

Watercourse Management Policy

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Policy Name:	Watercourse Management
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Responsible Officer:	General Manager Urban and Community
Relevant Legislation:	Development Act 1993 Planning, Development and Infrastructure Act 2016 Environment Protection Act 1993 Local Government Act 1999 Landscape South Australia Act 2019 Native Vegetation Act 1991 Natural Resources Management Act 2004
Related Policies:	Climate Change Environment and Biodiversity Open Space Tree Management Water Sensitive Urban Design Asset Management Streetscape

1 Introduction

- 1.1 Watercourses inherently are not confined by borders, ownership or boundaries. They traverse land used for a wide variety of purposes, forming linear tracks through council's built up areas. They are formed from the natural drainage lines that flow in response to rainfall, runoff and groundwater discharge. The Riparian zone comprises aquatic and semi-aquatic flora and fauna.
- 1.2 Healthy watercourses provide many ecosystem services, including:
- 1.2.1 habitat for aquatic flora and fauna,
 - 1.2.2 natural corridors allowing the movement of fauna, minimising population isolation,
 - 1.2.3 natural aquifer recharge and aquatic vegetation can remove nutrients, pollutants and soil particles from the water,
 - 1.2.4 permanent pools in ephemeral watercourses provide valuable refuges for aquatic life,

- 1.3 Watercourses in urban areas are substantially altered environments, and often limited original native vegetation remains. They have been impacted by many degrading influences.
- 1.4 The diversity of management required for watercourses and the geographic area they cover, necessitates actions from a number of departments within council and actions in partnership with community, government and other organisations.

2 Strategic Plan Desired Outcomes

- 2.1 Environmentally sustainable development which complements the City's character
- 2.2 Sustainable, engaging and functional community public spaces and streetscapes
- 2.3 Fit for purpose and cost effective infrastructure that meets community needs
- 2.4 Natural environments and watercourses protected, conserved and enjoyed
- 2.5 Sustainable use of natural resources, and minimisation of waste to address climate change
- 2.6 A safe community that values and supports its people
- 2.7 An empowered Council and Administration that is visionary and innovative in meeting community needs

3 Our Approach

- 3.1 Plan, maintain, protect, enhance and deliver watercourses to the required level of service and condition that meet the needs of the community now and into the future
- 3.2 Preserve and maintain environmental values, including natural vegetation and water quality of our watercourses.

4 Legislative Requirements and Corporate Policy Context

- 4.1 Development Act 1993
- 4.2 Planning, Development and Infrastructure Act 2016
- 4.3 Environment Protection Act 1993
- 4.4 Local Government Act, 1999 ("the LG Act")
- 4.5 Native Vegetation Act, 1991
- 4.6 Natural Resources Management Act 2004 ("the NRM Act")
- 4.7 Landscape South Australia Act 2019 ("the LSA Act")
- 4.8 The Eastern Health Authority, Regional Public Health and Wellbeing Plan

5 Interpretation

For the purpose of this policy:

- 5.1 **Biodiversity** means the variety of life forms: the different plants, animals, fungi, bacteria and other microorganisms, the genes they contain, and the ecosystems they form (No Species Loss – A Nature Conservation Strategy for South Australia 2007-17. Department for Environment and Heritage 2007).

- 5.2 **Council** means the City of Burnside.
- 5.3 **Ecosystem** means a dynamic complex of plant, animal and micro- organism communities and their non-living environment interaction as a functional unit.
- 5.4 **Environmental Values** refers to the benefits associated with any open watercourses especially those containing local native vegetation and include one or more of the following –
- 5.4.1 Natural groundwater and aquifer recharge.
 - 5.4.2 Ecosystem services including local native biodiversity conservation and restoration, connected landscaped for natural corridors for plants and animals.
 - 5.4.3 Stormwater drainage capacity (ie flood control) and flow rate control.
 - 5.4.4 Water quality improvements through the removal of gross pollutants, soil, particles and pollutants.
 - 5.4.5 Bank and stream bed stabilisation for control of erosion.
 - 5.4.6 Natural easements and linear parks.
 - 5.4.7 Community health benefits associated with visual amenity and recreation in natural areas.
- 5.5 **Local Native Vegetation** means a plant or plants of a species indigenous to South Australia (State Natural Resources Management Plan 2006, Department of Water, Land, Biodiversity conservation), more specifically known to occur naturally in the Burnside area
- 5.6 **Infrastructure** includes -
- 5.6.1 artificial lakes
 - 5.6.2 dams or reservoirs
 - 5.6.3 embankments, walls, channels or other works or earthworks
 - 5.6.4 bridges and culverts
 - 5.6.5 buildings or structures
 - 5.6.6 roads
 - 5.6.7 pipes, machinery or other plant or equipment
- 5.7 **Riparian** means the areas within and adjacent to the watercourse, with higher moisture and nutrients influencing the vegetation and associated ecosystem function.
- 5.8 **Watercourse** (as defined in the LSA Act 2019) means a river, creek or other natural watercourse (whether modified or not) in which water is contained or flows whether permanently or from time to time and includes
- 5.8.1 a dam or reservoir that collects water flowing in a watercourse;
 - 5.8.2 lake through which water flows;
 - 5.8.3 a channel (but not a channel declared by regulation to be excluded from the ambit of this definition) into which the water of a watercourse has been diverted (including stormwater culverts and pipes);
 - 5.8.4 part of a watercourse;
 - 5.8.5 an estuary through which water flows;
 - 5.8.6 any other natural resource, or class of natural resource, designated as a watercourse for the purposes of the LSA Act by a regional landscape plan, a water allocation plan or a water affecting activities control policy;

- 5.9 **Weed** means a plant that is either not locally indigenous to that area or is not intentionally planted to contribute function to a landscape. For the purpose of this policy the term —Weed includes weeds defined as environmental weeds, declared weeds (LSA Act), and Weeds of National Significance (National Weed Management Strategy).
- 5.10 **Soft Engineering** means the use of ecological principles and practices to reduce erosion and achieve the stabilization of watercourse banks and beds while enhancing habitat, improving aesthetics. These methods do not involve expensive structures, but instead use natural features of the watercourse/ creek to control erosion, flooding etc

6 Policy Objectives

- 6.1 Council aims to achieve the following objectives through the management of watercourses within the Council area:
- 6.1.1 Retain and/or restore open watercourses and parts of watercourses.
 - 6.1.2 Maintain and/or restore the environmental values associated with open watercourses and/or parts of watercourses.
- 6.2 To achieve these objectives council will:
- 6.2.1 Implement the actions guided by Council's standard work methods and protocols' developed to enact this policy, and where required seek the approval of the documents by the relevant authorities.
 - 6.2.2 Partner with and/or provide support in the way of information and advice to the local community, private landholders, non-government organisations and businesses.
 - 6.2.3 Partner with other local government agencies on the development of educational information, projects and submission for funding.
 - 6.2.4 Partner with and/or seek support in the way of advice and funding from Green Adelaide and applicable regional landscape board(s).

7 Policy Principles

- 7.1 Actions for the Provision of Stormwater Drainage
- 7.1.1 Open watercourses will generally be preserved.
 - 7.1.2 Piping existing watercourses will not generally be approved.
 - 7.1.3 Restoration of drainage systems to open watercourses will be encouraged where feasible.
 - 7.1.4 The environmental values of watercourses will be protected, maintained and restored.
- 7.2 Actions for Council Owned or Managed Land
- 7.2.1 The environmental values of watercourses will be protected, maintained and restored.
 - 7.2.2 Existing watercourses will not be altered in a manner which will reduce their Environmental Values.
 - 7.2.3 Soil stabilisation will be established, immediately, as part of all earthworks carried out on watercourses, through the use of soft engineering or otherwise.

- 7.2.4 Weeds will be removed, managed or controlled within the watercourse and riparian zone to protect the environmental values of the watercourse.
- 7.2.5 Indigenous, riparian zone species will predominantly be used, when revegetation is carried out on the banks and/or flood plains of watercourses.
- 7.2.6 Vegetation fringing watercourses will not routinely be sprayed with herbicide. Where unavoidable, only herbicide approved for watercourse applications will be used.
- 7.2.7 Routine watercourse maintenance activities will be done in accordance with the relevant standard work method that will assist to protect the Environmental Values.
- 7.2.8 Any opportunity to increase the Environmental Value of a watercourse on Council land will be supported by the Council.
- 7.2.9 Any opportunity to increase the Environmental Value of a watercourse on private land will be supported and assisted by the Council when such opportunity accords with this policy.

7.3 Water Quality

- 7.3.1 The Council is committed to protecting and enhancing natural values of watercourses, to prevent erosion and pollution, and to improve water quality through:
 - 7.3.1.1 Removal of weed plant species that prevent the establishment of local native riparian plant species.
 - 7.3.1.2 Removal of weed species that contribute to increase nutrient levels into the watercourse through the deposition of leaves and other plant material.
 - 7.3.1.3 Stabilising watercourse banks and stream bed to minimise the amount of soil and particles contaminating the water contributing to water quality loss and turbidity.
 - 7.3.1.4 Restoration of the watercourse through revegetation with local native plant species and soft engineering to create bank stabilisation and utilise natural filtration processes to remove soil, particles, pathogens and nutrients.
 - 7.3.1.5 Infrastructure design to protect and improve water quality.
 - 7.3.1.6 Maintenance programs which assist in reducing the amount of debris entering watercourse systems.
 - 7.3.1.7 Planning and development advice to assist in preventing watercourse pollution from development related activities.

7.4 Management of Watercourse Vegetation

- 7.4.1 The Council will aim to maximise opportunities for biodiversity protection and enhancement through:
 - 7.4.1.1 Removal of weed species that threaten the environmental values of the watercourse.
 - 7.4.1.2 Removal of weed species that contribute to higher maintenance costs downstream through proliferation by seed or vegetative means.
 - 7.4.1.3 Where local native plant species such as native grasses, sedges or other understorey plants occur naturally they should be preserved.

- 7.4.1.4 Propagate species that occur naturally in the local area only from local genotypes for use in restoration and revegetation of watercourses.

7.5 Flood Prevention

- 7.5.1 Removal of weed species, in particular woody weed species, that create increased risk of obstructions causing blockage during peak flow periods.
- 7.5.2 Revegetation with local native sedges and rushes that by nature will flatten during peak flows protecting the banks and stream bed and minimising risk of obstructions within the watercourse.
- 7.5.3 Revegetation with local native shrubs and trees in a selective planting design to reduce risk of obstruction in the watercourse or narrowing of the channel.
- 7.5.4 Manage populations and biomass of dominant native species (such as *Typha* sp.) where necessary to reduce risk of obstruction in the watercourse.

7.6 Pollutions Prevention

- 7.6.1 Council will aim to prevent the pollution of watercourses to protect the quality of local water resources and downstream environments through:
 - 7.6.1.1 Management of the discharge of polluted water in an environmentally benign manner.
 - 7.6.1.2 Prevention of stormwater pollution at the source.

7.7 Water Sensitive Urban Design

- 7.7.1 Manage Council's harvest of stormwater, rain water and ground water in a responsible manner to ensure the protection of the environmental values of the watercourse and groundwater water table.
- 7.7.2 Utilise local stormwater, groundwater and wastewater resources to reduce dependence on external catchments for water resources.
- 7.7.3 Reduce the amount of stormwater discharged from the Council area into the drainage systems to ensure replenishment of local ground water resources and reduce flooding.
- 7.7.4 Encourage minimisation of water use to reduce the impact on catchments from which water is supplied.
- 7.7.5 Seek opportunities to take a community lead in maximising the capture of rain water.

7.8 Watercourses on Private Property

- 7.8.1 The Council is not responsible for and will not undertake maintenance or repair works to watercourses (either natural or modified) located on private property unless:
 - 7.8.1.1 there is a registered easement or other agreement or statutory authority in place permitting Council to enter the land and undertake the required maintenance or repair works; and
 - 7.8.1.2 the Council is required to undertake such maintenance or repair works to the watercourse under the LG Act, the LSA Act, or in accordance with any other relevant statutory obligation; or
 - 7.8.1.3 the Council determines that it is necessary and appropriate for the Council to undertake such maintenance and repair works in the circumstances.

- 7.8.2 In all other circumstances, it is the land owner who has responsibility for maintenance of any watercourses (either natural or modified) on their land.
 - 7.8.3 The Council may, where it determines, in its absolute discretion, that it is necessary and appropriate to undertake investigations into remedial work to a watercourse on private land. In such instances, those investigations do not mean the Council will accept responsibility for carrying out any required works.
 - 7.8.4 Where an easement or other agreement is required to allow the Council to lawfully enter private land to undertake works to a watercourse, the cost of that easement or agreement will be the responsibility of the party who initiates the request for the easement.
 - 7.8.5 The Council expects that an owner of land on which a watercourse is situated will take reasonable measures to prevent damage to the bed and banks of the watercourse and to the ecosystems which depend on the watercourse, as required by the LSA Act.
 - 7.8.6 The owners of land on which a watercourse is situated are also encouraged to maintain, protect and preserve that watercourse in accordance with this Policy.
 - 7.8.7 Before undertaking any major works within a watercourse located on private property, owners should contact the applicable regional landscape board to obtain advice and, if necessary, any required permits.
 - 7.8.8 Where a watercourse traverses through multiple private properties, land owners are encouraged to work together to efficiently and collaboratively manage and maintain the watercourse.
- 7.9 Council and Community Partnership Actions
- 7.9.1 Council promotes and supports the maintenance and restoration of watercourses as open channels with fringing of indigenous vegetation. Council will encourage such maintenance and restoration by private land owners with watercourses on or adjacent to their land.
 - 7.9.2 Where required, Council will assist and work with Green Adelaide and applicable regional landscape board(s) to use their authority to:
 - 7.9.2.1 require the maintenance of watercourses on private land (Section 108, LSA Act), and
 - 7.9.2.2 protect watercourses on private land from damage (Section 107, LSA Act) by landowners.
- 7.10 Public Health and Wellbeing
- 7.10.1 The Eastern Health Authority, Regional Public Health and Wellbeing Plan, recognises the importance of connected, healthy, safe and sustainable environments.
 - 7.10.2 The plan includes a section on the natural environment, within which biodiversity and sustainable water use form a part.
 - 7.10.3 The plan's strategic framework has directions and performance measures for the protection, maintenance and promotion of the natural environment.
 - 7.10.4 This policy supports the intentions and outcomes of the plan.

8 Review and Authority

- 8.1 This Policy will be reviewed in accordance with Council's Policy and Procedure Framework.

9 Availability

- 9.1 The Policy is available to be downloaded, free of charge, from Council's website www.burnside.sa.gov.au
- 9.2 The Policy will be available for inspection without charge at the Civic Centre during ordinary business hours and a copy may be purchased at a fee as set annually by Council.

City of Burnside Civic Centre, 401 Greenhill Road, Tusmore SA 5065

Telephone: 08 8366 4200

Fax: 08 8366 4299

Email: burnside@burnside.sa.gov.au

Office hours: Monday to Friday, 8.30am to 5.00pm (except public holidays)

10 Further information

- 10.1 For further information about this policy please contact:

City of Burnside, 401 Greenhill Road, Tusmore SA 5065

T. 08 8366 4200