***Category 3 Matter Transport***

## Conceptual definition

This indicator will contain rows of data about a site that is:

For concentration data: a specific location within water-bodies represented by either a name or polygon within which observations are made

For load data: a nominated boundary separating two distinct water-bodies represented by either a name or polygon within which observations are made.

Each row of data will describe:

For concentration data: Modelled levels of various water quality parameters at a particular site and date for various scenarios

For load data: Modelled loads of various water quality parameters at a particular site and date for various scenarios.

## Site linkages

Sites of Category 3 Matter transport require the following linkages to other data (where available):

* Bathymetric data for the Lower Murray River, Lower Lakes and Coorong
* Climate data for the Lower Murray River, Lower Lakes and Coorong
* Inflow data for Lock 1 (with and without environmental water provisions)
* Water level data for the Lower Murray River, Lower Lakes and Coorong
* Water quality data for the Lower Murray River, Lower Lakes and Coorong

## Data definition

Each row of data will contain the following columns of information.

**Table 1.** Data for concentrations

| Variable | Description | Type | Req | Range | Example |
| --- | --- | --- | --- | --- | --- |
| site | A specific location within water-bodies represented by either a name or polygon within which observations are made | string | Y |  | RM-1 |
| sampleDate | Specific dates for outputs of modelled scenarios (each day within a watering year) | date | Y |  | 15/05/2014 |
| waterTemperature | A measure of water temperature in degrees Celsius | Number (1 decimal) | Y | 10-30 °C | 21.2 °C |
| electricalConductivity | A measure of salinity in micro Siemens per centimetre | Number (0 decimals) | Y | 200-200000 µS/cm | 385 µS/cm |
| dissolvedOxygen concentration | A measure of dissolved oxygen in milligrams per litre | Number (1 decimals) | Y | 3-12 mg/L | 8.5 mg/L |
| pH | A measure of acidity/basicity using standard pH units | Number (1 decimals) | Y | 6-9 pH units | 7.1 |
| turbidity | A measure of water clarity Nephelometric Turbidity Units (NTUs) | Number (0 decimals) | Y | 0-300 NTU | 145 NTU |
| filterableReactivePhosphorus concentration | A measure of dissolved inorganic phosphorus concentration in milligrams per litre | Number (3 decimal) | Y | 0-0.300 mg/L | 0.010 mg/L |
| totalPhosphorus concentration | A measure of total phosphorus concentration in milligrams per litre | Number (3 decimal) | Y | 0-1 mg/L | 0.564 mg/L |
| nitrateConcentration | A form of dissolved nitrogen concentration in milligrams per litre | Number (3 decimal) | Y | 0-0.300 mg/L | 0.012 mg/L |
| ammoniumConcentration | A form of dissolved nitrogen concentration in milligrams per litre | Number (3 decimal) | Y | 0-0.300 mg/L | 0.054 mg/L |
| totalKjeldahlNitrogen | A measure of organic nitrogen plus ammonium concentration in milligrams per litre | Number (3 decimal) | Y | 0-300 mg/L | 2.321 mg/L |
| dissolvedSilica concentration | A measure of inorganic silica concentration in milligrams per litre | Number (0 decimal) | Y | 0-10 mg/L | 8 mg/L |
| chlorophyll-*a*Concentration | A measure of algal biomass concentration in milligrams per litre | Number (1 decimal) | Y | 0-200 µg/L | 54.6 mg/L |

**Table 2.** Data for loads

| Variable | Description | Type | Req | Range | Example |
| --- | --- | --- | --- | --- | --- |
| site | A specific location within water-bodies represented by either a name or polygon within which observations are made | string | Y |  | Barrages |
| sampleDate | Specific dates for outputs of modelled scenarios (each day within a watering year) | date | Y |  | 15/05/2014 |
| salinityLoad | A measure of dissolved solid load in kilograms per day | Number (0 decimal) | Y | Not available | 2659847  kg/day |
| filterableReactivePhosphorus load | A measure of dissolved inorganic phosphorus load in kilograms per day | Number (0 decimal) | Y | Not available | 254 kg/day |
| totalPhosphorus load | A measure of total phosphorus load in kilograms per day | Number (0 decimal) | Y | Not available | 2238 kg/day |
| nitrateLload | A form of dissolved nitrogen load in kilograms per day | Number (0 decimal) | Y | Not available | 254 kg/day |
| ammoniumLoad | A form of dissolved nitrogen load in kilograms per day | Number (0 decimal) | Y | Not available | 254 kg/day |
| totalKjeldahlNitrogen load | A measure of organic nitrogen plus ammonium load in kilograms per day | Number (0 decimal) | Y | Not available | 2238 kg/day |
| dissolvedSilica load | A measure of inorganic silica load in kilograms per day | Number (0 decimal) | Y | Not available | 2238 kg/day |
| chlorophyll-*a*Load | A measure of algal biomass load in kilograms per day | Number (0 decimal) | Y | Not available | 5650 kg/day |