

11.4 **REPORT TITLE: DRAFT MT BARKER, LITTLEHAMPTON
AND TOTNESS STORMWATER
MANAGEMENT PLAN PUBLIC
CONSULTATION (INCLUDING SHORT
VISUAL PRESENTATION)**

DATE OF MEETING: 15 JUNE 2015

FILE NUMBER: 48/030/182 DOC/15/45853

Strategic Plan 2012-2017 Ref:

Urban Growth: Outcome 3 Mt Barker District is a leader in growth area water management. Objective 3.1, Implement action to progress Integrated Water Management Planning including creek management across the District.

Purpose:

Council to note the draft Stormwater Management Plan (SMP) and approve commencement of a public consultation process on the draft SMP prior to receiving the final SMP at a later date.

Summary – Key Issues:

- The draft Stormwater Management Plan (SMP) for Mt Barker, Totness and Littlehampton has been prepared in strict accordance with the Stormwater Management Planning Guidelines (Stormwater Management Authority, 2007).
- The SMP provides an overview of the Mt Barker Creek rainfall catchment and issues relating to the management of stormwater together with documenting the opportunities to improve stormwater management in the catchment particularly with regard to flooding and drainage.
- Large scale flood mitigation projects identified and prioritised may be eligible for co-funding through the Stormwater Management Authority.

Please note: There will be a short (5 or so minutes) visual presentation by the agenda item author Mr Matthew Dawkins at the Council meeting with an opportunity for Council Members to ask questions.

Recommendation:

That Council:

1. Notes the draft Stormwater Management Plan for Mt Barker, Littlehampton and Totness.
2. Approves the commencement of Public Consultation on the draft Plan.

3. Notes that after the Public Consultation has been completed, public feedback and responses will be reviewed and where appropriate, the draft Plan will be modified to reflect the intent of the feedback and the finalised SMP will come back to a Council meeting for consideration and adoption.
-

Background:

1. The localities of Mt Barker, Totness and Littlehampton lie in the Mt Barker Creek catchment. Refer Attachment 1.
2. These areas are serviced by a network of creeks and tributaries that drain through the developed areas of Mt Barker.
3. With urban growth there will inevitably be increases in both stormwater runoff volumes and peak flow rates.
4. A Stormwater Management Plan (SMP) is a key document that will guide the approach to the management of stormwater, stormwater quality and the actions which aim to mitigate flooding.
5. If prepared in accordance with the Stormwater Management Authority (the "Authority") guidelines and the Local Government Act, large scale flood mitigation projects (catchment area approximately greater than 40ha) identified in the SMP may be eligible for part grant funding from the Authority.
6. Council has previously had success in receiving grant funding from SMA for physical works associated with flood mitigation

Discussion:

7. In mid-2014 Council secured 50% grant funding from the Authority to prepare an SMP in accordance with their guidelines.
8. A key requirement of the Local Government Act is that before the Authority can approve the final SMP, the local NRM Board must first approve the plan. As such, a steering committee comprising Council, the Authority and the local NRM Board was formed to oversee the delivery of the SMP.
9. Through an invited tender process, consulting engineers Southfront were engaged to prepare the SMP for Mt Barker, Totness and Littlehampton. Southfront's work has now culminated in a draft SMP.
10. The Contents page and Executive Summary of the draft plan is attached as Attachment 2. The full draft document and appendices has been in circulation with the Councillors electronically since 3 June 2015 with a hardcopy made available on request.

11. The executive summary (Attachment 2) shows a range of flood mitigation projects ranked Low to High and totalling approximately \$22 million dollars. The various project costs making up this amount are best described as “first order” and at this stage are not based on any detailed scoping and design work. Some further work on the SMP is needed to clarify the broad project scope at a high level. Some of the key messages associated with the action plans which will be outlined to the community during the public consultation phase are summarised below:

- For flood mitigation projects, the determination of priority has been developed using a benefit:cost ratio method. The benefit part of the ratio has been estimated by considering the damage cost mitigated by undertaking the works.
- For stormwater infrastructure projects the priority has been assigned as “high” where the deficiency identified gives rise to the risk of property damage or inundation, “medium” where excessive nuisance that may disrupt traffic activity and trigger complaints and “low” where there are nuisance flood flows.
- The three “priority” groupings (low, medium and high) tabulate a range of projects which are listed in no particular order of priority within these groupings.
- The high priority stormwater infrastructure and flood mitigation projects total close to \$5 million. As the SMP is at a draft stage, some final work is expected to better understand the scope and cost of the described projects.
- Whilst there is not currently a budget allocation specifically aimed at addressing the priorities from this SMP, based on \$5 million of high priority works, it is estimated that something like a 5 – 10 year program will be needed to address these projects subject to grant funding and overall Council priorities. A future Council report outlining a funding strategy and business case will be prepared to discuss and recommend a course of action on this together with outlining funding opportunities (eg SMA grants) and dovetailing of mitigation works with other strategic projects.
- Projects identified as low and medium are primarily to be noted as sites where there is a potential issue. The awareness of these issues is important so that where there are external influences and opportunities in the future, the priority can be reviewed and may potentially be elevated. For example, some projects may represent good value when undertaken in parallel or as an augmentation to works required of land developers.

- A “value for money” review of the low cost projects will be undertaken and where value for money can be demonstrated some of these projects may be targeted for action through the Stormwater Minor Capital Program (see Item 13.2 in this agenda).
12. On 27 May 2015 a workshop for Council Members (an informal gathering) was held to provide an initial overview of the purpose and intent in developing the SMP. The overhead presentation from that workshop is attached as Attachment 3 and summarises the broad process of developing an SMP.
 13. The work to date has analysed the catchment conditions, rainfall and runoff behaviour and the response of the creeks and drains to a range of rainfall/runoff events.
 14. The draft plan covers topics such as the catchment hydrology, stormwater drainage infrastructure performance, flood protection, flood mitigation strategies, water quality, stormwater harvesting and reuse opportunities and forward planning.
 15. The draft SMP has been in circulation for comment with internal Council staff stakeholders, technical advisors to the Authority and the local Natural Resources Management Board.
 16. It is also a requirement of the Authority's guidelines that the plan has been through a public consultation process. This Council report seeks approval to commence that process.

Community Engagement:

17. A public consultation phase is now sought with the aim being to present the draft SMP to the community for comment. It is not intended for the public consultation to decide on anything but rather give comment and feedback on the work done to prepare the draft plan. The sort of feedback expected may be some or all of the following types:
 - Concurrence that the areas of flooding identified in the draft plan are valid.
 - Identification of other areas of flooding or drainage inadequacy not currently shown and warranting closer scrutiny.
 - Identification of unrelated flooding or drainage problem spots outside the scope of the project.
 - General enquiry about what the SMP is about and what it all means with no particular action needed on the draft plan.
 - Enquiry about the cost of works proposed and how it is to be funded.
 - Enquiry about how the action priorities are set.
18. It is proposed that the following process and timeline is adopted to undertake the public consultation process:

Council Meeting to approve commencement of Public Consultation	Mon 15 June
Weekender Herald and Courier newspaper advertisement including details of: <ul style="list-style-type: none"> • “Open House” location and dates • Locations to display/promote and view hardcopies of the draft plan and feedback form (Council office and Library) • Website address for electronic viewing of the plan • Website address for the feedback form • Contact details for enquiries. • Closing date for submitting feedback (1 month) 	Weds 17 June
Distribution of a notification letter to key external stakeholders (eg Business Mt Barker, Developers, emergency services (CFS, SES) advising commencement of consultation	Weds 17 June
Day time (12 – 2pm) Open House session date (to be held in the Council Chambers) – different date to night session	Dates to be set in week commencing 29 June
Night time (6 – 8pm) Open House session date (to be held in the Council Chambers) – different date to day session	
Closing Date for feedback by:	Weds 15 July
Collation of the feedback by:	Weds 22 July
Feedback review and assessment with consultant and steering committee by:	Weds 29 July
Consultant revisions to the draft Plan and development of the final plan	Fri 14 August
NRM approval of the Final SMP	TBA
Council Approval	TBA
SMA Approval	TBA

Policy:

The approach taken to develop an SMP is in accordance with the following policy framework that was adopted by the District Council of Mt Barker on 1 May 2006:

Council acknowledges the legal advice that it is not under a duty to undertake the management of stormwater in its area.

Having regard to the expectations of the community and Council's leadership role, Council will seek to have adequate stormwater management provided in its area.

Council will pursue this objective through undertaking a coordination role that will vary depending on the circumstances and may include Council acting as:

- *A planning authority via policy in the Development Plan and the imposition of conditions on development approvals;*
- *A facilitator working in collaboration with others such as the private sector, Federal and State Governments and the Natural Resources Management Boards;*
- *An advocate to the State Government and others on behalf of the community; and*
- *A service provider (provision, maintenance and renewal of infrastructure).*

Budget:

The Public Consultation phase will incur costs for advertising and attendance at the Open House session by the consulting engineer. These costs are covered by the budget allocation for the project. The FY14/15 budget provided a total of \$180,000 for the SMP project for which up to \$90,000 in funding from SMA has been granted.

Statutory/Legal:

The process of Public Consultation is a requirement of the Stormwater Management Authority in the preparation of a SMP.

The Local Government Act (Schedule 1A (Clause 15) indicates that the Authority must not approve a SMP unless it has received advice in respect to the appropriateness of the plan from the relevant regional NRM Board. This is loosely taken to mean the NRM Board must approve the plan.

Staff Resource Requirements:

The staff resources required for the consultation phase are small. Collation of feedback and other administrative duties can be accommodated by departmental resources.

Environmental:

No environmental impacts associated with the consultation process.

Social:

The public consultation phase is very much about engagement with the community to gauge response and feedback to this project and the action plan that is delivered by the project.

Risk Assessment:

The key risk associated with the public consultation phase is the community being unaware of the consultation process being undertaken. In this regard the consultation strategy described above has been formulated to mitigate this risk.

Asset Management:

n/a

Conclusion:

Entering into a public consultation phase for this project is a key milestone and pivotal to achieving approval from the Stormwater Management Authority.

Key Contact

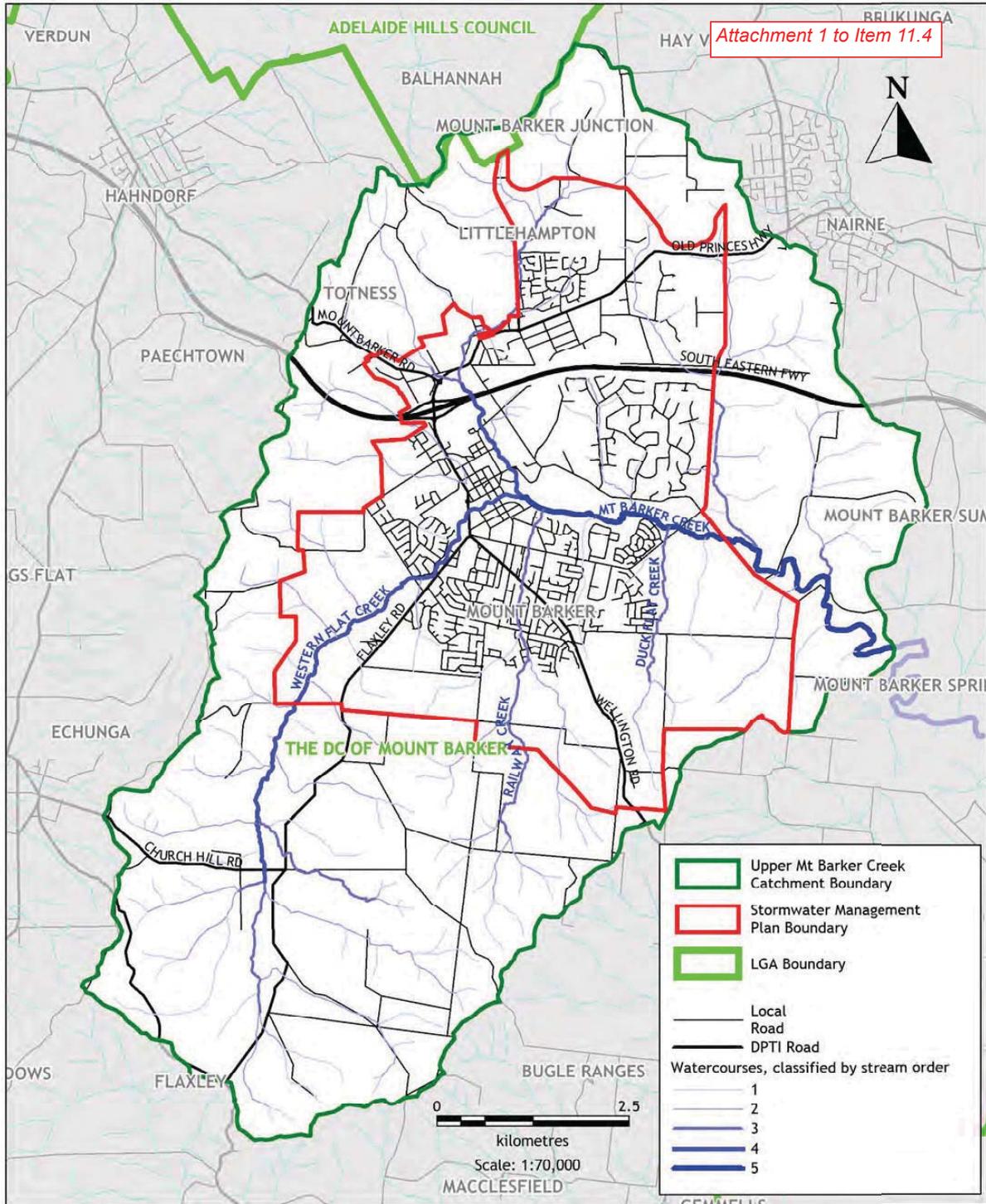
Matthew Dawkins, Capital Program Manager, Infrastructure and Projects Department:

Manager or Sponsor of Project

Brian Clancey, General Manager, Infrastructure and Projects Department

Attachments

1. SMP Figure 2.2 Study Catchment Plan DOC 15/52345
2. Draft SMP Executive summary DOC/15/51308.
3. 27 April 2015 Council workshop overhead presentation DOC/15/52356

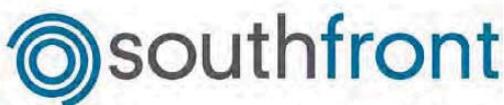


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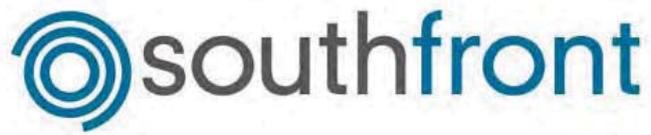
Data Sources:
District Council of Mount Barker (Roads)
DPTI (Suburbs), DEWNR (Watercourses), Southfront (SMP Boundary)

Mount Barker, Littlehampton & Totness Stormwater Management Plan

Figure 2.2
Catchment Plan



Attachment 2 to Item 11.4



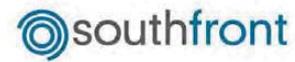
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Mt Barker, Totness & Littlehampton Stormwater Management Plan

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Mt Barker, Totness & Littlehampton Stormwater Management Plan

District Council of Mount Barker

Southfront Ref: 14042-7D

Revision	Date	Approved	Details
A	27 Aug 2014	DJ	Sec 2
B	11 Nov 2014	DJ	Sec 4, 5, 6, 7
C	12 Mar 2015	DJ	Sec 3, 4.5, 6
D	13 May 2015	DJ	Complete



Contents

Executive Summary	iv
1 Introduction	1
2 Catchment Features	2
2.1 Plan Boundary	2
2.2 Topography	5
2.3 Stormwater Infrastructure	5
2.4 Existing Land Use	10
2.5 Land Development Potential	13
2.6 Climate Change	16
2.7 Rainfall	16
3 Stormwater Management Plan Objectives	20
3.1 Stormwater Management Authority Guidelines	20
3.2 State Government WSUD Objectives	20
3.3 SA MDB NRM Plan	20
3.4 Eastern Mount Lofty Ranges Water Allocation Plan	21
3.5 Mount Barker Strategic Plan	23
3.6 Mount Barker Stormwater Infrastructure Plans and Guidelines	24
3.7 SMP Objectives	26
4 Catchment Hydrology	27
4.1 Background	27
4.2 Hydrological Model Selection	27
4.3 DRAINS Model Establishment	28
4.4 Existing Peak Flows	31
4.5 Ultimate Development Peak Flows	32
5 Stormwater Drainage Infrastructure	33
5.1 Modelling Approach	33
5.2 Existing Drainage Performance	36
5.3 Target Performance Standard	39
5.4 Action Summary	39
6 Flood Protection	45
6.1 Previously Completed Flood Plain Mapping	45
6.2 Additional Flood Plain Mapping Scope	45
6.3 Flood Plain Modelling Approach	45
6.4 Flood Plain Mapping Results, Existing Scenario	51
6.5 Existing Flood Damages Evaluation	56
6.6 Flood Mitigation Strategies	65
6.7 Flood Plain Mapping Results, Ultimate Upgrade Scenario	80
6.8 Flood Mitigation Benefits Evaluation	84
6.9 Action Summary	87



7	Water Quality	89
7.1	Receiving Waters	89
7.2	Water Quality Modelling Approach	90
7.3	Existing Pollutant Loads / Treatment Train Performance	91
7.4	Proposed WSUD Elements	95
7.5	Assessed Performance	96
7.6	Natural Catchment Hydrology Flow Regime Management	97
7.7	Action Summary	99
8	Stormwater Harvesting and Reuse	101
8.1	Existing Recycled Water Use Scheme	101
8.2	Ongoing Scheme Development	101
8.3	Managed Aquifer Recharge Feasibility	102
8.4	Urban Stormwater Availability	103
8.5	Public Open Space Non-Potable Water Demand	103
8.6	Regional Scale Harvesting	106
8.7	Site Scale Harvesting	107
8.8	Action Summary	107
9	Stormwater Management Plan	109
9.1	Strategy Action Costs, Benefits and Priority Summary	109
9.2	Prioritisation and Timeframe	109
9.3	Responsibilities for Implementation	109
9.4	Implications for Adjoining Catchments	109
10	References	117
	Tables	
Table 2.1	Stormwater Infrastructure Profile Summary	5
Table 2.2	Historical Flooding Events	9
Table 2.3	Highest Recorded 24 hr rainfall totals	17
Table 2.4	Mount Barker IFD Data (mm/hr)	17
Table 2.5	Adjustment in IFD Values (Mount Barker - 1987 to 2013)	18
Table 3.1	SA MDB NRM Resource Conditions Targets (2009-2030) extract	21
Table 3.2	Mt Barker Strategic Plan extract	23
Table 3.3	Mount Barker SMP Objectives	26
Table 4.1	Mt Barker Creek Peak Design Flows	31
Table 4.2	Mt Barker Creek Design Storm Event (9hr duration) Flow Volume	31
Table 4.3	Initial Loss to Match 2010 Hydrology	31
Table 4.4	Existing, Ultimate Creeks Peak Flow Comparison	32
Table 5.1	Impervious fraction investigation results	34
Table 5.2	Typical catchment characteristics applied to each sub-area	35
Table 5.3	Existing Underground Drains - Identified System Issues	37
Table 5.4	Locations identified with unsuitable overland flow path	38
Table 5.5	Stormwater Infrastructure Action Summary	40
Table 6.1	Flood Model 2D Cell Size	47
Table 6.2	Flood Model Time Step	47
Table 6.3	Bed Resistance Parameters	49
Table 6.4	2D Breakline Heights	49
Table 6.5	Town Centre Downstream Boundary Conditions	50
Table 6.6	Town Centre DRAINS Model Loss Model Values	51



Table 6.7	Critical Storm Durations for each ARI	51
Table 6.8	Stage Damage Value Ranges, Residential Buildings	58
Table 6.9	Stage Damage Value Ranges, Commercial / Industrial Buildings	58
Table 6.10	Residential Properties and Damage Estimates, Existing Scenario	60
Table 6.11	Commercial / Industrial Properties and Damages, Existing Scenario	62
Table 6.12	Outside Building Damage Estimates - Existing Scenario	63
Table 6.13	Total Damage Estimates - Existing Scenario	64
Table 6.14	Critical Storm Durations for each ARI	81
Table 6.15	Residential Properties and Damage Estimates, Future Scenario	84
Table 6.16	Commercial / Industrial Properties and Damages, Future Scenario	85
Table 6.17	Outside Building Damage Estimates - Future Scenario	85
Table 6.18	Total Damage Estimates - Future Scenario	86
Table 6.19	Potential Reduction to Damages	87
Table 6.20	Flood Mitigation Works Action Summary	88
Table 7.1	Mt Barker Creek Ecosystem Pressures, Responses (EPA, 2010)	89
Table 7.2	MUSIC Model Results Summary, Existing Scenario	93
Table 7.3	Proposed WSUD Measures Summary	95
Table 7.4	MUSIC Model Results Summary, Proposed Scenario	96
Table 7.5	Water Quality Improvement Measures Actions Summary	99
Table 8.1	Open Space Non-Potable Water Demand Locations	104
Table 8.2	Stormwater Harvesting Actions Summary	108
Table 9.1	Stormwater Management Plan Works Summary	110

Figures

Figure 2.1	Bremer River Catchment Boundary	2
Figure 2.2	Catchment Plan	3
Figure 2.3	Topographic Plan	4
Figure 2.4	Existing Stormwater Infrastructure	7
Figure 2.5	Stormwater Infrastructure Age	8
Figure 2.6	Generalised Land Use	11
Figure 2.7	Development Zone Plan	12
Figure 2.8	Land Zone Changes resulting from 2010 DPA	13
Figure 2.9	Stormwater Infrastructure Plan (DPTI & DCMB, 2014)	15
Figure 2.10	Mount Barker Monthly Rainfall Averages	16
Figure 4.1	Mt Barker DRAINS Model Subcatchment Plan	29
Figure 4.2	Mt Barker DRAINS Model Diagram	30
Figure 5.1	Impervious fraction investigation - sample areas	34
Figure 5.2	Minor stormwater drainage investigation extents	36
Figure 6.1	Mt Barker Floodplain Model Boundaries	46
Figure 6.2	Flood Hazard Classification	56
Figure 6.3	Mt Barker Damages Precincts	59
Figure 6.4	Main Township Creeks Model Extents	80
Figure 7.1	Existing Scenario MUSIC Model Layout	92
Figure 8.1	Open Space Non-Potable Water Demand	105

Appendices

Appendix A	Stormwater Infrastructure, Existing Conditions Performance
Appendix B	Stormwater Infrastructure, Proposed Minor Drainage and WSUD Upgrades
Appendix C	Flood Plain and Hazard Maps - Existing Scenario
Appendix D	Flood Plain and Hazard Maps - Proposed Upgrades, Ultimate Scenario
Appendix E	Creeks Flood Mitigation Concept Plans
Appendix F	Detention Basin Concept Plans



Executive Summary

This Stormwater Management Plan (SMP) for the Mount Barker, Littlehampton and Totness townships has been prepared in accordance with the requirements of the *Stormwater Management Planning Guidelines* (Stormwater Management Authority, 2007).

This document contains:

- A summary of existing information relevant to management of stormwater in the catchment;
- Catchment specific objectives for management of stormwater runoff from the catchment;
- Potential management strategies that may be used to meet the identified management objectives;
- Estimated costs and benefits associated with each of the strategies
- A clear definition of the priorities, responsibilities and timeframe for implementation of the Stormwater Management Plan.

The Stormwater Management Plan area is 33.5 km² and includes those areas zoned for future residential and industrial development. This area drains via a number of tributaries to Mount Barker Creek, which drains beyond the plan area to the Bremer River and ultimately into Lake Alexandrina. The plan boundary area is entirely within the District Council of Mount Barker area.

Key issues identified by this Stormwater Management Plan include:

- Flood risk posed by watercourses to existing residential and commercial development
- Deficiencies in minor drainage systems, including a lower than suitable performance standard to residential properties at numerous 'trapped' low point locations.
- Insufficient water quality improvement measures to achieve contemporary water quality improvement standards
- Limited stormwater harvesting and reuse, albeit in the context of the *Eastern Mount Lofty Ranges Catchment Water Allocation Plan* which was introduced to manage over allocation of surface water runoff
- The scope for future development, most of which will drain downstream through existing development, to amplify the issues described above

Relevant objectives contained within the *Strategic Plan 2012-2017* (District Council of Mount Barker, 2012a), *Natural Resources Management Plan* (South Australian Murray-Darling Basin Natural Resources Management Board, 2014a) and the *Eastern Mount Lofty Ranges Water Allocation Plan* (South Australian Murray-Darling Basin Natural Resources Management Board, 2013), in addition to the State Government WSUD objectives were drawn on to develop a set of objectives specific to this Stormwater Management Plan, addressing:

- Provision of an acceptable level of stormwater drainage service
- Provision of an acceptable level of flood protection
- Improvements to stormwater quality released to watercourses
- Beneficial harvesting and reuse of stormwater
- Sustainable management of stormwater infrastructure
- Achievement of desirable outcomes associated with new development and management of open space

The Plan has developed a range of structural and non-structural actions, as summarised in the table below, by which these objectives can be achieved. A number of creek-related



flood mitigation projects are eligible for Stormwater Management Authority funding support.

Priority	Project / Activity	Capital Cost (\$)
High	Stormwater Infrastructure	
	Fulford Terrace to Benjamin Gray Drive	\$1,150,000
	Baker Street	\$50,000
	Claret Ash Parade	\$8,000
	Hallmark Road	\$17,000
	Light Crescent/Secker Road	\$260,000
	Daw Avenue/Netley Street/Howard Close/Grivell Street/Craig Terrace	\$760,000
	Phillip Street/Princes Road/Edward Street/Hughes Street	\$380,000
	Wunderley Drive/Victoria Road/Wiland Street	\$920,000
	Albert Road (between Alexandrina Road & Wellington Road)	\$87,000
	Oborn Road	\$670,000
	Sims Road	\$15,000
	Flood Mitigation Works	
	Druids Road to Gawler Street Levees ¹	\$140,000
	Gawler Street to Home Maker Centre Levee ¹	\$80,000
	Creek capacity works and Levee Banks - Fletcher Road to Mt Barker Creek ¹	\$270,000
	Water Quality	
	Integrate identified WSUD opportunities within parks and reserves into relevant open space management strategies and plans	10,000
	Update Development Plan provisions to mandate the use of 5kL rainwater tanks	20,000
	Stormwater Harvesting	
Review reserve management plans associated with the Mountain Glen Reserve land and ensure that the wetland concepts are appropriate and reflected in revised plans	20,000	
Undertake further feasibility assessment of the wetland and MAR concept at the Mountain Glen Reserve sites and scope infrastructure associated to store harvested stormwater	150,000	
Medium	Stormwater Infrastructure	
	Crompton Road/Follett Close/Mt Barker Road	\$860,000
	North Terrace	\$60,000
	West Terrace/Junction Road	\$540,000
	Spring Park Drive	\$40,000
	East Parkway/Lawson Street/Majestic Drive	\$410,000



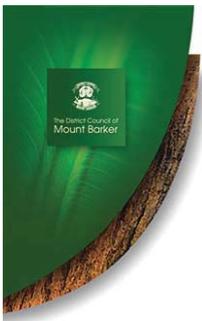
Priority	Project / Activity	Capital Cost (\$)
	Apollo Street	\$8,000
	Pridmore Terrace/Hutchinson Street	\$240,000
	Walker Street/Gawler Street/Mann Street	\$260,000
	Hack Street	\$430,000
	Newland Street	\$84,000
	Hutchinson Street/Victoria Crescent	\$320,000
	Junction Road Culvert	\$70,000
	Flood Mitigation Works	
	Clems Lane Flow Diversion ¹	\$190,000
	Bollen Road Storage ¹	\$600,000
	Adelaide Road to Railway Line Levee Banks ¹	\$170,000
	Water Quality	
	Integrate WSUD opportunity identification into standard practice for relevant road asset management / replacement programs	10,000
	Junction Road Reserve bioretention basin	80,000
	Spring Park Farm Reserve constructed wetland and GPT	200,000
	Benjamin Gray Reserve vegetated swale and GPT	100,000
	Junction Road Culvert GPT	100,000
	Mt Barker Road, Totness GPT	140,000
	Mt Barker Showgrounds vegetated swale and detention basin	80,000
	Mountain Glen Reserve (west) constructed wetland and GPT	2,500,000
	Mountain Glen Reserve (east) constructed wetland and GPT	2,000,000
	Stormwater Harvesting	
	Investigate and scope an economically justifiable distribution and reuse network supplying harvested stormwater to Council reserves	50,000
Low	Stormwater Infrastructure	
	Saint James Drive/Edson Court/Gum Tree Drive	\$110,000
	Barrow Court/Durham Court	\$120,000
	Pontiac Road	\$48,000
	Sheridan Court	\$90,000
	Wilkinson Court	\$13,000
	Cook Court	\$10,000
	Hawthorn Road/Adelaide Road	\$140,000
	Hill Street	\$9,000
	Cameron Road/Gollan Circuit	\$9,000



Priority	Project / Activity	Capital Cost (\$)
	Hutchinson Street	\$6,000
	Morphett Street/McLaren Street	\$9,000
	Gawler Street	\$6,000
	Cameron Street/Druids Avenue	\$11,000
	Alexandrina Road	\$270,000
	Exhibition Road/Fletcher Road	\$610,000
	Madion Street/Wellington Road/Alexandrina Road	\$580,000
	Stephenson Street	\$15,000
	Lewis Avenue/Barton Circuit	\$270,000
	Albert Road	\$150,000
	Wellington Road (North Railway Terrace)	\$400,000
	Wellington Road (South Railway Terrace)	\$840,000
	Flood Mitigation Works	
	SGA Detention Basin Storages	\$580,000
	Pipe Diversion - Adelaide Road to Western Flat Creek ¹	\$1,290,000
	Creek Reconstruction - Faehrmann Avenue to Wellington Road ¹	\$1,250,000
	Water Quality	
	Edward Street Reserve bioretention basin and GPT	100,000
	Wellington Road GPT	120,000
	Fletcher Road GPT	80,000
	Ascent Estate Reserve GPT	100,000
Total		21,785,000

¹ Item potentially eligible for Stormwater Management Authority funding

This draft report has been prepared to facilitate further consultation with the local community, interest groups, Council elected members and staff. Following the collation of feedback from this process, a final report will be prepared and submitted to the District Council of Mount Barker, SA MDB NRM Board and the Stormwater Management Authority for final approval.



Attachment 3 to Item 11.4

Mt Barker, Littlehampton & Totness Stormwater Management Plan

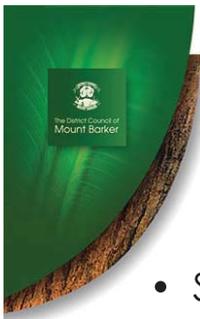
Matthew Dawkins

Capital Program Manager, DC Mt Barker

Drew Jacobi

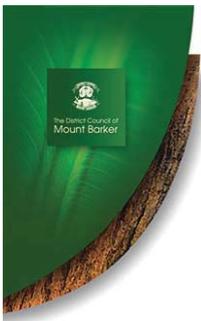
Principal Engineer, Southfront

The District Council of
Mount Barker 

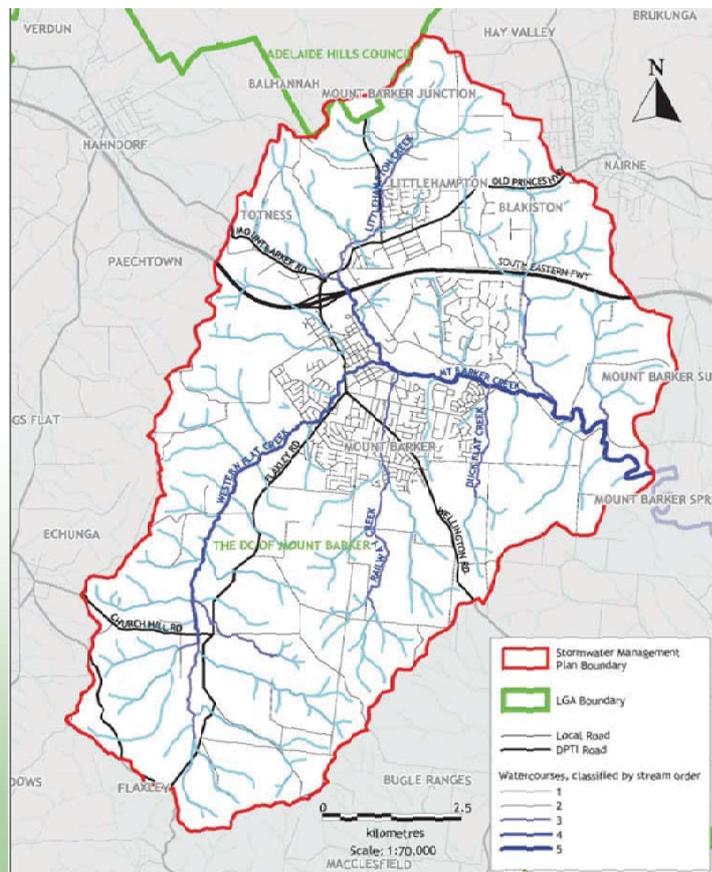


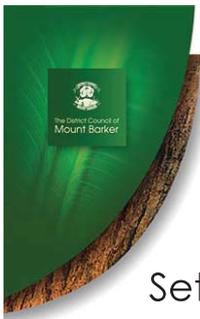
What is an “SMP”?

- SMP = **S**tormwater **M**anagement **P**lan
- Standardised approach in accordance with defined guidelines
- Defines a specific catchment and gathers the rainfall and drainage data for it
- Analyses the stormwater run off
- Identifies risks and consequences
- Defines a prioritised action plan



- Mt Barker
- Totness
- Littlehampton





Why an “SMP”?

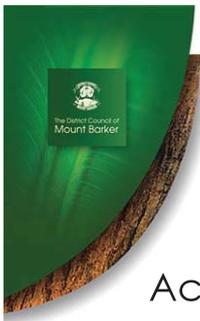
Set objectives for:

- Managing existing flood risk
- Water conservation
- Water quality
- Develop a prioritised list of feasible actions to meet objectives



Stormwater Management Issues

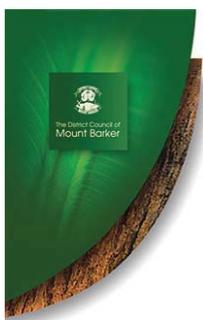
- Major creek flooding
- Increase urban development and impacts on stormwater runoff and on infrastructure – integrating solution with new development where possible
- Minor network inadequacy



How are priorities set?

Action Priorities are set by:

- For major flood risk – systematic damage cost estimates
- For minor flood risk – risk based assessment for the potential damages that may result



Discussion of the Maps and Plans

Stormwater Management Plan Process

