

30 June 2026

Department of Water and Environmental Regulation

Water Allocation Planning
Locked Bag 10
JOONDALUP DC WA 6919

ATTENTION: Branch Manager

**SUBJECT: Public Comment
Fitzroy Derby water resources management plan**

This letter provides feedback in relation to the Fitzroy-Derby water resources management plan (April 2026) (Department of Water and Environmental Regulation, 2026a), released for public comment.

Groundwater Consulting Services provided feedback on the Derby Groundwater Management Plan in June 2021. We have attended public consultation sessions in person in Derby in 2022 and 2025 and 2026.

Our interest is in ensuring that the management of the water resources is sympathetic with the scale, characteristics and sensitivities of the water resource. Groundwater Consulting Services provides project inception, planning, approvals, commissioning, monitoring and management services for a large proportion of the developed irrigated agriculture projects in the north of Western Australia. We interact regularly with Department of Water and Environmental Regulation as the state water resource regulator, and bear the burden of guiding significant capital investment. We tread this line successfully by ensuring project development aligns with the water resource capacity and characteristics, to ensure that project do not harm existing or future stakeholder values.

At present we manage over 40 GL/annum of groundwater use in the north of WA, and a smaller volume nearer Perth. Our long term client relationships mean that we are compelled to act in a balanced manner in the interests of both the client, the regulator and external stakeholders. This means conservative development to reduce risks, but also willingness to identify and pursue development opportunities made available. We have pushed robustly and repeatedly for increased allocation where more water can be taken, but also recognise the natural limits of the resources. We modify projects heavily during the inception and planning stages to reduce risks, by adapting the project to sit within the environment.

Our biggest concern in the region is the historical and ongoing disingenuous nature of the public-facing story about management of water use under the Derby peninsula. This does not affect us directly, but demonstrates the willingness of Department of Water and Environmental Regulation and the Water Corporation to hide the technical reality from an ill-informed public. We simply do not understand why the Department is unwilling to tell the truth.

The decision to deny all use of surface water from Martuwarra places additional development pressure on the groundwater resources, and a more balanced approach is technically justifiable. We feel the Department has taken a politically expedient approach to satisfy the aboriginal community, to the detriment of industrial development opportunity. It is necessary to clearly discuss the lost opportunity, and if it is a community decision to forego that opportunity, then it is acceptable.

Further in the same vein, the quantification of groundwater resources has introduced more conservatism than is justified. By continually downplaying the available water resource, development aspirations are reduced and potential economic development opportunities are lost to jurisdictions and natural systems with more apparent access to water.

We simply request that good quality technical work is done which both informs good investment decisions, and ensures good management of the sensitive receptors including ecological and cultural values.

The best example of our approach in this regard is at Walyarta wetland complex in the south of the La Grange region. DBCA postulated a Wallal aquifer support mechanism based solely on radiocarbon age determinations in about 2013. Groundwater Consulting Services was vocally opposed as the Walyarta complex is clearly supported by the Broome aquifer (technical details on request). We opposed the DBCA's 2018 thesis on the system, which was endorsed by DWER in the West Canning Basin Allocation Statement (2018). We wrote (30 January 2019, and earlier 12 June 2018) to the director general contesting the lack of consideration of the science, and he wrote back, hiding under the precautionary principle. Now in 2026, the Department has formally agreed with Groundwater Consulting Services's position that the Walyarta wetland complex is likely supported by the Broome aquifer, without apology or recognition of our long-held dedication to telling the truth. Our largest concern is that the DWER, by accepting DBCA's position incorrectly, and now backflipping on that position, has lost further technical esteem with the Nyangumarta people, following a complete relationship breakdown initiated in 2012 which persists today.

A further technical example can be shared confidentially and the essence is provided here. A consultant conducted a H3 level hydrogeological assessment in northern WA. A clearly important permanent freshwater spring in an arid environment was identified as a critical receptor to potential drawdown from groundwater use. The Department's management of the resource and receptor, endorsed through a formal operating strategy, controlled water use based on management of drawdown risks at the spring. Groundwater Consulting Services' brief involvement in the project resulted in rapid and clear determination that the spring was supported by a perched aquifer some 12 m above the regional aquifer groundwater level, which was under consideration for development. This was based on data provided in the consultant's report, but not presented nor considered clearly, and was subsequently confirmed by surveying data. This critical input into management of project risk was completely missed by a somewhat revered consultant and by the Department's hydrogeologists. The project is now faced with having to convince the traditional owners that the spring is not at risk due to abstraction and that the project can expand in scale.

The technical water resources management industry, which includes proponents, consultants and the Department of Water and Environmental Regulation, simply cannot afford to be incompetent or disingenuous in the eyes of the traditional owner community due to the perception of great disrespect for the value they hold in their water places. The Department of Water and Environmental Regulation has contributed to this damage and we wish the damage will stop with telling the truth about our water resources.

We hold highly and understand the level of importance and the responsibility borne by the aboriginal community for their water places, and work directly for Nyamba Buru Yawuru in the Broome region. We simply wish for good liyarn when it comes to our water resources.

We apologise that we simply do not have the resources, as a small consultancy, to conduct a detailed technical review of the management plan. We do identify some areas of concern which we think should be addressed prior to finalisation of the plan. We recognise the significant effort and length of time over which the document has been prepared, but caution against rushing to complete the work to suit a wadjela-imposed timeline. We have reviewed the document and key supporting documents in a relatively cursory manner, and as such it is possible that some queries would be satisfied once we understand more about the process that has been followed. All comments are made in good faith in the interests of long term water resource management, both in northern Western Australia and state-wide. Our particular interest is in long term prudent water resource management to support irrigated agriculture as an integral contributor to the regional community.

Given that we expect the document is effectively finalised, we focus our efforts on the most significant issues, and provide robust commentary in the following table.

We offer some heavy criticism and opportunity for improvement, but simultaneously recognise the depth of good work that has gone into managing the conflicting interests associated with the region. The level of

consultation has been exemplary and we appreciate that the plan requires a level of compromise between disparate interests. We consider it a reasonable basis for ongoing water resource management.

While the plan provides for significant groundwater resources, the level of demand is curtailed by the ad hoc coincidence of suitable groundwater resources and proponents with the desire and ability to develop a project. The nature of northern Australia will to some extent protect itself from significant or rushed development, and groundwater use is likely to increase in a stepwise, distributed manner, such as occurred in the La Grange region over the last decade or so. If effectively implemented, the plan will help reduce some risks associated with groundwater use both for proponents and the external stakeholders.

Table 1 provides a summary of the key issues. *Table 2* provides commentary in relation to the methods report.

We welcome further discussions to ensure the concerns are understood, and that we have understood the background and knowledge of the Department of Water and Environmental Regulation.

Please refer to our submission provided on 2 June 2021 which detailed some more technical issues, related only to the Derby groundwater management plan.

Our on-ground experience in the Fitzroy Valley environment is limited and as such we are not able to provide the nuance and local experience we can provide in areas of deep familiarity.

Our key messages:

- Rainfall recharge to groundwater has been underestimated and builds in an un-necessary level of conservatism.
- Precluding access to the surface water in the lower reaches increases pressure on the groundwater resources and is a knee-jerk response to community concerns, rather than good water resource management.
- The saline interface beneath the Derby Peninsula is unstable and moving inland but the messaging to the community is that there has been no change. The water level in the lower Erskine aquifer should be stabilised by reducing abstraction or moving it inland.
- The 3GL/annum proposed staging is meaningless and sensible project staging limits are site and project specific.
- The staged development policy is clearly the best tool for managing risks in this system and should be re-implemented.

Table 1: Summary of Key Issues – Fitzroy-Derby water resources management plan, Consultation draft Released April 2026 for public comment

Theme	Report Section	Management Plan Position	Commentary	Desired Outcome
Key Policies	Page 3, second bullet	"..regimes must remain within their natural range"	This is impossible unless water will only be used sporadically. Any groundwater or water use induces some change in the regime, we simply manage that change within acceptable limits of magnitude, spatially and temporally. This approach is in complete contrast with management of the saline interface in the Derby Peninsula which is unconstrained and well outside the natural range	Modify the language so that it reflects the truth
Surface water	Page 3, second group of bullets, second bullet	"no further water is available from surface water.."	This ignores the clear reduction in value of floodwaters as they progress down the river system. By the time the water is near the ocean, its ecological and cultural value has fallen to near nil and represents a harvestable resource. If a viable development opportunity can be identified and supported, this would reduce pressure on groundwater resources which may otherwise induce greater overall environmental or cultural risk. Instead of forcing an arbitrary water demand onto a water resource, we need to review the nature of the water resource and modify the project to suit the demand (for example opportunistic use of water during periods of high availability, scaled such that deferred access during dry periods is not problematic.	Accept that the DWER has made a politically expedient policy position rather than a technical valid position. Review methods used elsewhere such as NSW inland rivers where pump inlet elevations are established such that only floodwaters can be taken, resulting in development of irrigation projects sympathetic to the characteristics of the water resource. The pumps are above the water level when the rivers slow down and develop pools.
Targets	Table 3, outcome 2	"..."maintained within their natural range and in line with a changing climate"	These are incompatible. If we think the climate is changing, then water regimes will change. Define what we accept. If a drying climate results in water levels falling to the bottom of a historical range, does that mean zero additional drawdown is acceptable (this is a substantial project risk)?	Improve clarity and consistency over your position.
Targets	Table 3, outcome 3	"inland movement of the naturally occurring saltwater interface is monitored and managed	You cannot monitor it directly due to the environmental constraint, you can only tell when it arrives. However you know that it is moving inland due to continually falling water levels as reported by Water Corporation.	Implement a plan to get the next Derby water supply installed and commissioned, ready to energise, before another community water supply is destroyed by Water Corporation under the approval of the Department of Water and Environmental Regulation. Stabilise heads, therefore the saline interface, by reducing abstraction.
Conflicted goals	Table 3 outcome 4 second bullet, and outcome 5 last bullet	"ensure salinity levels are maintained" and "meet the need for ... public amenity and demand for future urban growth"	These are in conflict – if you continue to make groundwater accessible for Water Corporation from the existing borefield, then the salinity class is under threat. Good management of the water resource is demonstrated in the Broome Town Water Supply with a borefield extending to minimise salinization risks – why cannot the same two parties do the same for Derby?	Extend the borefield inland or build an RO system before the peninsula becomes brackish.
Staged	Table 3 item J	"enable incremental and low risk	This is exactly what the staged development policy achieved.	Ignore the legal advice and reimplement this policy in

Development		groundwater development..."	We all agree it was great. It was challenged legally by one licensee to the detriment of the entire industry.	whatever form is necessary to achieve the same level of control as the original policy.
Alignment of Values	Table 3 outcome 7	transparency	Not demonstrated with respect to Derby peninsula. Much improved due to GCS' continued pressure over the last four years, but it remains embarrassingly deceptive.	Walk the talk – don't say you are managing anything sustainably or transparently if you are unwilling as an organisation to do just that.
Quantification of Drawdown	Table 6, 2.7b	"revising proposal if sites...are in the predicted drawdown area"	This statement is very loose, we need to define a predicted drawdown (is 0.2m?), define the timescale, and relate it to the level of accuracy reasonably determined. I agree with the philosophy but at face value it could mean moving a project due to some immaterial predicted drawdown (0.01m??). The DWER does not typically determine drawdown and has a poor appreciation of the difficulty of quantifying drawdown, particularly when the magnitude is small compared to the available tools such as model predictions, hydrograph analysis. The La Grange allocation statement in 2025 clearly demonstrates the Department's lack of appreciation of this issue (unsolicited commentary was provided by GCS to DWER despite lack of consultation with industry, on 19 September 2025). Do we for example consider a "large" drawdown at the end of the wet season, ie during peak groundwater levels, the same as a smaller drawdown at the end of a dry season following a period of low rainfall years??	Clarify the magnitude of the drawdown Clarify the method of determining drawdown and ensure the definition of "drawdown" is clearly and sensibly described.
Baseline	Table 6, 2.7c	Monitoring bores	Baseline monitoring is the absolute definitive foundation of drawdown impact analysis and must be established as early as possible, not just when a proponent feels like it. Any proponent unwilling to implement baseline monitoring should not have access to the water resource.	Make commencement of baseline monitoring a critical compliance item prior to issue of a licence to take water, whilst the DWER has maximum leverage over the proponent.
Mitigation	Table 6, 2.7d		The appropriate distance depends on whether the bores are in the same aquifer, and whether drawdown propagates laterally, perhaps vertically, and on the sensitivity of the receptor. This comment oversimplifies the management of what may not be a risk. It is foreseeable (and precedented locally) that for example a project is unreasonably burdened by presence of a groundwater dependent ecosystem.	Clarify the need to determine site-specific appropriateness of any proposed measure.
Mitigation	Table 6, 2.7f		Spreading abstraction will increase costs and may be unnecessary. Similar comment as above – site-specific issues with determine whether this is necessary, but by listing it in the plan it takes on a sense of material benefit or importance.	Clarify the need to determine site-specific appropriateness of any proposed measure.
Vision	2.1	Vision statement	Management of water in Derby is incompatible with the vision published in Section 2.1.	Tell the truth about Derby. Either manage water in Derby sustainably, or change the vision.
Nominal Limits	Table 6, 3.4	3GL/annum limit	Absolutely nonsensical and ignores the state-wide demonstrable variety of aquifer scale, sensitivity and project water demands. DWER should have no place considering the viable scale for a project, clearly demonstrated by their project	Leave the consideration of development scale and risk to the proponent. Set clear and unambiguous requirements (ie drawdown at location xx not to exceed yy so that all project risks falls on the proponent. Stick to water resource

			development ability demonstrated in the Water for Food days. This is a clear demonstration of the reduced ability of DWER to manage water resources prudently following the loss of the staged development policy	management and keep out of development economics. Bring back the staged development policy.
5 year Term	Table 6, 4.3	Licence term	Ten year terms considered to be appropriate. A shorter term may be acceptable to provide opportunity for development to proceed, but following substantial development, the tenure should increase to ten years.	Issue ten year licences when a development is substantively completed
Third Party	Table 6, 4.6	Third party access	Third party access is not always achievable even if it is sensible from a groundwater resource/monitoring viewpoint.	Develop and maintain reasonable regional monitoring networks that minimise this requirement. This is a shortcoming in the Derby-Fitzroy area with effectively no ability to independently check any proponent submitted monitoring record.
Risk Assessment	Table 8 second section	Project planning	DWER circulated an informal set of requirements for the Broome aquifer in the La Grange region in circa 2018, which included a formal risk assessment to guide the nature of technical works and discuss expectations in advance of the hydrogeological assessment being undertaken.	Reintroduce this risk assessment process to reduce uncertainty/conflict/cost/assessment duration for all parties. Copy available on request.
Sentinel Bores	Table 8, 4.5 (first section called 4.5)	Monitoring at receptors	Its too late to make meaningful modifications to a project if the receptor has been negatively impacted.	Need to set up sensible sentinel sites to provide advance warning, with consideration of the way drawdown propagates. This would enable a project to be scaled sensibly to avoid a negative impact, but also to respond in a timely and achievable manner if a future negative impact is foreseeable. Do not underestimate the amount of work required to get this right – most operating strategies are incapable of helping to manage what they purport to manage.
Responses	Table 8, 4.5g (second section called 4.5)	Cease abstraction	This cannot be a meaningful option – it means the entire planning, licensing and development system has collapsed. Ignores the project reality – ceasing abstraction is not a viable response mechanism.	Ensure all projects are staged so that each development stage can be operated with a high likelihood of permanent low risk water use. Remove this clause. Reimplement the staged development policy.
Alluvial Connectivity	Appendix A	Water management zones	Alluvial connectivity mapping includes areas demonstrably well above the regional groundwater level. Does this represent an alluvial aquifer supporting surface water/riparian vegetation?? Or is it considering connectivity between deeper groundwater systems and the alluvial aquifer.	Review the veracity of this as it has implications for project risk management. Clarify the method of development of this map and make sure it is correct. Explain exactly what the map is showing as the implications are significantly different.

Table 2: Summary of Key Issues – Methods report, Consultation draft Released April 2026 for public comment

Recharge Estimate	Table 4	Rainfall recharge	Recharge estimation methods are not applied appropriately. Chloride mass balance is applicable for water table accessions but has been applied deeper in the aquifer, likely higher chloride concentrations, therefore under-estimating recharge. Note work by Groundwater Consulting Services in the Broome aquifer at Skuthorpe led to rainfall recharge rates around 5-7.5%, closely aligning with a flownet analysis. Given the similarity in landscape, soil type, and rainfall, a similar figure should be appropriate for the greater Derby region. Wallal aquifer recharge estimate of 2-2.8% seems to be lower than is realistic. Ensuring the rainfall recharge is about right ensures that the community's expectations with respect to potential future access, or otherwise, to groundwater resources is established appropriately.	Review the recharge estimate by cross-checking with a flownet analysis (recognising this is difficult), comparison with areas with similar characteristics. If significant conservatism has been built into the estimate of recharge then consider that when developing allocation limits.
Aboriginal Water Holding	Page 3	25GL/annum withheld from general licensing pool	This component of the resource may be sterilised by lack of ability to enter commercially acceptable arrangements.	There needs to be some mechanism to make this water available to non-aboriginal proponents perhaps through some "royalty" scheme which provides value to the traditional owners without requiring direct involvement. Ensure there is a mechanism to say in future "this hasn't really worked, lets back out of it", in case that becomes necessary.
Rounding		Rounding inconsistency	You can't round one estimate to the nearest GL and the next to the nearest kL – demonstrates lack of appreciation of the uncertainty and implies these estimates are much more accurate than they are.	Round all to the nearest ML, 10xML or 100xML.
Saline intrusion	3.4.6	Saltwater interface	Saline intrusion cannot occur if the water level remains stable. The position and geometry of the saline interface is affected by groundwater flow which is driven by groundwater levels. If the levels remain steady, the saline interface position remains steady. The interface is unlikely to "ebb and flow" – shorter term seasonal water level changes will result in variability in the equilibrium position, but the water simply moves too slow to change in a seasonal manner.	Please get the foundation science correct – this is a serious error and is propagated through to failure of the saline interface management in Derby. This factually incorrect statement must be removed.
Salinisation of Wetlands	3.4.6, first paragraph after bullets on page 25.	Saline intrusion affects seepages	This is incorrect – the saline interface may affect water quality in the lower parts of the aquifer. As fresh water discharges over it, it is extremely unlikely to affect wetland or seepage water quality.	Remove this statement as it is not a realistic risk in any foreseeable circumstance, and simply adds perceived risks.
Water Corporation			Water Corporation is not mitigating any risk, is is directly	Don't give Water Corporation credit for doing something they

			threatening to contaminate the Erskine aquifer with saline water after contaminating the Wallal aquifer. The new bore was drilled about 22 years ago. Water Corporation is asleep at the wheel.	have not done.
Lack of Change in Sentinel Bores			The saline interface equilibrium position has moved in an onshore direction, this is clearly demonstrated by the water level monitoring record that Water Corporation provided in 2022 but refused to provide in 2025. The observation of no change in the sentinel bores is of no consequence to the science – the interface is unstable and moving inland.	Please get the science right and the communication truthful. I am honestly sick of the continued deception and obfuscation in this regard. If the Department values cheap fresh water for Derby at the expense of the long term aquifer health, then clearly state that position. Then the community can decide whether to agree or otherwise.
Cattle Water Use	5.1.1	Stock water use	Cattle don't really know if they are drinking groundwater or surface water. If 18kL/head/annum is a reasonable estimate of cattle water use from groundwater then surely they drink the same amount of surface water if that is their source. I appreciate we may not be able to apportion use between surface water and groundwater well or accurately, but we can estimate it sufficiently.	Have a crack at it if you need to. Speak to the pastoralist.
Misrepresented Abstraction	Table 5	Curtin airbase	Curtin airbase is not using 650,000kL/annum. This is the licensed allocation and not an estimate of water use. Why can DWER not make an effort at estimating actual use if that is the intention of the table? Look at Google Earth.	If you estimate water use, do it sensibly. There is no evidence of water use of that magnitude. Replace this with a reasonable estimate – perhaps 20,000kL/annum?
Risk Matrix	6.3.1	Risk Matrix	I do not understand this – it implies taking a higher percentage of rainfall recharge results in lower risk to environmental values? Perhaps I am reading it wrong but if I can't follow it, others can't.	Rework, explain more clearly or remove.
Erskine Allocation Limit	6.5.2		The target for groundwater management should be achieving stable groundwater heads in the Erskine aquifer	Start regulating the water. Work out how much water can be drawn so that heads are stable or rising, modify borefield configuration if necessary, and work towards that.

Please do not hesitate to call should you have any queries.

Yours faithfully,
Groundwater Consulting Services Pty Ltd



Sam Burton
Director