
1 INTRODUCTION

1.1 PURPOSE OF THIS PLAN

This document is the Stormwater Management Plan (referred herein as 'the plan') for the Upper Parramatta River catchment. The catchment is located within the complete catchment of Sydney Harbour, and is located approximately 20 - 30 km west-north-west of the Sydney Central Business District (CBD).

The aim of this plan is to improve and facilitate the management of stormwater impacts on the environment within the Upper Parramatta River catchment.

The plan has been developed cooperatively by Baulkham Hills Shire Council, Blacktown City Council, Holroyd City Council and Parramatta City Council in collaboration with the Upper Parramatta River Catchment Trust, Parramatta Park Trust, the Roads and Traffic Authority, Sydney Water Corporation, and in consultation with other State Government agencies, industry and the community.

A Catchment Stormwater Taskforce (CST) was established to steer the Plan. Appendix 1 provides details of the Taskforce.

This Stormwater Management Plan:

- describes the catchment (Section 2);
- identifies the existing catchment conditions (Section 3);
- establishes the community-endorsed environmental values of the catchment (Section 4);
- presents appropriate management objectives to protect the values (Section 5);
- identifies stormwater issues in the catchment (Section 6);
- specifies and evaluates potential management options to address the issues (Section 7)
- includes implementation strategies for the four councils which occur within the catchment, the RTA, Sydney Water, the Upper Parramatta River Catchment Trust and the Parramatta Park Trust (Section 8);
- presents a performance monitoring program (Section 9);
- describes a mechanism for reporting on the implementation of the plan (Section 10);
- provides a revision timetable for the Plan (Section 11).

However, the Stormwater Management Plan does not:

- guarantee that water quality objectives will be achieved if all management options are implemented
- assign any accountability to the participating organisations for achieving the water quality objectives¹
- include detailed catchment water quality modelling, analyses and designs, but is based upon existing information which in some areas is scant
- provide a mechanism for apportioning between the participating organisations the cost of catchment-wide activities

Figure 1 shows the steps in the Stormwater Management Plan.

The Stormwater Management Plan is included amongst a number of plans and strategies that influence or drive the management of the Upper Parramatta River catchment. Figure 2 illustrates the relationship between the Stormwater Management Plan and other plans and strategies on a state, regional, catchment and local level.

¹ A Statement of Joint Intent or similar document, which assigns specific responsibility of the participating organisations to the stormwater management options, may gain accountability. With such a document, each organisation signs an agreement to undertake such options generally within a specified time period based on available funds. A Statement of Joint Intent has been identified as a management option in this Stormwater Management Plan.

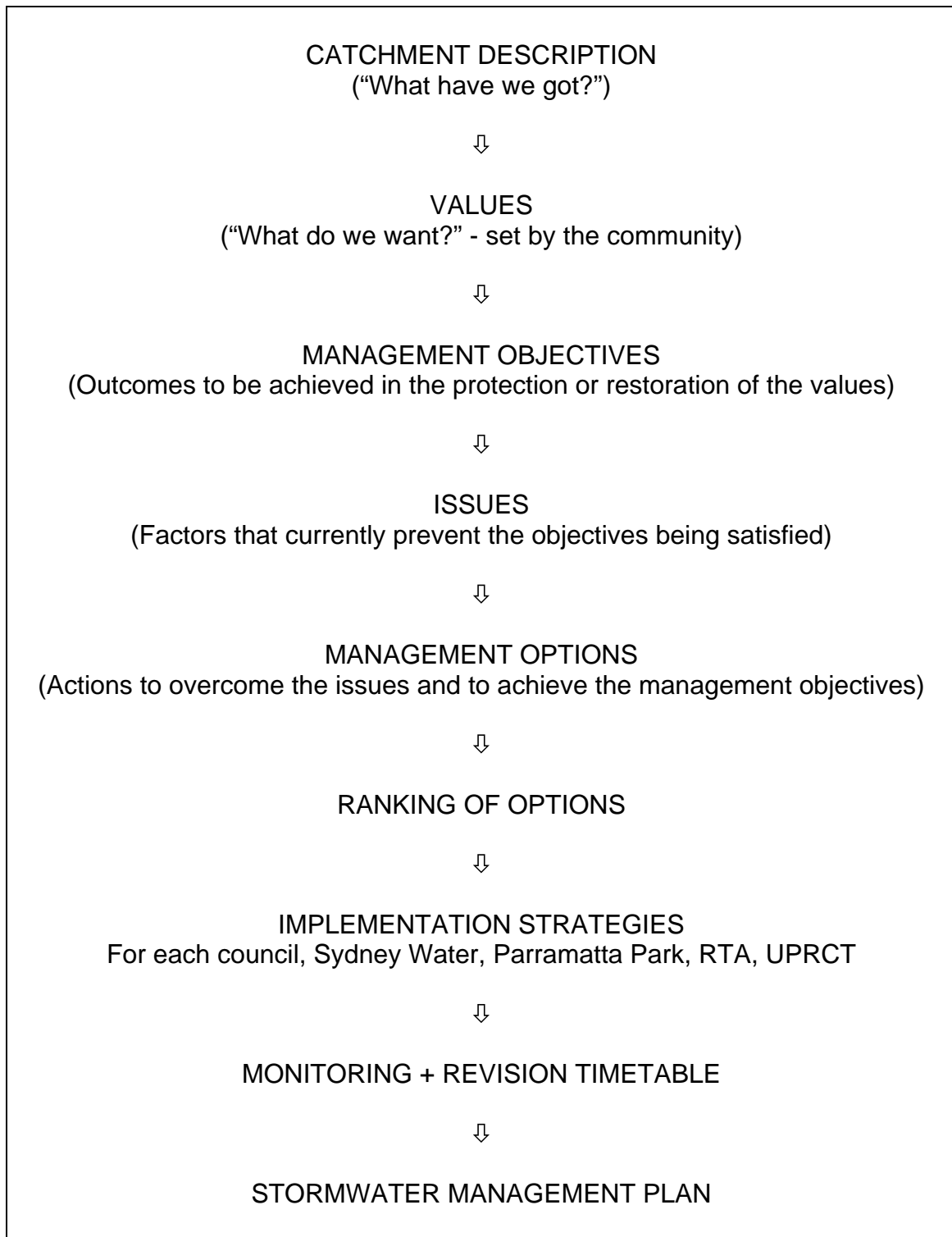


Figure 1: The Process of the Stormwater Management Plan

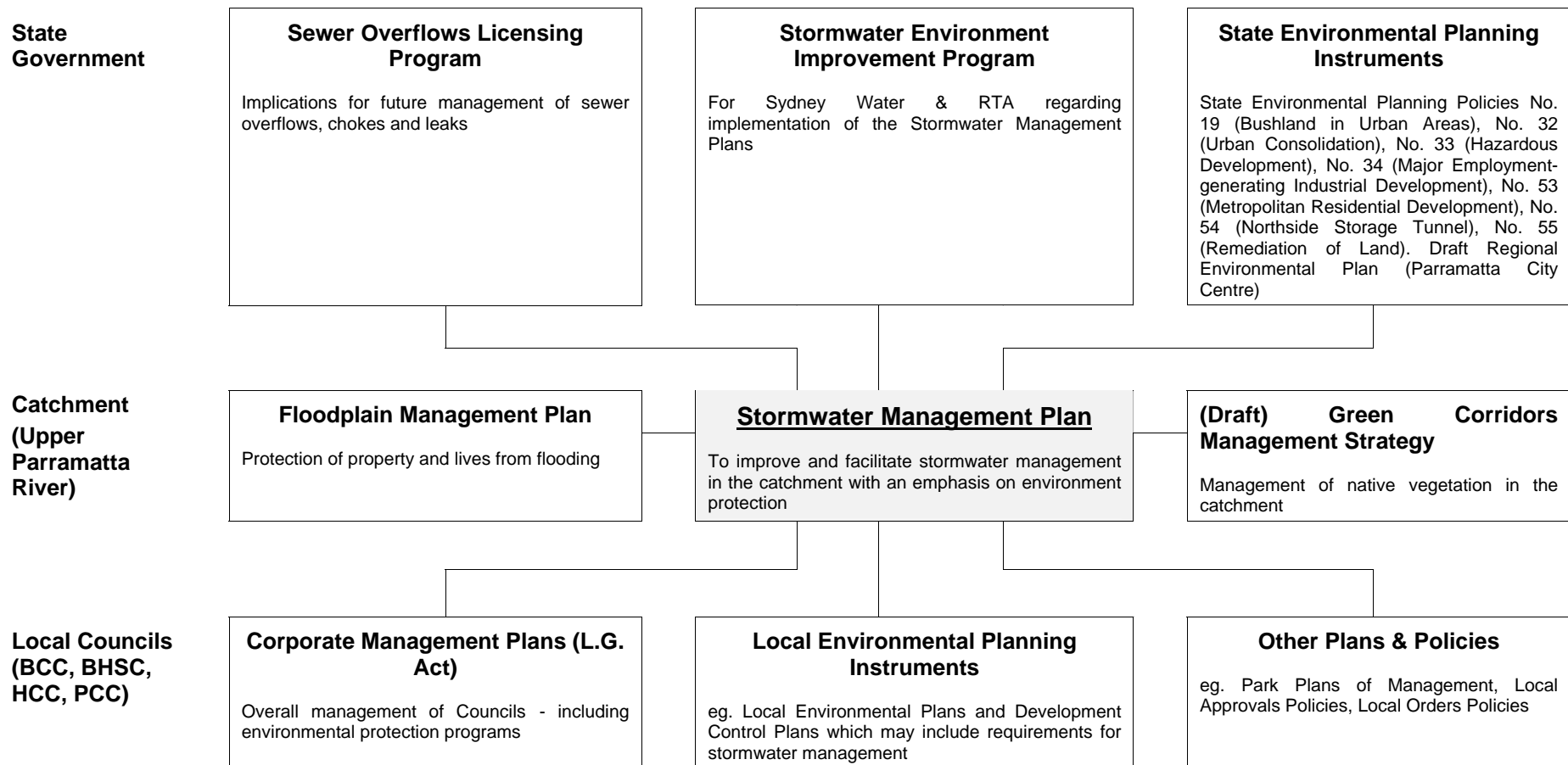


Figure 2: Relationship of the Stormwater Management Plan with other Plans and Strategies

1.2 FRAMEWORK FOR PREPARING THIS PLAN

This plan has been prepared to comply with the requirements of a Notice issued to Baulkham Hills Shire Council, Blacktown City Council, Holroyd City Council and Parramatta City Council by the NSW Environment Protection Authority (EPA) under Section 12 of the Protection of the Environment (Administration) Act 1991. The requirements of this notice are contained in Appendix 2. The Roads and Traffic Authority and Sydney Water Corporation are required to participate in the preparation of the Plan as stipulated in a notice issued under Regulation 21 of the Clean Waters Regulation 1972 by the NSW EPA.

This is the second (revised) stormwater management plan prepared for the Upper Parramatta River catchment. Reports and actions arising from various earlier initiatives such as the Streamly Clean Project (Upper Parramatta River Catchment Trust, 1996), the Proposed Interim Environmental Objectives for NSW Waters (EPA, 1997a) and the Revision and Implementation Audit of the initial Stormwater Management Plan (Upper Parramatta River Catchment Trust, 2002) have been incorporated into this plan. It is expected that the Plan will be reviewed and consequently amended at regular intervals as information increases and new technologies emerge (refer to Section 11 for the revision timetable).

1.3 REVIEW OF PLAN

The original SMP for the Upper Parramatta River Catchment was developed in 1998/99 in response to the Section 12 notices issued by the NSW Environmental Protection Authority (EPA) under the Protection of the Environment (Administration) Act 1991 (i.e. Appendix 2). It was the work of a full-time project manager, Peter Morison, guided by a Catchment Stormwater Taskforce (CST) comprising officers of the four local councils, Sydney Water, the Roads and Traffic Authority (RTA), Parramatta Park Trust (PPT) and the Upper Parramatta River Catchment Trust (UPRCT).

The SMP was completed in July 1999, adopted or noted by the four local councils and the UPRCT, and submitted to the EPA. Since then, the CST has continued to meet six monthly, and at other times as required, to coordinate implementation of the catchment SMP. This contrasts with the situation in many other urban catchments where the working parties that coordinated preparation of the SMP have since disbanded (see Brown and Ryan, 2000).

The EPA's SMP guidelines proposed that each SMP be reviewed after three years (ie. mid 2002). However, on the initiative of the CST the review of the implementation of this catchment's SMP was brought forward from mid 2002 to mid 2001 for a number of reasons. These included:

- the relatively rapid progress in implementing the easier options;
- the increasing evidence of practical limits being reached by the councils to resource ongoing maintenance, education, auditing and enforcement programs;

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- some of the items listed in the SMP were now considered impractical or irrelevant;
 - in relation to coordination and the role of the UPRCT, the future of the Trust was not assured past mid 2002 (it was felt that the implementation of this catchment's SMP was further advanced than in most other catchments due to the Trust's coordination and funding support); and
 - there was a sense that the parties to the SMP were losing enthusiasm for the SMP.

The UPRCT fully funded the review project. Dr Roberta Ryan of Elton Consulting was engaged as lead consultant, with John Constandopoulos of Sinclair Knight Merz (SKM) engaged as a specialist sub-consultant to assist on technical matters. The CST was actively involved in supervision and support of the project.

The objectives of the overall review project were to:

1. review and revise the catchment SMP;
2. audit implementation of the SMP by the local councils and agencies; and
3. make recommendations to address the future direction of the SMP.

For several reasons it evolved that the SMP review project was carried out in two parallel components.

The first component was carried out by Dr Ryan, who investigated the processes of SMP implementation, including assessing the capacity of the councils to manage their aspects of implementing the SMP some 2 years after completing the plan. Her report (Ryan, 2001), which is an addendum document to this revised SMP, mainly reviews the organisational capacities of the four local councils to implement their responsibilities under the SMP.

The second component was undertaken by members of the CST, with significant assistance from John Constandopoulos of SKM. It involved developing a scheme of performance indicators, auditing implementation of the SMP and reviewing and revising the actions in the existing SMP. The results of this work are outlined in a report written by the Trust (Upper Parramatta River Catchment Trust, 2002), which is also an addendum document to this revised SMP. The revised Implementation Strategies are presented in this revised SMP.

To avoid needless duplication, much of the background material and detailed results contained in the two addendum reports has not been repeated in this revised SMP report. Only the key findings are summarised below.

Ryan (2001), in reviewing the organisation capacities of councils, used the following methods:

- a document review, including journal articles, CST minutes, council reports and plans;
- a survey of council staff, managers, directors and councillors (54 returned);
- focus groups conducted with each of the four councils;

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- in-depth interviews with catchment managers and stakeholders (13 conducted mostly by phone);
 - meetings and workshops to review and revise the SMP and to discuss the findings from the project.

The general findings of the the review are summarised as follows:

- The role of the Upper Parramatta River Catchment Trust has been vital in supporting the development and implementation of the Plan.
- The activities of the Trust have significantly contributed to the quality of the outcomes within the catchment.
- There is considerable enthusiasm and expertise for management planning by council officers.
- There is evidence of strong catchment relationships with key stakeholders in the planning process, indicating strong institutional capacity.
- There is considerable variation in resourcing of and support for the SMP by the participating councils.

Upper Parramatta River Catchment Trust (2002) outlines the work undertaken to develop a scheme of performance indicators, audit implementation of the SMP and review and revise the actions in the original 1999 Plan, as well as the key conclusions drawn.

SMP Review and Revision

The original SMP was reviewed and substantially revised to make it:

- more practical and achievable, and to reflect:
 - technological advancements,
 - the changing emphasis from end-of-pipe to at-source pollution controls,
 - an increase in the knowledge of water quality management in the catchment, and
 - the significantly different willingness and capacity of the various local councils and agencies to implement the actions assigned to them under the SMP.

The Implementation Strategies of Sydney Water and the Roads and Traffic Authority were not reviewed or revised.

The Common Implementation Strategy in the original SMP was dropped because no council or agency was considered responsible for its implementation. However most of its important core non-structural measures – auditing, monitoring, enforcement, education and council's own operations – were transferred into the Implementation Strategies for each council and (where relevant) agency, thus ensuring clear accountabilities.

In contrast, the SMP revision led to many structural Stormwater Quality Improvement Devices being dropped. Others were constructed and therefore removed from the Plan. Some new structural works were introduced. These generally aim to retain visible stormwater pollution, litter and coarse sediment, and, in a few cases, oil and grease. Significantly, Blacktown City Council and Parramatta City Council plan to construct wetlands and/or naturally functioning creeks that will provide some water quality and amenity benefits. Due to their size and complexity these projects will take some years to complete. Unfortunately, because of its highly developed state, there are limited opportunities for further wetlands in this catchment.

Because the revised SMP Implementation Strategies are considered more realistic, these were used as the basis for the implementation audit.

Performance Indicators

The CST developed a 'cost weighted actions' Performance Indicator (PI), with which to assess the performance of SMP councils and agencies in implementing their Implementation Strategies. The Implementation Strategies list the actions each organisation has committed to undertake and maintain under the SMP. The PI compares the rate at which each organisation is implementing its SMP actions with the target rate of implementation; using the actual and target cumulative expenditures to date.

In addition to the PI, the degree of commitment to implement stormwater management measures is indicated by the amount of money each organisation is spending on its SMP actions, expressed as an average annual amount for every person in (its portion of) the catchment.

Implementation Audit

An audit of each council's or agency's performance in implementing their SMP actions to mid 2002 – using the developed PI – found in the following results:

Council or Agency	Rate of Progress in Implementing SMP Actions (PI) to 2001/02
Upper Parramatta River Catchment Trust	96%
Blacktown City Council	80%
Holroyd City Council	73%
Parramatta City Council	69%
Parramatta Park Trust	26%
Baulkham Hills Shire Council	13%
Sydney Water	0%
Roads and Traffic Authority	0%

It was found that the degree of commitment of each council and agency to implement their SMP actions varies markedly. This ranged from \$2.04 per person (per year) in Baulkham Hills Shire, to \$4.08 in Holroyd, to \$6.75 in Blacktown and \$7.20 in Parramatta. There are similarly large variations in the degree of commitment of State Government agencies – from \$1.49 by the Upper Parramatta River Catchment Trust, to \$0.79 by the Parramatta Park Trust, to \$0.74 by Sydney Water and \$0.67 by the Roads and Traffic Authority.

Overview

The following brief remarks summarise the position at each council and agency with regard to its revised SMP Implementation Strategy and the implementation of the actions in the Implementation Strategy.

Baulkham Hills Shire Council has a very modest Implementation Strategy that mainly involves non-structural measures. Only limited staff numbers and funds are available.

Blacktown City Council has a comprehensive Implementation Strategy that is well supported by Council with funds. Council's efforts have a structural works focus.

Holroyd City Council has a fairly comprehensive, but modest Implementation Strategy. It is focussing on practical, low cost measures because of funding limitations.

Parramatta City Council has a comprehensive Implementation Strategy, well supported by committed funds, but will take some years to achieve its target rate of progress.

The Upper Parramatta River Catchment Trust's Implementation Strategy reflects its strong leadership role. Its Implementation Strategy actions involve co-ordination, technical and funding support and monitoring, and support and complement the actions of the councils.

Sydney Water has agreed to implement all of its SMP actions in this, and all other urban catchments. IPART has agreed to approve charges that will provide the necessary funds. However the restriction of Sydney Water to work within its narrow stormwater canal reserves limits the range of options can pursue. Limited staff numbers in Sydney Water will restrict the rate of progress on its SMP actions.

The Roads and Traffic Authority is apparently unwilling to initiate any actions to address stormwater pollution from its main roads. Whilst it will part-fund council stormwater projects that treat runoff from both main roads and surrounding urban areas, this places an unreasonable expectation on the councils. As a result only one project has been implemented in this catchment to treat the potentially very harmful pollutants that accumulate on major roads – of which there are many in this catchment. This deficiency remains a key shortcoming in the implementation of this catchment's SMP.

Future Directions

In its report the CST commented that a significant new policy direction from the NSW Government would be required to substantially change how stormwater is managed in urban areas like the Upper Parramatta River catchment. It pointed out that, because there is no real accountability for the quality of water in the Parramatta River, Sydney Harbour or other major receiving waters, it is entirely discretionary whether local councils and government agencies choose to take stormwater management seriously. Whilst some are, many are not. The report noted that the existence of the Upper Parramatta River Catchment Trust and the history of strong co-operation between councils makes this catchment more favourable than most for the successful implementation of its SMP. It is therefore likely that SMP implementation is less advanced elsewhere in Sydney.

It observed that the present way in which stormwater is managed in our urban areas is limited in its effectiveness due to shortcomings in both institutional arrangements and funding. Recognising that, in mid 2001 the NSW Cabinet asked the NSW Stormwater Trust and the Department of Local Government to report back with a detailed proposal for new institutional arrangements and sustainable funding. That proposal is now expected to be submitted to Cabinet shortly. The Government's response is awaited with much interest.