Category 1 Hydrology – Channel Indicator

Notes for Lower Murray Region

Matt Gibbs, [matthew.gibbs@adelaide.edu.au](mailto:matthew.gibbs@adelaide.edu.au), 0409 283 343

All data was exported from the Department for Environment, Water and Natural Resources Hydstra database.

# Data Period

Daily time step data has been exported as a daily mean in the following way:

* For water level, the value for a particular date is the mean over the previous 24 hours, up to 9 am. For example, the value for 1/7/2014 is the average over the period 30/6/14 9am – 1/7/14 9am. This approach aligns with Bureau of Meteorology rainfall data.
* All flow data apart from the station in Chowilla Creek is daily read operational data from SA Water.
* For the Chowilla Creek station, the data for each day is the same as the water level data

# Missing Data

Currently, a value for each day is reported. If there is missing data, a value of 0 is reported, with a quality code of 5, and a comment of “Daily stage/discharge not calculated or not available”**.**

Stations that do not have discharge data at all also have a value of 0 reported, quality code of 5, and a comment of "No discharge at this sample point”. These stations do not have discharge data as stage alone does not provide an indication of discharge (due to backwater effects).

# Quality Code Mapping

The following mapping between Hydstra quality codes and MDMS quality codes has been adopted. The code for discharge is used for the qualityCode column.

The Description below has been written to the Comments column in the data for discharge. In brackets following this, the quality code and description for the stage data has been included.

|  |  |  |
| --- | --- | --- |
| Hydstra Quality Code | Description | MDMS Code |
| 1 | Good | 1 |
| 25 | Operational Data | 1 |
| 30 | Fair | 2 |
| 31 | Fair - Estimated | 2 |
| 36 | Fair - Extrapolated Rating | 2 |
| 37 | Fair - Theoretical Rating | 2 |
| 40 | Fair - Extrapolated Rating | 2 |
| 41 | Fair - Theoretical Rating | 2 |
| 54 | Fair - Smoothed Data | 2 |
| 80 | Fair - Accumulated Data | 2 |
| 81 | Fair - Accumulated Total | 2 |
| 82 | Fair - Straight Line Interpolation Between Points | 2 |
| 84 | Fair - Rainfall Less Than 0.2mm | 2 |
| 85 | Fair - Redistributed Accumulated Daily Data | 2 |
| 90 | Poor | 3 |
| 91 | Poor - Estimated | 3 |
| 100 | Poor - Extrapolated Rating | 3 |
| 101 | Poor - Theoretical Rating | 3 |
| 102 | Poor - Extrapolated Rating | 3 |
| 108 | Poor - Theoretical Rating | 3 |
| 127 | Poor - Nil Daily Record within Accumulated Period | 3 |
| 128 | Poor - Accumulated Total for Preceeding Period of Daily Data. | 3 |
| 129 | Poor - Distributed Total | 3 |
| 130 | Water Level Below Recordable Range | 4 |
| 132 | Quality Unknown | 4 |
| 150 | Unverified Telemetered Data | 4 |
| 153 | Not Recorded - Outside Recordable Range | 4 |
| 154 | Not Operating | 4 |
| 201 | Missing | 4 |
| 202 | Missing - Outside Rating Range | 4 |
| 255 | Missing | 4 |