

Guide to DNRME 4-monthly water security survey reporting

June 2020

DNRME has undertaken regular surveys of water service providers' water supply and security status for many years. This survey is now aligned with the regulatory key performance reporting framework with the aim to obtain snap-shots of water security status throughout the year, maintain communication about any potential or impending water security issues, and provide long-term information that underpins planning and reporting.

Information pertaining to all of the potable and non-potable water supply schemes you operate is requested three (3) times per year (i.e. 4-monthly or triannually), usually at the end of February, June and October each year with reporting pertaining to that month.

The following information provides guidance for water service providers on how to respond to the information being requested and using swimlocal for data entry.

Quick reference guide: water security survey

Number	Indicator title	Things to note
1.	Scheme ID	-
2.	WSP	-
3	Scheme name	Only change if required, remember to be consistent
4.	Contingency / emergency status	Are you currently accessing your contingency / emergency supply? Valid responses: Active, Preparing to activate, Inactive. Active if actively using contingency supply. Preparing to activate if putting measures in place to be able to use the contingency supply when required. Inactive you might have a plan, but it is not currently active/being used.
5.	Months of supply remaining (KPI levels)	The estimation should consider the available volume of water—including available contingency supplies, weather predictions, anticipated demands and historical behaviour of the supply sources. Valid responses: 1, 2, 3, 4, 5, 6 (note KPI levels not actual months).
6.	Confidence that water demands will be met over the next 18 months	Similar to months of supply remaining: consider available contingency supplies, historical behaviour and weather predictions. Valid responses: high, fair, unsure, low, very low. If reported as unsure, low or very low confidence remember to provide mitigation measures in comments.
7.	Total water sourced for the month (ML)	Total volume in megalitres taken from all sources.
8.	Residential water supplied for current month (ML)	If not metered often, consider other methods to estimate and provide a comment summarising how it was estimated. Ask for advice on estimating if needed.
9.	Current restrictions target (L/p/d)	The volume of demand (L/p/d) that is being targeted by restrictions Valid responses: a number, MD or NR. MD = Missing data – There are restrictions but no set target. NR = Not relevant – No restrictions are in place (includes permanent water conservations measures).
10.	Major town(s)	List the major towns that are serviced by the scheme.
11.	Usual supply source	List water supply sources with names / numbers as relevant. E.g. name of river, weir, dam, Sunwater bulk supply name, bore type (e.g. GAB, alluvial) and number of bores.
12.	Contingency supplies	Should be answered whether using contingency or not. Details of your current or planned contingency / emergency source/s of supply. The nature of the source/s (e.g. carting, bores, desalination), location, accessibility (e.g. other infrastructure or approvals needed to access, expected time to implement).
13.	Other relevant information	Any additional information the department can use to better understand your water security circumstances for each scheme.

Indicator descriptions

This guide provides information about each metric/indicator requested to be reported on.

Identifier indicators 1-3 below will exist in the SWIM system and do not require reporting. Indicators 4-10 and 13 below should be reported every four months. Indicators 11 and 12 are unlikely to change, but should be checked and updated if necessary. Indicators 14 and 15 are for reference only.

1. Scheme ID.....	3
2. WSP (Water service provider).....	3
3. Scheme name	3
4. Contingency/emergency status.....	3
5. Months of supply remaining	4
6. Confidence that water demands will be met over the next 18 months	5
7. Total water sourced for current month (ML).....	6
8. Residential water supplied for current month – potable or non-potable (ML).....	6
9. Current restrictions target.....	7
10. Major town(s).....	7
11. Usual supply source(s).....	7
12. Contingency supply plans	7
13. Other relevant information.....	7
14. Data as at	7
15. Reporting officer name / Reporting officer email / Reporting officer phone	8

1. Scheme ID

This is the unique identifier generated by **qldwater** to identify your water supply scheme.

2. WSP (water service provider)

Name of the registered water service provider for the water supply scheme.

3. Scheme name

The name of the registered potable or non-potable water supply scheme.

4. Contingency/emergency status

The status of whether contingency or emergency water supplies are being used to supply some or all of your reticulated customers.

This indicator should be completed each survey to ensure that we are aware of any changes in the status of contingency/emergency supplies.

Valid responses are active, inactive, or preparing to activate:

Active—contingency and/or emergency water supplies are being used as at the reporting date of the survey.

In the 'Other relevant information field' provide the date that the contingency started to be used, and if appropriate, provide also an estimated timeframe in which the contingency/emergency supply will be used for.

Inactive—contingency and/or emergency water supplies are currently not being used to supplement your usual water supply.

Preparing to activate—activities are being undertaken to be able to activate/use the contingency and/or emergency water supplies as and when needed within the near future. That is, it is assumed that the 'back up' water supply will be needed and necessary preparations are being made to facilitate their use.

Investigations, assessing of viability or gaining relevant approvals are generally not considered part of 'preparing to activate. Installing of appropriate infrastructure or putting contracts in place to enable the take of contingency water supply would be considered 'preparing to activate.

In the 'Other relevant information' field provide an estimated timeframe within which the contingency/emergency supply will be operational.

Notes: Contingency supply plans include measures to extend the capability of the existing water supply when the capacity of the existing water supply is reduced. It is used to prevent a supply shortfall.

Contingency supply measures may include temporary infrastructure (such as weirs, digging out waterholes, temporary desalination plants), or permanent infrastructure (water recycling scheme, access additional groundwater from adjacent aquifer, pumping from adjacent water supply).

Emergency supply plans include any temporary measures to meet essential water needs (for basic health and hygiene) when a supply shortfall has occurred or is considered imminent.

Emergency supply measures may include carting water or connecting to additional water supply (e.g. groundwater), or temporary desalination plant.

5. Months of supply remaining

An estimation of the months of accessible supply based on the volume that is available to be supplied to the water supply scheme.

Reported in months within one of six brackets:

1. 0-3 months
2. 4-6 months
3. 7-12 months
4. 13-18 months
5. 19-59 months
6. 60 months or greater

Notes: This indicator has changed compared to previous surveys to align with the new 2019-20 key performance indicator (KPI) reporting requirements.

Response to this indicator should include consideration of:

- the volume of water that is available from all sources
- available contingency supply (i.e. contingency supply that will be accessible when required—no infrastructure, approvals etc. required to start using the contingency supply)
- anticipated demands including planned demand management measures, such as water restrictions that are likely to be implemented
- historical behaviour of the supply

- assumed inflow/streamflow/recharge based on Bureau of Meteorology (BOM) climate projections
- any relevant operational constraints (limitations of any infrastructure that is needed to access, treat and deliver the water)
- other water users of both the usual and contingency resource.

Where available contingency supply is combined to estimate months of supply available, comments must be included in the 'Other relevant information' field to state that the estimate is based on available contingency supply.

Where water is solely supplied from groundwater then the best estimate of months of available supply should be reported based on the bore level and consideration of the safe yield.

Where seawater or brackish water is sourced from a marine environment, then 60 should be reported unless there are infrastructure constraints that may limit the meeting of water demand.

Examples:

- WSP A relies on bores that have met town water supply requirements under most conditions. However, in the past few years falling bore levels due to poor recharge events have been recorded.

Based on the current bore level, the historical performance of the supply, the Bureau of Meteorology climate projections and estimated restricted demands, WSP A estimates 10 months to supply shortfall and reports "3", i.e. 7-12 months" for the indicator.

- WSP B sources water from a small bore and desalinated marine water. The water sourced from the bore is estimated to meet the community's current unrestricted demand for 3 months. The marine desalination plant is sized sufficiently to meet the community's projected restricted water demands over the next 5 years.

When reporting WSP B considers both sources of water and estimates 60 months or greater of supply, reports "6", i.e. 60 months or greater" option for the indicator and adds comment in the 'Other relevant information' field that the months of supply remaining is based on assumed contingency desalination supply.

- WSP C has access to 8,600 kL of water stored in an in-stream storage/pumping pool. Anticipated demand is 1,750 kL per month.

Based on this rate of demand, current volume of water in the storage, the historical performance of the supply, assumed storage losses and the Bureau of Meteorology weather and climate projections, WSP C estimates there is around 18 weeks (i.e. 4.5 months) of available supply and responds with the "2" i.e. 4-6 months" option for the indicator.

6. Confidence that water demands will be met over the next 18 months

Definition: A service provider's level of confidence that the water demand for the scheme can be reliably met over the next 18 months (as per the definition in the July 2019 KPIs for annual performance reporting).

Where a confidence level of unsure, low or very low is reported, additional information should be provided in the 'Other relevant information' field to provide what actions are being, or are proposed to be, undertaken to mitigate any water supply security risks.

Please indicate your level of confidence following the guidance in the table below.

Confidence level	Definition	Guidance
High	There is a high level of confidence that the community's water demands can be reliably met over the next 18 months.	There is a good understanding of the reliability of the water supply (including historical performance) and of the community's likely water demands. There is considered to be adequate water supply available, including reliable contingency supply, to meet the community's water demands.
Fair	There is a fair level of confidence that the community's water demands can be reliably met over the next 18 months.	There is a sound understanding of the reliability of the water supply (including historical performance) and of the community's likely water demands. There is considered to be adequate water supply available, including identified contingency supply, to meet the community's water demands
Unsure	There is uncertainty that the community's water demand can be reliably met for the next 18 months.	There is uncertainty in either the future water demand or supply reliability (including the reliability and/or availability of the contingency supply). This may be due to a lack of reliable data, a lack of analyses and planning or other reasons
Low	There is a low level of confidence that the community's water demand can be reliably met over the next 18 months.	There may be a supply shortfall over the next 18 months, based on demand management options and contingency supply options i.e. there is a low level of confidence in the supply reliability. OR Supply augmentation has commenced, but construction may not be completed in time. OR There is a lack of reliable data on historical performance or high degree of uncertainty in the volume of inflows/recharge/stream flow.
Very low	There is a very low level of confidence that the community's water demand can be reliably met over the next 18 months.	Planning shows that a supply shortfall is likely over the next 18 months, considering demand management options and contingency supply options, i.e. very low confidence in supply reliability or there is insufficient supply to meet projected demands. OR Adequate funds or resources have not been secured to augment the water supply as needed over the next 18 months

Notes: Response to this indicator should include consideration of:

- assumed inflow/streamflow/recharge based on Bureau of Meteorology (BOM) climate projections
- anticipated demand, including planned demand management measures such as water restrictions
- available contingency response measures.

7. Total water sourced for current month (ML)

The total volume of raw water taken from the source/s for the scheme in megalitres (ML) for the preceding / current month (e.g. for the month of June).

8. Residential water supplied for current month – potable or non-potable (ML)

The total volume of water supplied to for residential purposes in ML for the preceding / current month. This may be estimated and should exclude commercial water, treatment losses and leakage.

9. Current restrictions target

The water usage that the current level of water restrictions is aiming to achieve. Response should be provided in L/p/d if there is a targeted demand.

MD (stands for missing data) should be reported if restrictions are in place, but there is no target usage, for the purposes of this report will be taken to mean no specific target has been set.

NR (not relevant) should be reported where there are no restrictions in place, this includes permanent water conservation measures.

10. Major town(s)

The names of the major towns, or communities, supplied by the water supply scheme.

11. Usual supply source(s)

The name and type of the supply source(s) that are relied upon during 'normal', non-drought, circumstances.

Notes: Briefly describe the usual supply source/s, e.g. Dam name, X weir on Y river, bore name, number of bores.

Once the information is provided once, it can remain the same until changes to the plans occur. If the usual supply source(s) do change, please provide a comment in the 'Other additional information' field to indicate that it has been updated.

12. Contingency supplies

An overview of what contingency or emergency water supply options are included in the drought response for the scheme (as per the definition in the July 2019 key performance indicators (KPIs) for annual performance reporting).

Details should include:

- the nature of the contingency supply source/s
- the (expected) capacity of the contingency supply source/s
- the expected time taken to implement the contingency supply (taking into consideration of planning and necessary approvals)
- any other information, such as potential issues with the reliability of the contingency supply source/s.

Notes: Once the information is provided once, it can remain the same until changes to the contingency supply source plans occur. If contingency and/or emergency supply plans change, please provide a comment in the 'Other relevant information' field to indicate that it has been updated.

13. Other relevant information

Provide any information that you believe is relevant to the water supply situation for the scheme, including additional context and any assumptions that underpin any of the responses provided, for example in relation to confidence that demands will be met over the next 18 months. Please review and delete previous comments that are no longer relevant.

14. Data as at

The date at which the data is current.

It is important that the data provided is as at the nominated date to provide a consistent point-of-truth snapshot of water supplies across the state.

Notes: The water security survey will typically be due with data as at the last day of February, June and October with the reporting due by COB 1 week after this date.

15. Reporting officer name / Reporting officer email / Reporting officer phone

The three fields relating the reporting officer relate to the contact details of the person providing data for the water supply scheme.

Notes: This field will be pre-filled, but should be edited if needed.

Other indicators

Other indicators that are reported in SWIM for the key performance reporting, such as estimated connected population, will be used by DNRME to provide complete internal reporting. These will not require updating for the purposes of the 4-monthly water security survey.

Using swimlocal

The 4-monthly water security survey is provided through swimlocal.

There are two methods by which you can enter your data into swimlocal, either via the Web OpsTool or the PC Operations Tool software. For most service providers the Web based OpsTool will be the easiest. Both tools use the same login/password details, QA/QC, formatting and there is no difference to the way the data is treated.

The Web OpsTool can be accessed from: <https://www.swim.qldwater.com.au/operations>.

The PC Operations Tool is software installed on your computer.

For data entry into swimlocal, login, select your scheme/s from the dropdown list. Swimlocal will automatically open at the current month; you can view previous data via the date selector at the top of the screen.

Some indicators may be pre-filled from data that has been entered previously.

Once you have entered all of the data, press the save button. The data will synchronise upon saving (Web OpsTool) and closing (PC Operations Tool).

The SWIM system will automatically generate and send a report to you 3 days after the data entry due date (i.e. the last day of the month) so that you can review the data before it is automatically submitted to the department at the specified submission date. An exact copy of the data that is sent to the department will also be sent to you.

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