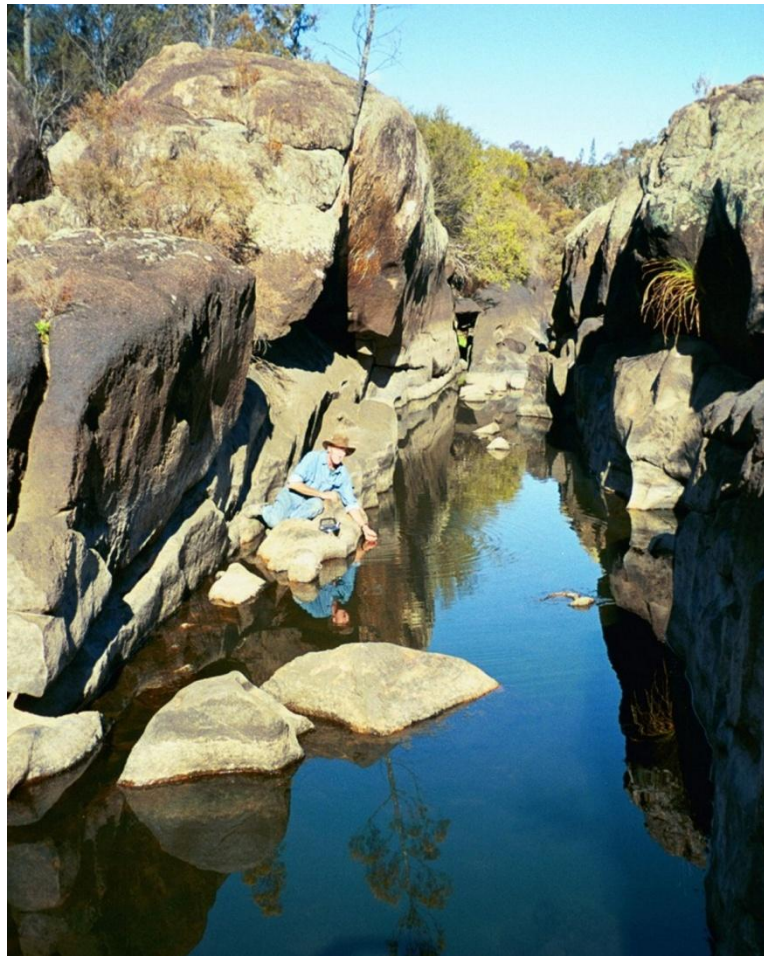


# **EMU SWAMP DAM NOT THE SOLUTION**



## **AN INDEPENDENT REPORT**

**Written and compiled by Rob Simcocks -  
affected landowner and concerned ratepayer**

**27 April 2016**

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*Cover photo: the upper portals to the proposed Emu Swamp Dam site, Severn River, Fletcher, SE Queensland.*

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## INTRODUCTION

This document is a compilation of my notes and thoughts on the proposed Emu Swamp Dam (ESD) project to build either an urban dam or a larger urban/irrigation dam.

The proposed dam site lies on the Severn River upstream of Fletcher Road, 15 kilometres south from Stanthorpe, Queensland. The river flows into the Murray Darling Basin, but being at the headwaters it gathers a relatively small amount of water. The river only runs for brief periods now, as many dams, weirs and harvest licences upstream have already captured the overland and river flow. It is said that staff members of the Department of Natural Resources and Mines (DNRM, formerly DERM) describe the Stanthorpe area as the most dammed/weired sub-catchment in the entire Murray Darling Basin.

I own a block of land in the footprint of the proposed dam site. I am a fourth generation Stanthorpe local and one of about 20 landowners who would be affected by Emu Swamp Dam, if constructed. The current possibilities being considered by Southern Downs Regional Council (SDRC) are to take some of my land for the dam and buffer zone, or to take all of it to use an area around the buffer zone (designated for community infrastructure) for recreational purposes.

While land acquisition and clearing is often what happens when new reservoirs are built, it is alarming to think irrigators from other parts of the Granite Belt who already have large dams on their properties could legally take my land, and that Council could take all of my land and on-sell it for recreational uses (caravan parks, etc) surrounding the dam.

Beyond the personal upheaval the ESD process has already caused, and would cause, to my family, there is a bigger picture, and I am genuine in my greater concern for the Stanthorpe community securing a water supply at an affordable cost for ratepayers. I am also concerned for the damage the dam would cause to a pristine area of the Severn River and the surrounding environment and its ecosystems.

If Emu Swamp Dam were the only option, or if it were the best, most economical and reliable option to secure a better urban water supply for Stanthorpe, I would not be opposed to my land being acquired by Council for the greater good of the community.

However, with all I have learned about the proposed dam over the many years since the project was introduced, I believe Emu Swamp Dam is not the solution and I am opposed to any dam on the Emu Swamp site, urban or otherwise, for all the reasons explored in this report.

The information contained within this report is as correct as I can derive from the media, online articles, Council reports and correspondence, and from my sources. It is only a small part of the ongoing saga of securing water for Stanthorpe. This is a hugely complex story involving years of planning and deliberation and while I make no claim to knowing all that the reports contain, I have done my best to keep up with the development of the project over the last 15 years - not an easy task, as the Council process has not been transparent.

While I have not read everything written about or for ESD, I have read as much as I could access, including taking out a Right to Information (RTI) application in 2011 to read the Unidel Report. The report was not available to the public at that time and I was told by a Council staff member that under RTI legislation, the report can now be accessed through SDRC.

Since ESD was introduced I have spoken out about it in a number of ways, through art, the press, radio and word of mouth. I thought the project would die a natural death when our councillors listened to the advice of the various experts they consulted. But instead they chose to spend money on more reports – and we weren't really told why the original findings were ignored. I now need to speak out in a more comprehensive way through this report.

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There are other viable, and maybe even better, less expensive options available for Stanthorpe, but these options would not supply water for irrigation. Therefore, it seems that the ESD project has been largely driven by the irrigators, leaving any other options largely unexplored.

Based on figures included in SDRC Fact Sheets handed out at a public meeting in 2011 (see Appendix 1), the irrigation component of a combined urban/irrigation dam would cost twice as much as an urban-only dam and would only benefit a relatively small group of farmers in Stanthorpe. While I recognise the importance of summer food production on the Granite Belt and wider region, the rest of the Southern Downs would not directly benefit from the irrigation component of ESD, and yet could end up paying for it.

Ratepayers should be very concerned about the money and time wasted on one very expensive option when other good options were and are available. One has to wonder how the irrigation component acquired so much influence on Council and Stanthorpe's water options.

The ESD process has not been as transparent as a project of this size and importance should be. From where I sit, all sides involved - the irrigators, the ratepayers and even the top politicians - have not been kept fully informed of the many concerns found by the original consultants.

At the time of completing and publishing this document, the Southern Downs region in South East Queensland has entered the next electoral cycle with a new mayor and councillors.

The pre-election process has been an interesting one and Stanthorpe's water, or lack of it, has received extra attention, so my need to speak out through this report may well end up redundant. However, correspondence to me from Council on 16 February 2016, regarding the ESD project, indicated nine studies or feasibilities to be undertaken in the near future. With no commitment from irrigators and no Federal funding announced, it is well and truly time for the SDRC to separate from the irrigators who drove this project and pursue further alternatives in securing the Stanthorpe water supply.

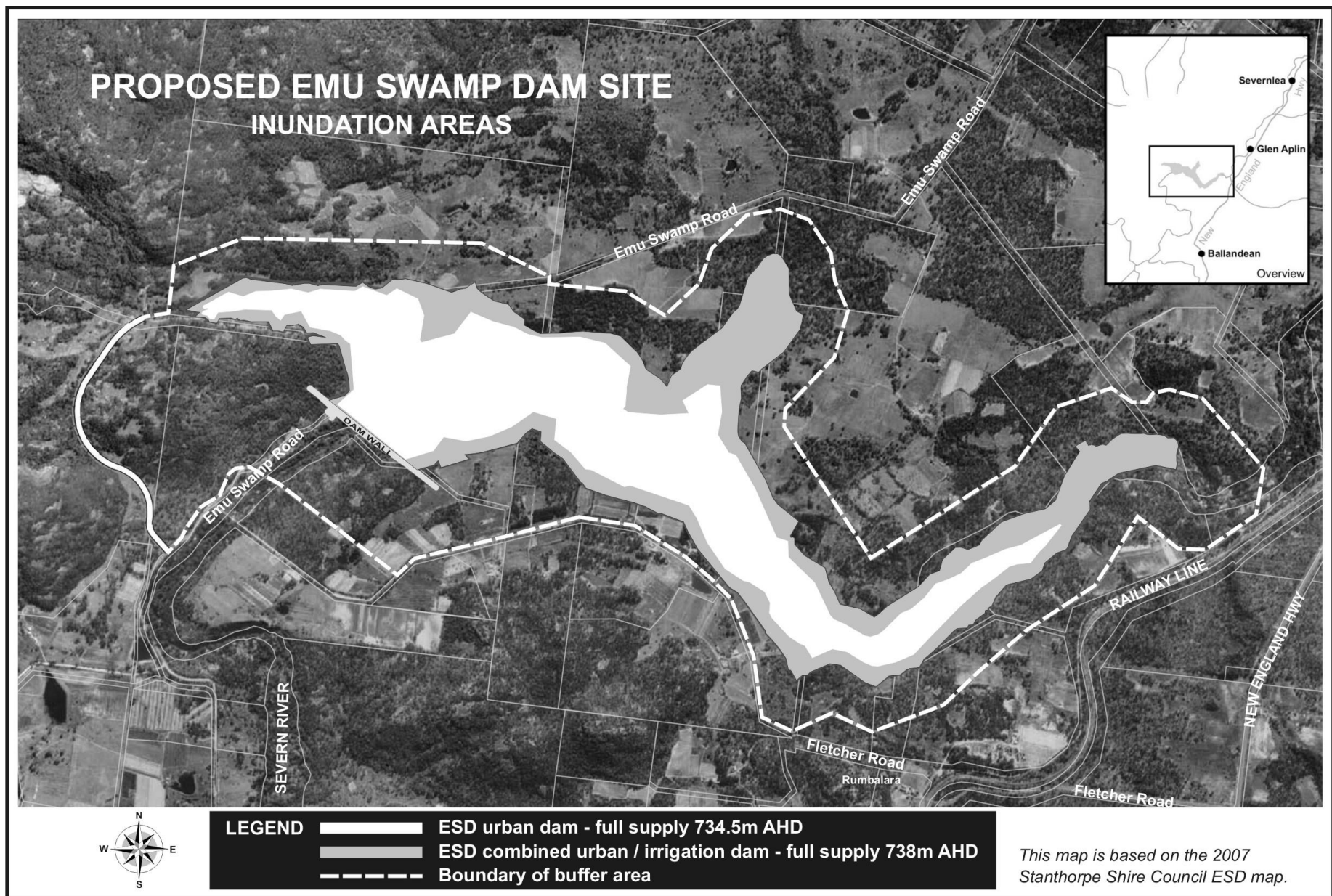
I am hopeful that the new Council will be much more transparent, and that they will endeavour to look after the general community first before the needs of special interest groups, and will pursue, urgently, the best water options for the Stanthorpe community.

## **THE AIM OF THIS REPORT**

The aim of this report is to inform and engage our community in the process of securing an affordable, reliable water supply. The report will present and discuss:

- an abbreviated history of the proposed ESD project
- some of the mostly hidden concerns of the experts/consultants
- why a dam built on the Emu Swamp site is not the solution
- some of the significant environmental issues involved
- why an alliance between Council and a number of farmers/irrigators would be at great risk of failing, at the expense of our community, and
- other possible options for Stanthorpe's water supply.

The challenge for the reader is to verify any claims I have made in this report, to ask questions and involve as many people from this community as possible in finding solutions, regardless of politics or lifestyle views. If this information helps to steer a vote or an opinion in the right direction, the effort of compiling this document will have been worthwhile.



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## AN OVERVIEW OF THE EMU SWAMP DAM PROJECT

**In the mid 1980s** there was a government proposal to build an irrigation dam on Broadwater Creek, upstream of the Emu Swamp site on the Severn River. Farmers were invited to commit to the project and a flow meter was placed at the dam site. Around the same time farmers were warned that soon there would be a moratorium on building new dams on their own farms. Armed with this information, farmers on the north side, upstream of the Broadwater dam site, built huge dams on their properties and the Broadwater Creek dried up. Subsequently, not one irrigator signed up for the Broadwater Dam proposal.

Driven by the need for more water, particularly in the dry years, and unable to build more dams on their properties due to the moratorium on dam-building, a group of around 50 irrigators formed what is now called the **Stanthorpe Community Reference Panel (SCRIP)** and provided around \$350,000 seed money to investigate the construction of an irrigation dam.

As Stanthorpe needs a larger urban water supply, and with Storm King Dam levels often running dangerously low in drought times, investigations commenced on finding a suitable urban dam site or a larger combined urban/irrigation dam site.

**In the early 2000s**, announcements were made about a proposed dam. Two sites south of Stanthorpe, downstream on the Severn River, were identified and investigated, with Emu Swamp at Fletcher becoming Council's preferred choice. **In 2002** Stanthorpe Shire Council made a submission to the draft Water Resources Plan through its engineering consultants Sinclair Knight Mertz. **In 2006** the project was referred to the Commonwealth Minister for the Environment.

**2007.** In February, the Coordinator-General declared ESD to be a 'significant project' and in order for the project to be approved, an **Environmental Impact Statement (EIS)** was required. The Department of Infrastructure managed the environmental impact assessment process on behalf of the Coordinator-General and invited relevant Australian, State and local government representatives and authorities to participate in the process as Advisory Agencies. Public consultation for the draft Terms of Reference for the EIS ran from 31 March to 8 May 2007. On 26 June 2007 the Terms of Reference for the EIS was released.

**2008.** In January the **Emu Swamp Dam Environmental Impact Statement (EIS)** was released. The document identified many problems with the proposed ESD site, not just environmental, but also economic and engineering concerns. Public consultation ran from 12 January to 25 February 2008.

**2008.** In April, the Coordinator-General asked Council to investigate other urban water supply options for Stanthorpe, which had fewer environmental impacts and represented better value for money. In November, SDRC resolved to investigate urban-only water supply options and an Urban Water Planning Working Group was formed in December 2008.

**2009.** The State Government contributed \$236,000 towards investigation into a small weir and Off Stream Storage at Petries Crossing on the Severn River at Severnlea. In addition to Petries Crossing, the working group also looked at other options (see pages 18-19 for more details).

**2010.** In April, an analysis and comparison of five feasible water supply options (see Assessment Criteria on page 18) was presented to Southern Downs Regional Council:

1. Emu Swamp Dam urban only option
2. Off Stream Storage at Diamondvale
3. Petries Crossing Off Stream Storage
4. Emu Swamp 1,600 megalitre Off Stream Storage and 630 megalitre dam; and
5. Connolly Dam pipeline.

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**The report to Council in April 2010 recommended the pipeline from Connolly Dam as representing the best option in terms of all criteria investigated.**

Intent on building a dam with water for irrigation, SDRC commissioned Unidel - an independent Brisbane-based consulting, engineering and technical services company - to research the ESD project viability and produce a report. However, the **Unidel Report**, aligning with other assessments of ESD, also found the site to be significantly problematic.

**June 2011.** Although the Unidel Report found major constraints and concerns in the ESD proposal, Council chose to ignore the environmental, economic and engineering concerns and voted five to three, with one abstention, to proceed with a **Supplementary EIS** at an estimated cost of \$800,000. Councillors Pennisi, MacMurtrie, Bartley, Ingram and McNally voted for proceeding with. Mayor Bellingham, Deputy-Mayor Blundell and Cr Meiklejohn voted against proceeding and Councillor Gow abstained due to conflict of interest.

*This action to proceed, despite concerns, seems to imply that if you don't like the findings of the first reports, ignore them, don't mention the reasons why you are ignoring them, make it difficult for the public to access the reports, and keep spending money until you get a report that supports your objective.*

To proceed with the ESD Combined Urban/Irrigation Project, a **Supplementary EIS** had to be prepared to address all the issues raised in submissions to the original EIS. Consultants Sinclair Knight Merz (SKM, now called Jacobs Group) prepared a cost estimate of \$800,000 and a timeframe of 18 months for the investigations and field work and up to a further 18 months for negotiations with both State and Federal governments to reach a decision. The \$800,000 was funded by monies set aside by the former Stanthorpe Shire Council and carried forward in the work-in-progress budget.

Warwick Daily News journalist Jenna Cairney attended the June 2011 Council meeting. Curious about why the Unidel report wasn't made public, and why Council chose to disregard the findings, Ms Cairney took out the first Right to Information (RTI) application to investigate the report.

**4 October 2011.** An article in the Warwick Daily News, written by Jenna Cairney & Jeremy Sollars, included the following excerpts (see page 27 for full article).

A COUNCIL decision to spend \$800,000 on yet another dam study for Stanthorpe was made against expert advice, confidential documents obtained by the Daily News reveal.

Secret reports detail strident advice from experts that the Emu Swamp Dam, which could cost up to \$80 million, would have no hope of getting government approval for environmental reasons.

All discussions on the Stanthorpe water situation have been held behind closed doors.

However the Daily News has gained access to these reports following a Right to Information application.

Just a day before the reports were released last week council issued a press release inviting the public to a meeting in Stanthorpe.

According to the documents, a June report to council presented consultant Unidel's findings and in conclusion said,

*"The conclusions reached by Unidel align with the message being received from other consultants and state departments - that the Emu Swamp Dam in its current configuration is unlikely to receive approval for environmental reasons."*



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A week after the Warwick Daily News article, what appeared to be a hastily-convened public information night was held by SDRC at the Stanthorpe Civic Centre on 11 October 2011. During the evening several SDRC Fact Sheets about Emu Swamp Dam and other water supply options were handed out to attendees (see scanned copies in Appendix 1). Included in these fact sheets were the following challenges for the ESD project.

- Need for such a large dam has not been supported by demand projections.
- Best practice Demand Management of the existing water supply has not been adequately demonstrated.
- The high, ongoing costs of pumping the urban component of the water to Stanthorpe, is a financial and environmental problem. The cost of pumping the irrigation water through over 100 kilometres of pipeline may be uneconomic.

Also included was a table showing three options for annual costs (see page 20). Based on the figures in the tables our rates could double or ratepayers from other areas, getting no benefits, could be billed.

*Note: Curiously, the SDRC Fact Sheets provided at the public information night seemed to have disappeared from the public domain and are unavailable through Council. They are only available from any attendee, like myself, who has cared to keep them.*

**January 2012.** After talking to journalist Jenna Cairney, I took out the second Right to Information application to view the copyrighted, confidential Unidel Report. I was asked to read it, supervised, at the Southern Downs Regional Council offices. I read it and discovered the following:

There were many significant concerns - economic, engineering and environmental – which would make the proposed Emu Swamp Dam site unviable and uneconomic.

Funding even a nominal \$10 million component of the scheme to cover urban supply could result in a doubling of residential rates.

**2013.** The Supplementary EIS investigation was completed. Also in 2013 Federal Agriculture Minister Barnaby Joyce visited the district.

**2014.** Barnaby Joyce announced ESD was one of 30 dam sites shortlisted for construction across Australia. Conditional to the approval of the ESD project, the Queensland Coordinator-General's department sought additional information to the Supplementary EIS,

**April 2014.** The **Supplementary EIS** was released. Within it I found a significant discrepancy:

In 2008, in the original EIS, the annual reliability of the Irrigation Water Supply is stated as 66.7%, based on water statistics from 1889 to 2008 (over a period of 119 years).

In 2012, in the Supplementary EIS, the Irrigation Water Supply reliability is stated as 93.5% - a jump of 26.8% in the four years between reports.

On what statistics is this new figure based? The math doesn't make sense. Even the floods in 2011 would not have increased the percentage by that amount over a period of 123 years.

State approval for the Emu Swamp Dam project came about while the Newman government was 'cutting red tape'. The Supplementary EIS was sent out from the Coordinator-General's department to the other relevant departments, such as the Department of Natural Resources and Mines (normally for review and comment) and they were told to review but not to comment. In seeking federal funding, it would be much harder for SDRC to avoid Canberra's scrutiny of the economic, environmental and engineering concerns.



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In the **Weekend Australian (23-24 May 2015)** -- under the heading “Ord a ‘Pretty Big Bang’ for our Buck” -- it was reported that \$140 million from the Federal Government White Paper on developing northern Australia will fund the raising of the spillway wall on the Ord Dam, which will add 50% to its capacity and boost land to be irrigated downstream from 18,000 hectares to a potential 100,000 hectares. This will provide downstream low-cost water to 100,000 hectares, compared to spending \$112+ million on Emu Swamp Dam pumping water uphill (up to 107 kilometres), at great ongoing expense, to irrigate a few hundred hectares of agricultural land.

**24 September 2015.** Mayor Peter Blundell and Council CEO David Keenan returned empty-handed from a meeting with Barnaby Joyce in Canberra. Although this was a confidential meeting, a few days later Mayor Blundell bravely announced in the 29 September issue of the Stanthorpe Border Post that he no longer supported the Emu Swamp Dam. From this we can assume no Federal funding is available for the ESD project.

**December 2015.** A survey was conducted for the Jacobs ESD Business Case to gauge agricultural businesses’ support of the ESD irrigation component. There were 31 emailed questionnaires and only 19 respondents. Even though this survey is still open, there are fewer and fewer respondents, and responding to a questionnaire is a long way from a firm commitment.

**10 March 2016.** Heading toward Council elections, Mayor Blundell issued media releases and Facebook posts with the reasons why he thinks the ESD project is not the solution (see page 28 for Peter Blundell’s media release).

## **WHY ESD IS A SERIOUS RISK FOR OUR COMMUNITY**

### ***The dam would be shallow***

Given that Emu Swamp is a swamp, not a V-shaped valley, ESD would basically be a big weir, a shallow profile with a high evaporation rate. The dam wall would only be 5 to 8.5 metres high (5 metres for the lower urban wall and 3.5 metres on top for the irrigators). The problem here is that a shallow dam would not hold water over from a wet event to a drought cycle - based on an average of five years between La Nina and El Nino. Evaporation would take it rapidly. Storm King Dam loses two megalitres of water to evaporation for every megalitre used (SDRC Engineering Department). ESD would end up a mostly dry, barren, weedy wasteland with uncontrollable Noogoora Burr outbreaks.

### ***The irrigation component wouldn’t satisfy demand***

DERM modelling has indicated 100% of water in ESD would be available six out of ten years. During some of those wet years, the growers would have more than enough of their own water in their farm dams. However, in the four dry years, when the growers would want water, supplies would be greatly reduced or even non-existent.

*Once the dam reaches a certain level, water would only be available for urban use. Plus the dam must remain partly open during periods of flows to supply downstream weirs and to maintain environmental flow.*

The Granite Belt, although already over-allocated within the Water Allocation Management Plan, was allocated an extra 3,500 megalitres of irrigation water through the Border Rivers Water Resource Plan (DNRM 2003). I asked within the water department how this came about and was told it was allowed because of wet weather events. However, this floodwater cannot be stored for years in a shallow, high evaporation dam until it is needed for irrigation.

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Reportedly, there were only 50 irrigators originally involved in the Stanthorpe Community Reference Panel with not one of them committed and contracted to this project.

Of great concern is a lack of commitment from a dwindling group of irrigators; the original number of irrigators involved has dropped from around 50 to less than 20.

Farmers who are interested in this project should be aware of the following concerns:

- Following funding repairs to damaged infrastructure caused by the 2011 floods, the irrigation component is regarded as a non-essential project within the State budget due to the high cost of disaster recovery (because it is non-essential, it won't attract funding).
- Frustration over the slow progress of the ESD project has caused many farmers to seek and buy land in other areas to continue farming (eg in the Accommodation Creek area south of Ballandean), with catchment potentials from Wallangarra, Girraween National Park and the Roberts Range. The growing of capsicums, one of the reasons given to progress ESD, is now well under way in other areas with other water supplies.
- An inter-governmental requirement to supply an environmental flow downstream of the ESD, including the need to supply water to existing downstream farm weirs, would result in less yield both for urban and irrigation supplies.
- There is a concern amongst farmers that there is little point in higher production if the extra supply depresses market prices and reduces margins.
- The high cost/low yield for the ESD project currently represents a major impediment to securing funding. Other multiple and more economical options to secure Stanthorpe's water supply have been ignored while the Emu Swamp option is 'on the table'.
- In an article in the Stanthorpe Border Post (18 February 2016), it was stated that a proposed new tax would subject backpackers to a tax rate of 32.5%. This would have a major impact on the region's agricultural business and the supposed need for more water for irrigation.
- Climate change would more than likely be considered no matter which authority, State or Federal, undertakes the next assessment of water availability.

The irrigation component would not increase viability for small farmers, as claimed in 1.4.2 in the Initial Advice Statement (SKM September 2006); it would only benefit a few large-scale corporate agri-businesses able to afford the scheme.

There are many irrigators in this district happy to stay on their side of the fence and farm without government assistance and without burdening the major stakeholder – our community.

### ***There are significant environmental concerns***

In a letter to the affected landowners from the then Stanthorpe Shire Council in March 2007, it was stated, "The Emu Swamp Dam site features two endangered regional ecosystems and is in a bioregional corridor. The Project may also impact the Sundown National Park, some 30 kilometres downstream of the dam site, by removing low to medium flows".

Due to its elevation, topographical variation, outcropping rock and rainfall gradients, the Granite Belt has one of the highest percentages of remnant vegetation in the Murray Darling catchment, and is home to many rare and threatened species of plants and animals. Botanist Paul Donatiu rated the Queensland Granite Belt remnant vegetation at 45% (2011).

The Emu Swamp Dam EIS listed and detailed a number of rare and/or endangered flora and fauna within the Emu Swamp Dam footprint.

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With the construction of the dam, a large pristine area of the river would be bulldozed, cleared and flooded and then the upper part of the dam would remain mostly dry. The laying of the irrigation pipeline would further damage remnant vegetation and its valuable ecosystems.

*Why should a few large agri-businesses be allowed to destroy valuable ecosystems that are not contained within their own boundaries, especially when less damaging options are available?*

Environmental offsets (areas around the dam to be rehabilitated or regenerated) are required for approval of the dam. It is claimed that the offsets would protect rare and threatened species through relocation. However, these offsets cannot achieve what they claim.

**Offsets cannot guarantee protection of rare and threatened species of plants and animals through relocation, because these species are part of an ecosystem that would not necessarily grow in other environments.**

Two examples of failed regeneration in this district are:

- the eastern cattle country reclaimed in Girraween National Park for 30 years and still looking very cleared; and
- the mining areas, such as the Brisbane Claim on Sugarloaf Road, cleared and mined in the early 1900s and still not much more than a monoculture.

Regeneration is also difficult, if not impossible, in drought cycles. This eco-trading scheme is virtually impossible to achieve, and is a mere token at best.

In recent years Council has been selling off some of its parks in order to decrease its management costs and responsibilities. However, if ESD were built, Council would be taking on more challenging management responsibilities including managing the offsets (for up to 20 years), the protected areas with difficult rehabilitation missions, plus the weed problem which would develop in a cleared, mostly dry dam site.

Upstream of the ESD dam site, many farmers have ‘drought-proofed’ their farms by building large on-farm dams before the moratorium on dam building in the late 1980s. This overland flow capture already diminishes the Emu Swamp capability, particularly from the Broadwater Creek catchment from the north and northwest. Many of these properties are no longer farmed, and yet their large dams still capture a significant share of overland flow, thus preventing much rainwater flowing into the creeks and the river.

Also, as many weirs and harvest licences lie upstream, any flow is quickly dried to a trickle. The Stanthorpe area is often called ‘the most dammed/weired sub-catchment in the entire Murray Darling Basin’. The once magnificent Severn River now rarely flows.

The irrigation component has driven the ESD process because summer food production on the Granite Belt and the wider region is important, and while food production in general is of great importance, maintaining environmental flows is vital.

The irrigators were allocated 3,500 megalitres on the whim of one state minister, based on a wet weather event when it was available as flood waters. Because this allocation of water can’t be held in shallow dams until it’s needed, and because the Granite Belt is already over-allocated through many dams and weirs, ethically the irrigators should donate this allocation back to the Murray Darling, for the environment, which is in much greater need.

### ***What would be the real cost to our community?***

At the time of the Unidel Report in 2011, it was estimated that the real cost of the water - including pumping it uphill via three pumping stations - was \$3,600 per megalitre. At the time irrigators indicated they were only prepared to pay up to \$1,200 per megalitre.

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The recent irrigator's survey for the ESD Business Case offers a one-off payment per megalitre, then water at \$380 per megalitre to potential irrigators. *This represents a hand-out, not a hand-up, to a small group of wealthy growers.* At around one tenth of the actual cost of supply, would ratepayers get the same break? Who would pay the balance of the real costs?

Emu Swamp lies 15 kilometres downstream from Stanthorpe. Three pumping stations would be required to move the water uphill 107 kilometres to northern irrigation areas, at significant and rising pumping costs. Since 2011, there has been a 30% increase in electricity costs with the probability that it will continue to rise in coming years, pushing running costs higher.

The article headed 'Emu Swamp Warning' (Stanthorpe Border Post Tuesday 1 March 2016) detailed the significant uncertainty surrounding the dam's impact on Council finances. The review from the Queensland Treasury Corporation warned the cost of building ESD is now estimated at more than \$112 million and would place the Council at risk.

SDRC is currently heavily in debt (more than \$20 million) and would only be able to construct ESD with government-funding, which is now looking unlikely.

However, even if the total cost of construction were completely subsidised, would the community be able to afford the cost of operation and maintenance? What are the costs?

### ***Who would end up managing our water supply?***

It has been suggested that ESD would be run as a company or Pty Ltd, a partnership between the irrigators and Council. Surely our community would be very unhappy if our water supply was run by a minority group of large-scale agri-businesses. Some of the growers who contributed the initial funds for the studies have already sold up.

If the irrigators and Council both take water from one dam, there are legal and contractual issues re ownership, depreciation, maintenance, operation and insurance. Who would own the dam and how would ongoing costs be met?

*Farms are still getting bigger. With a change of the rules in the future, there is a very real risk that those farms, and thus the management of our water, could be sold to overseas buyers.*

### ***There's more to the story than we've been told***

For most of the ESD process, especially since the release of the original EIS and Unidel Report, there has been a lack of transparency and information about the significant concerns and ongoing costs of the project, should it proceed. Throughout the process, the public has mainly been fed the story of the urgent need of a secure water supply, highlighting the benefits while downplaying, even hiding, the many concerns. Because of widespread agreement that we need more water, people in the community have not questioned the ESD process and what it means and how it would affect ratepayers. We need to be asking important questions.

- Why has there been no discussion of the true costs of this project?
- Why were other viable options bypassed for an expensive, problematic option?
- Does Council have a projection of the ongoing costs of ESD? If yes, then why haven't these figures been made public and discussed openly?
- How would any ongoing costs impact our community? Would our rates rise to pay for this dam? And if so, doesn't this mean SDRC ratepayers would be subsidising farmers who have their own water, but want more water for a perceived greater yield?

Many members of the community are already struggling with recent rate rises. Further rises could result in hardship, poverty and people leaving the district.

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The southern irrigation systems, such as the Murrumbidgee Irrigation Area, were developed after the Second World War during wet times. Allocations were made without any consideration of the previous two decade-long droughts around Federation and before WW2.

With allocations only suited to the wet part of the water cycle, and with less rainfall, many of these areas have now failed, and entire towns are winding down. Sixty years later, are we on the brink of making the same mistake?

Over the last 10 to 15 years about \$4 million (\$1.8 million pre-amalgamation and \$2.2 million post-amalgamation) has been spent exploring Emu Swamp as a possible water supply.

*Some say we should go ahead with ESD because we've spent so much money on it already.*

**But what if the original expert assessments are right? What if we spend \$112 million (or more) to build ESD, plus burden the community with what would most likely be high ongoing costs and unpredictable rate rises, only to find out the dam is a failure? Surely it's time to cut our losses, separate from the irrigators and look for new, viable and cost-effective solutions to a secure water supply for Stanthorpe.**

## **GROWTH IN OUR REGION NEEDS TO BE SUSTAINABLE**

As Council plans to attract more development, with more ratepayers to help it pay its way, there will be a need to explore what is working in our district, and what it is that attracts visitors and those who decide to live here.

While population growth is a desirable goal for SDRC, any analysis of land use in this district will find water a major constraint to development – and therein lies a conflict of land use: between the preservation of the iconic nature of the remnant vegetation and natural environment of this district, and any future development which could have detrimental, irreparable impacts on what is special about our district.

Construction of a large urban water supply would give a green light to development of housing blocks (over 700 are planned already). Eventually a cap on development will be required, as the 'carrying capacity' of this district is limited if we are to sustain a healthy natural environment.

We all become tree clearers in our need to protect our homes from bushfires and in the establishment of domestic water supply – areas around dams need clearings. The already large cleared areas of the Warwick district are probably more suitable for housing development than land in and around Stanthorpe.

Large-scale enterprises are highly mechanized and employ only a few permanent locals plus casual seasonal labour. Rather than large centralised development, the Granite Belt suits smart, small business developments, innovative, creative, unique, boutique, cottage industry or online.

Any growth in this region needs to be truly sustainable with little or no further impact on the high percentage of remnant vegetation left in the past due to the rocky granite terrain. Once called "rubbish" country because the rock made it difficult to clear, it is now invaluable in protecting ecosystems, as so much original ecosystem has been destroyed elsewhere.

The natural beauty, native flora and fauna, rocks and boulders are some of the district's major strengths and attractions. It would be prudent to talk limits for the Granite Belt, as over-development could threaten the very reason so many of our community members and visitors are here – the lifestyle and our unique granite environment.

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## OTHER POSSIBLE WATER SUPPLY OPTIONS

When Councillor Vic Pennisi was asked on Local ABC Radio by Belinda Sanders if any other water supply options were being looked at, he replied, “No, not while Emu Swamp Dam is on the table.” However, other options were investigated in 2009-2010 and even found suitable. Other options were not fully considered because they would not supply water for irrigation. It’s time to seek an urban-only water supply.

By ignoring expert advice, and not exploring multiple strategies, Southern Downs Regional Council has put all its eggs in one basket and put Stanthorpe at risk while neighbouring Warwick and Tenterfield have already taken drought-mitigation steps. With 2011 being the wet ‘La Nina’ year, we are now in the dry ‘El Nino’ half of the ten-year cycle.

Multiple strategies implemented expediently, and all for a fraction of the cost, would provide immediate water security for Stanthorpe without further burdening ratepayers.

The following are other viable water options for Stanthorpe.

### → **Build a pipeline from Connolly Dam**

When other options were put forward, a pipeline from Connolly Dam came up on top. The SDRC Fact Sheet (page 17) states that the Connolly Dam Pipeline option is:

**“... is a complete solution to Stanthorpe’s water security problems”.**

The capital cost for the Connolly Dam pipeline was stated as just over \$21 million in 2011 (about \$32 million in 2016 dollars, compared to at least \$112 million for ESD).

- It would supply additional water for Stanthorpe while still being available for the current level of usage for Warwick.
- Operated in conjunction with Storm King Dam, modelling of Connolly Dam showed a yield of 1700 megalitres per year, available at 100% reliability, even taking into account the most severe drought conditions predicted.
- There are no significant environmental issues with this option.
- It is the only option that does not need an emergency backup supply
- It would not require planning approval. The only approval required would be under the *Vegetation Management Act*, for any clearing for the pipeline.
- During the construction period there would be limited noise, dust and traffic impacts as only a pipeline would be constructed.

### → **Implement the Petrie Crossing Weir and Off Stream Storage**

There could be a number of suitable sites for huge covered storage tanks.

### → **Off Stream Storage located at Diamondvale**

This would store water piped from existing storage at Storm King Dam, thereby effectively increasing the storage capacity of Storm King Dam.

### → **Prevent evaporation in dams of existing water storage**

Available now are large interlocking floating hexagons to prevent evaporation (currently being used for mining tailings dam in Northern Queensland). Other anti-evaporation devices are being developed.

### → **Subsidise rainwater tanks**

In Goulburn during the last drought 1,100 subsidised tanks were installed. Water usage dropped, saving the need for installing a \$20 million pipeline.

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→ **Bookookarara Creek Weir proposal**

Good water lies upstream of Storm King Dam, only 12.5 kilometres away in New South Wales. This water could be bought from Tenterfield Shire. Construction of a weir and a tank on the border may cost as little as \$4 million. By comparison, ESD lies 15 kilometres downstream to Stanthorpe with significant and rising pumping costs (for the irrigation component, three pumping stations would be required to move the water uphill 107 kilometres). Current estimate to build ESD is over \$112 million.

→ **Raise and/or deepen Storm King Dam**

Storm King Dam could be raised 10% without the EIS process. It could also be de-silted; Tenterfield dam was desilted and its capacity increased by 20%.

→ **Education of water use, conservation and management**

Water has always been, and will always be, a precious commodity – without water there is no life on Earth. Numerous communities have already implemented water conservation strategies throughout their regions; most people are happy to comply with water conservation. Encouraging people to use water wisely will lower the consumption rate – a timely practice for now and future generations as populations increase.

→ **Separate SDRC from SCRP and the irrigators**

To achieve their allocation, the irrigators have the options of ballot or auction and they could have pursued this from 2011 when problems surrounding ESD emerged.

→ **Seriously consider the advice of the experts**

Seek advice from reputable, trusted consultants, scientists, engineers and economists and carefully consider their advice – value for money spent.

One way to unify the Southern Downs region is to recognize our local strengths, to help protect them from harmful decisions by speaking up for them to our Councillors, and to look for sustainable ways to enhance our strengths for the benefit of the wider community.

Please feel free to contact me by email or phone to discuss this project or this report.

**Rob Simcocks**

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# APPENDICES

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## APPENDIX 1: SDRC Fact Sheets – Stanthorpe Water Options

### Challenges for Emu Swamp Combined Urban and Irrigation Dam

#### FACT SHEET

Stanthorpe Water options



### Challenges for Emu Swamp Combined Urban and Irrigation Dam

#### Gaining Approval

Both the State and Commonwealth Governments must give approval for the dam.

Both State and Commonwealth Governments have expressed concerns about the proposal in their submissions to the Environmental Impact Statement (EIS) and will withhold approval until the issues are satisfactorily resolved:

##### 1 – Environmental issues.

- Downstream aquatic and riparian (along the sides of the river) impacts for vegetation and habitat and impacts on altered flow regimes in the river must be clearly identified and mitigated.
- Vegetation loss including 101 hectares of Endangered Regional Ecosystems
- Individual endangered or threatened flora and fauna species must be protected.
- Fish passage over the dam wall must be provided.
- Loss of habitat connectivity in the landscape will not be accepted.
- Offsets for vegetation and habitat lost by clearing the area required for the dam may be accepted but requirements for the type and condition of the offset areas will be stringent.

##### 2 – Economic issues.

- Need for such a large dam has not been supported by demand projections.
- Best practice Demand Management of the existing water supply has not been adequately demonstrated.
- The high ongoing costs of pumping the urban component of the water to Stanthorpe is a financial and environmental problem.
- The cost of pumping the irrigation water through over 100 km of pipeline may be uneconomic.

#### Funding the capital costs of building the dam & pipelines

The Capital cost of the project has been calculated as \$77,555,000 in June 2009 dollars.

No commitment has been made by either the State or Commonwealth Government to fund all or part of the project.

The State Government is unlikely to support the urban component as other options which are cheaper and have less environmental impacts have been found.

A recent research report commissioned by Council, from Unidel consultants, concluded that the price of water from the Emu Swamp Dam was seen as uneconomic for growers without significant subsidy from Government.

Growers would need to sign up to 100% of costs before the dam was built on a “take or pay” basis.

#### Ongoing funding for operations and maintaining the rehabilitation areas

If the irrigators and Council both take water from one dam there are legal and contractual issues that would need to be solved on ownership, depreciation costs, maintenance costs, operating costs, insurance costs and costs to establish and maintain the offset areas which would be a condition of any approval.

The offset areas would need to be maintained and monitored for up to 20 years.

### FACT SHEET

Stanthorpe Water options



## History—Stanthorpe Water Options

In January 2008 Stanthorpe Shire Council released the Environmental Impact Statement (EIS) for Emu Swamp Dam Combined Urban and Irrigation Dam for public comment.

The assessment of the project is the responsibility of the Queensland Coordinator General.

The project also requires approval by the Commonwealth Government because of nationally important environmental issues.

Twenty-eight submissions were received from local residents, government departments and interest groups. The proposal was generally seen as too expensive and having serious environmental impacts.

The Coordinator General asked Council to investigate whether other options existed for an urban supply for Stanthorpe that had fewer environmental impacts, and represented better value for money.

In November 2008 Southern Downs Regional Council resolved to investigate urban only water supply options. An **Urban Water Planning Working Group** was formed in December 2008.

The State Government contributed \$236,000 towards investigation into a small weir and Off Stream Storage at Petries Crossing, on the Severn River at Severnlea.

The Working Group comprised SDRC staff, consultants from Sinclair Knight Merz (SKM) who prepared the EIS, the SRDC Deputy Mayor, representatives from the Queensland Department of Environment and Resource Management and the Queensland Department of Local Government and Planning, and the Coordinator General's office.

The working group also looked at some options in addition to Petries Crossing.

These additional options included:

- An Off Stream Storage located at **Diamondvale**, which would store water piped

from the existing storage at Storm King Dam, thereby effectively increasing the storage capacity of Storm King Dam.

- A pipeline to bring water from Council's existing Connolly Dam to Stanthorpe.
- A 1600ML Off Stream Storage and a smaller dam (630 ML) at Emu Swamp
- Drilling deep bores at various locations to tap into deep aquifers. These bores were found to be not feasible.

Detailed assessments of the feasible options were prepared based on the following criteria:

### Assessment Criteria

- **Amount of water** which could be delivered
- **Costs** calculated in June 2009 dollars, including Capital cost, cost per megalitre of water able to be supplied and annual operating cost (including loan interest and depreciation).
- **Affordability**, based on cost per connection for either Stanthorpe water customers only, Warwick and Stanthorpe water customers only, and all SDRC water customers
- **How long the additional supply** will satisfy future demand and population growth, including an assessment of whether any emergency supply would also be needed in case of severe and extended drought.
- **Environmental impacts**, and how many different levels of approval are required.
- **Social benefits and impacts**, including impacts on affected landholders.
- **Risks to getting an approval** or financing the project if approved.
- **Ability to expand the project** in the future to increase supply.

An analysis and comparison of the five feasible options were presented to Council in April 2010.

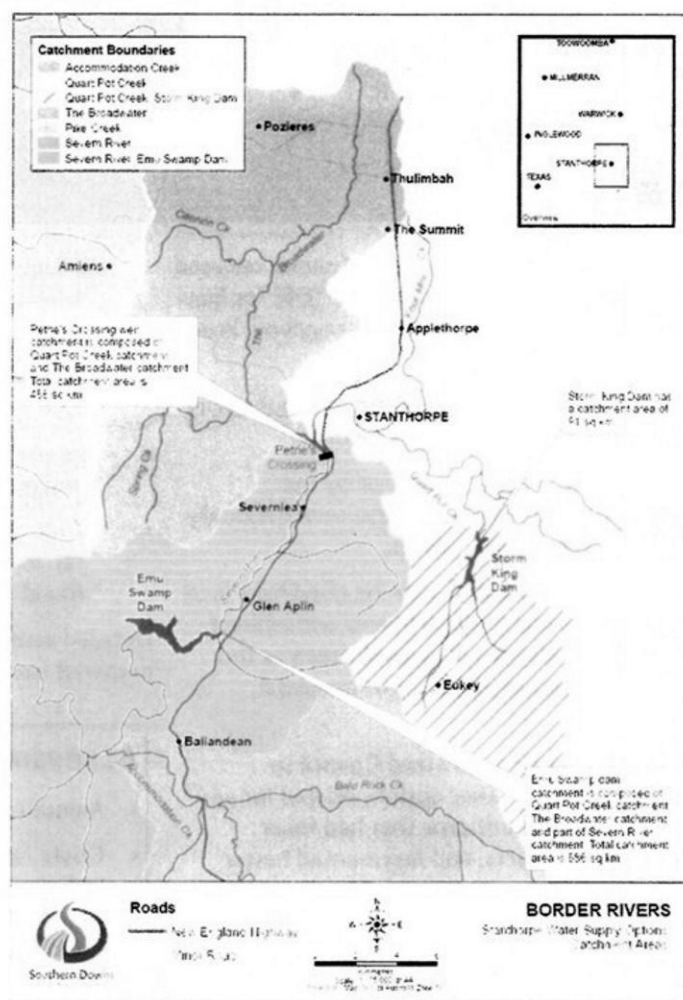
The five options were:

1. **Emu Swamp Dam – urban only option.** 5000 ML dam with a 23 Km pipeline to Stanthorpe against a static pumping head of 110 metres.
2. **Off Stream Storage at Diamondvale.** An 800ML capacity OSS, fed by the existing pipeline from Storm King Dam, with a short new pipeline connecting it to Stanthorpe.
3. **Petrie's Crossing—an 800ML capacity Off Stream Storage,** filled from a 30ML pumping pool at , and delivered to Stanthorpe by a 7 km pipeline against a static pumping head of 75 metres.
4. **Emu Swamp 1600 ML Off Stream Storage and 630 ML dam** delivered to Stanthorpe by a 25 km pipeline against a static pumping head of 125 metres;
5. **Connolly Dam pipeline—**Water would be pumped from Connolly Dam along a 35km long pipeline against a static pumping head of 323 metres to Stanthorpe.

The report to Council in April 2010 recommended the pipeline from Connolly Dam as representing the best option in terms of all criteria investigated.

In June 2011 Council resolved to proceed with the original Emu Swamp Dam Combined Urban and Irrigation Project.

To proceed with that project a Supplementary EIS must be prepared, to address all the issues raised in



the submissions to the original EIS.

An estimate of the costs and timeline for the Supplementary EIS was prepared by Consultants SKM, and indicated a cost estimate of \$800,000 and a time frame of eighteen months for the investigations and field work and up to a further eighteen months for negotiations with both the State and Federal Governments to reach a decision.

The \$800,000 will be funded by monies set aside by the former Stanthorpe Shire Council and carried forward in the work in progress budget.

## FACT SHEET

Stanthorpe Water options



# Emu Swamp Dam

**Urban only** - As described in the original Environmental Impact Statement released in 2008.

### Description

A dam would be constructed on the Severn River at Emu Swamp on the Severn River with a full storage capacity of 5000ML. The water would be pumped to the Mt Marlay Water Treatment Plant along a 23 km pipeline against a static head of 110 metres.

Yield from this option has been modelled as 400ML per annum at 98% monthly reliability. This means that 400ML, or more, could be drawn from the dam in 98% of all months.

The capital cost of the project has been assessed as \$41,438,000. The total annual cost for this option

is dependent on the extent of capital funding assistance available e.g. total annual cost without subsidy is \$4,023,000 and with 40% subsidy \$2,806,000.

The affordability is dependent on the level of capital funding assistance and the rate base over which the total annual cost is shared.

Funding Assistance	Total Annual Cost (including loan repayments)	Option 1 –paid by Stanthorpe connections (2394)	Option 2—paid by Stanthorpe & Warwick connections (8734)	Option 3—paid by All SDRC connections (10182)
No capital subsidy	\$4,023,000	\$1,680	\$461	\$395
40% capital subsidy	\$2,806,000	\$1,172	\$321	\$276

### Meeting future water demand

This option will supply Stanthorpe only. Based on an average current demand of 500ML per annum taken from Storm King Dam the additional 400 ML per annum from this option, at 98% monthly reliability, would supply growth in the town and provide for one new water using industry, until 2056.

### Need for Emergency Supply?

The additional yield of 400 ML per annum would be available in 98% of the months in the modelled period. This means that for 2% of the months the yield cannot be supplied and a highly reliable emergency supply must be identified.

### Social Benefits and Impacts

The additional water security for Stanthorpe has major social benefits for the whole community.

Fifteen landholders will be directly affected by the dam and one property will be affected by the pipeline. Emu Swamp Road will be cut near Stalling Lane and Stalling Lane will be cut off, requiring a new road to be

constructed to serve the properties on Stalling Lane.

The new water body will provide recreational opportunities for the whole community. During the construction period there will be severe noise, dust and traffic impacts.

### Risks

There are significant risks with this option. The main risk is that the option would not gain approval from the Commonwealth and State Government for environmental reasons as described over the page.

The process of trying to gain approval by completing the Supplementary EIS, as required by the Coordinator General, would be expensive and cause lengthy delays.

The catchment of the dam includes the town of Stanthorpe and several villages, leading to concerns about water quality.

A fish way would need to be included in the weir design and approved under the Fisheries Act.

There is an existing strategic

allocation for an additional 1500ML per annum of water for urban use under the Resource Operations Plan (ROP).

An application to DERM to access the new allocation will be required. There may be a requirement to purchase the additional allocation and to pay an annual operational charge to DERM.

If an approval could be secured for the project, the question of how the \$41,438,000 capital cost will be paid must be answered.

There will be significant ongoing costs for management of the rehabilitation and vegetation offset areas that would be required under any approval.

Expansion capability - There is the possibility of raising the dam wall to expand the capacity of the storage in this location.

Whether this could gain approval from the State and Commonwealth Government is not certain. Further modelling would need to be done to verify how much extra yield could be obtained.



### Environmental Impacts

Approval under the Commonwealth Environment Protection and Biodiversity Conservation Act (EPBC Act) is required for the project as the relevant Minister has determined that the project would have a significant impact on an ecological community listed as critically endangered under that Act.

Approvals under the following Queensland Acts are also required:

- Vegetation Management Act 1999
- Nature Conservation Act 1992
- Fisheries Act 1994.

An Environmental Impact Statement was released in January 2008. There were significant environmental issues and concerns raised in submissions to the EIS, which would have to be addressed in the Supplementary EIS.

The major areas of concern are summarized below:

- Surveys to determine the extent of the distribution of the endangered Bells Turtle and any impact from the project on those populations are required.
- The Supplementary EIS must identify and address impacts on aquatic ecology from altered flow regimes, specifically between the proposed project and the confluence of the Severn River with Accommodation Creek by additional surveys of riparian vegetation, aquatic vegetations, fish populations, fish habitat, integrity of regional ecosystems, connectivity in the landscape and ecological processes.
- Further survey work on the regional extent and distribution of the endangered plant, *Melaleuca williamsii* is required.
- Further details regarding the proposed offset strategy for approximately 40-77ha of EPBC listed endangered ecological community are required. The location, size, condition and security of tenure and active management arrangements of the proposed offset locations(s) must be discussed. The Commonwealth requires information regarding the scientific certainty, demonstrated effectiveness and probable success of any proposed offsets.
- In addition to Offsets under the EPBC Act, offsets for the Regional Ecosystems cleared and any essential habitat for species listed under the *Nature Conservation Act 1992* are required and more information on how this will be achieved has been requested.
- The Department of Environment and Resource Management (DERM) Policy for Vegetation Management Offsets requires that any impact on connectivity in the landscape (or adverse effects on the identified Wildlife Corridor) cannot be satisfied by an offset and other means must be found to address this issue.

### Emu Swamp Dam (Combined Urban and Irrigation Dam)

As described in the original Environmental Impact Statement released in 2008.

#### Description

A dam would be constructed on the Severn River at Emu Swamp on the Severn River with a full storage capacity of 10,500ML. The water would be pumped to the Mt Marlay Water Treatment Plant along a 23 km pipeline against a static head of 110 metres. About 105 km of pipelines would be built to deliver water to farmers who participate in the scheme.

The dam would be operated so that the "bottom" 5000ML would be quarantined for urban use, ie when the dam level dropped to 5000ML no irrigation water would be available.

#### Costs

Council's consultants, Sinclair Knight Merz, have updated the cost estimates for the combined urban / irrigation dam to June 2009 costs apportioned between irrigation and urban component are as follows:

Urban Component	\$21,224,433
Irrigation Component	\$56,330,991
<b>Total</b>	<b>\$77,555,424</b>

The environmental issues are the same as for the urban only dam, but much greater areas would be impacted.

There are unresolved issues about how the dam will be funded, who would own the dam and how ongoing costs would be met.

## Pipeline from Connolly Dam to Stanthorpe

### FACT SHEET

Stanthorpe Water options



## Pipeline from Connolly Dam to Stanthorpe

### Description

Water would be pumped from Connolly Dam along a 35km long pipeline against a static pumping head of 323 metres to the Mt Marlay Water Treatment Plant. The exact route for the pipeline has not yet been determined however it is envisaged that it would be generally located along existing road reserves. A booster pump station and balancing tank would be required at The Summit.

### How much water would it supply?

The pump and pipeline has been designed to deliver a maximum of 750ML per annum from Connolly Dam to Mt Marlay. The combined draw on the dam for Stanthorpe usage, and the existing use of about 400ML per annum for Warwick is well within the existing allocations for Connolly Dam.

Cost—The capital cost is \$21,163,000. The total annual cost for this option (based on an

average supply of 300ML per annum) is dependent on the extent of capital funding assistance available. E.g. total annual cost without subsidy is \$2,180,100 and with 40% subsidy is \$1,541,710.

### Affordability

The affordability is dependent on the level of capital funding assistance and the rate base over which the total annual cost is shared.

Funding Assistance	Total Annual Cost (including loan repayments)	Option 1 –paid by Stanthorpe connections (2394)	Option 2—paid by Stanthorpe & Warwick connections (8734)	Option 3—paid by All SDRC connections (10182)
No capital subsidy	\$2,180,100	\$911	\$250	\$214
40% capital subsidy	\$1,541,710	\$644	\$177	\$151

### Meeting future water demand

This option will supply additional water for Stanthorpe while at the same time still being available for the current level of usage for Warwick.

Based on an average current demand of 500 ML per annum, the additional 750 ML per annum for Stanthorpe would meet predicted growth in the town and provide for new water using industry, well past 2056.

### Need for Emergency Supply?

Modelling of Connolly Dam operated in conjunction with Storm King Dam shows that a yield of 1700 ML per annum is available at 100% reliability, even taking into account the most severe drought conditions predicted. There is no need for an emergency supply for this option.

### Environmental Impacts

There are no significant environmental issues with this option. Some clearing would be necessary for the pipeline. The vegetation involved and the narrow width of clearing mean that the clearing may be able to be approved under the Regional Vegetation Management Code for Brigalow Belt and New England Tableland Bioregions Version 2 dated 6 November 2009.

### Risks

There are few risks with this option. This option would not require planning approval and the only approval required would be under the *Vegetation Management Act*, for any clearing for the pipeline.

### Social Benefits and Impacts

The additional water security for

Stanthorpe has major social benefits for the whole community.

This is the only option which does not need an emergency backup supply, and is a complete solution to Stanthorpe's water security problems.

The exact location of the pipeline and balancing tank has not been determined and there may be some impact on landholders from easements.

During the construction period there will be limited noise, dust and traffic impacts as only a pipeline would be constructed.

### Expansion capability

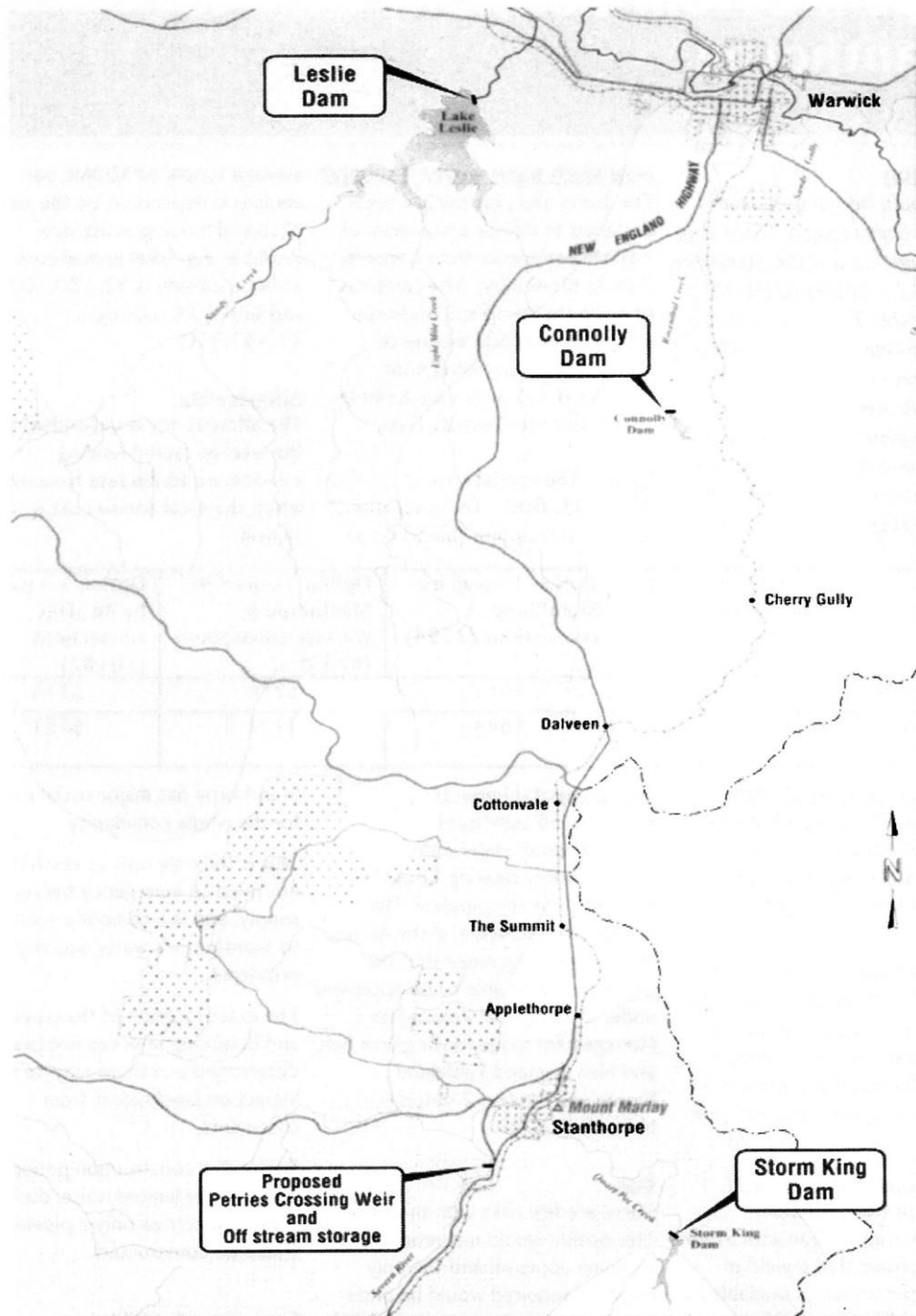
No, unless the pipeline was redesigned to deliver higher volumes.



## Pipeline from Connolly Dam to Stanthorpe



MAP (below) - shows where Connolly Dam is in relation to Stanthorpe



## FACT SHEET

Stanthorpe Water options



# Petries Crossing Weir and Off Stream Storage

### Description

A small weir would be constructed on the Severn River adjacent to Petries Crossing to create a 30ML pumping pool. Water would be harvested from the weir pool, during periods of high stream flows, into an 800ML Off Stream Storage (OSS).

The water would be pumped to the Mt Marlay Water Treatment Plant along a 7 km pipeline against a static pumping head of 75 metres. Water would be sourced from the

OSS whenever available, in preference to Storm King Dam.

### Yield

The option has been modelled as one system with Storm King Dam and provides an additional highly security yield of 300 ML over the existing Storm King Dam yield of 500ML per annum.

### Cost

The capital cost of the project has been assessed as **\$17,348,000**.

The total annual cost for this option is dependent on the extent of capital funding assistance available. e.g. total annual cost without subsidy is \$1,753,000 and with 40% subsidy is \$1,223,000.

### Affordability

The affordability is dependent on the level of capital funding assistance and the rate base over which the total annual cost is shared.

Funding Assistance	Total Annual Cost (Including loan repayments)	Option 1 – Paid by Stanthorpe connections (2394)	Option 2 – Paid by Stanthorpe & Warwick connections (8734)	Option 3 – Paid by All SDRC connections (10182)
No capital subsidy	\$1,753,000	\$732	\$201	\$172
40% capital subsidy	\$1,223,000	\$511	\$140	\$120

### Meeting future water demand

This option will supply water to Stanthorpe only. Based on an average current demand of 500 ML per annum, the additional 300 ML per annum, at 98% monthly reliability, would meet predicted growth in the town and provide for one new water using industry, until 2056.

### Need for Emergency Supply?

The additional yield of 300 ML per annum would be available in 98% of the months in the modelled period. This means that for 2% of the months the yield cannot be supplied and a highly reliable emergency supply must be identified.

### Environmental Impacts

Approvals under the following Queensland Acts are required:

- *Vegetation Management Act*

1999

- *Nature Conservation Act 1992*
- *Fisheries Act 1994*.

This project has been designed with input from State Government Departmental staff with the aim of reducing environmental impacts to a minimum and providing the best yield at the lowest cost.

The design of the project minimises the impact of construction and inundation on the vegetation and therefore on habitat for fauna species. It is likely that approval could be obtained under the *Vegetation Management Act 1999* but offsets may be required. A fish way has been designed for the weir; however Queensland Fisheries, who administer the *Fisheries Act 1994*, have declined to comment on whether it is adequate. If a more complex or larger fish way is

required this would increase construction costs.

### Social Benefits and Impacts

The additional water security for Stanthorpe has major social benefits for the whole community. Only one landholder will be directly affected by the OSS and weir and one property will be affected by the pipeline.

During construction there will be noise, dust and traffic impacts.

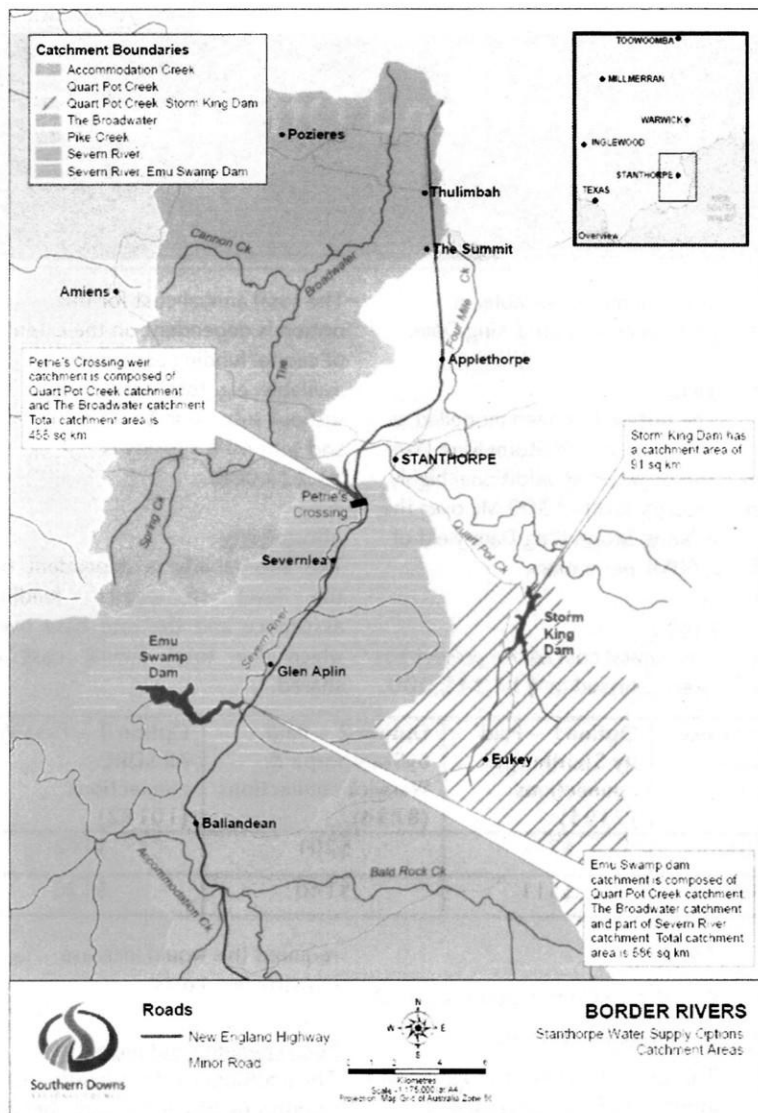
### Risks

There are some risks associated with this option. The weir and off stream storage would be a Material Change of Use under the Planning Scheme and would be dealt with under Sustainable Planning Act.

*Continued over page...*

## Petries Crossing Weir and Off Stream Storage

MAP - shows  
location of Petries  
Crossing Weir



### Risks (Cont.)...

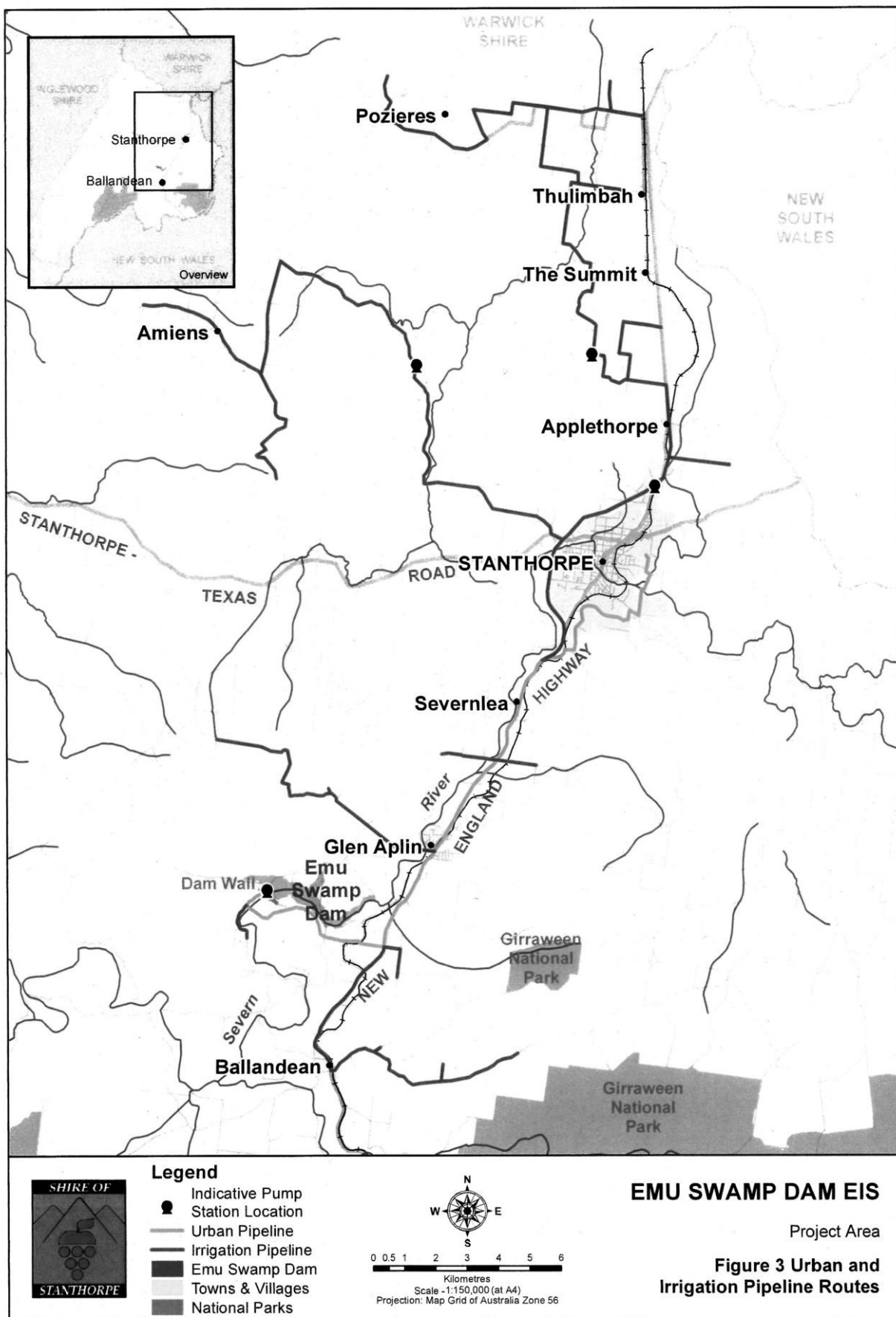
There is an existing strategic allocation for an additional 1500ML per annum of water for urban use under the Resource Operations Plan (ROP). An application to Department of Environment and Resource Management (DERM) to access the new allocation will be required. There may be a requirement to purchase the additional allocation and to pay an annual operational charge to DERM. The catchment of the weir includes

the town of Stanthorpe and several villages, leading to concerns about water quality. In addition, the weir is immediately downstream of the Stanthorpe Sewage Treatment Plant. Whilst the majority of the treated effluent is utilized for irrigation of sporting fields and agricultural purposes, discharge to the river system does occur from time to time. To limit the effect of this on water quality construction of a bypass pipeline has been included in the cost estimate for the option.

### Expansion capability

A second 800 ML OSS could be constructed in the future which could provide an additional 200ML per annum at high reliability. The availability of this additional yield will be subject to its availability under the ROP.

## ESD Urban and Irrigation Pipeline Routes



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## APPENDIX 2: Warwick Daily News article - 4 October 2011

*Text copied from Warwick Daily News online archive.*

<http://www.warwickdailynews.com.au/news/pouring-council-funds-down-the-dam-drain/1124928/>

# Pouring funds down the dam drain

Jenna Cairney and Jeremy Sollars | 4th Oct 2011 2:00 AM

A COUNCIL decision to spend \$800,000 on yet another dam study for Stanthorpe was made against expert advice, confidential documents obtained by the Daily News reveal.

While the Daily News is waiting for Southern Downs Regional Council to confirm how much has been spent on studies over the past two decades, it's believed to be in the millions.

Secret reports detail strident advice from experts that the Emu Swamp Dam, which could cost up to \$80 million, would have no hope of getting government approval for environmental reasons.

All discussions on the Stanthorpe water situation have been held behind closed doors.

However the Daily News has gained access to these reports following a Right to Information application.

Just a day before the reports were released last week council issued a press release inviting the public to a meeting in Stanthorpe.

According to the documents, a June report to council presented consultant Unidel's findings and in conclusion said, "The conclusions reached by Unidel align with the message being received from other consultants and state departments - that the Emu Swamp Dam in its current configuration is unlikely to receive approval for environmental reasons."

Despite this, council moved in June to proceed with the \$800,000 supplementary environmental impact statement for the project, which could take 18 months to complete.

Mayor Ron Bellingham, Peter Blundell and Neil Meiklejohn voted against the recommendation but were defeated six votes to three.

With the new Resource Operations Plan due to be drawn in 2014, the fear is the Border Rivers region could lose the 4500 ML of unallocated water that State Government has suggested as a potential gift to the Commonwealth for the Murray Darling Basin plan.

Speaking yesterday, Cr Bellingham said he wanted to make sure the Stanthorpe community was fully informed about the proposed dam.

Cr Bellingham said next week's public meeting would present the full and latest facts on the controversial plan, studies on which have already cost both Warwick and Stanthorpe ratepayers heavily over the last two decades.

The mayor said council needed to be sure they were "taking the Stanthorpe community with them" whatever path they chose.

"We need people to understand that a firm commitment would be needed from the State Government for the main share of funding as our community could not possibly bear the entire cost."

Councillors have been split in the past over a long-term solution for Stanthorpe's urban water woes, particularly after reaching crisis point during the drought in 2007.

LNP premiership candidate Campbell Newman was also lobbied extensively during his visit to Stanthorpe last month.

Cost estimates have put the Emu Swamp option at over \$77 million, with previous indications from the State Government being council would have to pick up about 40 per cent of the cost or about \$30m.

Local growers remain split over how best to use 3000 ML State Government irrigation component, with options including the Emu Swamp project or by securing greater on-farm storages.

Many have voiced concern water from an Emu Swamp Dam would be unaffordable.

The public meeting will take place at 7pm on Tuesday October 11 in the Stanthorpe Civic Centre.

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## **APPENDIX 3: Mayor Peter Blundell Media Release - 10 March 2016**

*Text copied from 10 March 2016 Facebook post - [www.facebook.com/blundellformayor/](http://www.facebook.com/blundellformayor/).*

### **MEDIA RELEASE: Emu Swamp Dam is not the solution**

Since amalgamation, Southern Downs Regional Council has spent over \$2 million on reports and studies to support the case for Emu Swamp Dam.

This was after reviews assessed that the project was neither financially viable nor environmentally sustainable – reviews that carried significant additional costs.

Ask yourselves why, after 15 years of investigations and lobbying, the project has not received guaranteed funding except for pre-election verbal assurances.

Ask why neither state nor federal governments on both sides of the political spectrum have not committed funding to the project.

The reasons are quite simple. The business case does not stack up.

There is undoubtedly a desire to see increased agricultural activity in the region, and there is a need for additional water to achieve this.

However, the water is needed when levels are low. Water will not be available when levels are low due to environmental requirements and the depth of the dam.

Yet the costs of the infrastructure remain the same regardless of whether or not there is demand or availability of supply.

Farmers cannot be expected to commit to infrastructure they cannot use when needed, and when the dam is full there is reduced demand.

The costs of the construction alone are expected to exceed over \$100 million and this does not account for ongoing operational costs.

So who will pay for the operational costs, even if the dam construction was funded?

Council policy has been set so that every rate payer with access to drinkable town water pay the same cost per litre used.

Every water user in the Southern Downs will be paying for the cost of this project for the foreseeable future.

The same candidates who are promising rate reductions have not taken this simple fact into account yet continue to support the project.

This also includes Councillors who are telling you they didn't back the budget, while continuing to support the project.

There is a solution.

Water infrastructure projects across the country that are being approved and receiving funding are for weirs with off-stream storage.

These weirs can service both agricultural and urban supply, are at least 70% cheaper to build, do not require pumping water 30km upstream and have higher reliability.

Although this information was given to Councillors over five years ago, the majority decision was to continue pursuing Emu Swamp.

While I did not support the decision this is how the democratic process works but I cannot remain silent any longer.

There is a solution and the solution does not have to burden ratepayers.

Please think carefully about who you will elect and whether you want this to be the future of this region.

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