Tabled at Hearing 01/03/2013

Land and Water Hearing

1 March 2013

Submission by A. E. Kennedy

Christchurch

Planning Tools

Resource Management Act 1991 (RMA)

Under Section 30 of the RMA every Regional Council has a number of functions for the purpose of giving effect to the Act in its region, including the control of the use of land for the purpose of: soil conservation, the maintenance and enhancement of the quality of water in water bodies and coastal water; the maintenance and enhancement of ecosystems in water bodies and the control of discharges of contaminants into or onto land, air, water and discharges of water to water.

Canterbury Regional Policy Statement

Policy 7.3.1 – Adverse effects of activities on the natural character of freshwater
(3) improve the natural character values where they have been degraded to unacceptable levels:
Methods – (2) Set objectives, policies and rules in regional plans to identify and protect wetlands, lakes, rivers or their margins which are unacceptably degraded and the key values which need to be enhanced. The Council will seek and have regard to recommendations from the Regional Water Management Committee and the Zone Water Management Committees relating to areas for protection or enhancement of their natural character values within their zone, and actions to undertake that enhancement.
Policy 7.3.3 - Promote and enhance fresh water environments and biodiversity and where appropriate require the protection, restoration and improvements of lakes, rivers, wetlands and their riparian zone.

Canterbury Water Management Strategy

The regional implementation programme will address matters such as :

Environmental limits for surface and groundwater quality and quantity
Establish ecosystem protection and repair activities

"In recent years there has been an increase in understanding of the importance of maintaining healthy habitats and ecosystems to protect indigenous biodiversity. This has resulted in an increase in biodiversity initiatives at all levels. However, biodiversity in Canterbury continues to decline overall. Halting this decline will be very important to maintaining quality of life, preserving cultural heritage, and ensuring a sustainable future." CWMS (2009)

Christchurch West Melton Draft Zone Implementation Programme

The Committee has identified five issues that are a priority to address in the Zone and that must be tackled to give effect to the Canterbury Water Management Strategy. The five "Priority Issues" are:

- Enhancing and managing waterways for recreation, relaxation and amenity
- Improving surface water quality and safeguarding surface water flows
- Enhancing healthy ecosystems, indigenous biodiversity, and valued introduced species and landscapes
- Safeguarding groundwater quality and flows for multiple uses
- Making efficient use of water and managing demand

Benefits of Wetlands

The benefits

- removing contaminants from stormwater runoff

- storage – flood mitigation and groundwater recharge Appendix 1
- (all vital ecosystem services)
- biodiversity
- community wellbeing and education
- social capital

Urbanised areas discharge large amounts of stormwater which drains on impervious surfaces such as roofs, roads and driveways. Stormwater is often directly piped into rivers or the marine area transporting toxic pollutants as well as sediment into freshwater bodies. Wetlands in urban environments play an important role in maintaining local water quality.

Ground water and surface water are linked through wetlands. Wetlands with recharge capacity collect runoff and release it into ground water supplies. They therefore make positive contributions to our supplies. Without increasing the number of wetlands, damage from flooding will likely increase.

Wetlands provide a unique array of habitats for many species of wildlife. The vegetation growing around the wetland edge serves as food and habitat for many of our wetland species.

Communities benefit by experiencing the conservation of indigenous landscapes and conservation of biodiversity (Florgard 2004). These experiences create strong attachments, and these attachments are not always based on an appreciation of either scientific value or services.

Neighbourhoods may develop a collective attachment to a landscape over time and this attachment brings social and cultural benefits (Bender 1993). It is also evident from literature that there are many psychological benefits of such initiatives. Urban nature fulfils important non-material human needs including the need to "experience nature" and to escape the built city. (Chiesura 2004; Gobster 2001).

In social interactionist terms this ascription of meaning and value to urban nature develops a process of interaction between people, enabling communities to build trust, a sense of equity, encourages collective behaviour, and the capacity to build social capital. The protection of nature initiatives in urban landscapes is best facilitated when social capital exists and can be drawn upon. Examples : Travis Wetland Trust and the Avon Heathcote Estuary Ihutai Trust Board.

The water quality at upper catchment sites is relatively good, sites further downstream are increasingly influenced by urban land use and stormwater. Ecan 2011

The negative impacts of stormwater contamination can be reduced through measures such as:

- creating and restoring wetlands to collect and treat stormwater

Research & Successful Initiatives

Artificial wetlands and water quality improvement

The design of the Putrajaya Lake and Wetland system in Malaysia is compared with a constructed wetland and lake for the treatment of urban surface runoff in a new residential development in London. The benefits of these natural systems are discussed in the context of the global trend for introducing sustainable methods of environmental management and low cost pollution treatment systems

The use of constructed wetlands to treat wastewater and other sources of water pollution is a valuable and appropriate technology to be used alone or in combination with other systems. There is a global trend for more stringent environmental standards and legislation. The current economic climate encourages the introduction of relatively low cost pollution treatment systems. The benefits of natural systems are becoming more apparent as they become successfully used. Countries are realising that natural systems may be preferable to energy demanding conventional technology. (Shutes 2001)

The Urrbrae Wetland is a constructed urban wetland located in the suburbs of Adelaide. It was constructed to manage flood water from the nearby Adelaide Hills and has been developed to provide ecological and educational benefits. The wetland covers approximately 6 hectares of land previously part of Urrbrae Agricultural High School. The area of water is approximately 4 hectares and when full, contains approximately 13.5 million litres of water. (Mitcham City)

Locally - Stormwater from Bower Avenue bypasses the Cockeyne Reserve and enters the Avon River. (Appendix 2 and Appendix 3) Lost opportunities such as this must not continue.

In this Submission, I am requesting that in the Residential Red Zone and the catchment of the Avon River, stormwater is not discharged directly into the River, but passes through wetlands before entering the River, delivering the most sustainable, multifunctional landscapes. The environmental, economic and social benefits compel me to make this request.

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Mitcham, City of Mitcham. mitcham@mitcham.sa.govt.au

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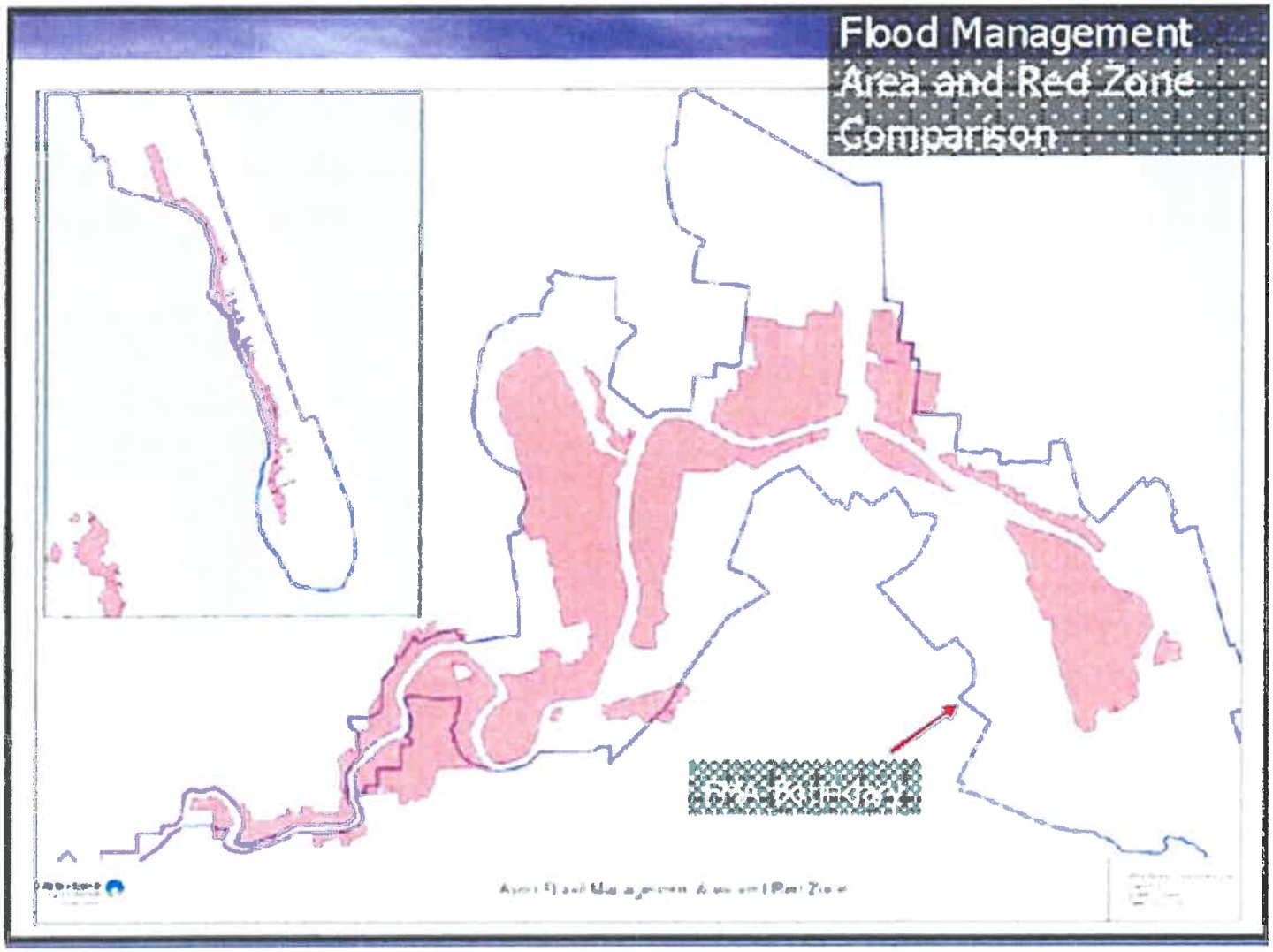
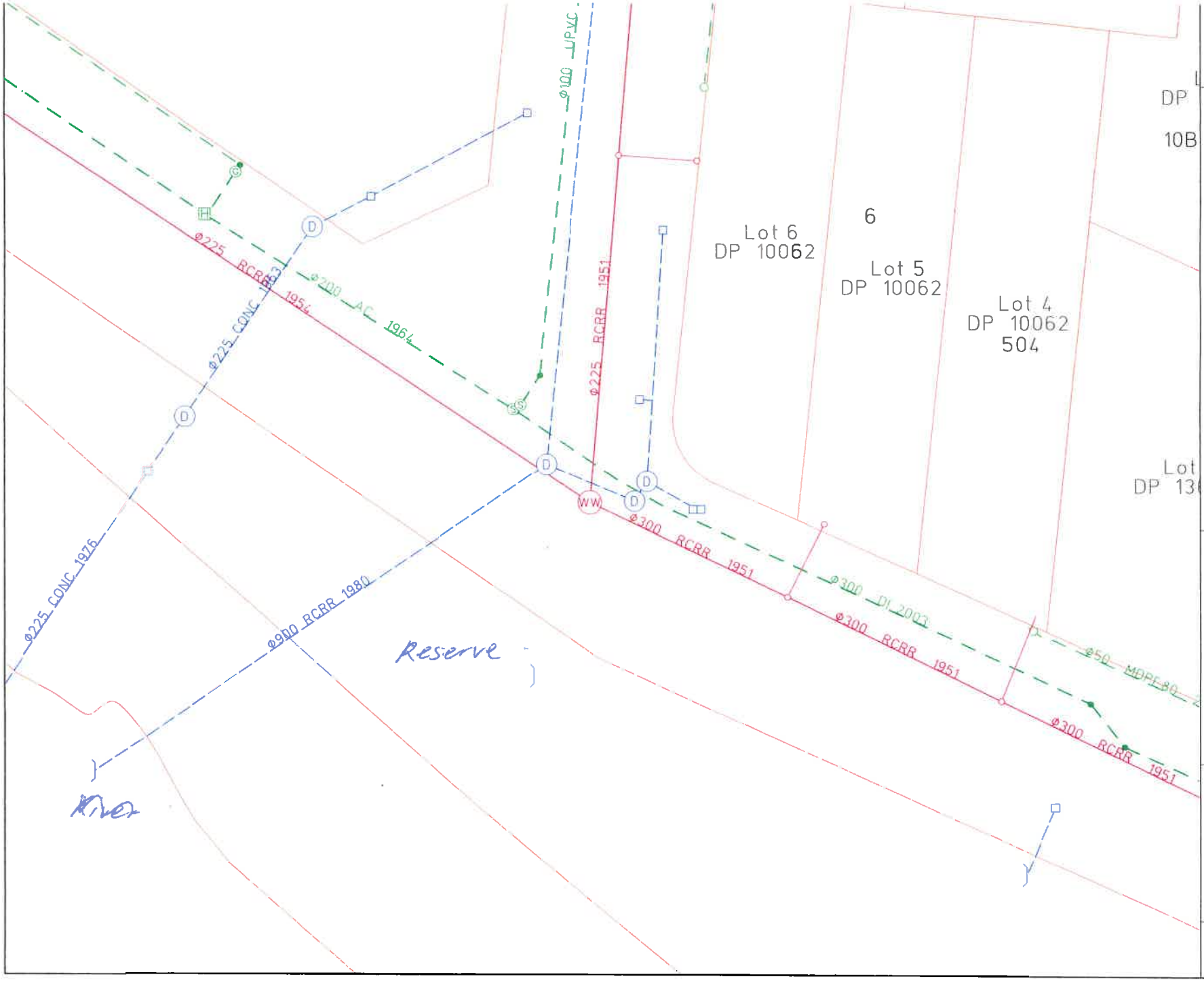
App. 1.





Utilities

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LEGEND

- WASTE WATER MAIN
- STORM WATER MAIN
- WATER INTAKE MAIN
- WATER SUPPLY MAIN
- WASTE WATER DRAIN
- STORM WATER DRAIN
- WATER INTAKE SUBMAIN
- WATER SUPPLY SUBMAIN
- BIO GAS MAIN
- CABLE
- STD MANHOLE (WASTE)
- VENTED MANHOLE (WASTE)
- STD MANHOLE (STORM)
- SUMP (STORM)
- FIRE HYDRANT (WATER)
- VALVE (WATER)
- METER (WATER)
- RESTRICTOR (WATER)
- INLET (WATER)

CAUTION
THE ACCURACY OF THIS PLAN IS NOT GUARANTEED. ONSITE VERIFICATION REQUIRED.

SCALE 1:500 on A4

Christchurch City Council
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CHRISTCHURCH
CITY COUNCIL - IM & CT

App. 2.


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