The Myalup-Wellington project is an industry-led initiative, proposed by Collie Water to reduce salinity in Wellington Dam, Western Australia’s second largest reservoir with a capacity of 185 gigalitres (GL).

It is a significant economic development project involving private proponent Collie Water, the State Government and the Commonwealth, to substantially increase production capacity, create jobs and economic uplift in the under-developed Collie River Irrigation District and Myalup Irrigated Agricultural Precinct.

The project is a major opportunity to help diversify Western Australia’s regional economy through irrigated agriculture. Currently, just 6557 hectares of the available 34 600 hectares of the Collie River, Harvey and Waroona districts are irrigated.

It is proposed that saline water flowing into Wellington Dam be diverted from the Collie River East Branch to a mine void, with that water then treated in a new desalination plant located near Collie. A new, smaller Burekup Weir will be built upstream to enable water delivery to be powered by gravity. Irrigation channels will be replaced with a new pressurised pipe network.

Collie Water’s proposal is estimated to cost $380 million and requires both private and public sector investment. The Commonwealth Government has invested $1 million towards due diligence and feasibility assessments. Funding will be sought through the Commonwealth’s National Water Infrastructure Development Fund.

The State Government has committed $37 million through Royalties for Regions for irrigation infrastructure for this important project. This is in addition to $5.7 million allocated to the Water for Food Myalup-Wellington Water for Growth project.

- Boost agricultural, horticultural and forestry opportunities
- Create jobs and economic uplift
- Attract investment to the region
- Diversify the South West region economy
Background

Wellington Dam, built in 1933 with Commonwealth funding, can no longer be used as a potable water source due to high salinity. It was decommissioned as a drinking source in late 2013.

Salinity has risen from 300 mg/L TDS to more than 1100 mg/L TDS diminishing its value as an agricultural resource. Some farmers in the Collie River Irrigation District are choosing not to irrigate because of the potential risk of soil degradation.

Unlike irrigators in the adjacent Harvey and Waroona irrigation districts where pressurised water is delivered through a pipe network, farmers in the Collie River Irrigation District are locked into outdated and inefficient flood irrigation and cannot effectively rotate paddocks.

Collie Water, is an initiative between Harvey Water and Aqua Ferre Pty Ltd, formed in response to the Water for Food project seeking private sector solutions for the Wellington Dam salinity challenge. They were selected as a result of a public Expression of Interest process run by the State Government.

Harvey Water operates and manages irrigation schemes for the Waroona, Harvey and Collie River irrigation districts. Its shareholders are growers from across the three irrigation districts.

Aqua Ferre Pty Ltd is a company formed by Western Australian corporate advisory group Pendulum Capital Pty Ltd and agri-supplier Regal Grange Group. Aqua Ferre has been working for a number of years on this project and in other water-related commercial activities.

$37 million collaboration with the private sector
Transforming irrigation

Existing open irrigation channels created in the 1960s will be replaced with a closed pipe network, saving an estimated 15 GL of water per year, currently lost through seepage, leakage or evaporation. The pipe network will replace the open channel system and allow expansion of the area presently under irrigation.

Harvey Water has experience in managing infrastructure projects having completed a $90 million project in 2008 to replace old, leaking channels in the Harvey and Waroona irrigation districts, where over 250 kilometres of networked pipe now delivers water under gravity pressure to irrigators, saving an average of 17 GL per year.

The Myalup-Wellington project also proposes a closed pipeline system from the Collie River Irrigation District to Myalup Irrigated Agricultural Precinct that will reinject water from Wellington Dam into aquifers in the Myalup area to address volume and salinity concerns. Rejection of stormwater collected in the Harvey Diversion Drain is also proposed.

The Myalup-Wellington project will be subject to all statutory approval processes.

FACCTS AND FIGURES

Salinity

Collie River East Branch contributes up to 14 per cent of the annual flow and up to 55 per cent of the annual salt load into Wellington Dam.

Irrigation

Lowering salinity in Wellington Dam will also provide an opportunity to access fresh water for localised irrigation nodes near the Collie community.

Each year the Collie River East Branch delivers between 60,000 and 110,000 tonnes of salt to Wellington Dam.
Industry-led solution

- Up to 14 GL per year of saline water in Collie River East Branch to be diverted into a disused mine void for storage. This will prevent between 60 000 to 110 000 tonnes of salt entering Wellington Dam per year.
- Stored water to be pumped to a newly-constructed 20 GL per year privately-owned desalination plant near Collie with disposal of brine pumped to an ocean outfall using an existing pipeline.
- Up to 10 GL per year of potable water from the desalination plant will be sold into Water Corporation’s Great Southern Towns Water Supply Scheme and stored in Harris Dam.
- New Burekup Weir to be constructed upstream of its current location to provide increased head pressure to enable Wellington Dam water to reach the majority of the Collie River Irrigation District and Myalup Irrigated Agricultural Precinct without the need for staging pumps.
- A closed pipeline system to be built from the new Burekup Weir to replace existing open channels to maintain pressure, prevent seepage, leakage and evaporation and enable monitoring of water usage. The pressurised pipe network will enable the use of high efficiency centre pivots and other technologies instead of flood irrigation.
- Up to 10 000 hectares of commercial softwood reforestation to be targeted in the Collie River South catchment.*

* As part of its Softwood Industry Strategy the Forest Products Commission is targeting Wellington catchment for plantation expansion with 600 hectares already established in 2015-16.

Project leadership and governance framework

Water for Food Ministerial Steering Committee

Myalup-Wellington Community Reference Group
- Parliamentary Secretary to the Minister for Water (Chair)
- vegetablesWA
- South West Development Commission
- Shires of Collie, Harvey and Dardanup
- Bunbury Wellington Economic Alliance
- Australian Water Association
- Department of Water

Technical Advisory Group
- CSIRO
- Irrigation Australia
- Department of Agriculture and Food WA
- vegetablesWA
- South West Development Commission
- Department of Water
- Forest Products Commission
- Water Corporation
- Research experts in desalination

Leading the governance framework is a Ministerial Steering Committee made up of the Minister for Water (Chair), Minister for Regional Development, Minister for Agriculture and Food and Minister for State Development. This Committee is advised by Directors General and Chief Executive Officers from relevant State Government agencies and supported by a Community Reference Group and a Technical Advisory Group.
Managed Aquifer Recharge
15 GL/year during winter months only

Pressure Pipework
Distribution of 350 ML/day of water to Collie River Irrigation District direct to farms during summer

Possible recharge from Harvey Diversion Drain to Myalup

Existing Burekup Weir

Colli River Irrigation District

New Desalination Plant
20 GL/year capacity

Disposal of brine to ocean via existing Synergy Pipeline 1.6 GL/year

Diversion of intermittent saline flows; up to 14 GL/year at an average of 3900 mg/L TDS

Existing Mine Void 32 GL storage

Sale of up to 10 GL/year treated water to Water Corporation at Harris Dam

Future reforestation of Collie River South Branch catchment area to prevent salinity increases

New Burekup Weir

Wellington Dam salinity restored to 500 mg/L TDS average (fresh)

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