

A Summary Of Our Case



1. The Dam is Unnecessary:

- The dam is only a **small part** of a much larger Brownhill Keswick Creek Draft Stormwater Management Plan.
- 93% of the costed works or \$139.2million out of \$150million do not involve the dam (see page vii: **2012** Stormwater Management Plan/SMP). **We support an SMP that replaces the dam with a feasible alternative.**
- **Only 20% of the physical catchment for stormwater is above the dam site.** 80% of the catchment comprises Parklands Creek, Glen Osmond Creek, Keswick Creek and the Urban Brownhill Creek catchment. (See page 14: **2012** SMP). The dam will not provide any protection against urban flash flooding, caused by short duration rain events. Downstream works must be carried out to protect against this flooding. **Expanding these downstream works eliminates the need for a dam.**
- **Viable alternatives** to the proposed dam are available. Worley Parsons state on page 36 of their Bypass Culvert Feasibility Assessment study that Option 3A is "*feasible from a hydraulic perspective*". Option 3A involves \$2.1million of channel works in the Mitcham Council area and a 1480m diversion culvert from Hawthorn to Malcolm Street in Millswood, using the railway corridor. Even with a dam 5270m of culverts will be installed in the Unley Council area at a cost of \$45.6million. This option only adds 860m of culvert length in Unley and fully uses the rail corridor, meaning that no roads or properties are significantly affected in Unley. This option should be cost neutral and will have minimal impact on trees.

Read more: 2012 Brownhill Keswick Creek Draft Stormwater Management

<http://www.mitchamcouncil.sa.gov.au/page.aspx?u=1593>

www.mitchamcouncil.sa.gov.au

2. It is Unacceptable to Damage the Environment and Heritage of Brownhill Creek by Constructing this Dam.

- The dam site is right in **the heart of Brownhill Creek Recreation Park**, which is designated as a **Heritage Site** in the 2003 Department for Environment and Heritage Brownhill Creek Recreation Park Management Plan. In the foreword to the plan, John Hill (then Minister for Environment and Conservation), states: "**Brownhill Creek Recreation Park has long**

been cherished by South Australians and as one of our states oldest parks, it is rich with cultural heritage”.

- The dam site is classified as a **Natural Monument** under the International Union for the Conservation of Nature, recognizing its environmental and historical significance. On page six of the DEH plan it is stated that “management of BHC Recreation Park will be consistent with the... IUCN Category 3 Management Objectives”. The site is listed on the World Data Base of Protected Areas.
- The Kurna call this area **Wirraparinga** and the dam site was a significant hunting, camping and ceremonial place for the traditional owners and custodians. This site is still significant to the Kurna people and should be respected.
- Two species of state-listed threatened native fish (Mountain Galaxias-rare and Climbing Galaxias-vulnerable) survive in the deep pools at the site, as well as The Big Headed Gudgeon. The Park is also a refuge for Mammals, Birds, Native Bats, Reptiles and Frogs (pages 19 -21 BHC Recreation Park Management Plan). Significant trees, representing our Colonial Heritage, are under threat and have been listed by The National Trust for both State and National significance. The Park has been placed on The National Trust **At Risk Register**.
<http://www.mitchamcouncil.sa.gov.au/page.aspx?u=1595&c=15252>
<http://www.nationaltrust.org.au/sa/HeritageRisk2012>
- Given that there are alternative flood mitigation options to the dam, then the key hydrology objectives on page 17 of the BHC Park Management Plan, should be followed: ***“Restore and maintain natural hydrology as far as possible”.***
- It makes no sense to permanently ruin the last 4 kilometres of Brownhill Creek under state protection for an ***unnecessary dam***.

Read more on our website: Friends of Brownhill Creek submission paper on the “Environmental and Heritage Aspects of the Proposed Dam in Brownhill Creek.”

3. Preserve the Integrity of Brownhill Creek Recreation Park:

- ***The open space and aesthetics of this special park***, set aside for the people of South Australia in 1841 by Governor Grey and only 10kms from the city centre, are valued by our local community, the wider community, along with interstate and overseas visitors.
- ***Politicians should heed their call to protect this park (see our community petition containing 8,000 signatories).***

- For 170 years Brownhill Creek has been a reminder of ***Governor Grey's successful long-term vision***. Given that there are viable options to the proposed dam, will our current politicians be remembered forever for their short-term political thinking, which led to the destruction of Brownhill Creek Recreation Park, or for their long term vision which created ***a win for the environment and a win for those currently at risk from flooding***.

4. Dam Design and Costing

- The exact design of the proposed dam in Brownhill Creek, including the type of construction and the environmental and visual impacts, will not be considered until after the dam is approved! Even a geo-technical survey (earthquake risk?) will not be carried out until after approval is given!
- We do know that the spillway height is 12 metres. This means that the sidewalls of the dam will be at least 3 metres above this height (freeboard) in order to direct water over the spillway, resulting in an overall height of at least 15 metres (5 storeys high).
- The engineering and design company GHD involved with previous dam proposals in Brownhill Creek, have stated: ***"A spillway with three metres of freeboard has been assumed to provide the required spillway capacity". (Preliminary Assessment of Detention Basins on Brownhill Creek 2008 GHD). That would confirm the overall height of the dam at 15 metres.***
- ***The footprint of the dam will span 100 metres or more across the valley*** (2012 Draft Stormwater Management Plan figure 20) and most likely extend 60 metres upstream and downstream (120 metres toe to toe).
- Under ANCOLD guidelines (Australian National Committee on Large Dams) the dam would be rated ***Extreme Hazard***, because of the potential threat to lives below the dam if it failed (it is sited above a caravan park and residential suburb). The scale of the dam has been understated.
- ***This will not be a small earth dam blending into the environment.***
- Worley Parsons suggest that it could be a concrete core structure with large rock or mattresses of wire mesh filled with rock on its downstream side. The upstream side would most likely be covered in riprap (small rock boulders).
- ***The dam is not designed to hold water for long periods*** and a 1.5 metre diameter outlet pipe at the base of the dam will let water through at a

flow rate close to that of the 2005 floods. Significant works will be required below the outlet.

- A Cofferdam will be built upstream of the main dam to aid construction and works yards will be built. It has been assumed in the Draft Plan that material for the dam wall will be quarried from the valley.
- Security fencing and signage will add to the visual impact, with this dam ***permanently scarring Brownhill Creek Recreation Park***.
- A report has been released demonstrating that ***the dam has been under costed by perhaps 40% or more***. This reduces the economic viability of the dam and ***improves the economic viability of the alternatives***.

Read More: Submission Papers on Dam Costing and Design on our website.

5. Public Consultation.

- The Brownhill Keswick Creek Stormwater Management Plan Community Consultation Report states, ***“Analysis of the feedback forms received showed that the flood control dam at Brownhill Creek Recreation Park was the least supported component of the Draft Plan overall”*** (Executive Summary page vi).
- In the Mitcham Council area, where the proposed dam is to be built, 74% were opposed to the dam.
- If the ***submitted*** No Dam in Brownhill Creek petition of 4,010 signatories (valid stake holders: users of the Park) had been included in the total return figures, then the overall result would have been ***76% against the dam*** and 21% pro dam.
- The Summary Page of the Consultation Report is misleading because it does not explain the details of the mail out, which led to a skewed pro dam bias. 26,539 summary and feedback forms were delivered, mainly to West Torrens (16,861) and Unley (6,157). Mitcham residents only received 1,055. Despite this a weak response of only 1,241 pro dam was received, out of 26,539 delivered, or 4.7%.
- **According to Mitcham Mayor, Michael Picton: “The community is keen to move on with the majority of the proposed project but has major concerns about the construction of a dam, in particular the environmental impact that a dam will have on Brownhill Creek Recreation Park”.**
- Given that the supposed aim of a public consultation is to gauge community opinion, then clearly the Draft Plan should be amended to

exclude the proposed dam. Viable alternatives could then be implemented instead.

Read More: Mitcham Council Media Releases (On Home Page, click on Council, then Council News). www.mitchamcouncil.sa.gov.au

“Consultation on Brownhill Keswick Creek Stormwater Management Plan Confirms Community Opposition to Dam”.

<http://www.mitchamcouncil.sa.gov.au/page.aspx?u=1070&c=14619>

6. Conclusion.

If the Stormwater Management Authority (a statutory body) force a Stormwater Plan through with a dam, in defiance of legitimate community concerns, then this will not reflect well on the current government led by Premier Weatherill. The people of South Australia were promised a more transparent and consultative approach under the new leader and the proposed dam in Brownhill Creek will test this promise.

We support the 2012, five catchment councils’ agreement to “pursue a feasible No Dam solution”, but a dam has not yet been ruled out. The 2012 Stormwater Management Plan divides the project into Parts A and B. Part A works (80%, \$120m) in the Keswick Creek Catchment and Lower Brownhill Creek Catchment can proceed. Part B works (20%, \$30m) in the Upper Brownhill Creek Catchment, including the proposed \$10.8m dam, are under further investigation.

With a feasible No Dam alternative available and strong community opposition to the proposed dam, it makes *no* sense to permanently destroy the environment and heritage of Brownhill Creek Valley/Wirraparinga, by approving the construction of a dam.

No Dam in Brownhill Creek, Community Action Group

Please visit our website:

www.brownhillcreek.org

Please visit Mitcham Council’s website:

www.mitchamcouncil.sa.gov.au

Click on “Brownhill Creek Stormwater Management”.

