PROJECT SUMMARY

URBAN WATER CYCLE PLANNING GUIDE

WEBSITE LINK

http://iwcm3.grindstone.com.au

SUMMARY

The Urban Cycle Planning Guide is a new, online resource to help urban developers, consultants and planners design new urban subdivisions in a way that enhances liveability through Whole of Water Cycle Management (WWCM).The guide follows a step-by-step process for planning and designing all aspects of the urban water cycle including:

- natural aspects like waterways, wetlands, floodplains and natural drainage;
- built aspects including residential, commercial and industrial land and public open space; and
- service aspects stormwater, including drinking water, sewerage and alternative water.

Note that whilst the guide was developed in the Barwon region of south west Victoria, it is designed to be a generic platform that can be adapted to meet specific needs of other regions and jurisdictions.

BACKGROUND

The Geelong region includes some of the fastest growing areas in Australia. Demand for affordable, accessible and liveable residential developments is increasing. The process for planning, designing and constructing these developments can be confusing and time consuming. A range of issues need to be considered to ensure new urban developments are more liveable, sustainable and productive. One of these issues is the urban water cycle.

The urban water cycle system involves a complex web of players, decisions and solutions operating across multiple scales and timeframes and often in a fragmented manner. Developers and their consultants are faced with a myriad of decisions with respect to what water cycle options to consider, who to consult with, the rules that apply and when to move forward or back in the planning process. Many of these challenges are due to poor communication between the players. The purpose of the Guide is to help to overcome some of these communication issues.

OBJECTIVES

- To help embed water cycle planning into urban planning at a practical scale where whole-of-

solutions can make a real difference to the livability of new urban developments.

- To improve communication between developers and agencies with respect to decisions regarding water cycle issues in the planning process.
- To develop a consistent planning approach to managing water cycle issues in new urban developments.
- To develop an adaptable toolbox of information, case studies and resources for whole of water cycle management at a precinct scale.

METHOD

The guide's structure is designed to help developers and consultants apply Whole of Water Cycle Management (WWCM) to their decision-making for new urban development proposals. There are two layers to the structure:

1. Working through three progressive modules (or stages) of WWCM planning, Conceptual, Functional and Detailed;
2. Considering all aspects of the urban water cycle in a preferred sequence i.e. the 'flowpath'.

THREE 'MODULES'

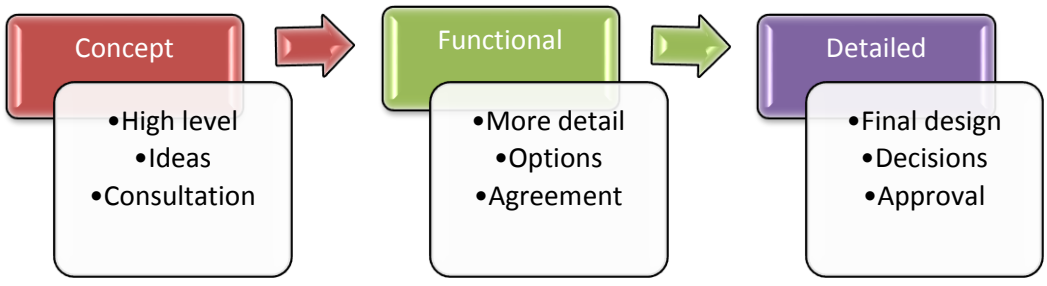
The process requires the user to progress through the three modules (or stages) of increasing detail and resolution (Figure 1)

The Concept stage is designed to get the parties communicating and is all about sharing ideas. This stage is important to flag potential benefits of whole-of-water cycle management thinking and to prevent lost time and effort being directed to unachievable options.

The Functional stage aligns closely to the traditional 'master planning' stage and is all about identifying options and making decisions.

The Detailed stage is where the final design solutions are agreed and supported. This staged approach will help to ensure the right information is provided to the right people, at the right time and in the right form. This will save money and time.

Figure 1 The three modules for progressing a development's WWCM plan



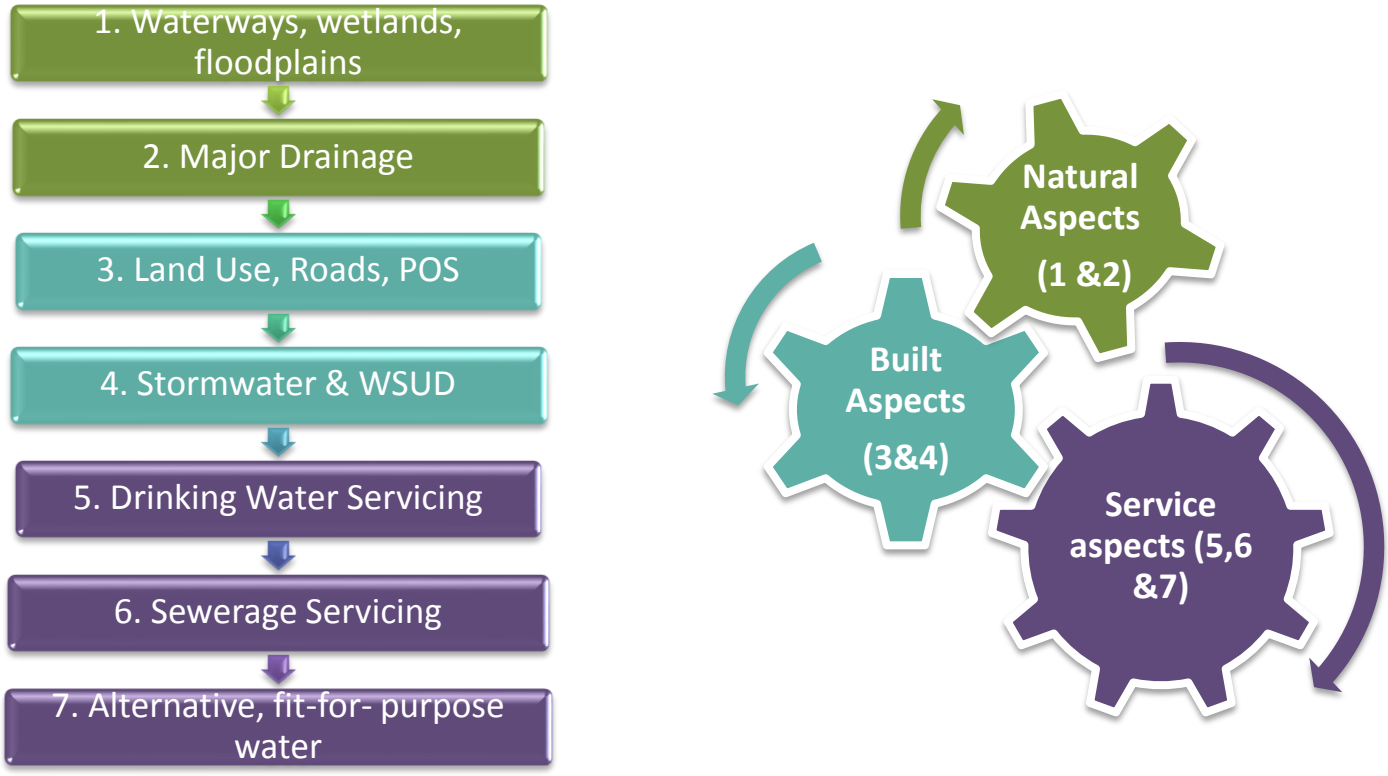
Following the 'Flowpath'

Regardless of the module, there is a preferred sequence to the order of how each aspect of the urban water cycle is considered. The natural water cycle aspects such as waterways, floodplains and major drainage are considered before a land use plan is developed and applied to the area. Servicing aspects including water sensitive urban design, drinking water, sewerage and alternative water are discussed after the land use plan.

This sequence , or 'Flowpath' is designed to ensure urban planning is in sync with the natural water cycle aspects, the precinct will take advantage of water cycle assets to be a more liveable place to live and that the servicing costs of water cycle management infrastructure cost effective and efficient (Figure 2).

By following the flowpath, developers will be provided with valuable advice and useful tools to help them fulfil the planning agency requirements and to identify the solutions that produce the most benefits.

Figure 2 Aspects of the urban water cycle system and the guide's 'Flowpath'



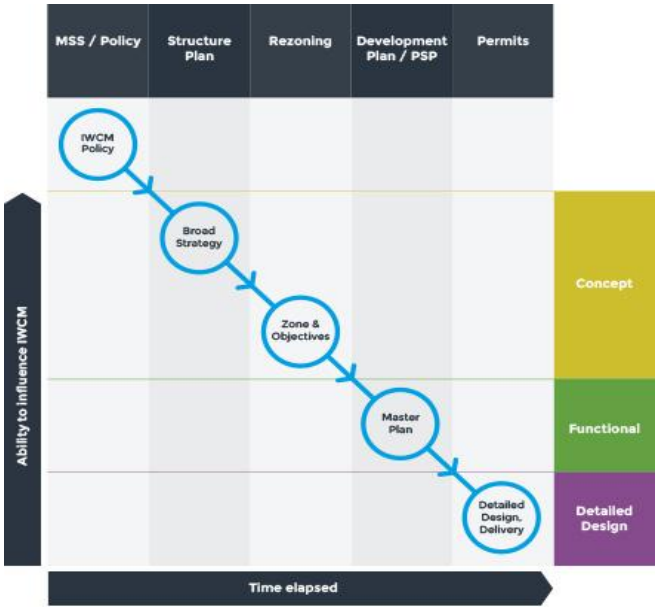
The Benefits of the guide

The key benefit of the guide is that it provides an agreed format for consideration of all aspects of the urban water cycle for a new urban development. This means the agencies that comment, review or approve development decisions are supportive of the process and layout of the guide.

The guide will also encourage early consultation of key WWCM decisions, putting the user in touch with the right people at the right time and avoiding wasting time on options that may be clearly unacceptable.

Best of all, the guide is aligned to the existing planning approvals process for an urban development (Figure 3). This means the user can track their progress through the process and ensure appropriate feedback at the right time and in the right way.

Figure 3 The guide aligns with the planning process



The Barwon Region IWCM Network

The Barwon Region IWCM Network is regional collaboration of agencies that are committed to a more whole-of- approach to whole of water cycle management. The network identified better communication as a key opportunity to enhance this approach.

The development of the Urban Water Cycle Planning Guide is just one of many initiatives of the network to enhance consideration of WWCM in urban and water planning.

The Smart Water Fund is supporting the development of this guide due to its potential applicability across the state. Barwon Water is implementing the project on behalf of the network.

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