

CITY OF ONKAPARINGA

CHRISTIE CREEK UPGRADE PROJECT

Focus Group Report

July 2008

Prepared by Barbara Chappell

Simply Speaking

Seanachai

ABN: 45877463103

Table of Contents

EXECUTIVE SUMMARY 3

METHODOLOGY 5

RESULTS 6

CONCLUSIONS19

APPENDIX A – RECORDED COMMENTS.....21

APPENDIX B – OVERVIEW OF PROJECT36

APPENDIX C – INDIVIDUAL ISSUES OF IMPORTANCE37

EXECUTIVE SUMMARY

In 2005, the City of Onkaparinga considered proposals to undertake flood mitigation works within the Christie Creek system. It resolved that works only be undertaken in the event that multiple benefits could be achieved (i.e. including water collection and storage for reuse, aquifer storage and recovery, environmental aesthetics, erosion control including silt mitigation, precipitation and containment, and improved water quality).

The Christie Creek system was identified in the 2007 Adelaide Metropolitan Coastal Water Study as a source of high contamination and discharge to the marine environment. The current system sees significant erosion and subsequent discharge of sediment to the marine environment. The Christie Creek Upgrade Project as an element of Water Proofing the South (see www.onkaparingacity.com/wps) aims to address flooding risks and water of poor quality entering the Gulf St Vincent, whilst being complemented with the value of capturing water for reuse in surrounding areas.

Community Engagement Consultant Barbara Chappell from Simply Speaking was engaged by the City of Onkaparinga to:

- ✓ Prepare a Community Engagement Strategy to assess the level of awareness, interest and understanding in the local community of three key elements:
 1. Flooding risks in the areas surrounding Christie Creek
 2. The value of water capture and reuse; and
 3. Impact of low water quality on the marine environments
- ✓ Prepare communication materials to inform stakeholders and the general community about the project and the opportunities to be involved in Focus Groups
- ✓ Facilitate Focus Groups to consult stakeholders from the Christie Creek catchment area from the beginning of June to mid July 08, to provide opportunities for the provision of information about the project, focussed discussion on issues and concerns and the gathering of information.
- ✓ Prepare a Summary Report on outcomes of Focus Group discussions to inform briefings to tenders on the preparation of concepts for delivery of the Christie Creek Upgrade Project.

Three Focus Groups were held during July 2008. They were attended by 60 people in total. Overall there was a general appreciation of the process among the three

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Focus groups and the opportunity to be involved in planning for the project was acknowledged as a positive experience. There was general support for the project and recognition of the financial assistance provided by the three tiers of government.

The dynamics of each Focus Group were distinctive and resulted in a rich diversity of experience related to awareness, interest and understanding of the Christie Creek catchment area. Contributions to the discussions were perceptive, innovative and generally focussed on a positive future for the creek. A strong interest in developing broader community involvement in the long term care of the creek was expressed by the three groups. The distinct common observations shared throughout the discussions included:

1. Inconsistent flow rates through the creek
2. Large volumes of rubbish in the creek
3. Observed negative changes to the creek environment
4. Reference to three distinct sections along the creek (source of the creek at Woodcroft, catchment area throughout Morphett Vale, Lonsdale and Christie Downs and mouth of the creek at Christies Beach and O'Sullivan Beach)
5. Community responsibility for the care of the creek
6. Inconsistent perceptions of flood risk

The level of awareness, interest and understanding in the local community of the three key interest areas was highest for the "value of water capture and reuse". There was discussion on the "impact of low water quality on the marine environments", however there was also considerable discussion on water quality relating specifically to the creek environment. The residing proximity of participants to sections along the creek catchment area from the source of the creek in Woodcroft through to the mouth of the creek between Christies Beach and O'Sullivan Beach appears to have influenced interests and perceptions of Focus Group participants. There were some references made to "flooding risks", however, overall the perception of risk was low to medium.

There are four key result areas in the report, (1) Proximity, (2) Expectations, (3) Comparison Summaries and (4) Individual issues of importance. The data collated from the latter three result areas all reflect common themes.

Summaries of the input from each Focus Group are presented in the body of the report. A full account of all comments recorded during the Focus Group sessions is contained in **Appendices A and C**.

METHODOLOGY

Invitations to register for a Focus Group session were mailed to 4,046 residents, community groups and business owners within a 1 km radius of Wilfred Taylor Reserve, Morphett Vale and generally along the Christie Creek corridor from the hills face through to the coast. An advertisement welcoming interest in the Focus Groups was placed in "On The Grapevine" in the Messenger Press and a notice placed on Council's web site. A total of 120 responses were received and there were 60 registrations for the three sessions. The total combined number in attendance at the Focus Group sessions was 48. The remaining 60 respondents requested to be kept informed of the process.

Three Focus Group sessions were held in the Woodcroft Community Centre, 175 Bains Road Morphett Vale on the following dates:

Wednesday	09 July 2008	7pm-9pm
Saturday	12 July 2008	11:30am – 1:30pm
Monday	14 July 2008	7pm-9pm

The format for the Focus Group sessions included:

- ✓ Participants listing their expectations for the session on arrival
- ✓ Brief overview of Waterproofing the South and where the Christie Creek project fits into it, an outline of the funds available and the key elements that need to be addressed in the project, and the proposed tendering process. See **Appendix B**.
- ✓ Structured facilitated session based around a series of four questions designed to generate discussion on the three key elements listed in the engagement strategy. The aim of the questioning was to gain insights into the attitudes, perceptions, beliefs and feelings of the participants and to allow them to state their needs and concerns.
- ✓ All comments from participants were recorded on a laptop computer and displayed on screen to enable a review and revision of comments to ensure clarity.
- ✓ Summary of how the information from the session will be used to provide information to three companies engaged to provide tenders for the project.
- ✓ Outline of next stage of engagement process involving the Focus Groups
- ✓ Opportunity for participants to individually list key issues that had most importance for them. See **Appendix C**.

The purpose of each of these activities is explained in the **RESULTS** section of the report.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

RESULTS

The results have been divided into **four** key areas:

1. **Proximity** to sections along the Christie Creek system
2. Participant **expectations** for the Focus Group sessions
3. **Comparison summaries** of responses to four questions posed to the three Focus Groups
4. Summary of **individual issues of importance** for participants

1. PROXIMITY

Table 1 lists the number of participants from each suburb and the three sections of the creek referred to throughout the report. These figures are included to provide information about the make up of the Focus Groups and their proximity to the sections of the creek.

Table 1

Wednesday 9 July 08	Saturday 10 July 08	Monday 14 July 08	Totals
Upper Creek Section			
Woodcroft Park 1	Woodcroft - 3	Woodcroft - 3	7
		Happy Valley - 1	1
Mid Creek Section			
Morphett Vale - 14	Morphett Vale - 8	Morphett Vale - 5	27
Christie Downs - 2			2
Lonsdale - 1		Lonsdale - 1	2
Coastal Creek Section			
	Aldinga - 1		1
	Christies Beach - 3		3
Port Noarlunga - 1			1
		O'Sullivan Beach - 1	1
Suburb not listed			
3	1	1	3
Total			48

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

2. EXPECTATIONS

Participant were asked to share their expectations at the beginning of the Focus Group sessions to: (1) establish a measure for them to determine at the end of the session, if their expectations had been met; (2) to inform the facilitator about the general interests of the participants for inclusion throughout the session; (3) to enable the session facilitator to clarify any misconceptions about the purpose of the session. Their expectations are recorded in **Table 2**.

Table 2

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • What does council have in mind ✓ General info ✓ Linear park ✓ What possibilities are ✓ Environmental health ✓ Waterproofing the south ✓ How these plans fit into Waterproofing the South ✓ Information sharing ✓ Natural health pollution ✓ Informed council proposal ✓ Utilising stormwater ✓ Contribute to and understand plans ✓ Care and maintenance ✓ Options available for flood mitigation, stormwater etc 	<ul style="list-style-type: none"> • What does Council have in mind? ✓ Information ✓ Brainstorming ✓ Effects on permanent water supply • Update community with attitude to creeks/water • Info regard underground storage and aquifers ✓ Coastal benefits ✓ The creeks future <ul style="list-style-type: none"> ▪ Birdlife – concerned about decline ▪ Purification – concerned about pollution ▪ Management ✓ Listen to ideas 	<ul style="list-style-type: none"> ✓ Action instead of talking • Better understanding of what Council is going to develop (rain/stormwater runoff) ✓ General information on proposal • Informed of plans to facilitate Christie Creek system • Identify and produce a plan for South/Brodie Road and flooding ✓ What cultural outcomes will be ✓ Industrial capture and storage ✓ Identification of issues ✓ To meet people with similar concerns regarding quality of creek ✓ Improve water quality ✓ Determinations on removing waste

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> ✓ Proposed Christie Creek catchment information ✓ How to contribute ✓ Water capture and reuse ✓ How to stop rubbish and erosion ✓ Cleaner water ✓ Possible use of weirs if necessary 	<ul style="list-style-type: none"> ✓ Financial aspect ✓ Creek tidied – general clean up ✓ Biodiversity enhancement 	<ul style="list-style-type: none"> ✓ No treated water in food industry • Information regarding storage ✓ Learn about Christie Creek catchment

Expectations met during the sessions have been ticked. The main objective for the sessions was to seek community input to the Christie Creek Upgrade Project. There were some expectations that plans had already been developed for the project and they would be presented for discussion at the sessions.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

3. COMPARISON SUMMARIES

The responses to the 4 questions posed to the Focus Groups are presented in the following tables to allow comparison between the three groups to determine areas of commonality and diversity. The dot points listed have been extracted from the complete list of comments in **Appendix A** and summarised to capture the key points to inform the tendering process for the Christie Creek Upgrade Project.

Question 1- What do you know or have you heard about the water issues related to Christie Creek?

Table 3

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • Silt build up, rubbish and contaminated run off going out to sea a major issue – water quality not up to standard • Considerable discussion on the changes to the flow of water through the creek system by people who have lived in the area over the past 30 years. Drought conditions contributing to changes. • Observations that previous flood mitigation programs, the installation of pipes under the creek bed and the collection of water in two dams on the Thaxted 	<ul style="list-style-type: none"> • Natural water course taking surface water out into ocean – industrial and residential development contributing to erosion of creek banks • Major negative changes to the ecology of the creek noticed • Rubbish and pollution is having a serious impact on the flora and fauna in the area • Introduced plant species and Minor birds along the creek having an impact on the natural environment • Pressure of stormwater flows increased by residential development is causing erosion along creek banks • Stormwater run off is being wasted because it is not being captured 	<ul style="list-style-type: none"> • Inconsistent flow causes growth of green algae, stagnation and a build up of debris that needs to be captured before it affects the quality of the water • Rubbish increases during heavy flows and contributes to flooding risk • No grates over stormwater drains to capture rubbish • School community of 400 children are trying to clean up the upper-mid section of the creek closest to their school • Dumped garden waste, overflow from septic tanks and manure from livestock flows into the creek

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<p>golf course had reduced the flow of water through the creek</p> <ul style="list-style-type: none"> • Unclear about what surveying and investigations Council has already conducted • Discussion on the dams at the upper section of the creek and their impact on water flows and a proposal made 12 – 15 years ago to capture water at the bottom section of the creek • Negative changes to the ecology of the creek noted • The perception of flooding risk was low 	<ul style="list-style-type: none"> • Reductions in natural flow of water observed by people who have lived in the area over the past 20 to 30 years, particularly over the past two years • Damming of the creek at the golf course reducing flow to creek environment • Reduced flow having an impact on rural communities who do not have mains water • Drought having an impact on water flow • A build up of rubbish and pollution of the water at the lower sections of the creek flowing out to sea have been observed, whereas above the golf course at the top section of the creek, the water quality appears to be very good and the eco system is healthy • Irresponsible dumping of residential waste • Care of the creek environment needs to be well informed • Perception of flooding risk was low • Diversion channel under Wheatsheaf Road gets rid of water very quickly 	<p>from the upper section</p> <ul style="list-style-type: none"> • Debris from road users washed into the creek is a big problem • Major negative changes to the ecology of the creek noticed – number of frogs has declined, however rabbit numbers are on the increase (only group to mention rabbits) • Reduction in water flow over the past two years by resident who has lived in the area for the past 30 years due to drought conditions. • Small dams on farms reducing water flow through creek • Strategic approach to identifying water supply and management of water flow needed • Perception of flood risk was medium and related to the amount of rubbish that finds its way into the creek

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<p>Summary:</p> <p>Main discussion topics included non-natural (“man”-made) changes to water flows and the impact of rubbish in the creek on water quality and silt build up. Upper (Woodcroft) and mid (Morphett Vale) sections of the creek were identified for specific impacts on water flows resulting from damming of water. Less water available due to drought. Negative impacts on the creek ecology were discussed. Perception of flooding risk was low. A clear majority of participants at this session were from Morphett Vale (14).</p>	<p>Summary:</p> <p>Reductions in water flows from non-natural changes and the impact of rubbish on the creek were key discussion topics. The impact of drought was noted. Distinctions between the quality of water in the upper (Woodcroft) and lower (Christies Beach) sections of the creek were discussed. Perception of flooding risk was low.</p> <p>The majority of participants again were from Morphett Vale.</p>	<p>Summary:</p> <p>Pollution from rubbish in the creek was a key discussion topic. Reduced water flows from non-natural changes and drought were noted. Impact of changes to the natural environment having a significant impact on creek ecology. A variety of activities occurring in different sections of the creek were described. Perception of flood risk was medium.</p> <p>More even spread of participants from suburbs along the creek system in this group. Greatest number again from Morphett Vale.</p>

GENERAL SUMMARY:

Table 4

Common issues	Issues of distinction
<ul style="list-style-type: none"> • Reduction in water flows from non-natural changes and drought conditions • Impacts of rubbish on the creek and water quality • Negative impacts on the creek ecology over the past 20 to 30 years 	<ul style="list-style-type: none"> • Perceptions vary along sections of the creek • Perceptions in flood risk varied among the groups

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Question 2

How do you feel about the issues we have discussed?

Table 5

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • Damage to marine environment from run off not acceptable • Mixed perceptions about flood risk – low to high. Rubbish, thick reeds, heavy rains and dams breaking seen as contributors to the risk • Some uncertainty about the role of reeds in the creek system • Impact of poor water quality on eco system • Re-use of water essential and development of storage an issue • Questions about the amount and type of research done • Follow example of water proofing in northern suburbs 	<ul style="list-style-type: none"> • Frustrated by perceived inaction to make improvements • Irresponsible disposal of rubbish that finds it way into the creek • Legislation to deal with responsibilities for rubbish disposal • Community education about creek systems to improve respect for the creek • Follow example of Salisbury Council stormwater management • Participants encouraged by the engagement process which is increasing community interest and socially responsible contributions to the care of the creek • Silting of all main creeks a problem 	<ul style="list-style-type: none"> • Frustration about the deterioration of the creek and a perception of general mismanagement of the creek system • Focus on the future and use the money available to improve the creek • Encouraged by being asked to be involved in the project • Questioned the level of community interest in the project • Whole of community and levels of government approach to creek upgrade needed • Community education about creek system and maintenance

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

<p>Summary:</p> <p>Marine environment damage from run off not acceptable. The perception of flood risk varied. Control of water flow was discussed. The question of research into water quality and the history of the creek system was raised as a method of informing the most effective planning decisions for the creek upgrade.</p> <ul style="list-style-type: none"> • 	<p>Summary:</p> <p>Strong feelings expressed about the need to respect the creek and care for it. The level of community interest in the Christie Creek project questioned. Support for community engagement and education about the creek system was high.</p> <ul style="list-style-type: none"> • 	<p>Summary:</p> <p>Strong desire expressed among the group to acknowledge the past, learn from it and move forward with the upgrade project which includes a whole of community and 3 levels of government approach. Community engagement and education encouraged</p> <ul style="list-style-type: none"> •
---	--	---

General summary:

Table 6

Common issues	Issues of distinction
<ul style="list-style-type: none"> • Identify previous knowledge of the creek to inform planning for the future • Community interest in the future of the creek and the need for community involvement and education in the care of the creek 	<ul style="list-style-type: none"> • A whole of community and 3 levels of government approach to the upgrade project

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Question 3 - What might what we have discussed mean for you?

Table 7

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • Management of the creek system to be improved • Rubbish as a contributor to flood risk • Historical data on the creek to be used as a guide to determine its future • Look at examples of creek management in the northern suburbs • Capture of water in the right way to minimise future problems including flood risk • Consider innovative ways and places not previously considered to capture, treat and re-use water high quality water for range of uses (farming, industry and human) • Maintain enough green spaces and reserve area. 	<ul style="list-style-type: none"> • Loss of recreation, lifestyle and natural resources if the creek system is not cared for • Loss of water flow having financial impact on rural community who have no access to mains water • What happens with Christie Creek has an impact on the Murray River • Population increases putting pressure on the creek system • Learn from existing models like those developed in Salisbury and Tea Tree Gully to guide future creek management in the south 	<ul style="list-style-type: none"> • Hope that something will be done • Vested interest in flood mitigation

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

<p>Summary:</p> <ul style="list-style-type: none"> • Interest in knowing about the history of the creek to inform the future direction. Rubbish a contributor to flooding risk. Effective creek management important. Use of innovation to use and maintain green spaces. Learn from other communities. 	<p>Summary:</p> <p>Part the creek plays in lifestyle discussed in relation to recreation and financial impacts. Strong sense about the community needing to learn more about the part everyone plays in a sustainable environment and how to learn from other communities.</p> <ul style="list-style-type: none"> • 	<p>Summary:</p> <p>The group were keen to see some action. Flood mitigation an issue for one individual.</p> <ul style="list-style-type: none"> •
---	---	---

General summary:

Table 8

Common issues	Issues of distinction
<ul style="list-style-type: none"> • Learn more about the creek before deciding what action to take for the future • Learn from other communities and each other to ensure a sustainable environment for the creek 	<ul style="list-style-type: none"> • Financial impacts of reduced water flow

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Question 4

What do you think needs to happen? What would you like not to happen?

Table 9

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • Wetlands a good idea as long as they don't dry up • Easier to make changes to the creek system in areas that are not built up • Want to see creek maintain its natural character • Improved water flows needed for rural properties • Uncertainty about dams as a storage solution • Individual responsibility to capture stormwater • Innovative ideas to capture stormwater included a: <ul style="list-style-type: none"> ✓ huge balloon at the mouth of the creek to capture the run off ✓ small dam at the bottom of the creek to capture water and pump it into tanks at Pt Stanvac ✓ small wetlands to act as filters 	<ul style="list-style-type: none"> • Want a natural water way – no concrete tunnels • Community education and promotion within the community about the project and how the money will be spent • Involve school children/community groups (eg. Our Patch) in the care of the creek system and relationship with land and each other • Plan for a sustainable system through establishment of goals for environmental flows, sediment elimination, erosion control, capture water for reuse • Areas for water capture to consider are Wilfred Taylor Reserve and area between Brodie and Dyson Roads – need to consider the impact on recreation use of reserve 	<ul style="list-style-type: none"> • Use of aquifers and/or small dams and household tanks to store storm water run off • Morphett Vale high school as a site for wetlands • Restoration of balance in ecosystem, plant more trees, remove feral plants • Use of natural filtration to clean up water for storage and use on reserves • Captured water safer for reuse by industry (biggest user) rather than for agriculture • Want term "reuse" clarified • Designated path alongside the creek • Nets/trash racks/grills to capture rubbish and prevent it from

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> ✓ large wetlands to store water ✓ aquifer storage • Ideas for a monitoring program included: <ul style="list-style-type: none"> ✓ Bitumen pathway/linear park/wildlife corridor, to allow access along the creek ✓ Monitoring at regular intervals with sites to monitor visual aspects and water quality ✓ Involve Flinders University students as monitors ✓ Involve local people in water quality testing ✓ Education program for community • More information wanted on the quantity of stormwater water flowing out to sea • Polluted water to be segregated and treated before entering the creek • Do something substantial with the project money while it is available that does not create further problems 	<ul style="list-style-type: none"> • Subsidies for use of grey water by rural communities • Grey water storage units for rural communities to use and reduce run off into creek system • Want to see the creek flowing • Storage of water needs careful consideration so it does not become a flooding risk, eg holding areas without effective run off • Planned approach to measuring environmental flows, eliminating harmful sediment, erosion control and reuse of high quality water • Integration of water capture with existing recreational space 	<p>entering the creek</p> <ul style="list-style-type: none"> • Creation of storage areas in drain system

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

<p>Summary:</p> <ul style="list-style-type: none"> • Desire to see the creek maintain its character. The need to put the available money for the project to good use to improve water quality and capture was strongly expressed. Community input to monitoring the visual aspects and water quality was considered desirable. Innovative ideas proposed. 	<p>Summary:</p> <p>Natural character to be maintained. Strong support for community to take responsibility for the future of the creek. Planned approach to establishing goals for sustainable creek system. Areas for recapture suggested. Capture and storage of grey water suggested.</p> <ul style="list-style-type: none"> • 	<p>Summary:</p> <p>Support for individual capture of stormwater. Definition of water re-use requested and clear plans for capture and reuse of water.</p> <ul style="list-style-type: none"> •
---	---	--

General summary:

Table 10

Common issues	Issues of distinction
<ul style="list-style-type: none"> • Creek system to maintain its character • Community involvement and education in care of creek • Monitoring of water quality • Effective use of available funds • Restoration of creek ecology 	<ul style="list-style-type: none"> • Water storage ideas

4. SUMMARY OF INDIVIDUAL ISSUES OF IMPORTANCE

The individual issues of importance recorded by Focus Group participants reflected the comments recorded during the group sessions with water quality and reuse, care of the environment and community contributions to the care of the creek being common issues.

CONCLUSIONS

The collated information throughout this report is observational data based on the comments and perceptions of Focus Group participants. The data needs to be read in conjunction with previous reports and research from which complete conclusions may be drawn to inform the project.

The level of awareness, interest and understanding among the Focus Group participants of the three key interest area (listed below) was highest for the **value of water capture and reuse**. There was general discussion on the **impact of water quality** on marine environments, however there was considerable discussion on the impact of water quality on the creek environment. The proximity of participants to the creek catchment area as opposed to the coast may have influenced their interest and perceptions. There was less discussion on **flooding risks**.

Assessment of the levels of awareness, interest and understanding in the local community of three key elements resulted in the following conclusions:

1. Flooding risks in the areas surrounding Christie Creek

- Perceptions of flooding risks were perceived as low to medium by Focus Group participants – it was acknowledged that we are in a time of drought.
- Inconsistent perceptions among Focus Group participants of flood risk in the Christie Creek catchment area may indicate a need to provide information from research data on flood risk modeling for the area to better inform local communities.

2. The value of water capture and reuse

- Negative changes to the creek environment have been observed by local people (participants) over the past 20 to 30 years and they are very aware of the low quality of the water in the creek
- Effective water capture and reuse was seen as essential for the sustainability of the local environment by the Focus Groups

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- There was uncertainty among the groups about the what “reuse” meant.

3. Impact of low water quality on the marine environments

- It was understood by participants in the Focus Groups the large volume of rubbish in the creek affects the quality of the water which has implications for reuse and is harmful to marine environments
- Participants observed the low water quality is having an impact on the creek environment as well as marine environments

Three sections along the creek referred to by Focus Group participants appear to be distinct and may need individual consideration as part of the project planning. The three sections are:

- Source of the creek in Woodcroft
- Residential areas that the creek flows through (Morphett Vale, Christie Downs, Lonsdale, O’Sullivan Beach and Christies Beach)
- Mouth of the creek as it enters the sea between O’Sullivan Beach and Christies Beach.

The strong sense of community responsibility among Focus Group participants for the care of the creek indicates a sound basis for the continuing involvement of communities in the upgrade project.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

APPENDIX A – RECORDED COMMENTS

The information in this section is a record of the comments made during the Focus Group sessions.

Question 1- What do you know or have you heard about the water issues related to Christie Creek?

Focus Group 1 – Monday 9 July 2008

- Silt going out to sea is a major kickoff to get project going
- Already some treated water being used by private companies – not sure how much that is.
- There was a flood mitigation programs from back of RAA on South Road to Morphett Vale school 10 years ago – have there been any other programs since then?
- Have not seen the creek flood in 30 years, have seen changes because of work done further up the creek. 2 two meter pipes under the creek bed and reinstated creek bed at original level, now no water goes through there and shrubs are growing in creek bed.
- Diverted under Christies Creek bed.
- Positive outcomes from original creek bed being cleaned up.
- Now that trees are being grown in new bed, not as much run off.
- Never see water flowing, rain causes rubbish. Good to clean up, weirs to hold water back to give silt opportunity to settle.
- Thaxted golf club course has 2 dams, water does not come down until dams are full
- Survey done by council year and a half ago where surveyors surveyed ground. Flood mitigation in mind – is this the next step?
- Water quality issues, sedimentation, litter and run off. Oils, spills, water quality not up to standard.
- Lack of flow main problem, impacted by drought.
- Some water ends up in Christie Creek treatment plant – How much?
- Water quality – pools would form and small native fish and frogs lived in this area until new pipes were installed under creek beds – about 10 years ago – changes to ecology in the area
- East of South Rd, build up of water much less since they have put the tunnel in.
- Still floods when large rain near Morphett Vale East school.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Lived opposite school for 35 years and has never flooded – only overflowing banks. Has not been perceived as a threat
- Can water reuse be recycled back into parks?
- When there was water in creek 12-15 years ago there was a proposal to catch water at the bottom end of the creek to use as irrigation for schools, ovals and park close to creek so they could use at Morphett Vale oval, school and at O'Sullivan beach.
- Live 150 meters from creek – not sure if two dams that Thaxted park do fill up.

Focus Group 2 – Saturday 10 July 2008

- It is a natural water course taking surface water out into ocean. Lot of pressure with building and residential development is causing a lot of erosion. Rapid change in the formation of the creek from increased water flow.
- There is a build up of rubbish at mouth of creek.
- Participant explained he has lived in area for 36 years. Pointed out there are tributaries not listed on map that are important. He has seen the demise of gum trees and birds. The damming of the creek on the golf course means the dams have to be filled before overflow feeds natural environment.
- The volume of storm water flowing in the creek results in a very strong flow of water.
- There is no water in the creek at Wilfred Taylor Reserve.
- Participant explained she had lived in area over 20 years, close to the sea. The changes in the creek have caused a decline in birdlife; there is a lot of water that could be captured and cleaned and a lot of waste water and rubbish in the creek. How can we reduce the pollution to help environment, birdlife, fish, and the vile water that settles at the mouth of the creek.
- The creek is a dumping ground for rubbish and feral plant life which people discard from their gardens and it thrives in the creek and takes over the natural environment.
- The native trees are being taken over by non native species
- Lots of the erosion problems are natural and we should expect this. We can alleviate the erosion without changing the natural environment. A lot of rubbish is dumped into the creek behind Emu Hotel. There is a loss of native birdlife which is caused by noisy minors birds who are increasing in numbers.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Creek gets clogged with reeds which spread everywhere and have taken over native vegetation. These reeds have been planted to hold back heavy flows and stop rubbish going into ocean.
- Groups who plant trees along the creek edges are planting trees too close to residential fence lines and the roots of these trees are finding their way into gardens.
- Natural flow of water has reduced in drought period and any massive flows are due to stormwater overflows. Participant explained she had no access to mains water and creek is vital to his water supply. The level of water is the lowest since 1986. The drought is having an impact on water flow.
- Noisy Minor birdlife has increased. Participant has 2 dams on property for stock. Has lived in area for 30 years and there are environmental consequence from the state of the creek. This is the 2nd year of no water in his dams. Dams generally hold 3 to 4 swimming pools of water and there have been no inflows over last 2 years.
- Participant lived on Fletcher Drive and has seen stormwater flow into creek. Urban runoff from residential development is not being captured.
- Participant did not live adjacent to the creek, but driving past he can see signs directing to creek. He understands that interruption of flows and urban development leads to sediment and pollution which impacts on the marine environment and is a threat to gulf eco systems. He knows how to reuse the excess water.
- There is contaminated water down at the bottom of creek. Children have been seen swimming in it. It is highly polluted.
- Above the golf course the water quality is almost good enough to drink and ecosystem is healthy due to no urban runoff entering the creek.
- The catchment area near Galloway Rd is highly polluted.
- A participant living behind the Thrushgrove Creek told how 20 years ago it used to flow quickly. The water from Thrushgrove Creek will end up in Christies Creek. The diversion channel under Wheatsheaf Road gets rid of water very quickly.
- If the runoff is to be retained catchment areas will be required.
- Some risk of flooding.
- Feral plants make the creek seem a lot wider.
- Sturt Creek catchment area is good. Several wetlands area would be the way to mitigate floods.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Focus Group 3 – Monday 14 July 2008

- Participant lives at O'Sullivan Beach and walks in the area every day. During the times we don't have water flowing in the creek green algae is bad and when flooding occurs, rubbish increases.
- Yabbies were in Christies Creek 30 years ago. Water turns black/brown now, mainly during summer. First flush during summer is usually worse.
- Lawn cuttings are left on side of creek and blow into creek blocking flow coming down creek. All the greenery rots as it breaks down. From Dyson Rd onwards, discoloration of water and lots of dead greenery. Rubbish also comes through stormwater drains. No grills over stormwater drains.
- Participant lives at the top end of the catchment close to the lake created on Thaxted golf course. When dam full, 4-6 meters deep and water is held there, used by golf course. 3 or 4 dams on course. There has not been any water there for last two or three years. Frogs and yabbies etc are there.
- Participant lives at the top end of the catchment on rural acreage. Map does not show this. Water has been 5 foot deep at time, sleepers, tyres, drums, tins, rubbish etc human effluent going into creek. Overflow from septic tanks and manure from livestock flows into creek.
- Participant has lived in the area for 40 years. There was a flood 4 years ago. Debris going down creek, most being caused by stormwater and materials that find their way into drains from motor vehicles such as oil, fuel, tyre rubber etc
- Have any water quality tests been done to identify where the quality is worst?
- Participant did a year 12 project in 1987 on the rubber from motor vehicles getting into stormwater. Stormwater runoff and road water needs to be considered separately in development planning.
- Participant is a teacher. Talked about the 400 kids in the Morphett Vale primary school who are passionate about sustainability. Walk through Christie Creek near Wilfred Taylor, but the road pollution that gets into the creek means the children cannot not walk in it. The southern side of school creek runs rapidly because there is nothing to slow it down, other side of school behind kindergarten flow is slow. They used to go frog hunting 4 years ago. There are only 2 species of frogs left and last year there were very few frogs. She has notice a change. Smell and stagnation of ponding creek. Children were appalled. They are now trying to stop rubbish from entering creek system. Children are putting rubbish in bins, recycling. There are numerous rabbits along creek catchment area and they are living under the school.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- There are lots of rabbits near the top of the car parks near Tangari Park
- Underpass on Panalatinga Road really bad area. Approached Council to have grates installed to keep people out. Garbage left by people that get into the area flows into creek.
- Participant has lived at Cox Hill Road for 30 years. 3 times last year had a flow through the creek. Trees are dying, limited ponding in creek in winter system. There are a number of small dams on hobby farms that have been built so there is less water coming into the creek.
- Damning of water stopping flow similar to what is happening with the Murray.
- Participant lives opposite the school and has rabbits eating roses and can see them running across the bridge. Area was established 40 years ago and some houses flooded, others not. Almost 2 years ago the water was close to flood level near the footbridge by school.
- Participant believed that a few dams would not make much of a difference. Drought mentality is only part of the problem. There are changes to the creek that need to be considered overall. How to get water going into creek and how to stop water going down the creek too fast.
- Water does not get flushed down to Christies because there is no water coming down from top end of catchment.
- Dry years create a lot of leaves, branches and tree debris. When you get a large flow of water, you need a grate system to capture this waste.
- Contributions that other people can make towards the care of the creek

Question 2

How do you feel about the issues we have discussed?

Focus Group 1 – Monday 9 July 2008

- Damage to marine environment from run off not acceptable
- Participant lives east of South Road and flood has never been a threat for 35 years
- Good chance of flood. Lot of water flowing through and may not get through now because of shrubs and reeds, risk is reasonably high.
- Reeds are meant to take toxins out of water
- Some places creek is not very deep but may be wide, other places reverse, where it is shallow reeds are level with top of bank.
- Letter to Council suggesting clean up of trees etc in bed itself, due to the way rubbish is collected can contribute to flood risk.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Obstacles created by shopping trolleys, signs, rocks etc by children and boulders when flood mitigation was initially implemented
- Flood risk high only if there is decent rain
- Risk that one of dams at Thaxted was going to give way
- Over period of time some erosion in some areas near States Road
- Issues around reeds can pose a threat for flooding, but they clean the water. Is there much vegetation where erosion is happening?
- Expectations that quality of water should be good enough to maintain frogs, yabbies etc.
- If water flow is slowed down more rubbish would settle and the water into sea would be cleaner
- Reuse is essential. Example from waterproofing northern Adelaide should be embraced. Natural or man made water catchment so water could be reused.
- The more that can be reused the better but there are issues of storage. Aquifer use is not the total answer. Is there much aquifer storage here? How much is planned? Has there been research?
- Found water when digging 5 ft into ground 30 years ago. Not there now.

Focus Group 2 – Saturday 10 July 2008

- “I feel disgruntled”. Had been living in the Salisbury area and could see improvements there, but it is not happening in Onkaparinga. Felt frustration with this.
- “I get very angry. I do a lot of walking and the amount of rubbish that I see ending up in Christie Creek is too much. It includes wrappings that get dumped out of cars. There should be a containment legislation for fast food outlets or levies. There should be more litter control and more education”.
- Urban foxes are growing in numbers because we are developing on their native ground. We throw away fast food wrappers which end up in the creek.
- There should be more respect for where you live.
- If we don't appreciate what's there now, we will lose it.
- Salisbury had a very good pool with lots of marine life until rubbish was dumped into it. Now Salisbury Council is making improvements. Felt concerned. There needs to be education to the broader community about creek systems.
- How many people contacted Council for information on the Christie Creek project and responded to attend the Focus Groups?

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Very encouraged about this process. There used to be one or two people lobbying to change the situation, now there are more people in the community contributing as well as all levels of government.
- Entrance to all main creeks have silted up very badly. Feeling annoyed as there is no where to fish or sail because there are no water courses

Focus Group 3 – Monday 14 July 2008

- Believe there has been mismanagement. Committed from 1987 to doing something about the creek. Feel very strongly about this. People have contributed to mismanagement. Feel disappointment.
- Frustrated about deteriorate of the creek. Education for students to feel they have power to effect change. Frustration about what children can do to help the creek
- Focus on future – do the right thing with the money available – forget past. Encouraged by future opportunity.
- Hindsight is good thing – look forward to future – lead by example. Govt may have thought they were doing the right thing – can't lay blame – concerned about grandkids. Can't be critical of past.
- Learning from past to go forward.
- Encouraged that we are being asked what we think. Fantastic to have input.
- Engaging people on the ground, educating about maintenance.
- Some mechanism in place to throw information and education at people to increase awareness. How many people are attending meetings? 80 so far.
- NRM boards do not make contact with people who live in built up areas – gap in system. Participant involved with sporting group on Wilfred Taylor reserve. Sees people throwing rubbish out of cars etc onto the ground and this ends up in the creek

Question 3 - What might what we have discussed mean for you?**Focus Group 1 – Monday 9 July 2008**

- Management of the area has been wrong for a long time, rubbish from the roads and rubbish thrown into creeks have not been managed and this causes flooding. My place has not been threatened, but the level has been high. Would like to see it cleaned up.
- No genuine historical data of how the creek was 50 years ago. What was the water quality? How much water flowed? How would we like the creek to be now instead of returning the creek to its original form. No historical perspective. Have we learned from history?
- In the past a lot of water going out to sea, but the water quality was better in the past.
- 50 years not a long time, but there has been cumulative damage which takes time to have an effect. We should be looking at other examples, e.g. Northern suburb – look at ecosystem and plantings to help clean the water.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- We need to capture water where we haven't before and it needs to be good enough to be used for industry, farming, agriculture and human use.
- Dams capture water to reuse. This creates issues due to lack of water coming down the creek – important to capture water in the right way.
- Identity of area to maintain reserves in the area – more trees, greenery etc – maintain enough green space.
- To effectively clean and reuse water - the health of the ecosystem. Maximise capture and keep everything alive.
- Old river beds 500+ years old. Where they are would have been a river, not just a creek, providing very good runoff. If capture needs to be done correctly to minimise future problems.
- How do you control runoff while considering flooding?
- Priority is greenery and plants to reduce temp, create oxygen etc. If this is done the correct way positive environmental outcomes to be achieved.
- Wilfred Taylor reserve - capturing runoff from buildings in reserve.

Focus Group 2 – Saturday 10 July 2008

- Loss of quality recreation and lifestyle
- The creek needs to be monitored because if we don't use what we have in a proper manner we will lose it. Have lost a lot of recreational activity.
- The loss of water flow is having a financial impact on land owners who have no access to mains water. This in turn has an impact on the Murray system because the water has to be sourced from somewhere. Land owners are spending a lot of money on water retention with no assistance from government. In a drought situation this is having an impact on our existence as part of the rural community. Land owners pay all govt levies, but they still have to put more money into water supply for their properties.
- Grandchildren walk with me on Christies Creek and for them to see it maintained in a pristine condition may mean they bring their children to see it which is looking to the future.
- The map of Christie Creek area will look a lot different in the future. Are we getting to the point of saturation because of an increasing population and development. This will put more pressure onto the creek system. How much more pressure can we put on it?

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- There is no urban development allowed on the hills face. This amenity to our area is a saving grace for the creek. The water quality has not altered in the area as a result.
- As population moves south we should be using this as an education model to use for future creek management.
- Learn from existing models like the Salisbury and Tea Tree Gully examples.
- Mawson Lakes captures run off and utilises it. This has cleaned up and enhanced the area.
- From the Salisbury point of view they were forced to do something because of a natural disaster (there had to be a crisis for something to occur).
- We need to learn from examples locally and build from these experiences instead of doing something different.
- We are learning about how to be sustainable and coming together as a community to become more aware of physical environment. How is that going to fit into making Adelaide more sustainable e.g using less of Murray, no desalination plant.

Focus Group 3 – Monday 14 July 2008

- Hope that something will be done
- I have a vested interest in making sure that flooding which happened to a neighbours, does not happen to us as our house would be vulnerable.

Question 4

What do you think needs to happen? What would you like not to happen?

Focus Group 1 – Monday 9 July 2008

- Attempts to improve the water quality of the Sturt River – wetlands would be great as long as they are deep enough not to dry up
- Expanse along creek that Salisbury Council implemented did this during sub division, catering for houses yet to be built – difficult to do in established built up area.
- Where are you going to store water?
- Would not like to see the creek lose its character.
- Would not like to see a dam type structure
- Any changes need to harmonise with visual appearance of creek now and not impact on environmental aspects.
- Areas available to make small wetlands, but need to be deep enough – not necessarily for storage, but could be used as filters.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Opportunity for a linear park/creek corridor - increased biodiversity to maintain integrity of environment. Wildlife corridors, sections of vegetation to follow creek bed.
- Larger wetland works if you can temporarily store water.
- Aquifer solution to extra water. Stored water in aquifers does not become stagnant
- Money could be used to develop a large lake, excavation etc and spend money while it is available.
- Hate to see money wasted on something that doesn't work.
- Would like to see something quite substantial and effective that does not create further problems.
- Council have done some very good flood mitigation in my area, not sure how much other flood mitigation has happened. If flood mitigation is to work for Council insurance, what happens to extra water that has flowed into creek itself. How does water get into creek?
- Capturing stormwater – is there more being done to promote individual actions?
- To consider quality of water that enters the creek.
- There is going to be water running into the sea – can you use a huge balloon at entrance to sea to capture last lot of runoff?
- Collection of final runoff of water that currently goes out to sea.
- Pt Stanvac tanks – Build a small dam at bottom of the creek to capture water and pump excess for reuse into tanks at Port Stanvac – making use of Pt Stanvac.
- Monitoring of the creek from a surveillance perspective and monitoring of the project.
- Bitumen pathway from Panalatinga Road to incorporate leisure activities and allow access to the creek so it becomes a human resource as well.
- Number of aspects to monitoring very important to planning of project and to be done in a range of ways. Monitoring along creek plan at regular intervals with sites to monitor visual aspects and water quality.
- Flinders University students to be engaged to monitor water quality.
- Majority of people that live near creek or use it could participate with water testing.
- Education program to increase awareness of pollution and water quality.
- Key is to get community involved to increase responsibility for the creek.
- Looking at ways to reuse water. If you can't effectively store water this increases run off. This council area has lot of creeks which usually flow out to sea. All of the water that can go down one pipe to storage areas. What is the measurement of water going into sea?

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Integrated system beyond Christies Creek needed.
- Segregate storm water entering into the creek from worse polluted sources. Could go to wetland first instead of going straight into creek or straight to another means of treatment.

Focus Group 2 – Saturday 10 July 2008

- I don't want to see a concrete tunnel to wash all the stormwater out to sea. I would want to keep a natural feel to the creek.
- More education from preschool onwards and people to be responsible for themselves and appreciate what they have.
- Whatever the plans shape up to be with the amount of \$ available, there needs to be community education and promotion about how the money is to be spent? Plans for this project to be made available and promoted.
- Most of the schools in the area are close to the Christie Creek environment. If we are going to get children to appreciate what we have it needs to be developed into a recreation area for schools to use, the kids would get an appreciation by being involved in the community and school being involved in the creek system.
- Need to plan towards sustainable system to use available water and if water is there we need to be able to capture it and use if for other areas such as ovals and parks etc. Opportunity to capture water for use in a recreational area like Wilfred Taylor, another area between Brodie Rd and Dyson.
- Increase in subsidies available for rural communities – for greater use of grey water systems, ecosystems, stormwater etc to improve water storage for rural communities. A lot of stormwater goes into Christie Creek. If we were allowed to have grey water storage units within domestic urban areas that would reduce amount of grey water entering the creek and going through to the treatment plant. A lot of stormwater from domestic use would not go into the creek. This Council does not encourage grey water use.
- I would like to see all the water they pump into the Gulf that wells into the ocean killing sea grasses, to be captured and utilised.
- Do not want to see stagnation in the creek
- Grey water is not feasible on a individual level and can only be collected by Council and govt system. Participant has an 8000 liter tank and has emptied and filled the tank twice this year.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Running excess water to top of creek would only cause recirculation and would need lagoons on side of creek to hold water to be effective. Could be used to irrigate surrounding area.
- Construction of lagoons need to be considered carefully due to flooding risk and proximity to residential properties.
- Do not want to create holding lagoons that may cause flooding. There needs to be ways for water to escape. We do need a holding area like in Wilfred Taylor reserve. It could be used for irrigating surrounding reserves.
- Does the south need waterproofing? Are we saving water for consciousness or future generations? If we are going to save it we need to have a reason – to be reused within the community, encourage householders to have tanks etc.
- Trash pack, lagoons etc. all need to be considered. We are going to save all the water, but what would the impact be to the public and recreational space and potential use of space that is not currently being used for water capture?
- Would like to see the creek slow down, but how would that impact on the public use of the space that is available there.
- I would like to see the lagoons etc be created in potential spaces for capturing water to integrate them with existing recreational space.
- We need to have a catchment management plan that needs to include our cultural identity. 50 “Our Patch” groups are needed to cover the whole extent of water courses to care for them – we need to integrate industrial users. Goals for environmental flows, eliminating harmful sediment, erosion control. We will be learning how to integrate our future use, our relationship with the land and each other.
- Investigation around sub aquifers?
- If water is going into the Gulf it needs to be good water.

Focus Group 3 – Monday 14 July 2008

- If we want to save stormwater, curious about where will we be able to do that
- Save stormwater at home level under each driveway efficient room for 7000 litre tank.
- Homes drain stormwater straight into creek.
- All my stormwater goes into rainwater tank for the front garden
- Hate to see it become like Sturt Creek
- Would like to see creek beautified and more trees
- Removal of feral trees

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- I would like to see balance in ecosystem
- More permaculture
- Filtering stormwater and put into aquifers underground, naturally filtered through sand, used on creeks, parks, reserves (similar to Northern suburbs)
- People using bore water so there should be room to put water back into aquifers
- Wetlands – Morphett Vale high school to be sold – opportunity to create wetland on this site – is used by football club currently – a lot of the oval could be used.
- Don't think water flows from high school right for this – pumping could overcome this.
- What does re-use mean? I would like some thought put into concept of reuse - I believe pumping water into market gardens as they are in Northern suburbs good idea.
- Pumping into agriculture may not be a good idea. Would like to see what reuse means and want it put to good use
- Don't want to see concrete drains
- The better alternative is to put into vineyards instead of flowing into marine life etc
- Water that comes out of our creeks in SA has minimal effect on the marine environment
- Not comfortable in reuse for agricultural unless treated - micro biological technology not good enough as it cannot be guaranteed to remove all toxins. Can be recycled into industry such as carwashes, concrete industry, bus company and taxi companies for wash downs etc
- Part of reuse could be separate pipe coming down into each new house being built to use grey water.
- Why cant we have pipes going into lake Alexandrina etc instead of into ocean. Pumped it out of the area – lower lakes need it.
- Northern suburbs water being reused onto crops from Bolivar treatment plant etc.but different to normal water supply. Rainwater catchment at north – only one place that re uses water to irrigate nursery through a wetland here in the south.
- No use pumping water like that into McLaren Vale etc – there needs to be steady supply for it to work.
- Between South road and old railway line there is a paved bike track, from eastern side of bike track. There is no designated path on the other side. When it rains the sediment from this section runs straight down the creek. Could we upgrade and revegetate the creek and put in a designated path along the creek.

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

- Need rubbish nets to put over drains, trash racks, grills, netting like seen on television that captures all rubbish.
- Participant would like to see Council use water on parks and reserves so the area looks nice. Need to stop sediment build up. Is it feasible to build small dam to store water for reuse?
- Why not block off ends of all drains so water sits in the drains and can be pumped out? Use drains as storage areas. Air to be pumped in to oxygenate it.
- Small dam that could catch water and sediment and only clean water allowed to go over top in flood situation and the sediment removed as required.
- Construction industry biggest user of water – Southern area going to develop – opportunity for this industry to use the captured water

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Appendix B – Overview of Project

Water Proofing the South

Outcomes

- 3800ML of reuse
- 1100ML of storage
- Understanding the suitability of Class B Water for environmental flows

Budget

Total	\$116mil
Council	\$4mil
Federal	\$34.5mil
State	\$70mil
Private	\$7mil

8 elements

3 partners

Key Points

- 3800ML is enough water to fill AAMI stadium 30 times
- Storage is critical to facilitate winter usage
- Budget is confirmed
- Visit Councils website for more info RE other elements.

Christie Creek Upgrade

Outcomes

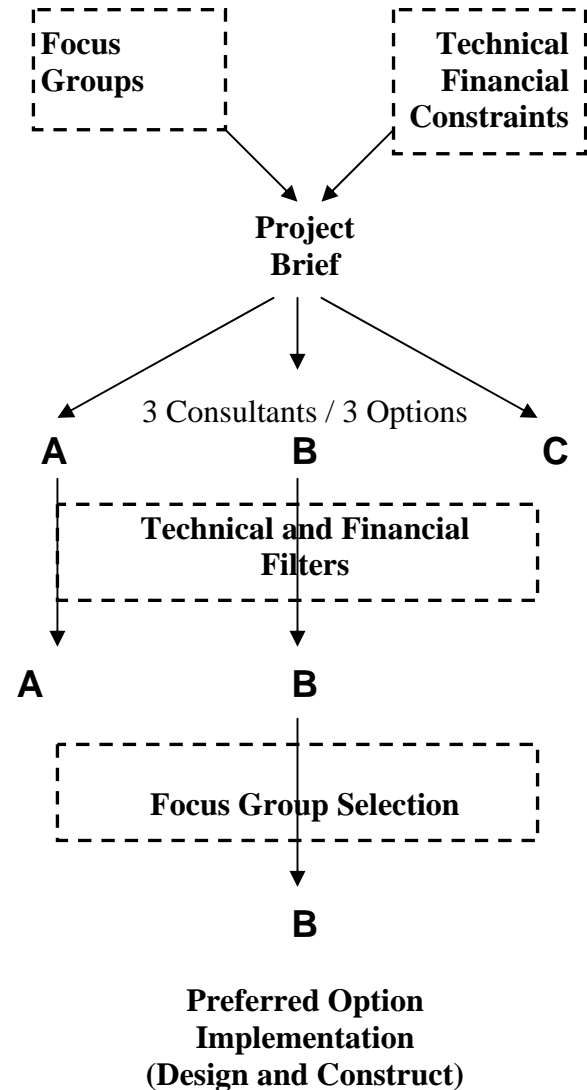
- 850ML of reuse with associated storage
- Water Quality Improvement (as per Adelaide Coastal Water Study)
- Flood Mitigation

Budget

Total	\$14mil
Council	\$800K
Federal	\$12mil
State	\$1.2mil

Key Points

- Purpose of engagement is to determine what the community want to see and present the technical requirements
- Budget is confirmed
- Extremely unusual to attract such a high level of funding with such little contribution of Council



CHRISTIE CREEK UPGRADE PROJECT

FOCUS GROUP REPORT

APPENDIX C - RECORDED INDIVIDUAL ISSUES OF IMPORTANCE

Participants were given an opportunity towards to the end of the Focus Group sessions to record comments about issues most important to them individually. Their comments are recorded in **Table 11**.

Table 11

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<ul style="list-style-type: none"> • Small weir, pump excess water to Pt Stanvac tanks, filter mix with treated water for plant use on parks and gardens or return to the creek when available • Christie Creek not being just a stormwater drain – upgrading it to reuse the water, improve water quality and keeping the creeks character • The natural environment is not to be destroyed • Creek and environment • Whatever happens must be visually okay • Environment – keeping the creek clean. Reuse of run off water. Monitoring • Capture and reuse of available stormwater from Christie Creek to relieve the strain of water resources and reliance on our normal supply • Water capture and reuse • Maximum reuse of water • Combined water collection off roofs, roads and 	<ul style="list-style-type: none"> • To be kept informed • Quality of life for me and the community • Taking responsibility as a community for our local and regional environment and how we can learn to live sustainably in this land Tandanya - land of red kangaroos • Urban spread has created an artificial environment that largely can't be undone (roads, houses etc). This has a major impact on any natural systems. What can we do to enhance the current situation and create the type of environment that “we” want • Confirmation of community concern for the whole of the creek, present and future 	<ul style="list-style-type: none"> • Realising how much the community also has to help with the cleaning up of rubbish with the creek • Flood mitigation and water reuse • That some people in the community are concerned about the health of the Christie Creek and are keen to see action taken to restore the creek • It is a turning point, ie. putting plans and actions into place for the future of the creek • Positive belief that we have enough money from 3 partners to build a sustainable creek system that allows best use of stored water

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<p>the creek for storage and reuse. Maintain and enhance environment. Monitoring by community of creek corridor via quality pathway</p> <ul style="list-style-type: none"> • Water capture. Maintain quality of water. Continue to share information • Minimise • To see the creek clean and put to good use. May use to water areas near the creek • Water catchment and treatment. Rubbish removal. Bring back the birds and water creatures, frogs, yabbies, fish etc. Needs to be pleasant on the eyes as well as functional • Minimise/eliminate any stormwater entering the marine environment. Capture any excess stormwater for reuse. Wetlands. • Wetlands. Improve ecosystem, water quality. Protect marine environment • Rid creek of pollution, enhance wildlife corridor. Stop polluted water going out to sea. • Drain stormwater away from my home as quick as possible • Major challenge is to do all that is planned (or 	<ul style="list-style-type: none"> • Forward planning, proper management of stormwater. More education on taking a pride in our environment • Impact on environment • Would like to see the creek upgraded by the use of treated water from the Christie Creek treatment works • Planning for the future • Environment improvement • Continuous financial commitment from all government bodies to improve quality, use and storage of Christie Creek resources and not a one-off fund 	<ul style="list-style-type: none"> • Issues identified, water saving/retention, creek is okay in some places and not in others. Flood mitigation may/will affect storage locations • Everyone's concern about the state of the creek and that we need some action • What is proposed? • That action is going to be taken to literally stop good water going to waste • Information for participants • Ideas for Council to run with • Basic information • Discovering the NRMA (National Resource Management) Board

CHRISTIE CREEK UPGRADE PROJECT FOCUS GROUP REPORT

Wednesday 9 July 2008	Saturday 10 July 2008	Monday 14 July 2008
<p>wanted) with the limited amount of land available bounding the creek. Agree that capture, reuse and flood mitigation are all important</p> <ul style="list-style-type: none"> • Flood not perceived as high risk by residents unless at time of high rainfall • Need to keep health of creek ecosystem where it is and improve. Not acceptable for it to get worse • Wise usage of monies available to benefit area • To what extent do the community objectives match those of Council? Not clear re water quality which dominated focus and flooding 		