

SWIM Metadata Help File

STATEWIDE WATER INFORMATION MANAGEMENT SYSTEM

www.swim.qldwater.com.au

Table of contents

Introduction to metadata	2
Organisational metadata	3
Scheme metadata	4

Appendix A Metadata criteria and definitions......5

٠	coastal or non-coastal	5
٠	Population size	5
٠	Connection size	5
٠	DEWs Region	6
٠	Local Government Area region	8
٠	Scheme name	8
٠	Created year	8
٠	Inactive year	8
٠	Population size	8
٠	Connection size	9
٠	Soil type	10
٠	Climate zone	12
٠	Rainfall zone	14
٠	NRM region	16
٠	Regional water supply region	18
٠	Water resources plan region	20
٠	Long name	21
٠	Description	21
٠	Longitude and Latitude coordinates	21
٠	AMG zone or geodetic zone	21
Append	dix B BoM metadata	22



Metadata Help File

Introduction to metadata

Metadata is information used to assist in the interpretation of data. For example it includes location information for a monitoring site and information about the methods used to generate the data. This information must be reported together with every submission of data from SWIM to, for example, BoM. As metadata rarely changes, SWIM is designed to capture the metadata once, before any data is submitted, then SWIM will use the same metadata information every time data is reported on. Metadata only needs to be updated on SWIMonline when changes are made to sites, procedures etc.

The processes developed to import data into the SWIM database require some metadata be entered to the SWIM database before any data can be submitted. This information mostly describes the sites/schemes for the data, and procedures/methods for obtaining the data. If SWIM data templates are downloaded from SWIMonline before the metadata has been entered, the template will not contain any site/scheme information and will not be accepted when it is resubmitted to SWIM.

All metadata must be submitted at SWIMonline. Log in to SWIMonline and from the SWIM Data Portal pages, click on "Submit metadata". Select the category of metadata and fill in the fields as required.

	Required by all SWIM users	Required if reporting to BoM
Organisation	Yes	Yes
Potable Water Schemes	Yes	Yes
Nonpotable water schemes	Optional	Optional
Sewerage schemes	Optional	Yes
Major storages	No	Yes (if reporting storage data, category 3)
Minor storages	No	Yes (if reporting storage data, category 3)
Groundwater bores	No	Yes (if reporting groundwater data, category 2)

Categories of metadata:

Meteorological stations	No	Yes (if reporting meteorological
		data, category 4)
Watercourses (quantity and quality	No	Yes (if reporting water flow
measurements)		category 1) or water quality
		(category 9) from watercourses)
Watercourse level and flow sites	No	Yes (if reporting watercourse
		flow (category 1) data)
Water quality monitoring sites	No	Yes (if reporting water quality
		(category 9))
Water quality indicators	No	Yes (if reporting water quality
		(category 9))
Sewage discharge points	No	Yes (if reporting sewerage
		discharge volumes (BoM
		indicator 7n))
Stormwater discharge points	No	Yes (if reporting stormwater
		discharge volumes (BoM
		indicator 70))

Organisational (WSP) Metadata

All WSPs are required to enter at least some organisation information. This includes essential contacts information, including the contact for receiving email notifications after submission of data.

This also includes some general information about the organisation. This is so comparisons can be made between similar organisations, therefore making the comparison more useful as you are comparing like for like. This information includes:

- Whether the WSP is coastal or non-coastal
- Population size
- Connection size
- DEWs Region
- Local Government Area region

For more information and definitions of these criteria please see appendix A.

Scheme Metadata

All WSPs are required to enter at least some schemes information. This information must be updated before downloading any data templates from SWIM as the scheme information is used to generate the templates.

SWIM is designed to capture data at the spatial resolution of schemes. There may be one or more schemes of each type: water, sewerage or nonpotable water schemes.

The information required for **potable water**, **raw-partially treated (Raw-PT)**, **recycled water and sewerage schemes** is:

- Scheme name
- Created year
- Inactive year
- Population size
- Connection size
- Soil type
- Climate zone
- Rainfall zone
- NRM region
- Regional water supply region
- Water resources plan region
- Long name
- Description
- Longitude and Latitude coordinates
- AMG zone or geodetic zone

Definitions for these criteria and maps showing each WSP are available in appendix A.

Additional metadata is required for all data that is to be reported to BoM.

If you are not required to report data to BoM, you do not need to complete any metadata other than schemes (above).

The additional BoM metadata is separated into the following categories (which generally represent different types of sites):

- Potable water schemes
- Nonpotable water schemes
- Sewerage schemes
- Major storages
- Minor storages
- Groundwater bores
- Meteorological stations

- Watercourses (quantity and quality measurements)
 - Watercourse level and flow sites
- Water quality monitoring sites
 - Water quality indicators
- Sewage discharge point
- Stormwater discharge points

You need only supply metadata for the type of data you are required to submit to BoM. The metadata requirements for each BoM category are outlined in appendix B.

Appendix A

Metadata criteria and definitions

Organisational (WSP) Metadata:

Coastal

Definition: those WREs that adjoin the coast are defined as coastal those that don't are non-coastal.

Population size

Definition: This figure has been calculated based on the number of people receiving water supply services (using data reported under indicator CS1: Population receiving water supply services). If more accurate data is available (such as census data) please update this category. Within SWIM WSP's have been divided into population size categories:

- Xsmall: 0 to 1,499
- Small: 1,500 to 6,999
- Medium: 7,000 to 74,999
- Large: 75,000 to 220,000
- Xlarge: >220,000

This is so similar sizes WSP's can be compared, therefore it is important to have the most accurate data available in this criteria.

Connection size

Definition: This is based on indicator CS4: Total connected properties-water supply.

WSPs are divided into size categories, based on the number of water connected properties (using data reported under indicator CS4: Total connected properties - water supply). This is so similar sizes WSP's can be compared, therefore it is important to have the most accurate data available in this criteria.

Note that different organisation (here SWIM, QLD legislation and NPR) use different size classifications.

SWIM uses the following definitions for size:

- Small: 0 to 999
- Medium: 1,000 to 9,999
- Large: 10,000 to 50,000
- Xlarge: >50,000
- Bulk water provider

Qld legislation uses the following definitions for size:

- Small: 0 to 1,000
- Medium: 1,001 to 25,000
- Large: >25,000

NPR uses the following definitions for size:

- Non-major utility (other): 10,000 to 20,000
- Non-major utility (large): 20,001 to 50,000
- Major utility (other): 50,001 to 100,000
- Major utility (large): >100,000

DEWs region

Definition: DEW has four regional offices in Queensland which manage four geographical areas (Fig. 1).

Users can select: any of the DEW regional office areas from the following options:

- South East
- South West
- Central West
- North

Figure. 1 Map showing DEW regional office areas.



7

Local government area region

Definition: Local Government Areas (LGAs) are the defined areas within which legally constituted Local Government authorities have responsibilities to provide local services (e.g. water and sewerage services and hence are the WREs). Local Governments in Queensland are often grouped by specific collaborations.

The following local government groupings can be selected. Note that multiple groupings can be selected:

- **BROC**: Border Regional Organisation of Councils
- Council of Mayors (SEQ): Council of Mayors for South East Queensland
- CQROC: Central Queensland Regional Organisation of Councils
- **CWROC**: Central Western Queensland Regional Organisation of Councils
- DASBAC: Downs and Surat Basin Alliance of Councils
- FNQROC: Far North Queensland Regional Organisation of Councils
- **GSD**: Gulf Savannah Development
- NQROC: North Queensland Regional Organisation of Councils
- RAPAD: Remote Area Planning and Development Board
- **REDC**: Mackay Whitsunday Regional Economic Development Corporation
- **ROCCY**: Regional Organisation of Councils of Cape York
- WBBROC: Wide Bay Burnett Regional Organisation of Councils
- WESROC: Western Suburbs Regional Organisation of Councils
- WHAMBROC: Whitsunday Hinterland and Mackay Bowen Regional Organisation of Councils

Scheme Metadata:

Scheme name

Definition: This is the official reference name and will appear on all data templates and SWIMonline

Created year

Definition: This is the year the scheme was created.

Inactive year

Definition: This is the year that a scheme has been made inactive. Please note that all information for inactive schemes will still be held in SWIM and if the scheme is used again in the future the created year can be set to active again.

Population size

Definition: This figure has been calculated based on the number of people receiving water supply services (using data reported under indicator CS1: Population receiving water supply services). If more accurate data is available (such as census data) please update this category. Within SWIM WSP's have been divided into population size categories:

- Xsmall: 0 to 1,499
- Small: 1,500 to 6,999
- Medium: 7,000 to 74,999
- Large: 75,000 to 220,000
- Xlarge: >220,000

This is so similar sizes WSP's can be compared, therefore it is important to have the most accurate data available in this criteria.

Connection size

Definition: This is based on indicator CS4: Total connected properties-water supply/

WSPs are divided into size categories, based on the number of water connected properties (using data reported under indicator CS4: Total connected properties - water supply). This is so similar sizes WSP's can be compared, therefore it is important to have the most accurate data available in this criteria.

Note that different organisation (here SWIM, QLD legislation and NPR) use different size classifications.

SWIM uses the following definitions for size:

- Small: 0 to 999
- Medium: 1,000 to 9,999
- Large: 10,000 to 50,000
- Xlarge: >50,000
- Bulk water provider

Qld legislation uses the following definitions for size:

- Small: 0 to 1,000
- Medium: 1,001 to 25,000
- Large: >25,000

NPR uses the following definitions for size:

- Non-major utility (other): 10,000 to 20,000
- Non-major utility (large): 20,001 to 50,000
- Major utility (other): 50,001 to 100,000
- Major utility (large): >100,000

Soil type

Definition: Each soil type within Queensland has been designated as having either minimal, moderate or high shrinkage-swell capacity (Table 1). The shrinkage-swell capacity of soils can affect the performance of some assets; in particular it can affect breakage of pipes and leakage of water from distribution systems. To determine the shrinkage-swell designation, maps of WSP boundaries and townships were overlayed with soil type maps (Fig. 2).

Soil type	Shrinkage-swell rating
CALCAROSOLS	minimal
CHROMOSOLS	moderate
DERMOSOLS	moderate
FERROSOLS	moderate
HYDROSOLS	moderate
KANDOSOLS	minimal
KUROSOLS	moderate
PODOSOLS	minimal
RUDOSOLS	minimal
SODOSOLS	moderate
TENOSOLS	moderate
VERTOSOLS	High

Table 1. Soil type shrinkage-swell capacity

Users can select: any of the following shrink-swell ratings:

- Minimal
- Moderate
- High

Figure. 2 Map of the dominant soil types in Queensland (Source: DERM, 2011).



Climate zone

Definition: Queensland's climate is highly variable with low rainfall and hot summers in the inland west, tropical north and temperate south-east as examples. With this in mind Queensland can be divided up on the basis of climatic zones with similar temperature and rainfall patterns using the Köppen Classification (Fig. 3).

Users can select: any of the climatic zones from the following options:

- Desert
- Equatorial
- Grassland Hot (persistently dry)
- Grassland Hot (winter droughts)
- Subtropical Dry
- Subtropical Wet
- Temperate
- Tropical Rainforest
- Tropical savana

Figure 3. Queensland's Köppen climate zones (Source: BoM 2011).



See inset 3

Rainfall zone

Definition: Queensland's rainfall is highly variable, with this in mind Queensland can be divided up into rainfall zones with similar rainfall patterns (Fig. 4). These zones are based on the Bureau of Meteorology's rainfall classification.

Users can select: any of the rainfall zones from the following options:

- Arid (less than 350 mm average annual rainfall)
- Summer (350-650 mm average annual rainfall)
- Summer (650-1200 mm average annual rainfall)
- Summer (more than 1200 mm average annual rainfall)
- Summer dominant (350-650 mm average annual rainfall)
- Summer dominant (650-1200 mm average annual rainfall)
- Summer dominant (more than 1200 mm average annual rainfall)

Figure 4. Seasonal rainfall zones of Queensland (source: BoM, 2011).



See inset 4

NRM regional body region

Definition: Queensland has been divided up into 14 Natural Resource Management (NRM) regions (Fig. 5). These groups develop regional NRM plans and organise on-ground works and community events.

Users can select: any of the NRM regional bodies from the following options:

- Burnett Mary Regional Group
- Cape York Peninsula Development Association
- Condamine Alliance
- Desert Channels Queensland
- Fitzroy Basin Association
- Mackay Whitsunday NRM Group
- Northern Gulf Resource Management Group
- NQ Dry Tropics
- Queensland Murray-Darling Committee
- SEQ Catchments
- Southern Gulf Catchments
- South West NRM
- Terrain NRM
- Torres Strait Regional Authority

Figure 5. Map showing NRM Regional Bodies in Queensland (DERM 2011)



See inset 5

Regional water supply strategy region

Definition: Regional water supply strategies are the Queensland Government's approach to ensuring short and long term water supply security on a regional basis. Queensland has been divided up by DEW into various regions for the Regional Water Supply Strategy (Fig. 6).

Users can select: any of the Regional Water Supply Strategy regions from the following options:

- North West
- Burdekin
- Mackay Whitsunday
- South West
- Far-North
- South-East

Figure 6. Water Supply Strategy Regions (source DERM, 2011).



Water resources plan

Definition: The water resource planning process is designed to plan for the allocation and sustainable management of water to meet Queensland's future water requirements and is governed by the *Water Act 2000*. Queensland has been divided up by DEW into various regions by riverine catchment area(s) for Water Resource Plans (Fig. 7).

Users can select: any of the Water Resource Plan regions from the following options:

- Baffle
- Barron
- Border Rivers
- Boyne
- Bulloo
- Burdekin
- Burnett
- Calliope
- Condamine-Balonne
- Cooper Creek
- Fitzroy
- Georgina-Diamantina
- Gold Coast
- Gulf
- Logan Basin
- Mary
- Mitchell
- Moonie
- Moreton
- Nebine
- Paroo
- Pioneer Valley
- Warrego
- Whitsunday



Figure 7. Water resource planning regions in Queensland. (Source: DERM, 2011).

See inset 7

Long name

Definition: A longer version of the name

Description

Definition: A text description of the location of the scheme

Longitude and Latitude

Definition: Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth program (earth.google.com/download-earth.html).

For schemes, a single position cannot represent the entire scheme area, so choose either a geographically central position, or a relevant position (such as the location of the treatment plant).

AMG zone or Geodetic grid (datum)

Definition: This is the reference system for the easting and northing or latitude and longitude values.

<u>Appendix B</u>

BoM Metadata

Major storages metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Farth	Mandatory
Latitude	program (earth.google.com/download- earth.html).	Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory
Full supply level	The level at which water cannot be contained by this storage	Mandatory

	Units = metres	
Dead storage level	The level at which water can't be extracted from this storage Units = metres	Mandatory
Level Datum	Datum against on which storage/supply levels are based. Select from: DepthFromSurface GaugeDatum AHD AHD AHDTasmania DepthFromBed See below for definitions of these terms.	Mandatory
 Procedure used to determine: storage level storage volume vol released procedure: vol transferred 	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured. (e.g. Depth gradients on dam wall, Derived from level-flow conversion table, Meter at release outlet).	Mandatory

Minor storages metadata

Metadata field	Description	Mandatory
		or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional

Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Farth	Mandatory
Northing/Latitude	program (earth.google.com/download- earth.html).	Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory
Full supply level	The level at which water cannot be contained by this storage Units = metres	Mandatory
Dead storage level	The level at which water can't be extracted from this storage Units = metres	Mandatory
Level Datum	Datum against on which storage/supply levels are based. Select from: DepthFromSurface GaugeDatum AHD AHD AHDTasmania DepthFromBed See below for definitions of these terms.	Mandatory
Procedure used to determine:storage level	The procedure is the methods used to obtain the data. Be as specific as you	Mandatory

can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured.	
(e.g. Depth gradients on dam wall, Derived from level-flow conversion table, Meter at release outlet).	

Groundwater bores metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth	Mandatory
Northing/Latitude	program (earth.google.com/download- earth.html).	Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and	Mandatory

	longitude values. Options accepted by BoM are listed in Appendix C.	
Aquifer layer	The name of the aquifer (and layer if known) from which the water is drawn.	Optional
Level Datum	Datum against on which storage/supply levels are based. Select from: DepthFromSurface GaugeDatum AHD AHD AHDTasmania DepthFromBed See below for definitions of these terms.	Mandatory
Procedure used to determine:Water levelWater pressure	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured. (e.g. depth stick, pressure gauge).	Mandatory

Meteorological station metadata

Metadata field	Description	Mandatory
		or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of	Optional

	the site	
	(e.g. Barry Creek site 34 near the Dolphin boat ramp)	
Easting/Longitude Northing/Latitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth program (earth.google.com/download- earth.html).	Mandatory Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory
Procedure used to determine:rainfallevaporation	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured. (e.g. rainfall gauge, estimate of evaporation, evaporation gauge).	Mandatory

Watercourses (names) metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline)	Mandatory

	(e.g. BarryCk_34)	
Long name	A longer version of the name	Optional
	(e.g. Barry Creek site 34)	
Location description	A text description of the location of the site	Optional
	(e.g. Barry Creek site 34 near the	
	Dolphin boat ramp)	
Level Datum	Datum against on which storage/flow levels are based. Select from:	Mandatory
	DepthFromSurface	
	GaugeDatum	
	AHD	
	AHDTasmania DepthEromBed	
	See below for definitions of these	
	terms.	
Control	Name for control structure used to	Mandatory
	regulate this water course	
	(e.g. west weir, none)	
Ceases to flow	The level at which this water course	Mandatory
	ceases to flow, relative to the Level	
	Datum	
	units 'm'=metres	

Watercourses - level and flow metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name	Optional

	(e.g. Barry Creek site 34)	
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude Northing/Latitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth program (earth.google.com/download- earth.html).	Mandatory Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory
Watercourse this site belongs to	The name of the watercourse this site belongs to. Watercourse names must first be entered into the Watercourse names metadata section.	Mandatory
Level Datum	Datum against on which storage/flow levels are based. Select from: DepthFromSurface GaugeDatum AHD AHDTasmania DepthFromBed See below for definitions of these terms.	Mandatory
 Procedure used to determine watercourse level watercourse flow 	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not	Mandatory

measured.	
(e.g. depth stick, flow gauge).	

Watercourses – water quality monitoring sites

Metadata field	Description	Mandatory
		or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth	Mandatory
Northing/Latitude	program (earth.google.com/download- earth.html).	Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory

Watercourse this site belongs to	The name of the watercourse this site belongs to. Watercourse names must first be entered into the Watercourse names metadata section.	Mandatory
Site sampling depth datum	Level on which depth measurements are based. Select from: • Surface • DepthFromSurface • GaugeDatum • AHD • AHD • AHDTasmania • DepthFromBed • Bed	Mandatory
Site security constraint	Identifies whether the site is commercially-sensitive (or otherwise sensitive). The alternative is "unclassified" meaning not sensitive.	Mandatory

Water quality indicators

Metadata field	Description	Mandatory or optional
Name	 Indicator name. Select from the following: electrical conductivity surface water[WA1] electrical conductivity groundwater[WA2] total suspended solids[WA3] turbidity[WA4] total phosphorus[WA5] total nitrogen[WA6] pH[WA7] temperature[WA8] 	Mandatory
Long name	A longer version of the name (e.g. Total phosphorus)	Optional
Description	A text description of the location of the site (e.g. concentration of total phosphorus in a surface watercourse)	Optional

Procedure (for this indicator)	The procedure used to make the measurement of this indicator. This can be a common name for the procedure. E.g. nephelometric turbidity measurement; eMeter	Mandatory
Person/lab conducting procedure	Name of the person and/or lab conducting the procedure.	Mandatory

Sewage discharge point metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Earth	Mandatory
Northing/Latitude	program (earth.google.com/download- earth.html).	Mandatory
	e.g. latitude longitude: -37.314060 145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and	Mandatory

	longitude values. Options accepted by BoM are listed in Appendix C.	
Procedure used to determine:Sewage discharge volume (WA44)	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured. (e.g. meter at outlet, meter at STP outflow).	Mandatory

Stormwater discharge point metadata

Metadata field	Description	Mandatory or optional
Name	Site name (this is the official reference name and will appear on all data templates and SWIMonline) (e.g. BarryCk_34)	Mandatory
Long name	A longer version of the name (e.g. Barry Creek site 34)	Optional
Location description	A text description of the location of the site (e.g. Barry Creek site 34 near the Dolphin boat ramp)	Optional
Easting/Longitude	Positions are measured using longitudes and latitudes, measured in decimal degrees. Approximate Longitude and latitude can be obtained using the free Google Farth	Mandatory
Northing/Latitude	program (earth.google.com/download- earth.html).	Mandatory

	145.930861	
Geodetic grid (datum)	This is the reference system for the easting and northing or latitude and longitude values. Options accepted by BoM are listed in Appendix C.	Mandatory
Procedure used to determine:stormwater discharge volume	The procedure is the methods used to obtain the data. Be as specific as you can (no more than 100 characters are allowed in this field). If an indicator is not measured, please enter: not measured. (e.g. meter at outlet, estimate from).	Mandatory

The following definitions apply to SWIM metadata:

1. Level Datum definitions (for watercourse levels, groundwater bore levels, storage levels):

- DepthFromSurface The level is measured as depth from the surface
- GaugeDatum The level is measured as depth with respect to the local datum
- AHD The level is measured as depth with respect to the Australian Height Datum
- AHDTasmania The level is measured as depth with respect to the Australian Height
 Datum Tasmania
- DepthFromBed The level is measured as distance from the bed
- 2. Site sampling depth datum (for water quality sampling):
 - Surface
 Water sample is taken at the water surface
 - DepthFromSurface The sample is taken at the nominated depth from the surface
 - GaugeDatum
 The sample is taken at the depth nominated depth with
 respect to the local datum
 - AHD The sample is taken at the depth nominated depth with respect to the Australian Height Datum

- AHDTasmania The sample is taken at the depth nominated depth with respect to the Australian Height Datum Tasmania
 DepthFromBed The sample is taken at the nominated distance from the bed
- Bed The sample is taken at the stream / waterbody bed

Abbreviations

BoM: Bureau of Meteorology.

BROC: Border Regional Organisation of Councils.

Council of Mayors (SEQ): Council of Mayors for South East Queensland.

CQROC: Central Queensland Regional Organisation of Councils.

CWROC: Central Western Queensland Regional Organisation of Councils.

DASBAC: Downs and Surat Basin Alliance of Councils.

DERM: Department of Environment and Resource Management.

FNQROC: Far North Queensland Regional Organisation of Councils.

GSD: Gulf Savannah Development.

NPR: National Performance Report.

NQROC: North Queensland Regional Organisation of Councils.

RAPAD: Remote Area Planning and Development Board.

REDC: Mackay Whitsunday Regional Economic Development Corporation.

ROCCY: Regional Organisation of Councils of Cape York.

SWIM: State-wide Water Information Management system.

WBBROC: Wide Bay Burnett Regional Organisation of Councils.

WESROC: Western Suburbs Regional Organisation of Councils.

WHAMBROC: Whitsunday Hinterland and Mackay Bowen Regional Organisation of Councils.