



Government of Western Australia
Department of Water

Busselton Water Reserves

Drinking water source protection review

Busselton's water supply



Looking after all our water needs

Water resource protection series
Report WRP 139
August 2013



Important information

The *Busselton Water Reserves drinking water source protection review* (2013, WRP no. 139) was reviewed in 2020.

Please ensure you read the *Busselton Water Reserve drinking water source protection review* (2020, WRP no. 193) alongside the 2013 plan to obtain all of the information about this drinking water source.

The 2020 review considers changes that have occurred to the location of the Busselton Water Reserves. Additional recommendations have been prepared to ensure the ongoing protection of this public drinking water source area:

- update the location of drinking water production bore sites that form the Busselton Water Reserve
- amend the boundaries of the Busselton Water Reserve, in consultation with Busselton Water and the City of Busselton.

You can find the 2020 *Busselton Water Reserve drinking water source protection review* at www.dwer.wa.gov.au or by contacting the Department of Water and Environmental Regulation on 08 6364 7000 or drinkingwater@dwer.wa.gov.au.

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Summary

This *Busselton Water Reserves drinking water source protection review* (2013) updates and amends the *Busselton Water Reserve drinking water source protection plan* (2009) in relation to its recommendations. Both the 2009 plan and this review should be considered together.

This review defines the size of the proposed water reserve boundaries and assigns a priority 1 (P1) area to them. It also includes a report on the status of implementation of the recommendations in the 2009 plan.

The confined nature of this drinking water source means that it is not at risk of contamination from overlying land uses. The purpose for proclaiming the proposed water reserves is to ensure their locations are under legislative protection. Proclamation will ensure Busselton Water's water supply bores can be considered in future resource development proposals that have the potential to contaminate the confined aquifer.

The following table outlines the stages involved in the preparation of this drinking water source protection review:

Stages in development of a plan		Comment
1	Prepare drinking water source protection assessment document. (2008)	Prepared by Busselton Water Board after initial catchment survey and preliminary information gathering.
2	Conduct stakeholder consultation. (2009)	Advice sought from key stakeholders using the assessment document as a tool for information and discussion. Draft protection plan is prepared and consulted.
3	Publish approved drinking water source protection plan. (2009)	Final protection plan published after considering submissions. Includes recommendations on how to protect water quality.
4	Prepare drinking water source protection review. (2013)	This drinking water source protection review defines the water reserve boundaries and assigns priority areas within those boundaries. An audit of the recommendations made in the 2009 plan for this drinking source has also been undertaken. Now that suitable boundaries have been proposed, proclamation of this public drinking water source area can now be progressed.

1 Review of Busselton Water Reserves drinking water source protection plan

1.1 Boundary, priority areas and protection zones

Since the publication of the *Busselton Water Reserves drinking water source protection plan* (Department of Water 2009) Busselton Water have agreed upon suitable water reserve boundaries for proclamation. Busselton Water have also advised the department on the location of an additional production bore, which was commissioned after publication of the 2009 plan.

The proposed Busselton Water Reserves use a five-metre radius boundary surrounding the immediate area of each production bore. A priority 1 (P1) area has been assigned within the water reserves. The new boundary and location of this important water supply will be proclaimed and mapped. A larger boundary is not deemed necessary because water is abstracted from the confined lower Leederville and Yarragadee aquifers, which are protected from surface contamination by confining layers.

The proposed water reserve boundaries, serve to identify the location of the production bores for referral of land use development proposals that may pose a risk. Those land uses include mineral or petroleum exploration and other bores proposed to be drilled into the Yarragadee source in close proximity of the borefield.

Figure 1 provides an update on the location of Busselton Water's production bores and includes the location of a new production bore (see Busselton Water's site 11). Figure 2 shows the size and location of the proposed water reserve boundaries and designated P1 areas. The Department of Water will arrange proclamation of the new Busselton Water Reserves under the *Country Areas Water Supply Act 1947* as recommended in Section 2.2.

2 Implementation of Busselton Water Reserves drinking water source protection plan

2.1 Status of previous recommendations

Table 1 Implementation status for Busselton Water Reserves

No.	Recommendation in 2009 plan	Status (2013)	Comments
1	A suitable area around the eight existing production bores servicing Busselton, and any future drinking water bores, should be proclaimed under the <i>Country Areas Water Supply Act 1947</i> . (Department of Water and Busselton Water)	Progressed	A suitable area has now been proposed for proclamation under the <i>Country Areas Water Supply Act 1947</i> . This review recommends proclamation of the water reserves as per Figure 2.
2	The <i>City of Busselton local planning scheme</i> should reflect the identified Priority 1 areas and Busselton Water Reserves as special control areas in accordance with <i>Statement of Planning Policy No. 2.7: Public Drinking Water Source Policy</i> .	No longer applicable	Given the size of the proposed water reserve boundaries, the location of the boundaries within privately owned land and the confined nature of the drinking water source, this recommendation is no longer considered necessary for implementation.
3	Signs should be erected along the boundary of the Busselton Water Reserves to promote awareness of drinking water protection matters. Signs should include an emergency contact telephone number. (Busselton Water)	Implemented	Signs have been erected along the boundary of Busselton Water's compounds where the water reserves are located.

No.	Recommendation in 2009 plan	Status (2013)	Comments
4	Busselton Water's water monitoring program should continue to assess the ongoing quality of this drinking water source. (Busselton Water)	Implemented	Busselton Water monitors water quality as stipulated in their Operating Licence which is submitted to the department of Water's regional office. Results are also reviewed by the Department of Health. This review recommends continuance of the water quality monitoring program.
5	Any bores proposed to be installed close to the Busselton Water Reserves should be assessed to determine their contamination risk to this water source. (Department of Water, bore owners)	Implemented	Assessment of the contamination risk relevant to the Busselton Water Reserves is undertaken by the Department of Water's Busselton Regional Office when required. This review will recommend continued assessment of proposed bores close to the proposed water reserves.
6	A review of this plan should be undertaken within five years. (Department of Water)	Implemented	A review of the 2009 publication was undertaken in 2013. This review recommends a further review be undertaken within five years.

2.2 Consolidated recommendations

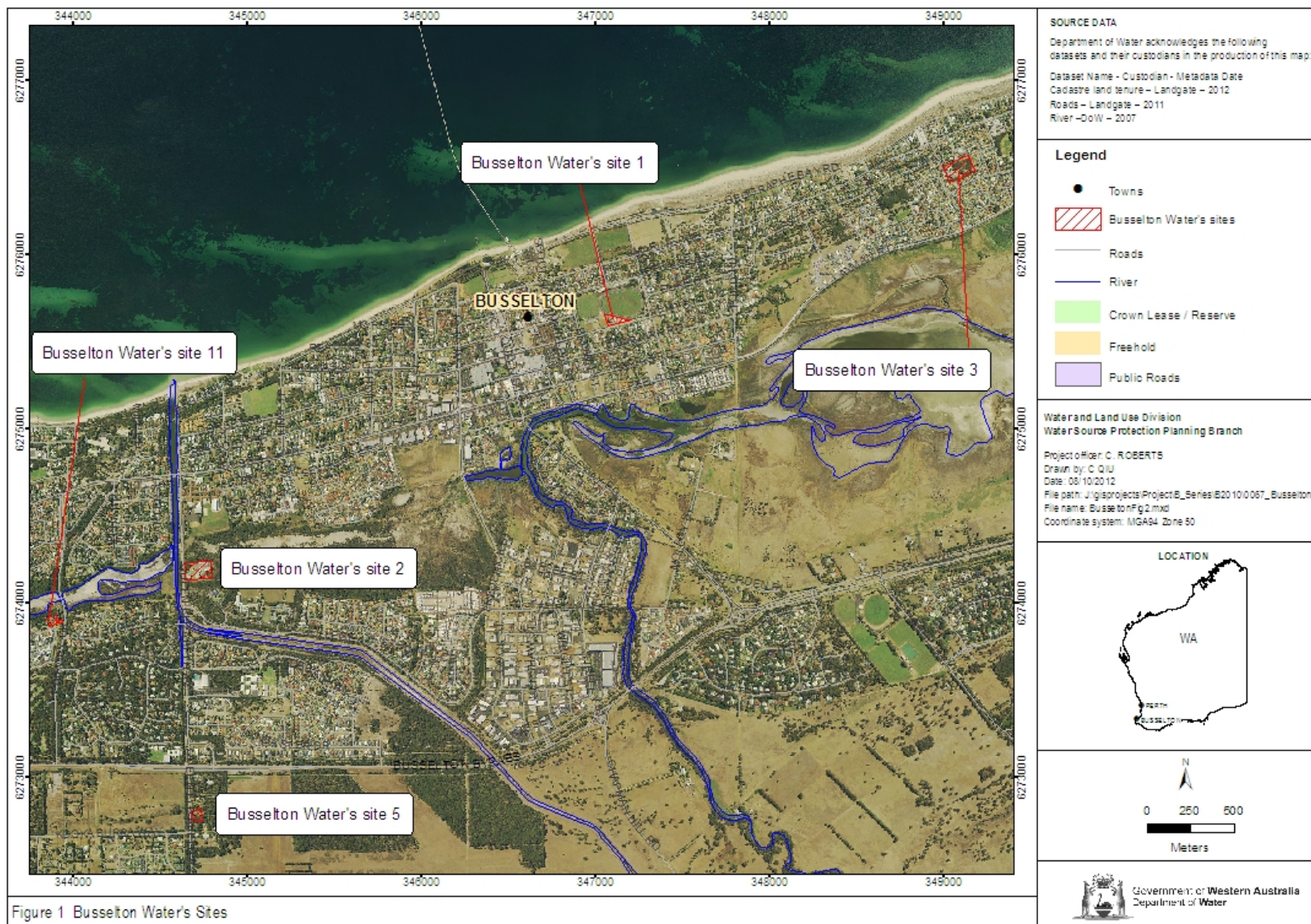
Based on the findings of this review, the following recommendations will now be applied to the Busselton Water Reserves. The bracketed stakeholders are those expected to have a responsibility for, or an interest in, the implementation of that recommendation.

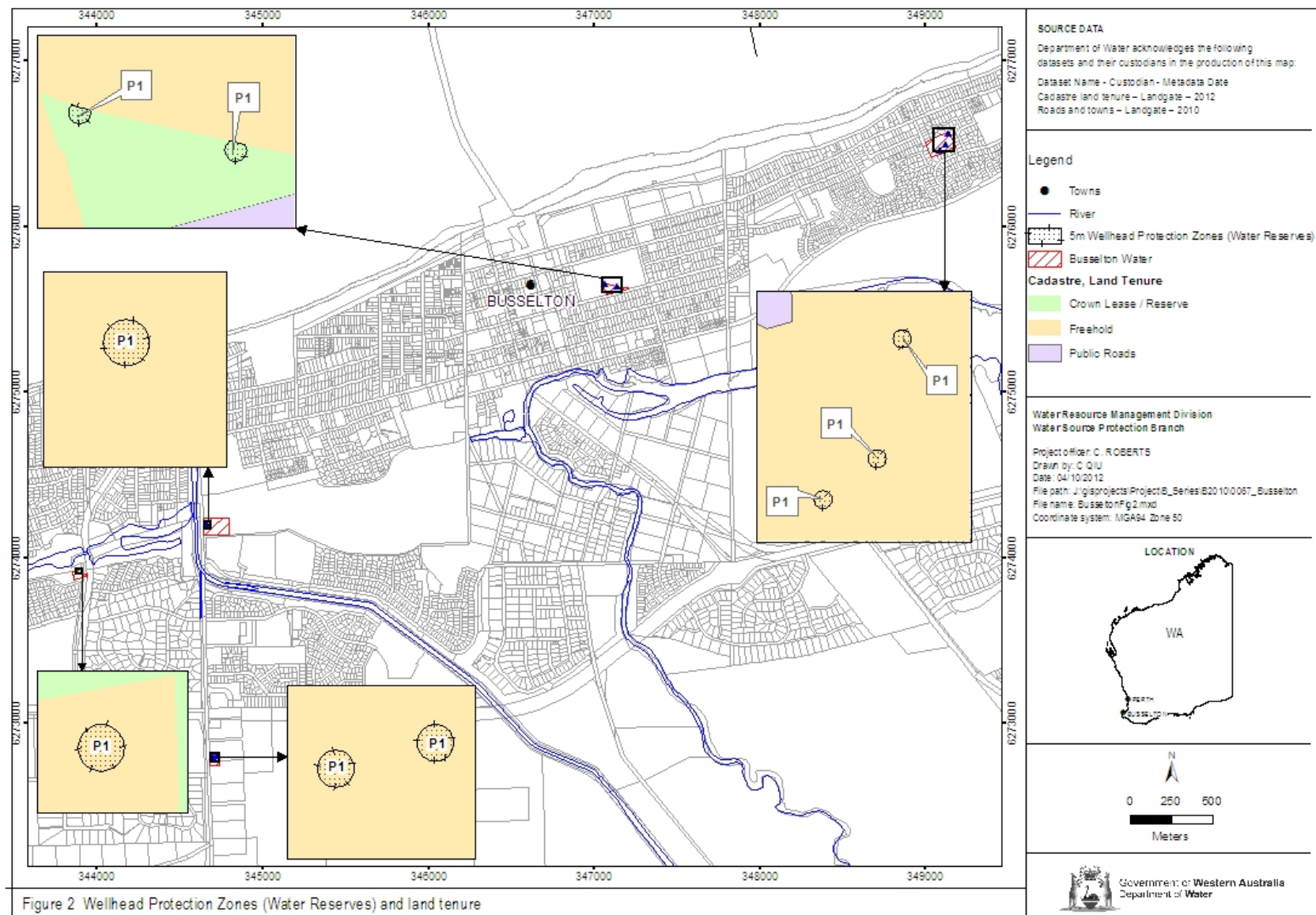
1. Proclaim the Busselton Water Reserves under the *Country Areas Water Supply Act 1947*. (Department of Water)
2. Busselton Water's water monitoring program should continue to assess the ongoing quality of this drinking water source. (Busselton Water)
3. Any bores proposed to be installed in close proximity to the Busselton Water Reserves should be assessed to determine their contamination risk to this drinking water source. (Department of Water, bore owners)

4. Proposed bores in close proximity to the water reserves, should be constructed using the *Minimum construction requirements for water bores in Australia, 3rd Edition* (National Uniform Drillers Licensing Committee 2012). (Department of Water, bore owners)
5. Update this plan within five years. This may require a new plan if substantial changes have occurred. If not, another drinking water source protection review may be developed. (Department of Water)

Appendices

Appendix A – Figures





References

- Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) & Australian and New Zealand Environment and Conservation Council (ANZECC) 1996, *Draft rural land uses and water quality – A community resource document*, ARMCANZ & ANZECC, Canberra.
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