



Queensland
Government

Natural Resources
and **Water**

Water Monitoring Data Reporting Standards

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Water Monitoring Data Reporting Standard

1 INTRODUCTION

These standards are to be used by water scheme operators. Water scheme operators include holders of an Interim Resource Operations Licence (IROL), holders of a Resource Operations Licence (ROL), holders of a Water Distribution Operations Licence (DOL) and specified water licence holders in a Water Resource Plan (WRP) or Resource Operations Plan (ROP).

These standards define how a water scheme operator transfers monitoring data to the Queensland Department of Natural Resources and Water (NRW) as part of a monitoring program.

Details of each monitoring program and the data to be transferred are defined in:

- for holders of an Interim Resource Operations Licence (IROL), the IROL;
- for holders of a Resource Operations Licence (ROL), the Resource Operations Plan;
- for holders of a Water Distribution Operations Licence (DOL), the ROP; and
- for specified water licence holders identified in a ROP, the ROP.

In addition, specific reporting requirements may be specified for a water scheme operator in a ROP.

1.1 SCOPE

These standards apply to all water resource monitoring required of water scheme operators in Queensland under the *Water Act 2000*, its subordinate legislation such as a WRP, and supporting NRW policy such as a ROP.

These standards define the format, minimum specifications and time frames in which data are to be *provided* to the chief executive NRW as scheduled or on request. Each WRP, ROP and IROL specifies the data that are to be reported and the relevant parts of these standards are to be used to meet these requirements.

These standards *do not* specify which data must be recorded and reported or formats in which the data should be stored.

1.2 RESPONSIBILITIES

It is the duty of a water scheme operator to ensure that all monitoring program data provided to NRW is formatted and transferred according to the standards in this document.

NRW may from time to time amend these standards. Water scheme operators will be notified by NRW at least twenty (20) business days before any substantive change is made to these standards. Water scheme operators may during this period advise NRW of any concerns with the proposed changes.

1.3 TRANSFERRING DATA

1.3.1 DATASET FORMAT

The formats for datasets are defined in:

- **Section 2:** Scheduled transfer datasets;
- **Section 3:** Requested transfer datasets;
- **Section 4:** ROP Specific datasets;
- **Section 5:** Site Information datasets; and
- **Section 6:** Exchange Code datasets.

1.3.2 DELIVERY MEDIUM

Transferred datasets should be delivered via Compact Disk or electronically as attachments to emails.

Note: email attachments with a file size over 6 megabytes or that are executable files (for example, some zip files produced by file compression programs) will be blocked by the department's email system and will not be delivered

1.3.3 DELIVERY LOCATION

1.3.3.1 DATASETS – SCHEDULED DATA TRANSFERS

All datasets referred to in chapter 2 (Scheduled Data Transfers) must be delivered to the following address:

**The General Manager, Water Accounting & Management
Level 8 Mineral House
GPO Box 2454
Brisbane QLD 4001**

Or emailed to:

WMS.Reporting@nrw.qld.gov.au

1.3.3.2 DATASETS – REQUESTED DATA TRANSFERS

The address for delivery of all datasets referred to in chapter 3 (Requested Data Transfers) will be specified at the time of each request.

1.3.4 FILE FORMATS

All datasets must be transferred in the following file format:

- comma separated value file (.csv)

1.3.5 FILENAME FORMATS

Filename formats are specified for each dataset. The filename for each dataset has parts highlighted in italics. These are the parts to be filled in with details that are specific to each file.

The filenames are in the general format **Filename_Type_yyyymmdd.csv** where:

Filename – as specified for each data set.

Type – indicates the transfer schedule basis:

- **W** – Weekly transfer
- **Q** – Quarterly transfer
- **S** – Six monthly transfer
- **A** – Annual transfer
- **R** – Requested transfer

yyyy – indicates the reporting year to which the data are relevant:

- For Type = **W** (Weekly) this value is the year of the start of the reporting week eg for the reporting week 29 May – 4 June 2005, the value should be "2005"
- For Type = **Q** (Quarterly) this value is the year of the start of the reporting quarter eg for the 2005 Oct – Dec quarter, the value should be "2005"
- For Type = **S** (Six monthly) this value is the year of the start of the reporting six month period eg for the 2005 July – December six month period, the value should be "2005"
- For Type = **A** (annual) this value is the year in which the Water Year commences eg for a Water Year that starts in Oct 2005, the value should be "2005"
- For Type = **R** (requested) this value is the year of the start of the requested period eg for requested data covering the period Jul 2005 – Jun 2006 the value should be "2005".

- mm** – indicates the start month of the reporting period to which the data are relevant:
- For Type = **W** (Weekly) this value is the month of the start of the reporting week eg for the reporting week 29 May – 4 June 2005, the value should be "05"
 - For Type = **Q** (Quarterly) this value is the start month of the reporting quarter eg for the 2005 Oct – Dec quarter, the value should be "10"
 - For Type = **S** (Six monthly) this value is the start month of the reporting six month period eg for the 2005 July – December six month period, the value should be "07"
 - For Type = **A** (annual) this value is the start month of the Water Year eg for a Water Year that starts in Oct 2005, the value should be "10"
 - For Type = **R** (requested) this value is the start month of the requested reporting period eg for requested data covering the period Jul – Dec 2005 the value should be "07".

- dd** – indicates the start day of the reporting period to which the data are relevant:
- For Type = **W** (Weekly) this value is the Saturday of the start of the reporting week eg for the reporting week 29 May – 4 June 2005, the value should be "29"
 - For Type = **Q** (Quarterly) this value is the start day of the reporting quarter eg for the 2005 Oct – Dec quarter, the value should be "01"
 - For Type = **S** (Six monthly) this value is the start day of the reporting six month period eg for the 2005 July – December six month period, the value should be "01"
 - For Type = **A** (annual) this value is the start day of the Water Year eg for a Water Year that starts in Oct 2005, the value should be "01"
 - For Type = **R** (requested) this value is the start day of the requested reporting period eg for requested data covering the period 25 Jul – 9 Dec 2005 the value should be "25".

csv – is the file extension to indicate a comma separated value file and is always ".csv".

1.3.6 MISSING DATA

Certain input fields "May be Null" as indicated by the Data Type column for each file format, however, these fields must contain a csv comma placeholder within an empty field. The comment field on each record can be used to indicate the reason for any other missing data.

1.4 TIMEFRAME FOR DELIVERY

Datasets and reports must be delivered within the following timeframes*:

DATASET	TIMEFRAME
Weekly Data Transfer	On the last business day of the week after the end of the reporting week
Quarterly Data Transfer	Within three (3) months after the end of each reporting quarter
Six Monthly Data Transfer	Within three (3) months after the end of each reporting six month period
Annual Data Transfer	Within three (3) months after the end of each water year
Requested Data Transfer	As defined in each request by the chief executive
Annual Report	Within three (3) months after the end of each water year
Operational Report	Within 5 business days following notification of an occurrence
Emergency Report	Within 5 business days following notification of an occurrence

The chief executive may extend the timeframe specified for a particular dataset in the above table for exceptional circumstances in accordance with section 1.4.1, below. However, for ministerial Water Resource Plan reporting requirements, annual reports and data transfers required under a ROP must be provided no later than 15 November each year.

1.4.1 APPLICATION TO EXTEND TIMEFRAME

To extend the timeframe for delivering a dataset or report beyond that which is specified in section 1.4, the water scheme operator must apply to the General Manager, Water Management & Use. The application must:

- be made in writing;
- for a Quarterly Data Transfer, Six Monthly Data Transfer, Annual Data Transfer, Requested Data Transfer or Annual Report – be made at least ten (10) business days before the end of the timeframe specified for delivering the dataset in the table given in section 1.4;
- for a Weekly Data Transfer, Operational Report or Emergency Report – be made at least three (3) business days before the end of the timeframe specified for delivering the dataset in the table given in section 1.4;
- include details of the dataset or report that is unable to be delivered within the timeframe;
- provide the reason(s) as to why the timeframe is unable to be met;
- stipulate the date by which the applicant proposes to provide the dataset; and
- specify the measures being put in place by the applicant to avoid a repetition of the circumstance that led to the inability to meet the timeframe.

The Chief Executive, Natural Resources and Water must decide an application for a timeframe extension for delivering a Quarterly Data Transfer, Six Monthly Data Transfer, Annual Data Transfer, Requested Data Transfer or Annual Report within five (5) business days of receiving the application.

The Chief Executive, Natural Resources and Water must decide an application for a timeframe extension for delivering a Weekly Data Transfer, Operational Report or Emergency Report within two (2) business days of receiving the application.

In deciding the application to extend the timeframe, considerations made by the Chief Executive, Natural Resources and Water must include:

- the reason(s) provided for not being able to meet the timeframe;
- the date by which the dataset will be supplied;
- the measures the applicant is putting in place to avoid a repetition of the circumstance that led to the inability to meet the timeframe; and
- whether the applicant has either previously been granted an extension of time, or previously not met the timeframe (i.e. was in breach of their licence).

The Chief Executive, Natural Resources and Water must notify the applicant of the decision, in writing, on the day that the decision is made.

Note: Reasons related to resource such as overall staff capacity and organisational priorities, generally, will not be considered as acceptable grounds for approving an extension of the timeframe for delivering a dataset or report.

1.5 DATA COLLECTION STANDARDS

Flow data and water quality data provided as part of a monitoring program must be in accordance with the department's Water Monitoring Data Collection Standards:

[Water Monitoring Data Collection Standards](#), Dept of Natural Resources & Water.

1.6 WATER USE DATUM

Water use data (for Groundwater) includes the Latitude and Longitude of each offtake. When these data are required as part of a scheduled or requested data transfer, it must be derived from GIS information based on the GDA94 geocentric datum.

1.7 SITE IDENTIFICATION PROCESS

1.7.1 NEW SITES

NRW will manage and issue unique site identifiers for all sites. The process for identifying new sites at which monitoring data is to be recorded, requires the water scheme operator to generate and transfer site information to the chief executive.

The format of a new site dataset is defined in [section 5.1 New Sites](#).

1.7.2 CHANGES TO A SITE

Changes to an existing site must be notified to the chief executive in the format defined in [section 5.2 Site Changes](#).

1.8 DEFINITIONS

AHD	The Australian Height Datum adopted by the National Mapping Council in May 1971 as the datum to which all vertical control for mapping is to be referred.
Alphanumeric (x)	Element containing both alpha and numeric symbols (x maximum number of characters)
comma separated value (.csv)	<p>The Comma Separated Value (.csv) file format is used to exchange text data and to facilitate viewing via Microsoft Excel. The following formatting rules apply to these file types:</p> <ul style="list-style-type: none"> • Each record appears in a single line separated by a carriage return and line feed (ASCII CRLF). • A comma must separate each data field. • Leading and trailing space characters and tabs characters adjacent to a comma field separator will be ignored. For example: <pre>, John , Smith ,</pre> <i>resolves to</i> <pre>,John,Smith,</pre> • Embedded line breaks within a field (allowing the record to span more than one line) must be surrounded by double-quotes. • Embedded commas within a field must be surrounded by double-quotes. For example: <pre>,"No date provided, only the sample arrived",</pre> • Embedded double quotes within a field must be surrounded by double-quotes and the embedded double quotes must each be represented by a pair of consecutive double quotes. For example: <pre>,This is "double quotes",</pre> <i>should be</i> <pre>,"This is ""double quotes""",</pre> • Enclosing in double quotes preserves leading or trailing spaces and tabs within a field.
continuous time series data	<p>A parameter measured frequently enough at a site to provide a reasonable representation of the state of that parameter over the duration of that time period. The frequency of measurement is related to the rate of change in the parameter. Parameters are measured by in-situ instruments and recorded on</p>

data loggers. In a time series data set there is at least one reading per day. Instruments and sensors, which continually measure parameters, require periodic maintenance and calibration to ensure that the data are complete and reliable.

Measurements may need to be manually corrected if the instrument is known to have malfunctioned or become inaccurate. Typically, recorded continuous time series parameters are a site specific mix of:

- Water level
- Water flow (usually derived from the water level time series)
- Storage volume (derived from the storage headwater level time series).

data	Verified data or derived data for specific water resource parameters for specific sites at specific times.
date and time	Applies to the actual date (<i>dd/mm/yyyy</i>) of an event and time (<i>hh:mm</i>) is defined as Eastern Standard Time (GMT + 10 hours) to the nearest minute.
Decimal (y,z)	Floating point number (y maximum length to z decimal places)
Hydsys	A proprietary data base software package for the storage and archiving of water monitoring data.
Integer	Whole number
IROL	Interim Resource Operations Licence
Quality Rating Code (for time series stream height and flow and storage height and volume)	<p>Meta data codes that indicate the quality of data in a dataset:</p> <ul style="list-style-type: none"> • Quality Code 01 observed reading • Quality Code 10 good/normal reading - logger • Quality Code 15 water level below threshold - observed • Quality Code 20 fair degraded - logger • Quality Code 30 poor degraded - logger • Quality Code 60 estimated • Quality Code 150 unknown quality • Quality Code 160 suspect - beyond accepted standard • Quality Code 170 water level above threshold • Quality Code 200 water level below threshold
ROL	Resource Operations Licence
ROP	Resource Operations Plan
water scheme operator	<p>The holder of:</p> <ul style="list-style-type: none"> • Interim Resource Operations Licence (IROL); • Resource Operations Licence (ROL); • Water Supply Scheme Operations Licence (WSSOL); or • Water licence, where specifically identified in a ROP.
Time Studio	A proprietary data base software package for the storage and archiving of water monitoring data.
verified data	All measurements that have been checked for correctness against a calibrated meter or by other methods. <i>Refer to the department's Water Monitoring Data Collection Standards for details.</i>

water year

The water year is the accounting period prescribed for each Water Supply Scheme in an Interim Resource Operations Licence or Resource Operations Plan.

Note: The water year period may differ from scheme to scheme

WRP

Water Resource Plan

2 SCHEDULED DATA TRANSFERS

This section defines the format of datasets that are transferred *weekly, quarterly, six monthly* and *annually* (as scheduled in each IROL and ROP).

The datasets to be transferred differ between IROLs and ROPs, depending on the requirements of the individual monitoring programs.

2.1 DATASETS - CONTINUOUS TIME SERIES

Where the monitoring program requires datasets to be transferred and the recorded data are continuous times series, they must be provided in the formats defined in this section.

2.1.1 VERIFIED DATA

Continuous time series datasets must contain *verified data*, in accordance with the department's *Water Monitoring Data Collection Standards*.

2.1.2 CHANGES TO IROL DATASETS

The following datasets replace the IROL monitoring program datasets that were sent to the department before these standards took effect:

New Dataset	New file	IROL datasets to be replaced
Stream Flow	StreamFlow_Type_yyyymmdd.csv	Continuous Tailwater Flow eg 110006_100.tsf
Storage Height	StorageHeight_Type_yyyymmdd.csv	Continuous Levels in Dams & Weirs eg 110006_140.tsf

2.1.3 STREAM HEIGHT

Datasets provided in comma separated value format must contain the following data elements:

Filename: StreamHeight_Type_yyyymmdd.csv:

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Time *	Time	Formatted as hh:mm in 24 hour time eg "14:30"
Gauge Height	Decimal (10,2)	Water height in metres above datum to 2 dp eg "123.45"
Data Quality Rating	Integer	Refer to Quality Rating Codes in section 1.8 Definitions
Comment	Alphanumeric (255) May be null	Water scheme operator's comments

* Unique identifier

2.1.4 STREAM FLOW

Datasets provided in comma separated value format must contain the following data elements:

Filename: StreamFlow_Type_yyyymmdd.csv:

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Time *	Time	Formatted as hh:mm in 24 hour time eg "14:30"
Discharge	Decimal (10,2)	Discharge in megalitres/day to 2 dp eg "123.45"
Data Quality Rating	Integer	Refer to Quality Rating Codes in section 1.8 Definitions
Comment	Alphanumeric (255) May be null	water scheme operator's comments

* Unique identifier

2.1.5 STORAGE HEIGHT

Datasets provided in comma separated value format must contain the following data elements:

Filename: StorageHeight_Type_yyyymmdd.csv:

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Time *	Time	Formatted as hh:mm in 24 hour time eg "14:30"
Elevation	Decimal (10,2)	Storage water height in metres AHD to 2 dp eg "123.45"
Data Quality Rating	Integer	Refer to Quality Rating Codes in section 1.8 Definitions
Comment	Alphanumeric (255) May be null	water scheme operator's comments

* Unique identifier

*Note: Where continuous time series data is **not** available, intermittent data may be provided as per section 2.2.4 Storage Height (Not-Continuous).*

2.1.6 STORAGE INFLOW VOLUME

Details of the volumes flowing into storages.

Where continuous time series data is available, this data is to be provided as Stream Height and Flow as per section [2.1.3 Stream Height](#) and [2.1.4 Stream Flow](#)

- Where continuous time series data is **not** available, intermittent data may be provided as per section [2.2.2 Storage Inflow Volume \(Not-Continuous\)](#)

2.2 DATASETS – NOT CONTINUOUS TIME SERIES

Where the monitoring program requires datasets to be transferred and the recorded data are **not** continuous times series, they must be provided in the formats defined in this section.

2.2.1 CHANGES TO IROL DATASETS

The following datasets replace the current IROL monitoring program datasets that were sent to the department before these standards took effect:

New Dataset	New file	IROL datasets to be replaced
Releases from Storages – Daily Volume	RFSDailyVolume_Type_yyyymmdd.csv	<ul style="list-style-type: none"> • Operation of Fishways eg <i>DVA_31_AIII_F.csv</i>
Water Diversions	WaterDiversion_Type_yyyymmdd.csv	<ul style="list-style-type: none"> • Diversion to Channel Distribution Systems eg <i>DVA_31_AIII_D.csv</i> • Diversion to Watercourses eg <i>DVA_31_AIII_WC.csv</i>
Water Taken by Water Users – Surface Water	WaterTakenSW_Type_yyyymmdd.csv	Diversion by Customers eg <i>WaterUsageReport.xls</i>
Water Taken by Water Users – Ground Water	WaterTakenGW_Type_yyyymmdd.csv	Underground Water eg <i>WaterUsageReport.xls</i>
Water Quality	WaterQuality_Type_yyyymmdd.csv	<ul style="list-style-type: none"> • Water Quality – Headwater eg <i>DVA_130338A.csv</i> • Water Quality – Tailwater eg <i>DVA_TW_130345A.csv</i>
Cyanobacteria	Cyanobacteria_Type_yyyymmdd.csv	Blue-green Algae eg <i>DVA_31_BIB_BGA.csv</i>
Aggregate water use from channel distribution systems	WaterTakenCH_Type_yyyymmdd.csv	Aggregate use by channel eg <i>AggregateUseByChannel.xls</i>
Monitored bore water levels	UndergroundWL_Type_yyyymmdd.csv	Monitored bore water levels eg <i>CVA_UNDERGROUND.csv</i>
Stream Flow	StreamFlowNot_Type_yyyymmdd.csv	Files that were in a non continuous time series format

2.2.2 STORAGE INFLOW VOLUME (NOT-CONTINUOUS)

Details of the volumes flowing into storages.

Filename: **StorageInflowNot_Type_yyyymmdd.csv**

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Inflow Volume	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.3 STORAGE HEIGHT (NOT-CONTINUOUS)

Details of the storage heights.

Filename: **StorageHeightNot_Type_yyyymmdd.csv**

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Elevation	Decimal (10,2)	Storage water height in metres AHD to 2 dp eg "123.45"
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.4 STREAM FLOW (NOT-CONTINUOUS)

Details of stream flow.

Filename: **StreamFlowNot_Type_yyyymmdd.csv**

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Discharge	Decimal (10,2)	Discharge in megalitres/day to 2 dp eg "123.45"
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.5 RELEASES FROM STORAGES – DAILY VOLUME

Details of the volumes released from storages.

Filename: **RFSDailyVolume_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "BUNDABERG"
Storage *	Integer	Storage code (see Exchange Codes - Storage) eg "257"
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Type *	Alphanumeric (13)	Values: <ul style="list-style-type: none"> • FISHWAY • ENVIRONMENTAL • DAILY TOTAL
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Released To	Alphanumeric (255)	The watercourse, channel etc into which the water is released
Volume	Decimal (10,2) <i>May be null</i>	Volume in megalitres to 2 dp eg "123.45"
Level	Alphanumeric (100) <i>May be null</i>	Level from which this release was made
Basis	Alphanumeric (255) <i>May be null</i>	The basis for this release
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.5.1 RELEASES FROM STORAGES – RELEASE RATE

Details of release rates from storages.

Filename: **RFSReleaseRate_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "CUNNAMULLA"
Storage *	Integer	Storage code (see Exchange Codes - Storage) eg "613"
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Time *	Time	Formatted as hh:mm in 24 hour time eg "14:30"
Release Rate	Decimal (10,2)	Release Rate in megalitres/day eg "123.45"
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Released To	Alphanumeric (255)	The watercourse, channel etc into which the water is released
Basis	Alphanumeric (255) <i>May be null</i>	The basis for this release
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.6 WATER DIVERSION

Water diversions to locations specified in a ROP.

Filename: **WaterDiversion_Type_yyyymmdd.csv:**

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Period start date formatted as dd/mm/yyyy eg "28/04/2004"
End Date *	Date	Period end date formatted as dd/mm/yyyy eg "28/04/2004" For daily totals, this must be the same as Start Date
Diverted To *	Alphanumeric (255)	The location to which the water is diverted (as defined in each ROP) eg "Burnett River via Agnes Creek"
Zone From *	Alphanumeric (10)	Zone code of zone diverted from (see Exchange Codes – Zone)
Zone To	Alphanumeric (10) <i>May be null</i>	Zone code of zone diverted to (see Exchange Codes – Zone)
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Volume	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Basis	Alphanumeric (255) <i>May be null</i>	The basis for the decision start/end each period
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.7 WATERHOLES

Specified daily water levels for waterholes, if required by a ROP.

See Note 1 Section 2.2.16

Filename: **Waterholes_Type_yyyymmdd.csv:**

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Water Level	Decimal (10,2)	Water level in metres below the cease to flow
Elevation	Decimal (10,2)	Water level elevation in meters <i>Note: The elevation datum is defined separately for each site – refer to the Site Information in section 6.</i>
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.8 WATER QUALITY

Water quality parameters recorded at sites specified in an IROL/ROP.

Filename: **WaterQuality_Type_yyyymmdd.csv**:

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Type	Alphanumeric (20)	Values: <ul style="list-style-type: none"> • STORAGE INFLOW • IN STORAGE • STORAGE OUTFLOW
Source	Alphanumeric (2)	Values: <ul style="list-style-type: none"> • SS – for surface water • GB – for ground water
Depth	Decimal (10,2)	Sample depth in metres to 2 dp eg "1.50"
Temperature Method	Alphanumeric (20) <i>May be null</i>	"Field"
Temperature	Decimal (5,1) <i>May be null</i>	In °C to 1 dp eg "17.3"
DO Method	Alphanumeric (20) <i>May be null</i>	"Field"
Dissolved Oxygen	Decimal (10,1) <i>May be null</i>	In mg/L to 1 dp eg "5.4"
pH Method	Alphanumeric (20) <i>May be null</i>	"Field" or "Lab"
pH	Decimal (10,1) <i>May be null</i>	pH Units to 1 dp eg "7.3"
EC Method	Alphanumeric (20) <i>May be null</i>	"Field" or "Lab"
Electrical Conductivity	Integer <i>May be null</i>	In µS/cm to 0 dp eg "495"
Nitrogen Method	Alphanumeric (20) <i>May be null</i>	"Field" or "Lab"
Total Nitrogen	Decimal (10,2) <i>May be null</i>	In mg/L to 2 dp eg "0.89"
Phosphorus Method	Alphanumeric (20) <i>May be null</i>	"Field" or "Lab"
Total Phosphorus	Decimal (10,3) <i>May be null</i>	In mg/L to 3 dp eg "0.025"
Sulphide Method	Alphanumeric (20) <i>May be null</i>	"Field" or "Lab"
Sulphide	Decimal (10,2) <i>May be null</i>	In mg/L to 2 dp eg "0.05"
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.9 CYANOBACTERIA

Cyanobacteria monitoring data for sites specified in an IROL/ROP.

Filename: **Cyanobacteria_Type_yyyymmdd.csv**:

Element	Data Type	Description
Site Id *	Integer	Unique identifier for the site (see Exchange Codes – Site)
Sample Date *	Date	The date on which the sample was taken. Formatted as dd/mm/yyyy eg "28/04/2004"
Sample Time *	Time	The time at which the sample was taken. Formatted as hh:mm in 24 hour time eg "14:30"
Analysis Date	Date May be null	The date on which the sample was analysed. Formatted as dd/mm/yyyy eg "28/04/2004"
Species Id	Integer May be null	Species identifier – refer to the identifier number in the <i>Water Monitoring Data Collection Standards</i>
Density	Integer May be null	Density for this species – whole number of cells/ml eg "12345" may be null if Biovolume is not null
Biovolume	Decimal (10,3) May be null	Density for this species - volume of cells as mm ³ /L to 3 dp eg "0.269" may be null if Density is not null
Comment	Alphanumeric (255) May be null	water scheme operator's comments Suitable comment to be added if only visual inspection undertaken

* Unique identifier

2.2.10 WATER ENTITLED TO BE TAKEN BY WATER USERS

Details of supplemented Surface water entitlements.

Filename: **WaterEntitlement_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Zone *	Alphanumeric (10)	Zone code (see Exchange Codes – Zone)
User Id *	Alphanumeric (20) May be null	water scheme operator's unique identifier for the user <i>Note: A null value for user ID implies that the Entitlement is a Zone total.</i>
User name	Alphanumeric (255) May be null	The name of the user
Start Date *	Date	Period start date formatted as dd/mm/yyyy eg "01/10/2004"
End Date *	Date	Period end date formatted as dd/mm/yyyy eg "31/10/2004"
Entitlement	Decimal (10,2)	Total volume of water allowed to be taken on the Effective Date – in megalitres to 2 dp eg "123.45" <i>NOTE: This includes the total of any announced allocation volumes, temporary transfers, carry overs and forward draws</i>
Basis	Alphanumeric (255) May be null	Basis for determining the entitlement.
Comment	Alphanumeric (255) May be null	water scheme operator's comments

* Unique identifier

2.2.11 WATER TAKEN BY WATER USERS – SURFACE WATER
 Details of supplemented Surface water use.

Filename: WaterTakenSW_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Zone *	Alphanumeric (10)	Zone code (see Exchange Codes – Zone)
User Id *	Alphanumeric (20) <i>May be null</i>	water scheme operator’s unique identifier for the user <i>Note: A null value for user ID implies that the volume represents a TOTAL for a zone.</i>
User name	Alphanumeric (255) <i>May be null</i>	The name of the user
Start Date *	Date	Period start date formatted as dd/mm/yyyy eg “01/10/2004”
End Date *	Date	Period end date formatted as dd/mm/yyyy eg “31/10/2004”
Volume Taken	Decimal (10,2)	Volume in megalitres to 2 dp eg “123.45”
Type *	Alphanumeric (20)	Values: <ul style="list-style-type: none"> • DISTRIBUTION LOSS • RIPARIAN ENTITLEMENT • OTHER • TOTAL
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator’s comments

* Unique identifier

2.2.12 WATER TAKEN BY WATER USERS – GROUND WATER
 Details of supplemented Groundwater use.

Filename: WaterTakenGW_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Zone *	Alphanumeric (10)	Zone code (see Exchange Codes – Zone)
Register Number	Alphanumeric (10) <i>May be null</i>	Unique identifier in the NRW Groundwater database eg 123456789 <i>Alias of Bore Number</i>
Offtake Id *	Alphanumeric (20)	water scheme operator’s reference to the point of take
Offtake Lat	Alphanumeric (16) <i>May be null</i>	Latitude of the offtake formatted as deg:min:sec S eg “24:21:30.0000 S”. <i>Refer to the section 1.6 Water Use Datum</i>
Offtake Long	Alphanumeric (16) <i>May be null</i>	Longitude of the offtake formatted as deg:min:sec E eg “139:27:45.0000 E”. <i>Refer to the section 1.6 Water Use Datum</i>
Reading Date *	Date	Formatted as dd/mm/yyyy eg “01/10/2004”
Volume Taken	Decimal (10,2)	Volume in megalitres since last reading to 2 dp eg “123.45”
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator’s comments

* Unique identifier

2.2.13 BANK CONDITION

Occurrences of bank slumping or erosion as specified in a ROP.

See Note 1 section 2.2.16

Filename: **BankCondition_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Zone *	Alphanumeric (10)	Zone code (see Exchange Codes – Zone)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Location *	Alphanumeric (100)	Location details
Description	Alphanumeric (255)	Extent and description
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.14 AGGREGATE USE BY WATER USERS FROM CHANNEL DISTRIBUTION SYSTEMS

Aggregate water use from channel distribution systems specified in an IROL/ROP

Filename: **WaterTakenCH_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Zone *	Alphanumeric (10)	Zone code (see Exchange Codes – Zone)
Start Date *	Date	Period start date formatted as dd/mm/yyyy eg "01/10/2004"
End Date *	Date	Period end date formatted as dd/mm/yyyy eg "31/10/2004"
Volume Taken	Decimal (10,2)	Aggregate Volume in megalitres to 2 dp eg "123.45"
Type *	Alphanumeric (20)	Values: <ul style="list-style-type: none"> • DISTRIBUTION LOSS • RIPARIAN ENTITLEMENT • OTHER • TOTAL
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.15 UNDERGROUND WATER LEVELS IN MONITORED BORES

Monitored bore water levels specified in an IROL/ROP

Filename: **UndergroundWL_Type_yyyymmdd.csv**:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Reading Date *	Date	Period reading date formatted as dd/mm/yyyy eg "01/10/2004"
Register Number *	Alphanumeric (10)	Registered Number <i>Alias of Bore Number</i>
Water Level	Decimal (10,2)	Elevation in metres AHD to 2 dp eg "178.82"
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

2.2.16 ANNUAL, OPERATIONAL AND EMERGENCY REPORTS

No format is specified for these reports.

Note 1: Data transfers in file formats for Waterholes (section 2.2.7) and Bank Condition (section 2.2.13) are to be supplied as required by each particular ROP. However, if no triggers have occurred, then suitable noting in the annual report or quarterly data transfer correspondence stating that no instances have occurred, would be sufficient in lieu of providing a data file.

3 REQUESTED DATA TRANSFERS

In IROLs and ROPs, the chief executive may request an unscheduled data transfer at any time. The actual datasets to be transferred will be specified in each request.

Each request will specify:

- The period for which recorded data is to be provided;
- The datasets to be transferred;
- The data elements to be included in each transferred dataset;
- The format of the file; and
- The timeframe for delivery of the datasets.

4 ROP SPECIFIC DATASETS

This section defines the format of datasets that are specific to individual Water Supply Schemes within a Resource Operations Plan (ROP).

Where the monitoring program requires the following datasets to be transferred, they must be provided as comma separated value files (.csv).

4.1 BURNETT BASIN RESOURCE OPERATIONS PLAN

4.1.1 BUNDABERG WATER SUPPLY SCHEME

4.1.1.1 BEN ANDERSON BARRAGE

Details of each change to sluice gate openings and shutter operations.

Filename: BundBenAnderson_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Storage *	Integer	Storage code (see Exchange Codes – Storage)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004" #
Time *	Time	Formatted as hh:mm in 24 hour time eg "14:30" #
Type	Alphanumeric (10)	Values: <ul style="list-style-type: none"> • SLUICE • SHUTTER
Conditions	Alphanumeric (255)	Details of the conditions at each change ##
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

The water service operator to provide a best estimate of date and time shutters have dropped and the actual date and time shutters have been restored to the raised position.
The number of shutters involved at each change.

4.1.1.2 BEN ANDERSON BARRAGE (REQUESTED TRANSFERS)

Where this dataset is transferred at the request of the chief executive:

Filename: BundBenAnderson_R_yyyymmdd.csv

Same format as above.

4.1.1.3 MOVEMENT OF WATER BETWEEN WATER YEARS

Details of carry over or forward draws.

Filename: MoveWaterBtwYears_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "BUNDABERG"
Start Date of Water Year *	Date	Formatted as dd/mm/yyyy eg "01/07/2004"
End Date of Water Year *	Date	Formatted as dd/mm/yyyy eg "30/06/2005"
Volume	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Type *	Alphanumeric (20)	Values: <ul style="list-style-type: none"> • FORWARD DRAW • CARRY OVER
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.1.1.4 SEASONAL WATER ASSIGNMENTS

Filename: SeasonalAssign_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "BUNDABERG"
User ID	Alphanumeric (20)	Water scheme operator's unique identifier for the user
User Name	Alphanumeric (255)	The name of the user
Transaction ID *	Integer	Water scheme operator's unique identifier for the transaction
Effective Date	Date	Date formatted as dd/mm/yyyy eg "01/10/2004"
Volume In	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Volume Out	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.1.1.5 CLAUDE WHARTON WEIR OVERFLOWS

Filename: ClaudeWhartonSpillway_Type_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "UPPER BURNETT"
Storage *	Integer	Storage code (see Exchange Codes – Storage)
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Overflow	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.2 FITZROY BASIN RESOURCE OPERATIONS PLAN

4.2.1 DAWSON VALLEY WATER SUPPLY SCHEME

The following datasets must be transferred to the chief executive **on request**.

4.2.1.1 CRITICAL WATER SUPPLY MANAGEMENT ARRANGEMENTS

4.2.1.1.1 High Priority Water

Restrictions on supply of **high** priority water when medium announced allocations are zero.

Filename: DawsonCWSHighPriority_R_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
End Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "01/10/2004" (to indicate restrictions are still in effect)
Nature	Alphanumeric (255)	Details of the nature of the restriction
Basis	Alphanumeric (255)	Basis for determining the restriction
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.2.2 LOWER FITZROY WATER SUPPLY SCHEME

The following datasets must be transferred to the chief executive **on request**.

4.2.2.1 CRITICAL WATER SUPPLY MANAGEMENT ARRANGEMENTS

4.2.2.1.1 Restrictions on the Taking of Water

Details of restrictions on the taking of:

Medium priority water during the **Medium** priority restriction period

High priority water during the **Medium** priority restriction period.

Filename: LowerFitzRestrictions_R_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
End Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "01/10/2004" (to indicate restrictions are still in effect)
Priority	Alphanumeric (10)	Values: <ul style="list-style-type: none"> MEDIUM HIGH
Nature	Alphanumeric (255)	The nature of the restriction
Basis	Alphanumeric (255)	Basis for determining the restriction
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.2.3 FITZROY BARRAGE WATER SUPPLY SCHEME

The following datasets must be transferred to the chief executive **on request**.

4.2.3.1 CRITICAL WATER SUPPLY MANAGEMENT ARRANGEMENTS

4.2.3.1.1 Restrictions on the Taking of Water

Details of restrictions on the taking of:

Medium priority water during the **Medium** priority restriction period

High priority water during the **Medium** priority restriction period.

Filename: FitzBarRestrictions_R_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
End Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "01/10/2004" (to indicate restrictions are still in effect)
Priority	Alphanumeric (10)	Values: <ul style="list-style-type: none"> • MEDIUM • HIGH
Nature	Alphanumeric (255)	The nature of the restriction
Basis	Alphanumeric (255)	Basis for determining the restriction
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.3 PIONEER VALLEY RESOURCE OPERATIONS PLAN

4.3.1 PIONEER RIVER WATER SUPPLY SCHEME

The following datasets must be transferred to the chief executive **on request**.

4.3.1.1 CRITICAL WATER SUPPLY MANAGEMENT ARRANGEMENTS

Details of any restrictions on the supply of **High Class A** water.

Filename: PioneerCWSHighA_R_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
End Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "01/10/2004" (to indicate restrictions are still in effect)
Nature	Alphanumeric (255)	Details of the nature of the restriction
Basis	Alphanumeric (255)	Basis for determining the restriction
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.4 BARRON RESOURCE OPERATIONS PLAN

4.4.1 MAREEBA DIMBULAH WATER SUPPLY SCHEME

4.4.1.1 CRITICAL WATER SUPPLY MANAGEMENT ARRANGEMENTS

The following datasets must be transferred to the chief executive **on request**.

Details of any restrictions on the supply of **High Priority** water.

Filename: MareebaCWSHigh_R_yyyymmdd.csv:

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Start Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
End Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "01/10/2004" <i>May be null – indicates restrictions are still in effect</i>
Nature	Alphanumeric (255)	Details of the nature of the restriction
Basis	Alphanumeric (255)	Basis for determining the restriction
Comment	Alphanumeric (255) <i>May be null</i>	water scheme operator's comments

* Unique identifier

4.4.2 KURANDA WEIR

Daily water diversions for hydroelectric power generation.

Filename: **Kuranda_Type_yyyymmdd.csv:**

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme)
Storage *	Integer	Storage code (see Exchange Codes – Storage)
Date *	Date	Date formatted as dd/mm/yyyy eg "28/04/2004"
Daily Rate	Integer	Daily maximum rate of take in litres/second to 0 dp eg "1234"
Method Code	Integer <i>May be null</i>	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Volume	Decimal (10,2)	Volume in megalitres to 2 dp eg "123.45"
Comment	Alphanumeric (255) <i>May be null</i>	Water scheme operator's comments

* Unique identifier

4.4.3 MAXIMUM SUPPLEMENTATION RATES – DAILY VOLUME

Details of the volumes released to watercourses.

Filename: **MSRDailyVolume_Type_yyyymmdd.csv:**

Element	Data Type	Description
Scheme *	Alphanumeric (10)	Scheme code (see Exchange Codes – Scheme) eg "MARDIM"
Date *	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Method Code	Integer	The number identifying the method used for recording data (see Exchange Codes –Data Method)
Released To	Alphanumeric (255)	The watercourse, channel etc into which the water is released
Volume	Decimal (10,2)	Volume in megalitres/day to 2 dp eg "123.45"
Basis	Alphanumeric (255) <i>May be null</i>	The basis for this release
Comment	Alphanumeric (255) <i>May be null</i>	Water scheme operator's comments

* Unique identifier

5 MODIFIED INFORMATION

This section defines the dataset formats for new and modified exchange information provided by the water scheme operator. Unique identifiers will be issued by NRW.

5.1 NEW OR MODIFIED SITES

When a water scheme operator is required to provide site information, the following datasets must be provided as comma separated value datasets (.csv).

Details of new sites at which monitoring data is to be recorded.

Filename: Site_YYYYMMDD.csv:

Element	Data Type	Description
Scheme	Alphanumeric (10)	wso code (see Exchange Codes – Scheme) eg "ETON"
Site Id	Integer	Unique identifier for the site issued by NRW
Station Name	Alphanumeric (100) <i>May be Null</i>	The name of the site or gauging station eg "Barambah Ck at Silverleaf Weir H/W"
Lat	Alphanumeric (16) <i>May be null</i>	Latitude of the location formatted as <i>deg:min:sec S</i> eg "24:21:30.0000 S"
Long	Alphanumeric (16) <i>May be null</i>	Latitude of the location formatted as <i>deg:min:sec E</i> eg "139:27:45.0000 E"
Lat Long Datum	Alphanumeric (20) <i>May be null</i>	The datum applicable to the Lat and Long eg "GDA94"
Gauging Station ID	Alphanumeric (10) <i>May be null</i>	Unique identifier (Format determined by NRW)
Gauge Zero	Decimal (10,2) <i>May be null</i>	The zero value of the gauge
Gauge Zero Date	Date <i>May be null</i>	Formatted as dd/mm/yyyy eg "28/04/2004"
Gauge Zero Datum	Alphanumeric (20) <i>May be null</i>	The datum applicable to the GS eg "AHD", "SD", "ASS"
Commenced Date	Date	Formatted as dd/mm/yyyy eg "28/04/2004"
Type of Control	Alphanumeric (20) <i>May be null</i>	Control type eg "FIXED CREST", "FABRIDAM"
Full Supply Level	Decimal (10,2) <i>May be null</i>	FSL for height and volume sites, in meters AHD to 2 dp eg "75.56"
Comment	Alphanumeric (100) <i>May be null</i>	water scheme operator's comments

5.2 NEW OR MODIFIED STORAGE DATASETS

Filename: Storage_YYYYMMDD.csv:

For format see section 6.4.

5.3 NEW OR MODIFIED DATA METHOD DATASETS

Filename: Method_YYYYMMDD.csv:

For format see section 6.7.

6 EXCHANGE CODE DATASETS

This section defines the datasets that contain the master lists of NRW codes to be exchanged with the water scheme operators and used in the transferred datasets. Exchange datasets will be provided by NRW as comma separated value (.csv) format files.

6.1 WATER SCHEME OPERATOR

Filename: **NRM_wso_yyyymmdd.csv**:

Element	Data Type	Description
wso Code	Alphanumeric (5)	Water scheme operator code <i>eg "PVWB"</i>
Name	Alphanumeric (50)	wso name <i>eg "SUNWATER"</i>
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy <i>eg "28/04/2004"</i>

6.2 SCHEME

Filename: **NRM_Scheme_yyyymmdd.csv**:

Element	Data Type	Description
Scheme Code	Alphanumeric (10)	Scheme code <i>eg "DAWSON"</i>
Name	Alphanumeric (100)	Scheme name <i>eg "DAWSON VALLEY"</i>
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy <i>eg "28/04/2004"</i>

6.3 SUB SCHEME

Filename: **NRM_SubScheme_yyyymmdd.csv**:

Element	Data Type	Description
Scheme Code	Alphanumeric (10)	Scheme code <i>eg "UPPER BURNETT"</i>
Name	Alphanumeric (100)	Sub Scheme name <i>eg "WARUMA"</i>
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy <i>eg "28/04/2004"</i>

Note: Water Supply Schemes are divided into sub-schemes (in some cases). Where no sub-division is specified, the default sub-scheme will be the same as the scheme, for example:

Scheme	Sub-Scheme(s)
FITZROY BARRAGE	FITZROY BARRAGE (default)
NOGOA MACKENZIE	NOGOA MACKENZIE (default)
DAWSON VALLEY	<ul style="list-style-type: none"> • UPPER DAWSON • LOWER DAWSON
UPPER BURNETT	<ul style="list-style-type: none"> • JOHN GOLEBY • WURUMA • JONES • CLAUDE WHARTON

6.4 STORAGE

Filename: **NRM_Storage_yyyymmdd.csv**:

Element	Data Type	Description
Scheme Code	Alphanumeric (10)	Scheme code eg "BUNDABERG"
Storage Code	Integer	Storage code eg "123"
Description	Alphanumeric (100)	Description eg "FRED HAIGH DAM"
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy eg "28/04/2004"

6.5 ZONE

Filename: **NRM_Zone_yyyymmdd.csv**:

Element	Data Type	Description
Scheme Code	Alphanumeric (10)	Scheme code eg "BUNDABERG"
Zone Code	Alphanumeric (10)	Sub Scheme code eg "KOLAN AA"
wso Code	Alphanumeric (5)	water scheme operator code eg "PVWB "
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy eg "28/04/2004"

6.6 SITE

Filename: **NRM_Site_yyyymmdd.csv**:

Element	Data Type	Description
Scheme Code	Alphanumeric (10)	Scheme code eg "BUNDABERG"
Site Id	Integer	Unique identifier for the site issued by NRW
Station Name	Alphanumeric (100)	The site name eg "Burnett R. at Ned Churchward Weir H/W"
Lat	Alphanumeric (16) May be null	Latitude formatted as deg:min:sec eg 24:21:30.0000 S
Long	Alphanumeric (16) May be null	Longitude formatted as deg:min:sec eg 139:27:45.0000 E
Commenced Date	Date	The date from which this code is valid as dd/mm/yyyy eg "28/04/2004"

6.7 DATA METHOD

Method used to record Height and Flow data where continuous data collection is not available.

Filename: **NRM_Method_yyyymmdd.csv**:

Element	Data Type	Description
Method Code	Integer	Code number eg "12345"
Definition	Alphanumeric (100)	Description of the method used for data collection
Effective Date	Date	The date from which this code is valid as dd/mm/yyyy eg "28/04/2004"