

Wagga Wagga  
City Council

# STORMWATER MANAGEMENT PLAN

2013-2017

## EXECUTIVE SUMMARY

This Stormwater Management Plan is the framework for strategic planning and implementation for the overall management of stormwater in the urban areas of Wagga Wagga City Council.

The plan is intended to form an integral part of the business planning processes of Council, and aligns with the Community Strategic Plan, and the Asset Management Plan.

The plan includes the detailed, catchment-specific stormwater management plans as originally completed in 2001, together with a range of recent and current plans and actions that relate to stormwater systems and services. Known major capital and operational projects including the outcomes of the Major Overland flow flood study, installation of gross pollutant traps, inspection of underground pipelines, mitigation of known risks and inundation spots have been evaluated, provisionally costed, and prioritised within the plan.

The plan has been prepared in parallel with a number of major study and modelling initiatives in stormwater, flood mitigation, and environmental management.

Council has a viable funding source through an annual charge (s496A) on serviced properties to raise funds specifically targeted for stormwater projects and service delivery. The s496A funding generates revenue of approximately \$650,000 per annum, and is subject to limitations, justification, and disclosure.

The plan must form an integral part of the Council corporate planning, management and budgeting system in order to comply with directives from the NSW Office of Environment and Heritage.

The plan is to be reviewed, revised, and reported to Council annually as part of the annual corporate management budgeting and rating system.

The plan will enable a range of fundamental stormwater infrastructure benefits to be progressively implemented for the community, including reducing the risk of localised flooding, improved storm water quality, reduction of some of the risks associated with open storm channels, culverts and pits with high velocity flows and depths of water.

Council will need to continue to separately fund major capital projects as the sum raised by the annual charge will be insufficient to meet system-wide improvement and public education programs as required by the guidelines published by the Division of Local Government.

# TABLE OF CONTENTS

<b>Wagga Wagga City Council</b>	<b>1</b>
<b>Draft Stormwater Management Plan 2013-2017</b>	<b>1</b>
<b>Executive Summary</b>	<b>2</b>
<b>1 Introduction</b>	<b>4</b>
<b>2 About This Plan</b>	<b>4</b>
2.1 Objectives of the Plan	4
2.2 Plan Structure	4
2.3 Related Plans and Documents	4
2.4 Definitions and Abbreviations	5
2.5 Plan Integration	5
<b>3 The Current Stormwater Services Environment</b>	<b>5</b>
3.1 The Operating Environment	5
3.2 Catchment Values	6
3.3 Social Characteristics	6
3.4 Geology and Soils	6
3.5 Topography	6
3.6 Climate	7
<b>4 Known Stormwater and Flood Mitigation Issues</b>	<b>7</b>
4.1 Strengths	7
4.2 Areas For Improvement	7
<b>5 The Future of Stormwater and Flood Mitigation Services</b>	<b>8</b>
5.1 Forward Strategic Direction	8
5.2 Strategic Objectives	8
5.2.1 Stormwater and Flood Mitigation Operations	8
5.2.2 Condition Evaluation of Infrastructure	8
5.2.3 Backlog Infrastructure Projects	8
5.2.4 Planning Strategies	8
5.2.5 Environmental Monitoring	9
5.2.6 Finance	9
5.2.7 Community Education	9
<b>6 Response Action Plan</b>	<b>9</b>
6.1 Priority 1 - Major Overland Flow Flood Study	9
6.2 Priority 2 - CCTV Inspection of Underground Stormwater Pipelines	10
6.3 Priority 3 - Mitigation of known storm water system risks	10
6.4 Future Improvement Initiatives	10
6.5 Implementation	11
<b>7 Section 496A Scheme</b>	<b>11</b>
7.1 Background	11
7.2 Charging Structure	12
7.3 Annual Plan Review and Renewal Program	13
<b>8 Conclusion</b>	<b>13</b>
<b>9 Contact Us</b>	<b>13</b>

# 1 INTRODUCTION

This plan is the framework for strategic planning and implementation of the management of stormwater asset augmentation and remediation in the urban areas of Wagga Wagga Local Government Area.

The plan is intended to form an integral part of the greater corporate business planning processes of Council, and aligns with the Community Strategic Plan and the Environmental Sustainability Strategy.

## 2 ABOUT THIS PLAN

### 2.1 Objectives of the Plan

The primary objective of stormwater management is to facilitate the coordinated management of stormwater systems within catchments, and within the urban areas for which Council is responsible. Other objectives include the following:

- To protect property and infrastructure against flooding by waterways;
- To reduce instances of local flooding by surcharging stormwater under storm event conditions;
- To reduce risks to the general public associated with stormwater and related infrastructure;
- To integrate Council management initiatives within other regulatory authority regional management plans, and
- To manage the stormwater assets so that they provide a satisfactory level of service for the life of the asset and within their design parameters.

### 2.2 Plan Structure

This plan is a continuation and development of catchment-specific stormwater management plans that were originally drafted and issued in November 2001, and further updated in 2010. The key outcome of the plan is to schedule all currently known issues within the urban stormwater system, quantify and prioritise them, provide a forward action and expenditure plan, and link the plan into the corporate management system via the Community Strategic Plan, and the Long Term Financial Plan.

### 2.3 Related Plans and Documents

A number of other management plans were completed in previous years, including the following:

- The Community Strategic Plan, Ruby and Oliver
- The combined Delivery and Operational Plan 2013-2017
- Stormwater and Flood Mitigation Asset Management Plan 2013
- The 2008-09 valuation of stormwater infrastructure in which a sample of the underground assets, and all surface assets of the stormwater system were condition rated and valued
- Geotechnical evaluation of sections of the south bank flood levee system
- Floodplain Risk Management Study 2009
- Major Overland Flow Flood Study 2011

### 2.4 Definitions and Abbreviations

The following abbreviations have been utilised in this plan:

- CSP: Community Strategic Plan
- DLG: Division of Local Government
- ESRS: Environment, Sustainability, & Regulatory Services
- ESS: Environmental Sustainability Strategy
- Stormwater: Any water flowing in waterways, and includes any groundwater that becomes surface water and any discharge from the Koorngal treatment works, Lake Albert and any other water storage system
- GPT: Gross pollutant trap
- SMP: Stormwater Management Plan

- LTFP: Long Term Financial Plan
- OEH: The Office of Environment and Heritage
- IP: Infrastructure Planning
- MCMA: Murrumbidgee Catchment Management Authority
- WWCC: Wagga Wagga City Council
- PRS: Parks & Recreational Services
- Waterway: Any natural river or stream, lagoon, naturally occurring wetland, and/or man-made open channel, wetland, or lake
- WS: Waste Services
- Urban catchment: A sub-catchment of the Murrumbidgee River that occupies land that has been substantially modified by urban development. Each catchment is a complete drainage system with a unique outfall to the river, usually through a billabong or natural creek system
- WSUD: Water sensitive urban design
- S 496A

## 2.5 Plan Integration

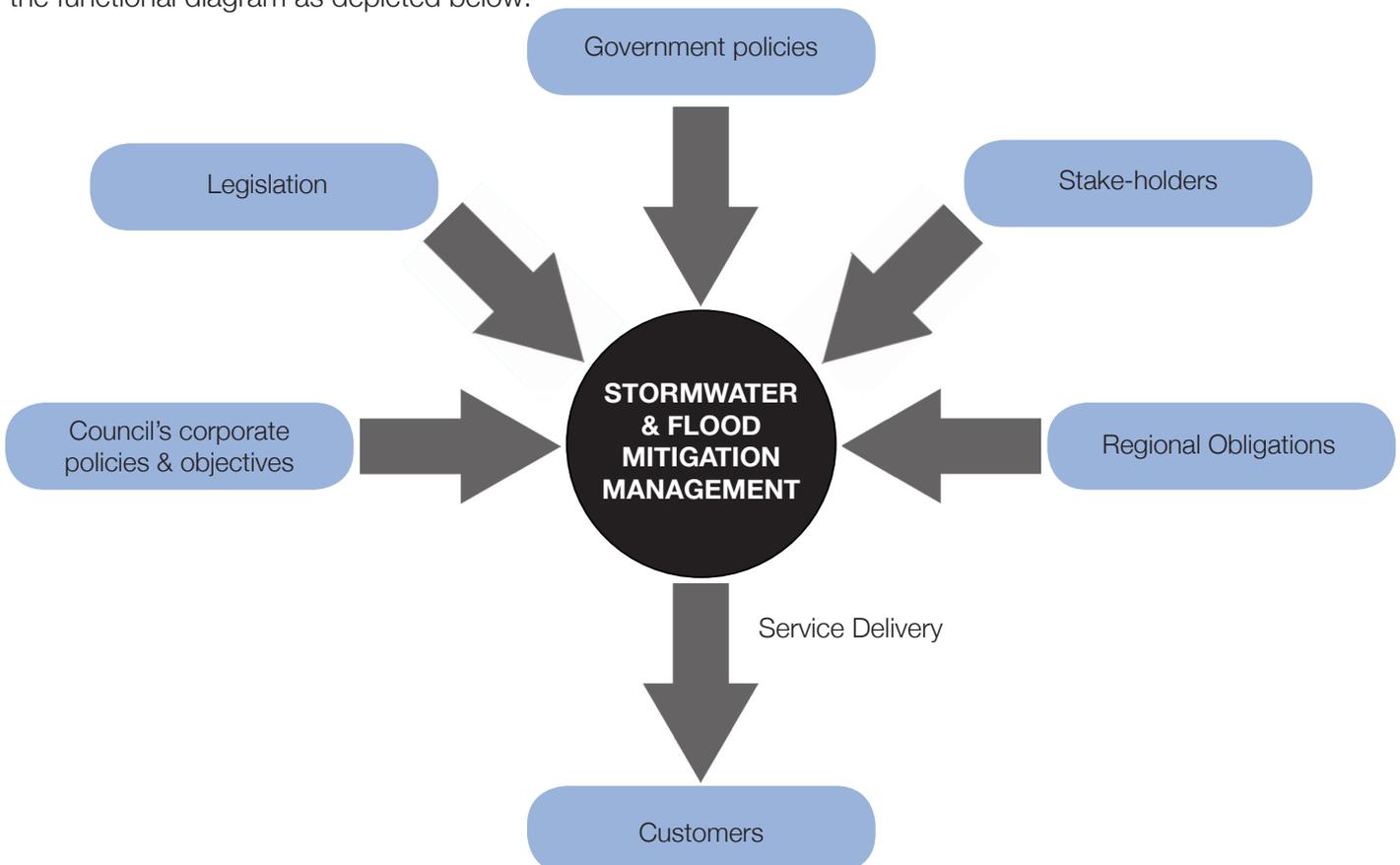
The Department of Local Government (DLG) requires Council to prepare s496A plans that integrate into the Council’s management and strategic plans, including the Integrated Planning and Reporting suite of documents. This update to the 2010 plan will form the basis of a Section 496A (s496A) scheme for continuing a special annual charge to collect funds specifically for the development and improvement of the stormwater and flood mitigation system.

The s496A scheme needs to be fully justified in terms of projects or programs proposed to be undertaken and to be funded from the special rates scheme. This plan provides the fully justified forward works program and basis for the s496A scheme.

## 3 THE CURRENT STORMWATER SERVICES ENVIRONMENT

### 3.1 The Operating Environment

The stormwater and flood mitigation environment for the Wagga Wagga urban area can be best summarised in the functional diagram as depicted below:



Some interrelationships are well defined while others such as stakeholder involvement and engagement are yet to be fully developed.

### 3.2 Catchment Values

The following are assumed to be the general catchment values and their associated priorities for both Council and the community:

<b>Ecological Values</b>	<b>Priority</b>
Maintenance and improvement of the aquatic ecosystem of waterways	Medium
Establishment of aquatic flora in waterways	High
Establishment of native trees, shrubs, and grasses in and near waterways	High
Control of erosion	High
Reduce the pollutant load from catchments	High
<b>Social Values</b>	
Improve visual amenity:	High
Reduce risks to human activities:	High
<b>Economic Values</b>	
Reduce system maintenance costs:	Very High
Minimise risk of flooding to property:	Very High
Optimise infrastructure service life:	Very High

### 3.3 Social Characteristics

The 2008 ABS Census highlight the following key points of the urban population:

- Wagga Wagga has a population of 61,656 (2008 Census)
- 19.5% of the population is between 5 and 17
- 68.5% of the population is over the age of 18

### 3.4 Geology and Soils

The Murrumbidgee River valley is an active depositional environment where extensive deposits of quaternary alluvium overlie the older sedimentary rocks and granites. The alluvium includes gravels, sand, silt, and clays. This alluvium provides the strata for aquifers that contain valuable groundwater reserves.

The Wagga Wagga Natural Resource Management Plan provides a summary table of the geology and of the soils of the Wagga Wagga area. Reference should be made to the Natural Resources Plan to comprehend the soils and their propensity to erode.

### 3.5 Topography

The Wagga Wagga urban area is substantially located on the floodplain of the Murrumbidgee River, with the topography of the river flats consisting of slopes of less than 10%.

The floodplain is subdivided by the Willans Hill range that rises up to 120 metres above the floodplain and runs from near Lake Albert to the south-west of the urban area. The range features steep slopes that range up to 20%.

The topography of the Wagga urban stormwater catchment is subdivided as follows:

Gradients	Description	Area (Ha)	% of catchment
0 – 2	Level to gently inclined	2270	38
2 – 5	Gently undulating	1990	33
5 – 10	Undulating	994	17
10 – 20	Rolling	493	8
20 - 33	Hilly	177	3
33 – 50	Mountainous	37	1
>50%	Precipitous	2	0

### 3.6 Climate

The climate of the Wagga area is described as “warm temperate, with hot, relatively dry summers and cold, relatively wet winters”. The dominant influence on the Wagga climate is that of pressure systems moving from west to east across the region. These pressure systems are sometimes associated with extreme daily temperature variations and thunderstorm activity.

Recent research by the CSIRO and the Bureau of Meteorology predict climate change impacts in the form of reducing rainfall and more intense storm events for the Wagga Wagga area.

## 4 KNOWN STORMWATER AND FLOOD MITIGATION ISSUES

The current situation of the stormwater and flood mitigation systems is summarised as follows:

### 4.1 Strengths

- The stormwater system is adequate for minor storm events and continuous rainfall at a rate less than a one in one year storm event
- The existing flow retardation basins throughout the stormwater system and catchments provide some reduction and attenuation in peak storm flows and trunk storm flow rates of flow. The exception is Wollundry Lagoon where a high maintained water level limits storm flow storage capacity
- The river flood levees provide a comprehensive if limited defence of the majority of the low-lying urban areas that would otherwise be subject to inundation
- A limited CCTV survey of stormwater pipes completed in early 2009 revealed underground stormwater assets in satisfactory condition for the known service age of the assets; further CCTV undertaken in 2011 support this position
- A Major Overland Flow Flood study has been completed for the Wagga Wagga urban area identifying those areas, known as ‘hot spots’ which require further analysis to determine appropriate mitigation strategies
- Some stormwater and stream flow is diverted into Lake Albert to provide increased water volumes for recreational purposes
- Council has sound asset management information on stormwater and flood mitigation assets

### 4.2 Areas For Improvement

- Many surface and underground elements of the stormwater system cannot cope with design storm events of 1 in 5 years
- Under-capacity stormwater drains result in overland flow paths that impact on private property
- Council’s stormwater assets, including its many pipes and open drains, present a range of risks to the general public, and in particular to children, with the key risk being high stream velocities and vortexes
- Pollution reduction on stormwater system outlets is generally limited to crude gross object screens, with provision for retention of smaller gross pollutants and sediment limited to some sediment traps
- Concepts of sensitive urban water design have limited value in upland catchments where groundwater surcharging could exacerbate urban salinisation

- The percent of the stormwater network not meeting the adopted satisfactory level of service is 3% in 2012
- There is currently no funding in the LTFP for condition based renewal of the stormwater network
- The LTFP contains \$1.49M in Developer Servicing Plan funds in the 2013/14 financial year for drainage projects. Additionally there is a storm water levy which generates \$627,000 per annum for storm water network remediation
- The projected annual maintenance budget for the stormwater and flood mitigation networks is estimated to be \$1,819,920 (in 2010 dollars). The current LTFP allocates \$1.43M in 2013/14 for maintenance of stormwater and flood mitigation assets, increasing to \$1.53M in the year 2021/22

## **5 THE FUTURE OF STORMWATER AND FLOOD MITIGATION SERVICES**

### **5.1 Forward Strategic Direction**

Council's objective, as articulated in the Delivery Plan is to "Plan, Construct Maintain and manage Drainage systems." (sect 4.14)

Council's Community Strategic Plan identifies "we have a sustainable natural and built environment" with Council's goal of "we plan for sustainable built environments" and measure this goal by maintaining our current and future infrastructure.

### **5.2 Strategic Objectives**

#### **5.2.1 Stormwater and Flood Mitigation Operations**

The primary objective in stormwater and flood mitigation is to operate and maintain the system assets to achieve best hydraulic performance and optimal service life with minimal risk to the communities served.

Council operations teams are limited in their capacity in fulfilling this primary objective with the available annual budget. These budgeted funds enable basic operational services to be maintained, but do not provide for extensive deferred maintenance activities to be undertaken. Addressing and funding the works and activities needed to achieve industry-standard stormwater services must be funded from additional rates as provided under the provisions of s496A of the Local Government Act.

#### **5.2.2 Condition Evaluation of Infrastructure**

Council operates an extensive system of underground stormwater pipelines most of which are located adjacent to buildings or under public roads and reserves. The vast majority of these pipelines are constructed of interlocking jointed pipe that, if displaced by ground movement, will create voids between the top of pipe and the surface. Failure to monitor pipeline condition risks voids causing surface collapse and subsidence.

#### **5.2.3 Backlog Infrastructure Projects**

Funding shortfalls over many years have generated or contributed to a list of major stormwater infrastructure projects requiring urgent implementation.

These projects need to be evaluated, estimates produced, prioritised and implemented with appropriate urgency. This requirement is the cornerstone for this plan.

#### **5.2.4 Planning Strategies**

Forward planning for new and redeveloped urban developments is critical if the additional stormwater loading is to be connected to existing stormwater infrastructure.

Defining an appropriate flood planning level for overland flow is one of the important outcomes of the Major Overland Flow Risk Management Study and Plan, currently being undertaken by Council. In conjunction with the flood policy unit of OEH a flood planning level will be administered that will inform Councils planning instruments such as the Spatial Plan and Local Environment Plan in the future.

Initiatives such as Water sensitive urban design (WSUD), collection and reuse of rainwater, peak storm flow attenuation methods, in-stream stormwater treatment, recovery and reuse are all considered to be of critical importance in the future development of the stormwater systems. WSUD must be carefully considered given the potential impact of surcharging up-gradient groundwater systems that may exacerbate down-slope salinisation.

### **5.2.5 Environmental Monitoring**

Stormwater systems are known to be capable of significant pollution.

Environmental monitoring is essential for Council to fully monitor and document actual system environmental performance, compliance with mandated discharge standards, and subsequent impact on receiving waters.

### **5.2.6 Finance**

All strategic planning is of little importance and outcome if not adequately funded to ensure timely implementation and long-term sustainable operation. The availability of continuing an annual charge under Section 496A funding now provides Council with a means of establishing and maintaining such targeted funding.

### **5.2.7 Community Education**

Stormwater and flood mitigation systems predominantly serve urban communities. Urban residents are often not fully aware of the way in which stormwater systems are designed and operate, and may not comprehend the consequences of individual environmental discharges on the final system outfall to receiving waters.

## **6 RESPONSE ACTION PLAN**

The following forward action plan constitutes a defined suite of specific projects that are intended to begin to address the known weaknesses and issues within the urban stormwater and flood mitigation system.

The complete plan, including this action planning component, is to be reviewed annually or following the outcome of any significant parallel initiative such as the Major Overland Flow Risk Management Study.

Each review and revision will most likely alter the priority of actions that the previous plan had identified, and further high priority projects are likely to be included in the forward planning process.

The key components of this plan in order of priority of action are as follows:

### **6.1 Priority 1 - Major Overland Flow Flood Study – addressing the Hot Spots**

Council has completed a Major Overland Flow Flood study which has identified a number of locations in the Wagga Wagga urban area that are subject to inundation from overland flow of stormwater and require some mitigation strategies to be developed. Work continues in addressing the following actions:

- Property Inundation Assessment: the peak flood levels from the MOFFS are used to query the property cadastre against defined criteria (e.g. 10% of the lot area is inundated by a depth greater than 150mm). This query returns a prioritised list of properties based upon risk.
- Revised Hot Spot List: a list of known hot spots was developed prior to the MOFFS, the property inundation assessment will prioritise the original hotspot list and prioritise them against the findings of the MOFFS.
- Specific Detailed Description of Hotspots: specific detail on high risk hotspots need to be developed such as overall depth, velocity, flow between structures, flow over roads, etc.
- Preliminary Mitigation Concepts: for each of the high risk areas some preliminary conceptual mitigation concepts will be developed as a precursor to the risk management study and plan.

The next phase of the Wagga Wagga Major Overland Flow Flood Risk Management Study and Plan project is the development of management initiatives to remove or reduce the risk associated with overland flow flooding.

## 6.2 Priority 2 - CCTV Inspection of Underground Stormwater Pipelines

CCTV inspections of underground stormwater pipelines can be undertaken with two methods:

- Council owns and operates a pole-mounted CCTV camera that enables a limited view of the stormwater pipelines from an access pit. This system is quick, safe, cost-effective, and provides sufficient vision to establish that a particular pipeline is either straight and visually clear of obstructions and excessive pipeline deflections, or that it is obstructed with a range of objects and conditions that require further detailed in-pipe visual evaluation and an appropriate maintenance/rehabilitation response.
- Council owns and operates a CCTV camera mounted on a robot tractor carriage that enables detailed inspection of the internal walls of a stormwater pipeline as it travels between access pits. This system is safe, and provides excellent vision of internal walls and joints to establish the structural condition and potential residual service life of a particular pipeline.

The system requires extensive deployment, a competent operational crew to operate the system, and is limited in the length of pipeline that can be inspected daily.

The underground stormwater pipeline assets of the Wagga Wagga urban area were inspected by CCTV in a planned, sampled manner for the first time in 2008-09. The initial sample represented less than 1% of the total system. A further sample was inspected by camera in 2010 utilising 'quickview' technology increasing the sample to 5%. The condition evaluation program is a continuing program to increase Council asset knowledge and data accuracy.

Pipeline pre-cleaning ensures that the actual structural condition of the pipeline can be viewed and evaluated. CCTV inspection of the internal surfaces of the stormwater pipelines enables the existing condition of the assets to be established using a national pipeline condition evaluating evaluation code.

The CCTV system can assist operators detect serious structural defects such as collapsed upper pipe sections that may cause surface subsidence and cavity formation. The system enables operators to locate and eliminate capacity limitations due to gross blockages (tree roots, obstructions, etc), and sedimentation of the pipeline cross-section.

The condition rating output forms the basis of future cyclic asset valuations.

Funding for pipeline pre-cleaning and CCTV inspection in 2008-09 was limited to \$100,000 given that the system had not previously been applied in a systematic manner. The results were very good in that those pipelines inspected were able to be condition rated, immediate rectification responses planned, and the service life of the pipelines estimated.

It is proposed that \$100,000 per annum be allocated to ongoing CCTV in-pipe inspections. The resulting condition ratings support future valuation of stormwater assets, and the risk of system failures and possible pipeline collapses better managed and minimised.

## 6.3 Priority 3 - Mitigation of known storm water system risks

In 2013/13 Council Officers compiled a register of known storm water risks and assessed each item by risk. These items have been prioritised into a works program based on risk. The projects identified with the highest risk to life, property or infrastructure will have the necessary risk mitigation solutions designed and, funded from the s496A rating scheme, will be implemented as funds are available. These risks will form the basis for the works program in the next revision of this plan.

## 6.4 Future Improvement Initiatives

The table below outlines Council's expenditure program for the Stormwater Management Plan for the life of this revision. The current list of initiatives is as follows:

Issue	Proposed Action Project	2013/14	2014/15	2015/16	2016/17
MOFFS Hot Spot mitigation.	Develop mitigation solutions for hot spots including any necessary hydraulic analysis	\$50,000	\$50,000	\$0	\$0
MOFFS Hot Spot mitigation.	Implement hot spot mitigations solutions	\$250,000	\$250,000	\$250,000	\$250,000
Known storm water risk items	Develop mitigation solutions for known stormwater risk items	\$50,000	\$50,000	\$50,000	
Known storm water risk items	Implement mitigation solutions for known stormwater risk items	\$200,000	\$200,000	\$250,000	\$300,000
Inadequate knowledge of condition of underground pipe system	Undertake annual CCTV inspections of 5% of pre-1975 pipe system until all older underground pipe assets have been surveyed and condition rated.	\$100,000	\$100,000	\$100,000	\$100,000
<b>Total</b>		<b>\$650,000</b>	<b>\$650,000</b>	<b>\$650,000</b>	<b>\$650,000</b>

## 6.5 Implementation

The 2010 stormwater management plan openly acknowledged that there was, at that time, insufficient funding available to effectively implement the recommended actions intended to enhance the management of stormwater and flood mitigation in the Wagga Wagga urban area.

The implementation of this plan is based on the premise of Council continuing its s496A rating scheme specifically for the purposes of developing and enhancing the management of stormwater systems and services.

## 7 SECTION 496A SCHEME

A key element of this plan is to develop and maintain a Section 496A annual charge scheme for the provision of stormwater management services.

### 7.1 Background

The prime objective of s496A is to provide an additional annual property charge to fund the provision of stormwater systems. As per the Act, s496A provides as follows:

#### **Section 496A Making and levying of annual charges for stormwater management services**

*(1) A council may, in accordance with the regulations, make and levy an annual charge for the provision of stormwater management services for each parcel of rateable land for which the service is available.*

*(2) Subsection (1) does not authorise or permit a council to make or levy an annual charge for the provision of stormwater management services for rateable land that is:*

- (a) Owned by the Crown, and
- (b) Held under a lease for private purposes granted under the Housing Act 2001 or the Aboriginal Housing Act 1998.

**Note.** Section 555 (1) (a) provides that land owned by the Crown is not rateable land unless it is held under a lease for a private purpose.

The DLG guidelines on s496A stormwater management service charge schemes, page 30, provides as follows:

*“The income from the charge can be spent on both capital projects and recurrent expenditure relating to new/ additional stormwater management services such as:*

1. *Planning, construction and maintenance of drainage systems, including pipes, channels, retarding basins and waterways receiving urban stormwater;”*

This clause is critical as it provides for Council to:

- Plan for the effective upgrading of stormwater services, including augmenting the existing system to ensure adequate system capacity for statistically valid storm events in intensely developed urban areas such as the commercial area
  - Construct stormwater works to augment the existing system
  - Maintain the existing system such that its available capacity is made available for coping with storm events;
    - Maintenance includes cleaning of pipelines and pits, inspection of the system by CCTV survey systems, and repair of assets such as to make the system safe and minimize the risk of storm flooding and under-roadway void collapse events.
  - The maintenance work effort will dominate the expenditure for the next 5-10 years until all assets have been returned to acceptable service standards.
  - Augmentation works could begin once system analysis enabled augmentation works to be defined, costed, and prioritized.
2. *“• planning, construction and maintenance of stormwater treatment measures, including gross pollutant traps and constructed wetlands;”*

Many stormwater system outfalls are currently poor performing installations that do little to improve stormwater quality prior to discharge to receiving waters. Some systems, particularly those serving commercial and industrial areas may require prompt prioritized action to minimise environmental impacts.

3. *“planning, construction and maintenance of stormwater harvesting and reuse projects”;*

Such schemes, while very commendable, are a low priority given that the majority of the system has yet to be returned to a viable operational state.

4. *“cleaning up of stormwater pollution incidents (charge can fund a proportion);*
5. *water quality and aquatic ecosystem health monitoring of waterways, to assess the effectiveness of stormwater pollution controls (charge can fund a proportion); and*
6. *monitoring of flows in drains and creeks, to assess the effectiveness for flow management (flooding) controls (charge can fund a proportion)*
7. *staff specifically appointed to provide the stormwater management service associated with the charge (e.g., temporary project staff).”*

Such evaluation and condition rating fulfils Council's responsibility to exercise due diligence in managing its assets, and enables Council to proactively plan and budget for the repair, rehabilitation, and/or replacement of deteriorated stormwater pipeline and associated assets.

## **7.2 Charging Structure**

The DLG Section 496A Guidelines define the properties that can be included, and those that must be excluded from a funding scheme. Stormwater charges will be applicable to all properties, with the following exceptions, which are exempt by the State Government from the charge:

- Crown Land
- Council Owned Land
- Land held under lease for private purposes granted under the *Housing Act 2001* or the *Aboriginal Housing Act 1998*
- Vacant Land
- Rural Residential land or Rural Business land, not located in a village, town or city
- Land belonging to a Charity or Public Benevolent Institution

The stormwater charge is levied on a property basis as follow:

- Residential Standard Stormwater \$25.00 per lot
- Residential Medium/High Density Stormwater  
(Subject to a Maximum charge of \$250.00) \$12.50 per unit
- Business Stormwater \$25.00 per 350 square metres of land area  
(max \$250.00)
- Business Strata Stormwater \$12.50 per unit

### **7.3 Annual Plan Review and Renewal Program**

This plan is subject to reviews of approved and funded initiatives in works and services to ensure timely and budgeted completion of initiatives within each financial year.

Additionally, the plan is subject to annual review and approval, with the outcomes report, redrafted plan, and recommendations being presented to a meeting of Council. Adopted proposals and the resulting financial plan for the funding of the forward initiatives would then form an integral component of the corporate business planning process from which the general stormwater budget and the funding required from the s496A special rates scheme can be adopted and implemented.

## **8 CONCLUSION**

The Stormwater Strategic Management Plan builds on all prior and parallel current initiatives to ensure that stormwater and flood mitigation services are delivered in a cost-effective manner with sustainable environmental outcomes.

This plan is the framework for future annual plan revision and renewal. It offers Council the financial mechanisms to fully implement the key strategies.

## **9 CONTACT US**

Wagga Wagga City Council  
Cnr Baylis & Morrow Streets  
PO Box 20  
WAGGA WAGGA NSW 2650

Call 1300 929 442  
council@wagga.nsw.gov.au  
**www.wagga.nsw.gov.au**