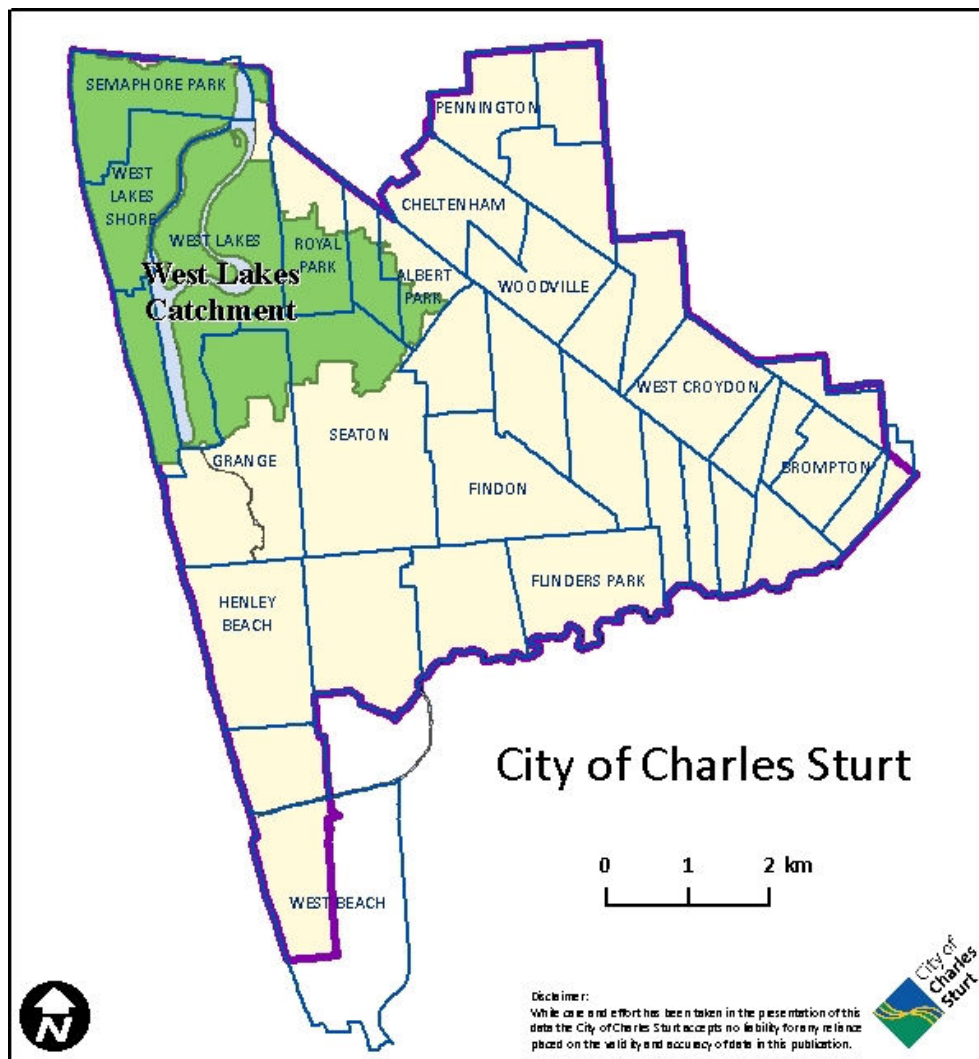


# Stormwater Management Plan

## Frequently Asked Questions

### What is the West Lakes Catchment?

West Lakes Catchment is an area that draws off rain water from properties and our roads and releases it into the West Lakes. The area comprises of Semaphore Park, West Lakes Shore, West Lakes and Tennyson and also covers parts of Hendon, Royal Park, Albert Park, Seaton and Grange.



### What is one-in-100 year rain event?

A one-in-100 year rain event is one that has a probability of occurring once in 100 years., On April 7 this year, Adelaide Airport Weather Station recorded approximately 30mm in one hour which is considered to be somewhere between a 1-in-15 and 1-in-20 year flood event. A one-in-100 year rain event is more intense and heavier recording approximately 45mm rainfall over a one hour period

### **What is a Stormwater Management Plan?**

A Stormwater Management Plan (SMP) is a holistic approach to effective stormwater management on a whole of catchment basis. Each plan can include such elements as flood mitigation, improvement on water quality, urban amenity and use of stormwater for community benefit.

### **How do I know if my property has been identified as being at risk?**

As flood-plain mapping information has become available and adopted, Council has notified affected property owners of the risk of flooding in a one-in-100 year rain event.

For further information, please contact our Customer Service staff (telephone 8408 1111) or visit our website; [www.charlessturt.sa.gov.au](http://www.charlessturt.sa.gov.au)

### **Will all catchments undergo analysis and floodplain mapping?**

It is anticipated that each catchment will eventually be analysed and mapped in a systematic order decided by Council. Floodplain mapping is now completed for Henley/Fulham, Meakin Terrace, Trimmer Parade, Port Road, TRDA and West Lakes catchment which in total covers 74% of the City's area.

The work is being undertaken by Tonkin Consulting, an acknowledged leader in stormwater management and drainage systems in South Australia.

### **Why wasn't the information already available?**

Hi-tech data modelling for flood-plain mapping has only recently been available and has enabled Charles Sturt Council to progressively model the catchments within the city.

Prior to commissioning the analysis of individual catchments, Council had information about drainage systems, a good deal of internal knowledge, and both recorded and anecdotal history. This information was piecemeal and inconsistent, having come from three different Councils before amalgamation in 1997.

### **What does Council plan to tackle first and what will it cost?**

Council has prepared detailed plans for the Port Road Rejuvenation Project which includes stormwater management, streetscape, aquifer storage and recharge (ASR) and water re-use. The project extends from Frederick Road, Royal Park (downstream) to Arlington Terrace, Welland (upstream).

Stage 1 of the project from the intersection of Old Port and new Port Roads down stream to Frederick Road is being funded jointly by the City of Charles Sturt and Port Adelaide Enfield, and the State and Commonwealth Governments. The flood mitigation component of the project is \$18 million and is due for completion in June 2013.

The cost of upgrading and repairing major drainage systems across all catchments is significant and beyond the resources of a local Council. Consequently Council will continue to work with other levels of Government to fund further upgrades in both the Port Road and other catchments within the City.

### **What impact will this have on rates?**

Council is looking at every option to minimise the effect on Council rates. Consultation with the State Government on funding has already begun and other options, such as long-term infrastructure loans, are being investigated. Ultimately, the Council's budget is determined by elected Councillors.

### **What happens if no action is taken to improve the infrastructure?**

The analysis of the initial catchments has found that a large proportion of the City's stormwater infrastructure is under capacity and will require significant upgrades and consequently additional funding.

If the work is not done, the level of flood protection for properties will reduce as the infrastructure continues to be inadequate. The cumulative effect of developments over many years will worsen the impact of floods, and we must plan for the long-term implications of this.

### **If Council fixes the infrastructure, will it mean that the properties identified as being at risk of flooding will be free of risk?**

If the capacity of the storm water infrastructure is improved, it will reduce the likelihood of flooding for most properties.

## **Facts about Stormwater Management**

### **Why Do We Need A Stormwater Management Plan?**

Effective stormwater management and flood mitigation is one of the most significant issues facing the City of Charles Sturt and its residents.

The purpose of a stormwater management plan is to ensure that stormwater management is addressed on a total catchment basis. The stormwater management plans will provide a template for more consistent management of stormwater in individual catchments that is aimed at addressing existing problems and capitalizing on opportunities for providing a range of benefits, including re-use where feasible. The plans will be used as the basis for developing budgets, specifying cost apportionment arrangements between councils where needed and allocating state support funds (matched by councils) across those catchments that are covered by such plans.

We are identifying flood risk across the city so that we can plan with some degree of certainty for future development over the next 50 years.

### **Floodplain Mapping Identifies Properties at Risk**

As part of the SMP, detailed floodplain mapping has been completed for the Henley/Fulham, Meakin Terrace, Trimmer Parade, Port Road, Torrens Road Drainage Authority (TRDA) catchments and, more recently for the West Lakes catchment. The spatial mapping, which is an essential part of flood risk management, has indicated properties at risk of flooding and the likely outcomes of one-in-five year, one-in-20 year and one-in-100 year rain events.

### **It is important to note that the mapping has not changed the risk to properties, but has merely identified it.**

Owners of properties identified as being at risk during a one-in-100 year rainfall event are contacted by Council as the information becomes available.

### **The Next Steps**

The next step in a Stormwater Management Plan is a cost benefit analysis to determine the work required, the costs and the priorities for reducing the risk of flooding in vulnerable areas. These are put to Council for consideration as they are developed.

### **Council and Residents Working Together**

It is important that Council work with residents on developing other strategies to reduce the risk of flooding. While long-term improvements to the stormwater infrastructure are essential, it is extremely difficult to totally eliminate risk.

We strongly advise residents to introduce their own measures to alleviate flood hazards, just as people living in bushfire areas are asked to prepare for the fire season. Information regarding flood hazard advice, including an Emergency Flood Plan can be found on the State Emergency Services website:  
[www.ses.sa.gov.au/site/community\\_safety/floodsafe/flood\\_information.jsp](http://www.ses.sa.gov.au/site/community_safety/floodsafe/flood_information.jsp)

### **Land Development and Flood Mitigation**

Council has considered how information from the floodplain mapping can be applied to the development assessment process. This includes measures such as:

- requiring increased floor heights;
- ensuring that driveways flow towards the road and not back towards the properties; and
- setting limits on how much stormwater can be discharged from properties.

A **Development Information Guide – Flood Mitigation** has been produced to assist with development applications. Further information can be found on City of Charles Sturt website [www.charlessturt.sa.gov.au](http://www.charlessturt.sa.gov.au).

During the past few years, Council has also been working in a number of ways to optimise the capacity of the existing stormwater infrastructure. This includes ongoing box culvert and stormwater upgrade and replacement programs, stormwater pump upgrades and the purchase of a JetVac, a highly effective machine that clears debris from stormwater pipes. In addition Council has significantly completed a detailed design of the Port Road Rejuvenation Project (see Water Proofing the West).

### **Water Proofing the West**

Work will begin late 2010 on a \$70 million project to capture and re-use stormwater in the Port Road catchment. This involves flood mitigation works valued at approximately \$18 million in the Port Road median between Port Road and Frederick Road junction which will reduce flood risk in the Port Road catchment.

By working together we can limit the potential damage from a major flood.

### **More Information**

Further information, including the floodplain mapping and the Development Information Guide – Flood Mitigation, is available at the Civic Centre at Woodville. All information is posted on our website [www.charlessturt.sa.gov.au](http://www.charlessturt.sa.gov.au). General information can be obtained by contacting our Customer Service staff on 8408 1111.