



Frequently Asked Questions (FAQs)

Who is responsible for Floodplain Management in the Shire of Macedon Ranges?

North Central CMA is the Floodplain Management Authority by delegation from the Minister responsible for the Water Act 1989. Consequently, North Central CMA is responsible for determining the potential inundation of land from rivers and creeks within the North Central region including Kyneton and Carlsruhe.

Macedon Ranges Shire Council is responsible for the provision and maintenance of localised drainage and the management of any stormwater overflows from its drainage system.

What is North Central Catchment Management Authority's role in planning schemes?

North Central CMA is a recommending referral authority in the planning system under Section 55 of the Planning and Environment Act 1989 and receives applications for subdivisions and other developments within the floodplain. This allows North Central CMA to comment on applications received by Macedon Ranges Shire Council and if necessary, recommend conditions on town planning permits. These ensure that new developments are adequately designed to protect occupants against the risk of future flood events.

Why does flooding occur in Kyneton and Carlsruhe?

Flooding is a natural process intrinsic to all waterways. Flooding occurs periodically as a result of heavy rainfall within a catchment and is generally defined by the runoff from the storm event exceeding the capacity of the bed and banks of a waterway or local drainage system.

What is a flood study?

The first stage in managing floodplain risk for a particular catchment involves a flood study, which is a comprehensive technical investigation of flood behaviour for that catchment. These flood studies show the distribution, extent, levels and velocity of floodwaters across sections of the floodplain for a range of different flood events.

Why is the study required?

Flooding remains a significant community issue throughout the whole of our state and country. The average annual cost of damages from flooding in Victoria alone is greater than \$100 million. It is widely accepted that the best way to mitigate against the effects of flooding is through land use planning. To assist these processes the risks posed by flooding need to be properly understood by undertaking flood studies and then updating the flood maps in the Macedon Ranges Planning Scheme.

Current flood extents are based on geological mapping and is considered to have a very low or uncertain reliability. Since then, a small number of localised flood studies have been undertaken in the region, however there has never been a comprehensive flood study for Kyneton and Carlsruhe. Significant advances in computer technology and industry guidelines mean that the available flood data can be reproduced in a manner which reflects a more accurate representation of catchment conditions and predict flood extents for a range of flood events.

What is a 1 in 100 year flood?

A 1 in 100 year ARI* flood is a level of flooding that has a 1% chance of occurring in a given year. It is considered to be a very large flood and is used as the minimum design standard for new development in Victoria. If an area experiences a 1 in 100 year flood in a certain



year, it does **not** mean that another 1 in 100 year flood will **not** occur for another 99 years, it is an average only. The 1 in 100 year flood is technically referred to as the 1% AEP* flood.

* Average Recurrence Interval – is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100 year ARI flood event will occur on average once every 100 years.

Annual Exceedence Probability – is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as a reciprocal of ARI (Average Recurrence Interval)

What are the benefits of the study?

The primary purpose of the study was to update flood overlays within the Macedon Ranges Planning Scheme utilising advanced flood mapping techniques. The study will improve future land use planning and development decisions to minimise the risks to the community from flooding.

What works are proposed as a result of the study?

The study is not a mitigation plan, but will assist in understanding local flood issues, provide information for future investigations into flood mitigation and assist the prioritisation of works through thorough cost-benefit analysis. No works are currently proposed as a direct result of this study. However it will provide information to ensure that future land use planning will be far more effective.

Will the outcomes of the study affect my property value?

As stated above, North Central CMA is generally aware of the extent of flood inundation throughout the Kyneton and Carlsruhe area due to historical information and previous localised flood study findings. Prior to the completion of this study a prospective buyer of your property could already access information regarding the potential flood risk associated with a property by making the appropriate enquiries to North Central CMA or Macedon Ranges Shire Council. The new information will provide a more accurate analysis of a property's susceptibility to flooding from a range of flood events compared to previous findings. Any effects on land value associated with any changes to flood mapping at a given property could only be determined by a thorough analysis in conjunction with other competing market forces. This should be undertaken by appropriately qualified individuals.

Flood-Related Planning Scheme Overlays

What is a Land Subject to Inundation Overlay (LSIO)?

The LSIO is a planning tool applied to land designated as being subject to inundation in the event of a 1% AEP flood. It triggers development proposals which require planning approval to be designed in a manner compatible with the flood risk to the site. To find out if your property is in an area designated as subject to inundation, please contact North Central Catchment Management Authority, Macedon Ranges Shire Council or log on to www.delwp.vic.gov.au/planning/planningschemes and select the Macedon Ranges tab.

Will the development potential of my property be limited if my property is found to be subject to flooding?

A number of factors are considered when development is proposed in areas designated to be subject to flooding. North Central CMA is generally aware of the extent of flood risk in the Kyneton area. However, the results of the study will provide accurate levels based on the current catchment conditions. For more information on how to apply for a planning permit



under the flood provisions, please see the Department of Environment, Land, Water and Planning website www.planning.vic.gov.au.

Will my insurance premium increase if my property is deemed subject to flooding?

As with any type of insurance cover, a premium is applied for flooding based on an analysis of the flood risk as it applies to your property. A flood study can assist an insurance company to properly understand the risk posed by flooding to any given property within the study area. This ensures that an appropriate premium is applied to reflect the likelihood of the property being affected by flooding and also ensures that the property is not under-insured.*

*The above statement is intended as advice only; please contact your insurance provider to discuss any details of your own personal circumstances and insurance policy.

I have recently undertaken development on my land. If flood information has been updated is my development considered safe?

Floodplain management and development assessment is undertaken as part of the planning permit process under the Planning and Environment Act 1987. In Kyneton and Carlsruhe, Council utilises the Land Subject to Inundation Overlay to assess development against potential or actual flood risk. Applications are then referred to North Central CMA for specialist advice on what development is considered appropriate and any conditions that may apply to the development. Most new development is required to be constructed 600mm above the applicable flood level which is known as the 'freeboard requirement'. This ensures that new development is protected from wave action and also provides an allowance for changes to flood levels and rainfall information over time as a result of advancements in technology and accuracy.

If the results of the new flood study are variable to the existing Land Subject to Inundation Overlay extent, development assessed via the planning permit process may still be afforded a high level of protection from flooding due to the freeboard requirements imposed on previous planning permits. Please contact North Central CMA or the Macedon Ranges Shire Council if you have any concerns regarding your individual circumstances.

What can I do to be flood prepared?

The Victorian State Emergency Service's website provides an array of information on preparing for, responding to and recovering from a flood event. Please visit www.ses.vic.gov.au for more information.

Where can I find more information regarding the study?

For further information on the outcomes of the flood study or to view the proposed future changes to the Macedon Ranges Planning Scheme please visit the North Central CMA or Macedon Ranges Shire Council web pages listed below:

North Central CMA www.nccma.vic.gov.au
Macedon Ranges Shire Council www.mrsc.vic.gov.au

If you have any further queries please contact North Central CMA on 1800 282 944 or the Macedon Ranges Shire Council on (03) 5422 0333 and your query will be directed to an appropriate staff member.