

WARRUMBUNGLE SHIRE COUNCIL

Ordinary Meeting – 15 April 2021

Item 18 Coonabarabran Water Security: Timor Dam Raising, Dam Safety Upgrade Requirements and Increased Groundwater Allocation

Division:	Environment and Development Services
Management Area:	Warrumbungle Water
Author:	Manager Warrumbungle Water – Cornelia Wiebels
CSP Key Focus Area:	Public Infrastructure and Services
Priority:	PI7 appropriate planning is needed to ensure the ongoing security of energy and clean water supplies to communities within the shire

Reason for report

The reason for this report is to address two resolutions that have been outstanding for more than 12 months and to give an update on Dams Safety NSW requirements.

Background

To increase water security for Coonabarabran, a study and concept design into raising Timor Dam was undertaken and completed in 2019. While this project was still ongoing, the recent severe drought forced Council to install 7 new emergency back-up bores to ensure water supply for Coonabarabran while the dam was at critically low levels.

To speed up the approval process for the new bores, their work approvals were attached to the current groundwater access license that only has an entitlement of 50 ML/year, which is insufficient to supply the township of Coonabarabran for an extended amount of time with no or very limited surface water availability. To extend this entitlement, Council has been required to produce a hydrogeological report prior to applying for additional groundwater allocations. In comparison, the dam has an entitlement of 800 ML/a. To close out the new bores installation project and to enable application for an increase in license allocation, a hydrogeological report was being prepared.

In addition to upgrade potentials for Timor Dam to increase its capacity, upgrade requirements exist to comply with Dams Safety NSW requirements under the Dams Safety Act 2015.

Item 8 of the October 2019 Business Paper reported on the Raising Timor Dam Wall Feasibility Study and Dam Safety Upgrade Requirements, it recommended that Council:

- 1. Notes this report on the Raising Timor Dam Wall Feasibility Study and Dam Safety Upgrade Requirements.*
- 2. Does not proceed with raising Timor Dam.*

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- 3. Pursues funding options as they become available to upgrade Timor Dam in accordance with WHS and Dam Safety Committee requirements.*
- 4. Starts budgeting for required safety upgrades and activities in its capital and operational budgets.*

Resolution 133/1920 resolved that Council:

- 1. An invitation be sent to the Deputy Premier John Barilaro MP to attend the Warrumbungle Shire to discuss raising Timor Dam.*
- 2. A report be prepared for the Deputy Premier to demonstrate the technical readiness for the project.*
- 3. A decision on the desirability of raising the dam wall be deferred until after the Deputy Premier's visit.*

Item 20 of the May 2020 Business Paper reported on the Coonabarabran Emergency Water Supply Project and **Resolution 395/1920** resolved that Council:

- 1. Notes the information contained in the Coonabarabran Emergency Water Supply Project – April 2020 Update report.*
- 2. Finalises the Hydrogeological Report – also known as 'Borehole Impact Management Plan' for the Coonabarabran Timor Road borefield and takes the necessary steps to apply for an increased groundwater licence allocation for the Coonabarabran bores.*
- 3. Receives no further update reports on the Coonabarabran Emergency Water Supply Project as the emergency situation no longer prevails.*

Issues

The Deputy Premier did not follow Council's invitation to visit and referred the matter to the Water Minister who has not replied to Council's invitation; the technical readiness of the project is demonstrated via the Concept Design Report, making this a 'shovel-ready' project.

Benefits of raising the dam remain doubtful:

- The Secure Yield Study showed a reduction in yield with raised wall due to increased release requirements. I.e., less water will be available to the township of Coonabarabran from the dam, should it be raised, despite the increase in storage capacity.
- Water Security for Coonabarabran has significantly increased with the installation of the new back-up bores, reducing the need for considerable capital expenditure.

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Compliance with Dams Safety requirements remain unaddressed. The Dams Safety Regulation has meanwhile been updated in late 2019 with increased requirements – an overview is given in the table below and contained within Attachment 1.

Document required	Frequency required	Consequence categories applied to	Regulation reference
Annual Report ¹⁾	Annually	All dams	Clause 26
Safety Management System ¹⁾	Annually	All dams	Part 5 or Clause 17
Operations and Maintenance Plan ^{1,2)}	Annually	Extreme, High (every 5 years for Significant, Low, Very Low)	Clause 9
Emergency Plan – update contact details ³⁾	Annually	All dams	Clause 10
Emergency Plan – update contact	Every 5 years	All dams	Clause 10
Risk Report ⁴⁾	Every 5 years	All dams	Clause 15
Consequence Category Assessment ⁵⁾	Every 15 years	All dams	Clause 7
Safety Review	Every 15 years	All dams	Clause 20

¹⁾ New requirement

²⁾ Council's Operations and Maintenance Plan has been developed in 2021

³⁾ Council updated its Dam Safety Emergency Plan in 2019

⁴⁾ Replacing Dam Surveillance Report

⁵⁾ Council completed this in 2017

Council has been contacted by Dams Safety NSW Audit Officers who advised that a large number of audits will be undertaken before June 2021, especially on extreme and high risk dams and that fines for non-compliance will come into full effect from 1 November 2021; the consequence category applying to Timor Dam is 'High'.

Upgrading of the dam will also ensure compliance with Council's surface water access license in regards to release requirements.

The hydrogeological report notes that the groundwater bores could sustainably deliver 400 ML/a. A copy of the report is included as Attachment 4.

Options

The options are:

- a) Persist on the dam raising option and cover required safety upgrades when funding for the raising becomes available.
- b) Pursue required safety upgrade now independent of the dam raising option.

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Financial Considerations

In 2019, the cost for required dam safety upgrades was estimated to \$2.25M with an additional annual operating cost of \$48,300; the cost of raising the dam was estimated to \$8M, the indicative cost for possibly required construction of a fish passage was estimated to up to \$7M.

There are currently no external funding opportunities for dam safety upgrades.

In late 2020, the introduction of a Dams Safety Levy was advised of, amounting to \$15,000 annually in the case of Timor Dam. Council filed a submission against the raising of this levy; an outcome has not yet been advised of.

The development of Council's Dam Operations and Maintenance Plan cost \$15,000.

Community Engagement

The current level of engagement has been assessed as 'Inform'.

Attachments

1. Fact Sheet for Declared Dam Owners, 2020
2. Dams Safety Regulation 2019
3. Dams Safety Act 2015
4. Borehole Impact Management Plan (Hydrogeological Report), March 2021

RECOMMENDATION

That Council:

1. Notes the information contained in the Coonabarabran Water Security: Timor Dam Raising, Dam Safety Upgrade Requirements and Increased Groundwater Allocation Report.
2. Budgets for required dam safety upgrades, independently of raising the dam.
3. Applies for an increased licence allocation for Coonabarabran's groundwater bores from 50 ML/a to 400 ML/a.
4. Does not pursue the raising dam option.