Yes			0		
HGUID	Long integer	Yes			0		
HGUNumber	Long integer	Yes			0		
NatHGUNumber	Long integer	Yes			0	0	
SHAPE_Length	Double	Yes			0		

Unique feature identifier in NGIS geodatabase
Jurisdictional bore and pipe identifier
HydroID of corresponding NGIS_Bore feature
Elevation for top of HGU
Elevation for bottom of HGU
Jurisdictional numeric identifier of HGU
Jurisdictional number for identifying HGU
National Aquifer Framework (NAP) number for identifying HGU

Relationship class BoreHasBoreholeLogs

Type: Simple; Forward label: NGIS_BoreholeLog; Cardinality: One to many; Backward label: NGIS_Bore; Notification: None

Origin feature class: NGIS_Bore (Primary key: HydroID; Foreign key: BoreID)

Destination table: NGIS_BoreholeLog

No relationship rules defined.

Table NGIS_BoreholeLog

Table with lithology classified into hydrogeologic units (HGUs) along a borehole

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
BoreID	Long integer	Yes			0		
HydroCode	String	Yes					50
RefElev	Double	Yes			0	0	
RefElevDesc	String	Yes					30
FromDepth	Double	Yes			0	0	
ToDepth	Double	Yes			0	0	
TopElev	Double	Yes			0	0	
BottomElev	Double	Yes			0	0	
HGUID	Long integer	Yes			0		
HGUNumber	Long integer	Yes			0		
NatHGUNumber	Long integer	Yes			0		
Description	String	Yes					255
Source	String	Yes					100
Comment	String	Yes					250
Author	String	Yes					50
Scenario	Long integer	Yes			0		
LogType	Long integer	Yes	1	BoreLogType	0		

Numeric identifier corresponding to HydroID of NGIS_Bore feature
Jurisdictional bore and pipe identifier
Description of measuring point for reference elevation
Depth to base of HGU below reference elevation
Depth to top of HGU below reference elevation
Reference elevation for the bore log
Elevation for top of HGU
Elevation for bottom of HGU
Jurisdictional numeric identifier of HGU
Jurisdictional number for identifying HGU
National Aquifer Framework (NAP) number for identifying HGU
Additional description of HGU
Source of stratigraphic interpretation to HGUs
Additional comments relating to stratigraphic interpretation
Person responsible for interpretation
Number that distinguishes between interpretations
Type of borehole log

Relationship class BoreHasConstructionLogs

Type: Simple; Forward label: NGIS_ConstructionLog; Cardinality: One to many; Backward label: NGIS_Bore; Notification: None

Origin feature class: NGIS_Bore (Primary key: HydroID; Foreign key: BoreID)

Destination table: NGIS_ConstructionLog

No relationship rules defined.

Table NGIS_ConstructionLog

Table with bore construction information along a borehole e.g. casing, screen

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
BoreID	Long integer	Yes			0		
HydroCode	String	Yes					30
RefElev	Double	Yes			0	0	
RefElevDesc	String	Yes					30
FromDepth	Double	Yes			0	0	
ToDepth	Double	Yes			0	0	
TopElev	Double	Yes			0	0	
BottomElev	Double	Yes			0	0	
ConstructionType	String	Yes					50
Material	String	Yes					50
InnerDiameter	Double	Yes			0	0	
OuterDiameter	Double	Yes			0	0	
Property	String	Yes					50
PropertySize	Double	Yes			0	0	
DrillMethod	String	Yes					50
LogType	Long integer	Yes	1	ConstructLogType	0		

Numeric identifier corresponding to HydroID of NGIS_Bore feature
Jurisdictional bore and pipe identifier
Reference elevation for elevation in construction log
Description of measuring point for reference elevation
Depth to top of bore component
Depth to base of bore component
Elevation for top of bore component
Elevation for base of bore component
Bore component which record applies to e.g. screen
Material of bore component
Inner diameter
Outer diameter (or diameter if inner not available)
Material of bore component
Size of bore component
Method of construction
Type of borehole log

Simple feature class NGIS_ConstructionLine — Geometry: Polyline; Contains M values: No; Contains Z values: Yes

3D line that represents the construction information along a borehole e.g. casing, screen

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
HydroID	Long integer	Yes			0		
HydroCode	String	Yes					50
BoreID	Long integer	Yes			0		
TopElev	Double	Yes			0	0	
BottomElev	Double	Yes			0	0	
ConstructionType	String	Yes					30
SHAPE_Length	Double	Yes			0	0	

Unique feature identifier in NGIS geodatabase
Jurisdictional bore and pipe identifier
HydroID of corresponding NGIS_Bore feature
Elevation for top of bore component
Elevation for bottom of bore component
Bore component which record applies to e.g. screen

Relationship class BoreHasConstructionLine

Type: Simple; Forward label: NGIS_ConstructionLine; Cardinality: One to many; Backward label: NGIS_Bore; Notification: None

Origin feature class: NGIS_Bore (Primary key: HydroID; Foreign key: BoreID)

Destination feature class: NGIS_ConstructionLine

No relationship rules defined.

Simple feature class NGIS_ManagementZone — Geometry: Polygon; Contains M values: No; Contains Z values: No

A polygon that represents the groundwater management zones.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Shape	Geometry	Yes					
HydroID	Long integer	Yes			0		
Name	String	Yes					100
FullName	String	Yes					200
StateTerritory	Long integer	Yes			0		
Agency	Long integer	Yes			0		
ManagementUnitType	Long integer	Yes			0		
PlanName	String	Yes					200
Status	Long integer	Yes			0		
FromDepth	Short integer	Yes			0		
ToDepth	Short integer	Yes			0		
Declared	Date	Yes			0	0	8
PlanRef	String	Yes					200
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

Unique feature identifier within the NGIS geodatabase
Jurisdictional name for management unit
Full jurisdictional name for management unit
Abbreviated name for state or territory within which the management unit is located e.g. VIC, QLD, SA
Name of agency responsible for groundwater management e.g. Department for Water
Jurisdictional classification of management unit e.g. Prescribed Wells Area
Name of the plan relevant to the management unit
Declaration status of the plan e.g. declared, proposed
Depth below surface to bottom of management unit (if applicable)
Depth below surface to top of management unit (if applicable)
Date when the plan was gazetted or declared
Web link to the management plan or general groundwater management information

Hydrostratigraphy Feature Dataset

MultiPatch feature NGIS_GeoVolumes — Geometry: MultiPatch; Contains M values: No; Contains Z values: Yes

MultiPatch feature for storing 3D hydrogeologic units (HGUs) volumes (optional)

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
HydroID	Long integer	Yes			0		
HydroCode	String	Yes					30
HGUID	Long integer	Yes			0		
HGUNumber	Long integer	Yes			0		
HGUName	String	Yes					100
HGCNumber	Long integer	Yes			0		
HGCName	String	Yes					100
NatHGUNumber	Long integer	Yes			0		
NatHGUName	String	Yes					100
NatHGCNumber	Long integer	Yes			0		
NatHGCName	String	Yes					100
HorizonID	Short integer	Yes			0		
ModelRegion	String	Yes			0		100

Unique feature identifier for geovolume within NGIS
Name of geovolume
HydroID of HGU
Numeric ID of HGU
Name of HGU
Numeric ID of HGC
Name of HGC
NAF numeric ID of HGU
NAF name of HGU
NAF numeric ID of HGU
NAF name of HGC
Index for describing the depositional sequence of HGUs or HGCs, e.g. 1, 2, 3, 4
Name of region covered by the georaster, e.g. Murray Basin

Relationship class HGUHasBoreLines

Type: Simple; Forward label: NGIS_BoreLine; Cardinality: One to many; Backward label: NGIS_HydrogeologicUnit; Notification: None

Origin table: NGIS_HydrogeologicUnit (Primary key: HydroID; Foreign key: HGUID)

Destination feature class: NGIS_BoreLine

No relationship rules defined.

Table NGIS_HydrogeologicUnit

Reference table describing the hydrologic units and their relationship to aquifers

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
HydroID	Long integer	No			0		
HGUName	String	Yes					100
HGUCode	String	Yes					30
HGUNumber	Long integer	Yes			0		
ProvName	String	Yes					100
StateTerritory	Long integer	Yes		StateTerritory	0		
HGUDescription	String	Yes					255
HGUAquiferType	Long integer	Yes		HGUAquiferType	0		
HGUConfinedType	Long integer	Yes		HGUConfinedType	0		
HGUTransmissivity	String	Yes					30
HGUHydraulicK	String	Yes					30
HGUStorage	String	Yes					30
HGUThickness	String	Yes					30
HGCID	Long integer	Yes			0		
HGCName	String	Yes					100
HGCCode	String	Yes					30
HGCNumber	Long integer	Yes			0		
NatProvName	String	Yes					100
NatHGUName	String	Yes					100
NatHGUCode	String	Yes					30
NatHGUNumber	Long integer	Yes			0		
NatHGCName	String	Yes					100
NatHGCCode	String	Yes					30
NatHGCNumber	Long integer	Yes			0		

Unique identifier for each hydrogeologic unit (HGU)
Jurisdictional name of HGU
Jurisdictional code for HGU
Jurisdictional number for HGU
Name of groundwater province or basin
State or territory within which HGU is located
Description of HGU e.g. age and lithology
Classification of HGU as aquifer or aquitard
Classification of HGU as unconfined or confined
Transmissivity of the HGU
Hydraulic conductivity of the HGU
Storage coefficient of the HGU
Thickness of the HGU
Numeric identifier for hydrogeologic complex (HGC)
Jurisdictional name of HGC
Jurisdictional code for HGC
Jurisdictional number for HGC
National Aquifer Framework (NAF) name of groundwater province
NAF name of HGU
NAF code for HGU
NAF number for HGU
NAF name of HGC
NAF code for HGC
NAF number for HGC

Relationship class HGUHasGeoVolumes

Type: Simple; Forward label: NGIS_GeoVolumes; Cardinality: One to many; Backward label: NGIS_HydrogeologicUnit; Notification: None

Origin table: NGIS_HydrogeologicUnit (Primary key: HydroID; Foreign key: HGUID)

Destination table: NGIS_GeoVolumes

No relationship rules defined.

Relationship class HGUHasGeoRasters

Type: Simple; Forward label: NGIS_GeoRaster; Cardinality: One to many; Backward label: NGIS_HydrogeologicUnit; Notification: None

Origin table: NGIS_HydrogeologicUnit (Primary key: HydroID; Foreign key: HGUID)

Destination table: NGIS_GeoRasters

No relationship rules defined.

Raster catalog NGIS_GeoRasters — Geometry: Polygon; Contains M values: No; Contains Z values: No

Raster catalog for storing hydrogeologic units (HGUs) rasters

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
Raster	Raster	Yes					
Name	String	Yes					255
Variable	String	Yes					10
VarUnits	String	Yes					30
HGUID	Long integer	Yes			0		
HGUNumber	Long integer	Yes			0		
HGUName	String	Yes					100
HGCNumber	Long integer	Yes			0		
HGCName	String	Yes					100
NatHGUNumber	Long integer	Yes			0		
NatHGUName	String	Yes					100
NatHGCNumber	Long integer	Yes			0		
NatHGCName	String	Yes					100
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Generic raster catalog attribute
Name of raster
Variable described by raster
Units for variable described by raster
HydroID of HGU
Numeric ID of HGU
Name of HGU
Numeric ID of HGC
Name of HGC
NAF numeric ID of HGU
NAF name of HGU
NAF numeric ID of HGU
NAF name of HGU

Simple feature class NGIS_Aquifer — Geometry: Polygon; Contains M values: No; Contains Z values: No

No metadata abstract

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Shape	Geometry	Yes					
AquiferName	String	Yes					254
AquiferProvName	String	Yes					50
AquiferType	String	Yes					254
NafHGCName	String	Yes					254
NafHGCNumber	Double	Yes			0	0	
HGUName	String	Yes					254
NafHGUName	String	Yes					254
HorizonID	Double	Yes			0	0	
Source	String	Yes					254
HydroID	Double	Yes			0	0	
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

State hydrogeological unit name
Name of groundwater province or basin
Aquifer type
NAF name of HGC
NAF number for the HGC
Jurisdictional name of HGU
NAF name of the HGU
Index for describing sequence of hydrogeologic units
Source
Jurisdictional data provider

Coded Value Domains

Coded value domain BoreLogType
Description: *Log type for bore log*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Hydrostratigraphy

Coded value domain ConstructLogType
Description: *Log type for construction log*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Bore construction

Coded value domain HGUAquiferType
Description: *Classification of unit as aquifer or aquitard*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Aquifer
2	Minor aquifer
3	Aquitard
4	Unclassified

Coded value domain HGUConfinedType
Description: *Classification of unit as confined or unconfined*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Unconfined
2	Unconfined to confined
3	Semi-confined
4	Confined
5	Unclassified

Coded value domain IsMultiPipe
Description: *Indicates whether a bore feature belongs to a multi-pipe bore*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
0	No
1	Yes
2	Unknown

Coded value domain LithLogType
Description: *Log type for lithology log*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Driller
2	Lithology

Coded value domain Projection
Description: *Projection of coordinates from jurisdictional database*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	MGA GDA 94

Coded value domain ProjectionZone
Description: *Zone for projection of coordinates from jurisdictional database*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56

Coded value domain StateTerritory
Description: *State or territory in which feature is located*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	NSW
2	VIC
3	SA
4	QLD
5	WA
6	TAS
7	NT
8	ACT
9	OTHER

Coded value domain WCode
Description: *Code identifying agency that provides Water Regulations data*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	w00066
2	w00067
4	w00072
5	w00074
6	w00075
7	w00076
8	w00077
9	w00078
10	w00247

Coded value domain Agency
Description: *Agency responsible for management*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	WaterNSW
2	Department of Energy, Environment and Climate Action
4	Department of Environment, Water and Natural Resources
5	Department of Manufacturing and Water Regional Development
6	Department of Water and Environmental Regulation
7	Water Corporation
8	Department of Natural Resources and Environment
9	Department of Environment, Parks and Water Security
10	Environment and Planning Directorate
15	Adelaide and Mount Lofty Ranges Natural Resources Management Board
16	Eyre Peninsula Natural Resources Management Board
17	Goulburn-Murray Water
18	Grampian Wimmera Mallee Water
19	Northern and Yorke Natural Resources Management Board
20	SA Murray-Darling Basin Natural Resources Management Board
21	South East Natural Resources Management Board
22	Southern Rural Water
23	South Australian Arid Lands Natural Resources Management Board
24	NCRIS
25	Department of Primary Industries and Regional Development
26	Power and Water

Coded value domain Status
Description: *Declaration status of the plan*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Commenced
2	Declared
3	Draft
4	Expired

Coded value domain ManagementZoneType
Description: *Jurisdictional classification of management unit*; Field type: *Long integer*; Split policy: *Default value*; Merge policy: *Default value*

Code	Description
1	Groundwater Area
2	Groundwater Management Area
3	Underground Water Area
4	Water Allocation Plan
5	Water Allocation Planning Area
6	Water Control District
7	Water Management Plan
8	Sustainable Diversion Limit Resource Unit
9	Water Plan
10	Water Sharing Plan
11	Water Sharing Rules
12	Water Supply Protection Area
13	Groundwater Sub-Area