

22.1011/06/2009
C40(Part 1)**SALINITY**

This policy applies to land within the Salinity Management Overlay as shown on the Planning Scheme Maps.

Policy Basis

Salinity is recognised under the MSS in Clauses 21.01, 21.02 and 21.04. Salinity usually refers to a significant concentration of mineral salts in soil or water as a result of hydrological processes. Salinity accumulates through salinisation, which is the process by which land or water becomes affected by salt. Land salinisation occurs through the accumulation of salts in the root zone and on the soil surface, usually by the evaporation of saline groundwater from shallow watertables. Water salinisation occurs through an increase in the concentration of salt in the water, usually by the removal of fresh water through evaporation, harvesting or diversion.

In some landscapes the processes that cause salinity have been present for many hundreds or thousands of years, resulting in the formation of salt lakes and salt pans that are considered primary salinity sites. However, in many landscapes salinity processes have been induced as a result of changed land-use or water-use, resulting in the emergence of secondary salinity. The distinction between primary and secondary salinity is important. Primary salinity sites may include semi-permanent or permanent saline wetlands, many of which are highly valued ecosystems or environmental assets. By contrast, secondary salinity is rarely regarded as an asset and is generally seen as a threatening process.

Both primary and secondary salinity can be a threat to a variety of assets. Salinity can restrict the growth of plants in agricultural production, parks and gardens; it can destroy building foundations, sewer pipes and road materials; and salinity can corrode water pipes and telecommunication cables. The quality of urban water supplies can be degraded by salinity and remediation requires expensive treatment. Environmental and recreational values of waterways, lakes and native vegetation can also be lost through salinisation.

There are 399 mapped salinity sites in the Golden Plains Shire, ranging in size from 158 hectares to 10 square metres. The average size is 5 hectares. The vast majority of the salinity is induced by hydrologic changes resulting from the land-use changes over the past 200 years. This secondary salinity accounts for 88% of the total of 1923 hectares. The remainder is naturally occurring primary salinity, with Wingeel Swamp, the only mapped saline wetland, as the largest primary site. The area around Wingeel Swamp and a section of Mia Mia Creek upstream of Lake Murdeduke are sites where salinity has been identified as primary in origin and which may retain some environmental value, such as halophytic plants and associated rare or threatened species.

Areas of the shire are affected by salinity, which can present potential for impact on developments and associated infrastructure. Development activity can also have an impact by aggravating areas of existing salinity or impacting on the potential for salinity to occur elsewhere in the catchment. Consideration of these issues is important to ensure that development is not impacted upon or does not impact on salinity.

Objectives

To avoid and minimise the impacts of salinity on development, subdivision and infrastructure assets.

To ensure that development and subdivision does not aggravate or result in the expansion of existing areas effected by salinity or the creation of new areas affected by salinity.

To protect and maintain the environmental values and ecosystem function of natural saline waterways such as Wingeel Swamp and Mia Mia Creek.

To protect and maintain agricultural productivity of land from the effects of salinity and prevent agricultural activity increasing or creating salinity impacts.

Policy

It is policy that the responsible authority considers, as appropriate:

- Development avoiding, where practical, areas affected by salinity.
- The benefit of protective measures to mitigate the impacts of salinity including:
 - The careful siting of development and infrastructure to avoid saline affected soils;
 - The selection of appropriate construction materials which are safe or impervious from the corrosive effects of saline soil and water;
 - Site landscaping to ensure groundwater levels can be reduced or that includes species capable of surviving saline conditions;
 - Appropriate watering and irrigations systems which can minimise excessive water flows and groundwater injection;
 - The management of surface water runoff to reduce groundwater infiltration, so as not to aggravate saline conditions.
- The maintenance of natural levels of salinity and water quality characteristics of saline waterways such as Wingeel Swamp and Mia Mia Creek.
- The benefits which may accrue from development which may contribute to the protection and enhancement of the environmental values of saline waterways such as Wingeel Swamp and Mia Mia Creek.
- The condition of the land exhibiting any effects of salinity such as:
 - Poor plant growth;
 - Salt deposits or efflorescence on the ground;
 - Erosion of bricks and mortar joints;
 - Water discharge from the ground;
 - Corrosion of pipes;
 - Damp brickwork;
 - Bubbling of paint surfaces; and
 - Erosion of concrete drain surfaces.
- The location of the land particularly if it is low lying, close to wetlands or occurs in the break of slope at higher elevations.