

21.04 ENVIRONMENTAL RISKS

22/09/2016
C93

This Clause provides local content to support Clause 13 (Environmental Risks) of the State Planning Policy Framework.

21.04-1 Climate change impacts

22/09/2016
C93

Coastal inundation and erosion

The results of climate change, such as storm surge, inundation through sea level rise, and temperature increase pose some of the most significant threats to Warrnambool’s coastline including:

- Impacts to infrastructure.
- Erosion and cliff instability.
- Damage to places of cultural significance.
- Loss of native flora and fauna species.

Planning needs to take account of the risks associated with possible sea level rise in areas of known vulnerability and ensure that these risks are mitigated or avoided where possible.

Coastal acid sulfate soils are known to occur with the municipality. If left undisturbed, acid sulfate soils are largely benign. However, if disturbed, they can have a detrimental impact on the environment including the acidification of water and soil, poor water quality, dissolution of soil, rock and concrete, and corrosion of metals.

Key issues

- Adapting to the impacts of a changing climate.
- Managing the impacts of acid sulfate soils

Objective 1

To plan for and manage the potential coastal impacts associated with sea level rise and climate change.

Strategies

- 1.1 Ensure that use and development proposals take into account and respond adequately to possible sea level rise and storm surge.
- 1.2 Avoid development in identified coastal hazard areas susceptible to sea level rise and storm surge.

Implementation

The strategies relating to climate change impacts will be implemented by:

Application of zones and overlays

- Applying the Land Subject to Inundation Overlay to areas affected by possible sea level rise and storm surge.

Further actions

- Monitoring and continuing to plan for the impacts of climate change on the local environment in the context of broader climate change policy.
- Identify coastal areas susceptible to coastal acid sulfate soils and implement a management strategy.

Reference documents

Warrnambool Environmental Sustainability Strategy 2008- 2013

Warrnambool Coastal Management Plan (2013)

21.04-2

22/09/2016
C93

Floodplains

Floodplain management

The Merri River and Russells Creek floodplains affect large areas of land throughout the City and surrounding rural areas. The proper management of flood plains protects the natural environment and properties located in areas subject to inundation. The filling of flood prone land can significantly alter water flow within the floodplain.

Key issues

- The protection of floodplains from inappropriate development.
- The protection of life, property and community infrastructure from flood events.

Objective 1

To ensure that land use and development is directed to locations and carried out in ways that minimises its vulnerability to the threat of flood.

Strategies

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| 1.1 | Minimise development on flood prone land to avoid impeding or redirecting floodwaters. |
| 1.2 | Ensure that areas identified as being subject to inundation are planned and managed to reduce flooding and risks to life, property and community infrastructure. |
| 1.3 | Ensure that when drainage and flood protection works are constricted, that existing habitable buildings are protected from flooding in major storms. |

Objective 2

To maintain the integrity of the Merri River and Russells Creek floodplains.

Strategies

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| 2.1 | Require floodplains to be incorporated into open spaces. |
| 2.2 | Discourage the filling of land that is subject to flooding. |
| 2.3 | Encourage the use of constructed wetlands as a means of storing floodwater, to improve water quality and contribute to natural habitats. |
| 2.4 | Ensure that new developments will not have an adverse impact on downstream properties and environments in terms of flooding and water quality. |

Implementation

The strategies relating to floodplain management will be implemented by:

Application of zones and overlays

- Applying the Urban Floodway Zone to undeveloped urban land within high hazard major flood paths.
- Applying the Floodway Overlay to rural land and developed urban land within high hazard major flood paths.
- Applying the Land Subject to Inundation Overlay to land in flood storage or flood fringe areas.

Further actions

- Prepare floodplain management plans for the Merri River and Russells Creek floodplains.

Reference documents

Dennington Flood Study (2007)

South Warrnambool Flood Study (2007)

North Warrnambool Flood Study (2010)

21.04-3

22/09/2016
C93

Soil degradation

Use of contaminated and potentially contaminated land

Warrnambool contains a number of sites that have been previously used for industry or the storage of liquid fuels. Known sites include the former Fletcher Jones factory on Raglan Parade, Warrnambool, former petrol stations at 435-439 Raglan Parade and 7-13 Merrivale Drive, Warrnambool, the former State Emergency Services Depot at 95-97 Nicholson Street, Warrnambool, the former Woollen Mills site on Harris Street, Warrnambool, and land at the Dennington Neighbourhood Activity Centre.

Erosion and landslip

Limestone cliffs, steeper earth slopes and coastal dunes along the main rivers and coast are susceptible to erosion as a result of landslip. A significant problem is the existence of slopes in excess of 20 degrees where further development and vegetation removal would compromise land stability.

Key issues

- Appropriate reuse of potentially contaminated land.
- Ensuring the ongoing protection of land susceptible to landslip.

Objective 1

To ensure potentially contaminated land is suitable for its intended future use and development, and that contaminated land is used safely.

Strategies

- 1.1 Ensure that applicants provide adequate information to demonstrate that potentially contaminated land is safe for use prior to the commencement of a sensitive use.

Objective 2

To ensure that use and development has regard to the potential for landslip.

Strategies

- 2.1 Ensure new buildings and works do not increase the risk of landslip on the land or surrounding land in areas where landslip risks have been identified.
- 2.2 Avoid vegetation removal in areas susceptible to landslip.
- 2.3 Discourage development on slopes in excess of 20 degrees.

Implementation

The strategies in relation to soil degradation will be implemented through the planning scheme by:

Application of zones, overlays and particular provisions

- Applying the Environmental Audit Overlay to potentially contaminated land, where appropriate.
- Applying the Erosion Management Overlay to land susceptible to erosion as a result of landslip.

Future strategic work

- Identify land that is susceptible to erosion as a result of landslip.

Reference documents

Glenelg Hopkins Regional Catchment Strategy 2013 - 2019

21.04-4

22/09/2016
C93

Noise and air

The historical development of Warrnambool has resulted in some industrial and residential areas being located adjacent to each other. Greater care is now taken to ensure that there are adequate separation distances between residential areas and industrial activity. Land use conflicts have occurred in the Merrivale area and options for visual and noise attenuation will be given high priority.

The Warrnambool Livestock Exchange, Wannon Water Water Reclamation Plant, Fonterra Milk Processing Plant in Dennington, Midfield Rendering Plant in Swinton Street, and the Warrnambool airport are industries of great significance to the economy of the area and need to be protected from residential encroachment. Similarly, the Premier Speedway and the Lake Gilliar sporting area are important regional assets that need to be protected from residential encroachment.

The new Eastern Industrial Precinct located on Horne Road will also need to ensure that conflicts between the industrial area and the existing rural residential area to the east are minimised.

Air quality

State Environment Protection Policy recognises that where there are industrial air emissions, there may be unintended emissions that must be anticipated and allowed for (even with good pollution control technology and practice). Equipment failure, accidents and abnormal weather conditions are among the causes that can lead to emissions affecting sensitive land uses beyond the boundary of the source premises.

Separation distances seek to avoid the consequence of unintended industrial air emissions. An adequate distance should allow emissions to dissipate without unreasonable adverse impact on adjoining or nearby sensitive land uses.

Warrnambool City Council has taken a proactive approach to manage potential amenity impacts within identified separation distances. It is Council's intention to give priority to the active management of identified separation distances to assist in the medium to long-term retention and continued viability of existing employment generating activities. The management of identified separation distances will also ensure that communities within close proximity to established industries and facilities are protected from off-site impacts such as dust and odour.

Key issues

- Protecting the community and the environment from the impacts of noise and air pollution.

Objective 1

To protect the community and the environment from the impacts of noise and air pollution.

Strategies

- 1.1 Ensure that any air emissions from new or expanded use and development do not unreasonably affect the amenity of adjoining residential properties.
- 1.2 Provide buffers between new industrial uses and residential areas in the form of public open space, roads, substantially landscaped areas of private land or similar means intended to limit visual and acoustic impacts.

Objective 2

To give priority to the active management of identified separation distances to assist in the medium to long-term retention and continued viability of existing employment generating activities.

Strategies

- 2.1 Require suitable separation distances between land uses that reduce amenity and sensitive land uses.

Objective 3

To minimise conflict between the Eastern Industrial Precinct and the rural residential area to the east.

Strategies

- 3.1 Provide buffers between new industrial and residential areas in the form of public open space, roads, substantially landscaped areas of private land or similar means intended to limit visual and acoustic impacts.

Objective 4

To limit sensitive uses in proximity to the Warrnambool Livestock Exchange, Wannon Water Water Reclamation Plant, Midfield Rendering Plant in Swinton Street, Warrnambool Airport, Premier Speedway and the Lake Gilliear sporting area.

Strategies

- 4.1 Discourage residential subdivision and development within 300 metres of the eastern boundary and 500 metres of the remaining boundaries of the Warrnambool Livestock Exchange.
- 4.2 Discourage residential subdivision and development within 200 metres of Wannon Water's Water Reclamation Plant.
- 4.3 Protect the Premier Speedway and the Lake Gilliear sporting area from encroachment by residential development.
- 4.4 Ensure that flight paths associated with the Warrnambool Regional Airport are protected from the development of inappropriate obstacles to enable the safe and effective operation of the airport.

Implementation

The strategies in relation to noise and air will be implemented through the planning scheme by:

Application of zones, overlays

- Applying the Special Use Zone to land between existing residential development and the West Warrnambool Industrial Precinct (land in vicinity of Scott Street and Eccles Street).
- Applying the Design and Development Overlay to land within close proximity of the Premier Speedway.
- Applying the Environmental Significance Overlay to land within close proximity of Lake Gilliear.
- Applying the Design and Development Overlay to land within close proximity of the Warrnambool Regional Airport.

Future strategic work

- Undertake a review of land uses within recommended separation distances to existing industry to provide guidance on the how land uses can be managed.

21.04-5

22/09/2016
C93

Bushfire

There are a number of settlements across the municipality which are at significant risk from bushfire, including the townships of Woodford and Bushfield, the coastal area of Warrnambool and the grassland interface of Warrnambool.

Extensive areas of grassland with pockets of bushland areas form the landscape across a significant area of the municipality. The continuous grassland landscape exists in close proximity to Warrnambool and surrounding townships, with a number of smaller settlements having a grass fire risk.

The grasslands exist across undulating terrain with slopes varying across the landscape. This landscape is prone to significant grassfires that in the correct conditions may become

hard to suppress without the right mitigations in place across the municipality. This could place a number of townships at risk of grassfire penetration into these towns.

Key issues

- Identify and manage bushfire risk.

Objective 1

To ensure that land use and development is directed to locations and carried out in ways that minimise its vulnerability to the threat of fire.

Strategies

- 1.1 Minimise the vulnerability of people and property to bushfire.
- 1.2 Improve fire prevention and hazard management by:
 - Ensuring that adequate separation is maintained between vegetation and powerlines.
 - Reducing the vulnerability of residences by appropriate preventive measures.
 - Encouraging good standards of design and operating practices to minimise the occurrence and impact of uncontrolled fire.
- 1.3 Ensure that the Bushfire Management Overlay covers land identified as being in an area of high fire hazard.
- 1.4 Ensure that new development in small settlements and at the urban / rural interface is adequately designed and serviced to take into account the risk of uncontrolled fire.

Objective 2

To strengthen community resilience to bushfire by:

- **Prioritising the protection of human life over other policy considerations when planning to create or expand a settlement at risk from bushfire.**
- **Applying a precautionary approach to planning and decision-making when assessing the risk to life, property and community infrastructure from bushfire.**
- **Taking advantage of existing settlement patterns where new development will not expose the community to increased risk from bushfire.**

Strategies

- 2.1 Settlement planning decisions should prioritise protection of human life and respond to the following principles with regard to bushfire risk management:
 - Direct development to locations of lower bushfire risk.
 - Carefully consider development in locations where there is significant bushfire risk that cannot be avoided.
 - Avoid development in locations of high bushfire risk.
 - Avoid development in areas where planned bushfire protection measures may be incompatible with other environmental objectives.

Implementation

The strategies in relation to bushfire will be implemented through the planning scheme by:

Application of zones and overlays

- Applying the Bushfire Management Overlay to areas at risk of bushfire.

Future strategic work

- Investigate the application of the Bushfire Management Overlay to areas of the municipality where the risk to the community is greatest.

Reference documents

CFA Preferred Requirements: Water supplies and access for subdivisions in Rural Zones.

CFA Requirements for Water Supplies and Access for Subdivisions in Residential 1 and 2 and Township zones

CFA Planning Conditions and Guidelines for Subdivisions in bushfire-prone areas (2011)