

Flood Mitigation Without a Dam



Ron Bellchambers, spokesperson for
No Dam in Brownhill Creek Action Group

Community Support for a No Dam Solution

- Conservation Council SA
- The Kurna Nation Cultural Heritage Association
- Community Alliance SA
- The Friends of Brownhill Creek
- Mitcham Historical Society
- Nature Foundation SA
- Increasing local government support across council areas
- Numerous small community groups
- No Dam Petition with over 10,000 signatures

Community Response



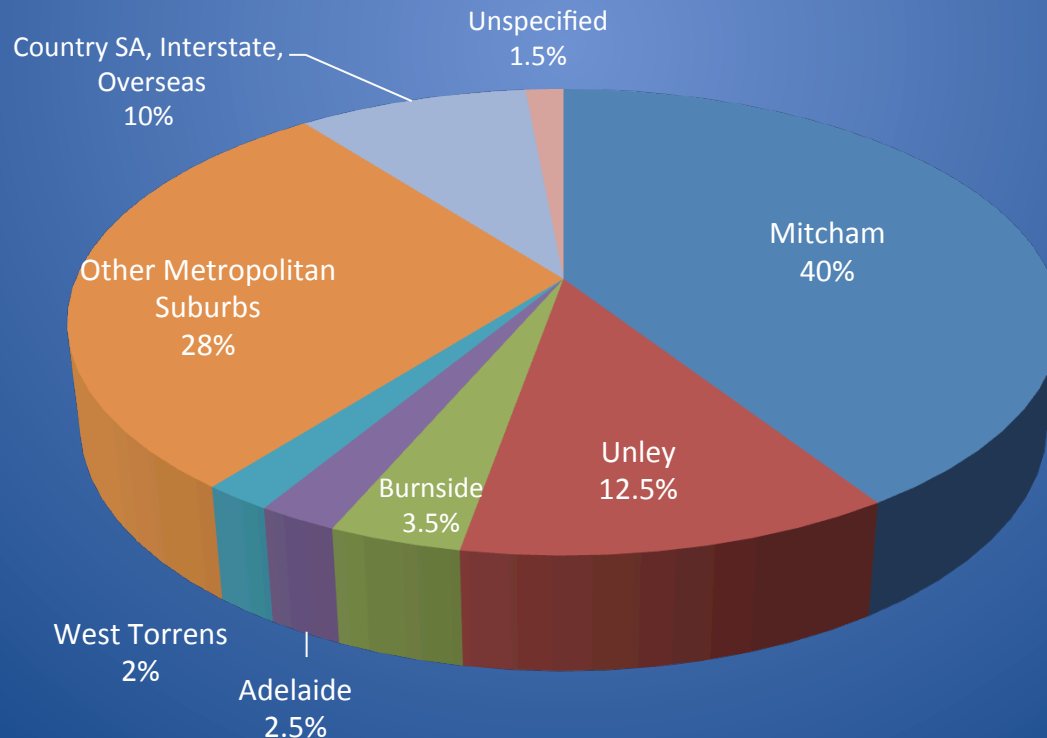


No Dam in Brownhill Creek Petition 2011/2014 Data Analysis

Total values of signatories to the *No Dam in Brownhill Creek* Petition divided by residential grouping:

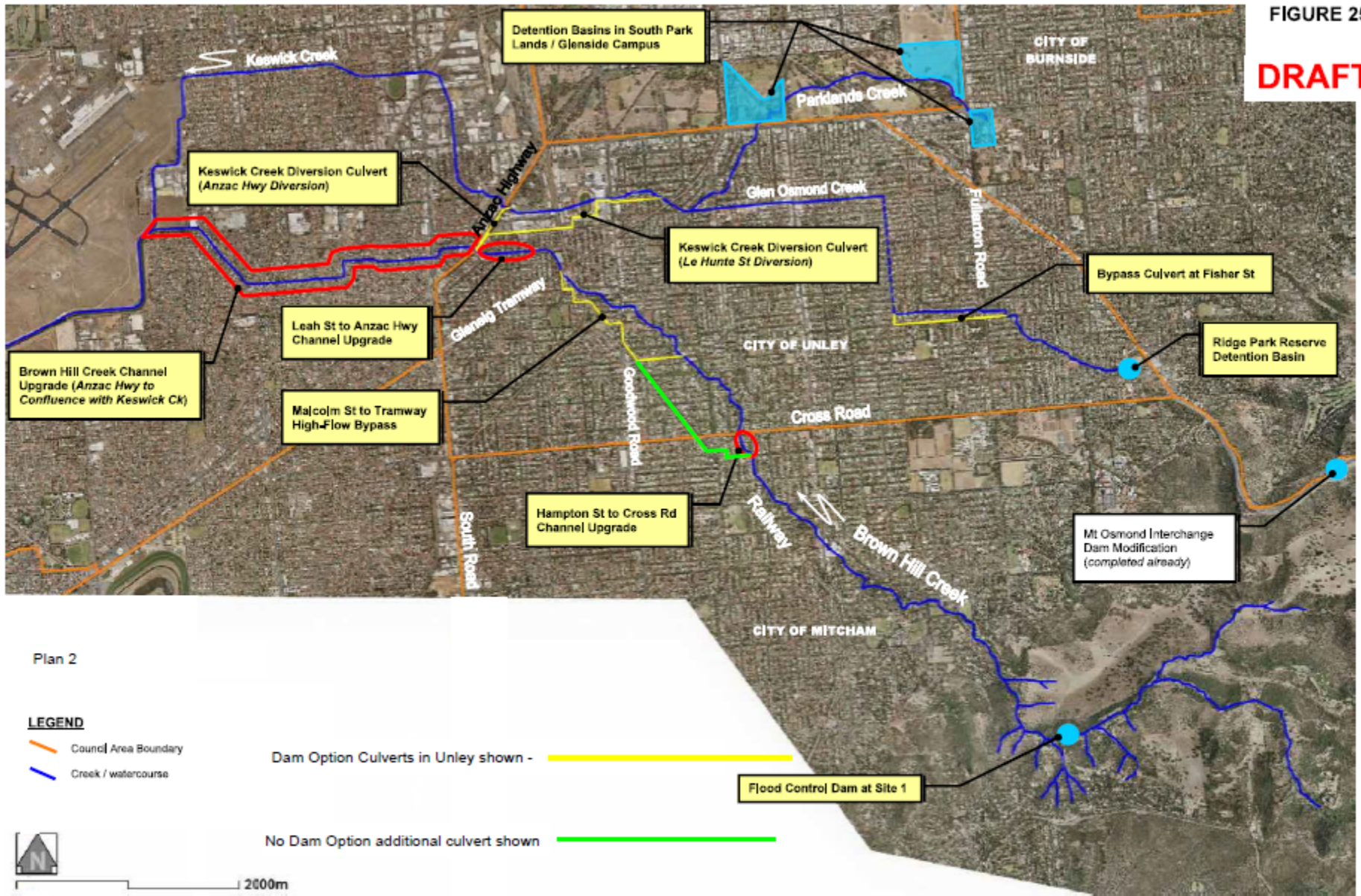
City of Mitcham	City of Unley	City of Burnside	Adelaide City Council	City of West Torrens	Other suburbs	Country SA; interstate; overseas	Unspecified address	TOTAL Signatures to the petition
4,035	1,261	353	252	202	2,824	1,009	151	10,087

Petition Signatories by Council Region



We Support the Five Catchment Council Agreement

- Due to widespread community opposition to the dam, the five councils (Adelaide, Burnside, Mitcham, Unley and West Torrens) have agreed to a new strategy.
- Councils are now “committed to a preference to pursue a feasible and whole of catchment, community supported, *No Dam* solution”.
- Part A project works (80% of the total cost) have been agreed to in the Keswick Creek and lower Brownhill Creek catchment.
- Part B project works (20% of the total cost) in upper Brownhill Creek, above Forestville Reserve, are under investigation.
- A Channel Upgrade solution is now a priority for upper Brownhill Creek and looks set to provide a breakthrough.



Plan 2

LEGEND

- Council Area Boundary
- Creek / watercourse

Dam Option Culverts in Unley shown - —

No Dam Option additional culvert shown - —



2000m

Recommended Stormwater Management Strategies.

A channel upgrade option for upper Brownhill Creek is about to be recommended.

Flood Mitigation Works

COMPONENT	CAPITAL COST (2012 \$ M)		
	2011 DRAFT SMP	OPTION 3 BYPASS CULVERT	OPTION 3A BYPASS CULVERT
Part A Works			
Detention basins in the South Park Lands / Glenside Campus	\$17.6		
Modify Mt Osmond Interchange Dam outlet.	Completed in 2008		
Inline flood detention system in Ridge Park Reserve and stream rehabilitation	\$1.1		
Bypass Culvert at Fisher Street	\$4.5		
Keswick Creek to Brown Hill Creek Diversions at Le Hunte Street and Anzac Highway	\$31.9		
Brown Hill Creek Channel Upgrades between Forestville Reserve and Anzac Highway	\$14.9		
Brown Hill Creek Channel Upgrade from Anzac Highway to the Confluence with Keswick Creek	\$49.1		
Sub-Total Cost	\$119.1	\$119.1	\$119.1
Part B Works			
Flood Control Dam at Brown Hill Creek Recreation Reserve	\$10.8	-	-
Minor Channel Works in Mitcham	\$0.8	\$2.1	\$2.1
Channel upgrade between Hampton Street & Cross Road	\$2.8	\$2.8	\$2.8
Bypass Culvert between Malcolm Street and Forestville Reserve	\$14.1	\$19.0	\$18.1
Bypass Culvert between Hampton Street and Malcolm Street	-	\$11.0	\$8.5
Sub-Total Cost	\$28.5	\$34.9	\$31.5
TOTAL CAPITAL COST	\$147.6	\$154.0	\$150.6

A Dam is Not Required

- **An upper Brownhill Creek channel upgrade is the preferred No Dam option for Part B works.** This will provide direct flood mitigation to affected residents, who will be engaged in the process. It appears feasible and cheaper at this stage. This should mean no dam and no large hi-speed diversion culverts in Unley.
- No Dam option 3A is also available. It is feasible and should be cost neutral when an accurate cost of the dam is established.
- Option 3A involves channel works in Mitcham and one additional diversion culvert in Unley, making use of the rail corridor. Only 860metres of this 1500metre culvert will be in Unley. Note that even with a dam, 5,270metres of culverts are proposed to be built in Unley.
- **With downstream works enhanced a dam is not required. The system will accommodate the flow from both short and long duration 1 in 100 year rain events.**

Dam Provides No Protection for Short Duration Rain Events

TABLE 9 FLOW REDUCTION AFFORDED BY SMALLER DAM AT SITE 1

LOCATION	PEAK FLOW (m ³ /s)			
	BASE CASE (no dams)		DAM AT SITE 1 (12 m height to spillway)	
	36 Hour Storm	90 Minute Storm	36 Hour Storm	90 Minute Storm
Scotch College	26.1	3.7	19.5	3.7
Belair Road	30.2	18.7	21.7	18.7
Cross Road	35.4	27.8	27.7	27.8
Goodwood Road	37.1	29.4	28.2	29.4
Anzac Highway	38.9	33.9	29.7	33.9

Brownhill Creek is Still Threatened by an Unnecessary Dam

- The proposed dam is being politically driven by a small group of advisors.
- They need to reassess their position, because a channel upgrade solution for upper Brownhill Creek is set to finally bring all councils, communities and community groups together.
- This would result in a complete Brown Hill Keswick Creek Stormwater Management Plan (Parts A and B) and a chance to secure state and federal funding.
- New accurate data, revised hydrology and flood mapping, have enabled this breakthrough to occur.

What Type of Dam?

- SMEC report confirms an Extreme Hazard concrete dam.
- At least 15metres in overall height and spanning 120metres across the valley.
- At least twice the cost of original estimates, this dam will inflict two years of disruption on residents, both inside and outside the valley.
- Its construction will permanently destroy the environment and heritage of Brownhill Creek Recreation Park.



Environment and Heritage Concerns

Site 1: Seven Pines

- Brownhill Creek Recreation Park (1841) / Wirraparinga
- Kurna and Colonial heritage site
- 'Natural Monument' (IUCN)
- Stone Pines listed as trees of state and national significance
- National Trust (At Risk Register)
- Last section of state protected creek line
- A precious community resource for recreation and relaxation, used by thousands of South Australians and tourists
- Gateway to Yurrebilla, The Greater Mount Lofty Parklands



Site 2: Ellisons Gully

- 2006 Master Plan site
- Out of Park. But!
- Aboriginal heritage
- Important Colonial market gardening and mining history
- Mitcham Water Works heritage site

What Can We Do?

- We are the custodians!
- Inform and mobilize the community.
- Keep adding to the powerful No Dam petition.
- Help provide financial, intellectual and logistical support for the No Dam campaign.
- Knowledge is power. Keep calling for a transparent and factual process.
- Be there to support our deputations and campaign events.
- United we can save the environment and heritage of Brownhill Creek Valley / Wirraparinga and Ellisons Gully.
- We can achieve flood mitigation without a dam!

We have benefited from past legacies.

What legacy will we leave for future generations?

