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Northern Division Office
112 Airdmillan Rd, AYR Q. 4807
PO Box 720, AYR Q. 4807
Phone: (07) 4783 1988
Fax: (07) 4783 1264

Southern Division Office
28 Ninth Street, HOME HILL Q. 4806
PO Box 376, HOME HILL Q. 4806
Phone: (07) 4782 1703
Fax: (07) 4782 2039

Email: admin@lowerburdekinwater.com.au
Web: <http://www.lowerburdekinwater.com.au>

ABN: 42 671 751 039

Rural Irrigation Price Review 2020-24

Submission to the Queensland Competition Authority

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Overview

1. This submission is made on behalf of Lower Burdekin Water (“LBW”) to the Queensland Competition Authority (“the QCA”) in response to the Rural Irrigation Price Review 2020-24 (“the Review”). In addition to the submissions below, LBW repeats and relies upon its submissions made 30 November 2018 and 8 March 2019.

Burdekin Falls Dam Improvement Project (“Dam Safety Upgrade”)

2. Section 2.4.2 of the Review refers to the requirements for the QCA under the Referral Notice stating:

Paragraph B(1.2) of the referral requires the recommendations made by us to provide an additional set of prices that include an appropriate allowance for prudent and efficient capital expenditure associated with dam safety upgrade costs that are forecast to be incurred from 1 July 2020 onwards. This means that we will provide two sets of recommended prices for the price path: one that includes a share of the capital expenditure associated with dam safety upgrades forecast to be incurred from 1 July 2020, and one that excludes all dam safety upgrade capital expenditure.

As part of this investigation, we will consult with stakeholders about possible pricing approaches for apportioning dam safety upgrade capital expenditure and will develop and apply an appropriate approach.

Expenditure to be included

3. LBW and other stakeholders submitted that the QCA’s is unable to assess the prudence and efficiency of Dam Safety Upgrade capital expenditure, where projects have only been estimated and may be subject to substantial variation¹ and in the absence of detailed specification of works and costs, QCA should not proceed with cost allocation.²
4. QCA has responded with “consistent with the referral, we consider that the dam safety cost upgrade should only include prudent and efficient capex on dam upgrades that are required to meet dam safety compliance obligations”.³

¹ Review Part A page 43 [4.7.3]

² For example, Queensland Farmers Federation submission 8 March 2019 page 8

³ Review Part A page 43 [4.7.4]

5. The QCA states that it considers a capex to be:
 - (a) prudent, if the expenditure can be justified by reference to an identified need or cost driver such as a regulatory obligation; and
 - (b) efficient, if it is the least cost option to deliver an appropriately defined scope and standard of works.⁴

The QCA goes on to advise that it engaged AECOM to provide advice to assist with its assessment.⁵

6. AECOM set out the criteria for their “Efficiency Assessment” within its Rural Irrigation Price Review 2020-24 Rural Irrigation Capital Expenditure Review – SunWater dated 30 August 2019 (“**the AECOM Report**”) which includes criteria such as:
 - (a) Were/are all alternatives evaluated (including option analysis undertaken) as part of the scoping process?
 - (b) Is the scope of works the best means of achieving the desired outcomes after having regard to the options available?
 - (c) Was/is the incurred/proposed cost reasonable for the scope of the project?
 - (d) Were/are suitable approaches taken for managing risk and uncertainty regarding projects at an early stage of the development?
 - (e) Were options considered in determining the least cost or preferred option?
 - (f) Have any potential efficiency gains been identified?
7. These criteria accord with the information that LBW and other stakeholders submitted should be available to stakeholders to consider and to the QCA when determining the prudence and efficiency of the proposed Dam Safety Upgrade works. From a review of the AECOM Report, this information now appears available, however the details associated with source information do not appear within the report. The lack of transparency around the proposed works remains concerning.
8. Draft recommendation 3 of the Review, recommends that only prudent and efficient

⁴ Review Part A page 44 [4.7.4]

⁵ Review Part A page 44 [4.7.4]

dam safety upgrade capex that is required to meet dam safety obligations should be included in the dam safety upgrade cost category. However, in making the recommendation the QCA has failed to address, LBW's submissions in respect of the potential cost savings with the interrelated Burdekin Falls Dam Capacity Upgrade project (discussed further below).

Apportionment of costs

9. The QCA is specifically tasked with developing and applying an appropriate approach to apportioning the Dam Safety Upgrade capital expenditure.⁶
10. Draft recommendation 4 recommends that the dam safety upgrade capex:
 - (a) be treated as a normal cost of operation in supplying water services to users; and
 - (b) be allocated to water users unless there is a clear and justifiable basis for allocating some of the cost to the parties.⁷
11. The QCA in assessment for recommendation 4 states that:

*"... our approach has been that safety-related costs constitute a normal cost of the operation for businesses. That is compliance costs are passed on direct to users of a service. This approach is consistent with the impactor pays approach whereby costs are allocated to individuals or parties whose activities generate the costs, or justifiable need to incur the costs."*⁸

...

*We consider that costs arising primarily as a result of legislative and regulatory obligations – even where triggered by the actions of other parties or government (for example, downstream developments or the introduction of new regulatory obligations) are a cost of doing business as they are in any other industry.*⁹

12. The QCA's approach appears to be that direct water users are the only beneficiaries of the Burdekin Falls Dam. The approach ignores the indirect beneficiaries of the dam, such as local communities, industry and mining which

⁶ Review Part A page 33 [4]

⁷ Review Part A page 46 [4.8.1]

⁸ Review Part A page 44 [4.8.1]

⁹ Review Part A page 46 [4.8.1]

have expanded following the construction of the dam and the creation of a reliable water resource.

Dam Safety Upgrade costs being shared with the greater community

13. In its assessment the QCA considers that the flood management and/or moderation benefits associated with dam safety upgrades in Queensland appear to be incidental to the primary purpose of the dams (water supply) and the upgrades (mitigating dam failure risks). The QCA goes on to state that flood moderation and management activities, while providing a benefit to the broader community, are neither a formal service provided by dam managers, nor the primary rationale for dam safety upgrades.¹⁰
14. Draft recommendation 6 of the Review, recommends that *“while the primary purpose of dam safety upgrades is to reduce the risk of dam failure to tolerable levels (as determined by relevant dam safety regulators), the informal flood moderation benefits for communities downstream of dams should be acknowledged in the allocation of dam safety upgrade capex.”*¹¹
15. The assessment appears contrary. AECOM sets out (in effect) that the dam must be upgraded in accordance with SunWater’s Dam Safety Policy so that the dam is within the ANCOLD Limit of Tolerability for Existing Dams. AECOM states further *“Based on the 2019 revised hydrology assessment and the current capacity of the Burdekin Falls Dam, the risk posed to the downstream population remains unacceptable”*.¹²
16. LBW agrees with the QCA’s recommendation that the informal flood moderation benefits for communities downstream of dams should be acknowledged in the allocation of dam safety upgrade capex. This is particularly so when the primary purpose of the safety upgrade is the protection of those communities.
17. However, the QCA assessment fails to consider the protection afforded to:
 - (a) Queensland road and rail infrastructure;
 - (b) the security of water supply to communities such as Townsville, industry and mining; and

¹⁰ Review Part A page 48 [4.8.3]

¹¹ Review Part A page 48 [4.8.3]

¹² AECOM Report Appendix D page 1

- (c) regional economies which would be severely affected by a flood event the magnitude the safety upgrade is proposed to mitigate.

Apportionment 80% - 20%

- 18. The QCA has adopted a general allocation ratio for determining the extent to which dam safety upgrade costs should be allocated to the broader community.¹³
- 19. The QCA has adopted a simplistic view, being that irrigation water users should pay the majority of the cost of the Dam Safety Upgrade on the basis that:
 - (a) dams were generally built for the primary purpose of supply water to users;
 - (b) therefore, if the dam didn't exist there would be no risk to assess and no safety upgrade required.¹⁴
- 20. The QCA goes on to state that:

*“As the external positive benefits that may potentially accrue to the broader community cannot be quantified easily, we have exercised our judgment in determining the reduction to apply to irrigation water users' allocation and consider that they should only be allocated 80 percent of their share of the dam safety upgrade capex. We propose that the remaining 20 percent of the irrigator [sic] water users' share of the dam safety upgrade be allocated to Government, as it is not feasible to allocate this share of costs to individual beneficiaries in the broader community”.*¹⁵

- 21. LBW's position is that the 80% allocation to irrigation water users¹⁶ ignores the extent of other beneficiaries of the dam which include:
 - (a) regional community economies based on the industry arising from construction of the dam and the availability of a reliable water source, including nonagricultural business and industry;
 - (b) urban water supply to communities such as to Townsville, Clare and Dalbeg;
 - (c) the regional mining industry and the potential ongoing development of that industry arising from a reliable water source derived from the Burdekin Falls Dam; and

¹³ Review Part A page 49 [4.8.4]

¹⁴ Review Part A page 50 [4.8.4]

¹⁵ Review Part A page 50 [4.8.4]

¹⁶ Review Part A page 50 [4.8.4]

- (d) the protections to Queensland Government and Local Government infrastructure in flood mitigation.
22. LBW's view is that the proposal that 80% of the cost be borne by irrigation water users is inconsistent with the extent of the benefit of Queensland dams to the greater community.
 23. A further concern arises in QCA's process for determining the irrigation water users share at 80%. The QCA state the external benefits are not easily quantifiable and that they have used their own judgment. The QCA goes on to note that IPART applied 80% to a similar issue in its report on rural water shares. Considering the potential impact on the viability of the sugar industry in the event of the cost being imposed, the lack of transparency around the determination of 80% is unacceptable.
 24. LBW's position remains that where regulatory requirements require the safety upgrade, that those improvements are Government mandated for the purposes of ensuring community safety into the future and are not driven by irrigation water user requirements.
 25. The cost of the Dam Safety Upgrade is one to the community and should be borne by Government. This is particularly so where stakeholder concerns over the lack transparency in respect of reports or assessments as to the need for the Dam Safety Upgrade have not been addressed.
 26. LBW does not support the inclusion of the Dam Safety Upgrade costs in recommended pricing and otherwise endorses those reasons provided by other stakeholders as set out at paragraph 4.4 of the Review.

Lack of transparency in costs

27. LBW has previously expressed concerns regarding the lack of transparency and consultation throughout the Irrigation Price Review. By its letter to the Queensland Competition Authority dated 30 November 2018, LBW requested that it be included in all relevant consultation undertaken by the QCA, especially targeted consultation papers on key issues. That has not occurred.
28. Of particular concern is the Dam Safety Upgrade. The AECOM Report refers to various options for the Dam Safety Upgrade being assessed multicriteria assessment and industry-based risk assessment with the criteria being developed

with SunWater. AECOM goes on to state the criteria and weighting given to each criterion.¹⁷ AECOM fail to advise:

- (a) what factors are considered when assessing the weighting given to each criterion; or
- (b) how the weighing was determined for each criterion.

There appears to be no stakeholder involvement in the process.

- 29. The preferred Option 1C involves raising the dam wall to 173.8m AHD. The original criteria and weighting provided for Future Proofing: Impact on Future Dam Raise 13.1%. The revised weightings reduced the weighting to 5.6%. There is also reference to Dam Safety and Capacity being increased to 20.1%. There is a complete lack of transparency around the weightings and what each criterion actually considers.
- 30. For transparency all information relied upon by AECOM in relation to the matters set out in paragraph 7 above, together with factors considered in each criterion should be made publicly available so that it can be reviewed.
- 31. Irrigation water users may bear the cost of the Dam Safety Upgrade and therefore the request for transparency prior to any decision or recommendation being made is reasonable. To date it has not been forthcoming.
- 32. Irrigation water users' concerns are warranted given AECOM's comments regarding SunWater's Project Management. AECOM found that:

4.8.5 Project Management

From a review of Sunwater's project management processes and framework, we note that:

- *Sunwater's Portfolio, Project and Program Management (P3MF) process maps and tools appear to be overly complex*
- *Sunwater does not appear to have provided warranted attention to the Monitoring and Control process of the project lifecycle, which should be treated as a separate process group giving consideration to "A Guide to the Project Management Body of Knowledge, Fifth Edition" to which Sunwater's P3MF process is intended to align*

¹⁷ AECOM Report Appendix D page 2

Issues associated with project scope, cost and delivery which were observed during a review of sample projects support the finding that Sunwater's Monitoring and Control processes require improvement. From a review of a sample of projects, we make the following observations:

- *The project reviews suggest that inconsistent project management appears to be a theme for Sunwater*
- *Sunwater reports that they have developed of a Workflow Root Cause Analysis Report to identify causes of program changes. We are aware that the root cause information is stored within the SAP Works Management System (WMS) but have not a sighted any formal analysis of this. It is unclear whether Sunwater uses this analysis to better inform their renewals planning.*

Sunwater's new P3MF procedure does not specifically consider Monitoring or Controlling as a separate element of Project Lifecycle.

33. We note AECOM's findings from its Project reviews, namely:

- (a) poor original project scoping and cost estimating;¹⁸
- (b) benefits from procurement policy not realised;¹⁹ and
- (c) poor project management and supporting documentation.²⁰

with AECOM concluding that "the area of concern is with respect to **cost efficiency**".²¹

34. Specifically, the Dam Safety Upgrade project was reviewed by AECOM as part of its project sample. AECOM's findings that the project planning and design rework for the Dam Safety Upgrade was inefficient²² add further concerns regarding management of costs, together with discrepancies in the total project cost and annual cost profile.²³

35. Given the significant expenditure forecasted, prudence and efficiency would require that all options be transparently considered and that a defined scope of works be determined prior to any consideration of the inclusion of forecasted costs

¹⁸ AECOM Report page 63 [5.2]

¹⁹ AECOM Report page 63 [5.2]

²⁰ AECOM Report page 64 [5.2]

²¹ AECOM Report page 66 [5.3]

²² AECOM Report page 95

²³ AECOME Report page 96

within bulk water prices. Presently the projects appear to be at concept stage. Consultation and meaningful engagement with stakeholders that may be required to pay for the works is vital.

Dam Capacity Upgrade

36. In September 2019, the Queensland Government approved the development of a detailed business case for the raising of the Burdekin Falls Dam. SunWater advises that the business case will determine the preferred raising option based on detailed demand assessments, as well as any other associated water storage and distribution efficiency upgrade options.²⁴ SunWater go on to say that:

“as the detailed business case for the Burdekin Falls Dam Improvement Project is also progressing, co-ordination between the projects is underway to ensure the optimal long-term plan is achieved for the dam. The two projects are interdependent as:

- *the design for the dam improvement will account for the future raising of the dam; and*
- *dam improvement construction must be completed before raising construction commences to ensure the dam risk is reduced.*²⁵

37. The view expressed by SunWater accords with LBW's submissions. That submission has not been responded to in any meaningful manner yet falls within the criteria upon which AECOM assesses the prudence and efficiency of projects as set out above.

38. The failure by the QCA to respond to LBW's submission regarding the potential economies which should be explored with the interlinking of the two projects is concerning. LBW repeats its submission that the potential for efficiencies of scale in combining the Dam Capacity Upgrade and the Dam Safety Upgrade should be considered and not ignored by the QCA.

Refurbish hydraulic system and cylinders - Stage 3

39. LBW has previously submitted that the upgrade of the Clare Weir hydraulic gates is to increase the upstream pool height to improve pumping performance and reduce the energy consumption of the SunWater pumps for its distribution scheme.

²⁴ <https://www.sunwater.com.au/projects/burdekin-falls-dam-raising/>

²⁵ <https://www.sunwater.com.au/projects/burdekin-falls-dam-raising/>

Bulk water customers do not benefit from the proposed project.

40. The QCA has not responded to LBW's submission, that the costs associated with the upgrades of existing infrastructure should be apportioned to those customers that receive the benefit of the works. LBW accepts that the Clare Weir is a bulk water asset, however the hydraulic gates have been constructed on the crest of the weir for the sole purpose and function of benefiting SunWater's distribution scheme.
41. LBW renews its submission that the cost of the Clare Weir hydraulic gates are not costs recoverable against bulk water customers.

Reliance on Bureau of Metrology Reports

42. SunWater's Dam Safety Policy requires that the Burdekin Falls Dam be upgraded so that it can safely pass 100% of the AFC spillway flow to meet the dam safety regulator's and ANCOLD Guidelines. The Bureau of Meteorology using its modelling technology has revised its rainfall and flood estimates such that more extreme rainfall events are now predicted. There is little transparency regarding the data and assumptions upon which the modelling is based. While this falls outside the QCA's terms of reference, it is worth noting that the requirement for the Dam Safety Upgrade arises from this modelling. In the circumstances, release of all information surrounding the modelling to stakeholders affected by it should be considered.



David Sartori
Executive Officer
Lower Burdekin Water

4 November 2019