

High Flood Risk Case Study: Residential and commercial development planning proposal

Practical application of planning circular PS 24-001: Update on addressing flood risk in planning decisions

In line with the recommendations of the 2022 NSW Flood Inquiry, the department's planning circular PS 24-001 recommends planning authorities apply a risk-based approach to assessing proposals involving flood-affected land. This includes planning proposals, local and regional development applications, State significant development and State significant infrastructure.

The risk-based approach includes ensuring that:

- the level of assessment undertaken for a planning proposal or development proposal is proportionate to the likely impacts of the proposal, including taking into account the flood risk profile of the proposal
- planning decisions are based on a balanced consideration of the merits, risks and impacts of a given proposal, and that appropriate measures are in place to achieve a tolerable flood risk level for flood-affected proposals.

The approach should take into account the flood risk profile of each proposal, including consideration of the flood characteristics for the location, the nature and type of development and any impacts on the existing community and surrounding properties.

The following case study shows how the circular can be applied in the assessment of a high flood risk planning proposal for residential and commercial development on flood-prone land.

Proposal overview

A planning proposal for residential and commercial development was lodged with the department for Gateway determination. The planning proposal was to amend Council's Local Environmental Plan to allow redevelopment of land along the riverbank of a high-risk catchment. The proposed rezoning will change the current light industrial zone to zones that would enable residential and commercial development. The site covers an area of approximately 38 hectares.

Flood risk associated with the proposal

The department identified the planning proposal as high flood risk because the proposed development site is located within a high-risk catchment in the flood inquiry. The proposed development site is also located in a floodway, on high-hazard (H5-H6) land within the probable maximum flood and is not provided with flood-free evacuation.

For these reasons, the department determined that it needed further information to better understand the behaviour and risks of floodwater on the site and to address flood evacuation and flood-risk mitigation measures.

Additional consideration of flood matters

Consistent with circular PS 24-001, the department sought additional information and technical advice. This included consideration of the flood behaviour and constraints of the location, evacuation options and constraints, flood sensitivity, risks associated with the proposed development and potential off-site flood impacts.

Following consideration of the additional information, the Gateway determination report recommended the planning proposal proceed to public exhibition subject to several conditions being met, including providing (among other things):

- further modelling and hazard mapping for the 1 in 100 year, 1 in 5000 year and probable maximum flood events which must consider climate change impacts and be calibrated with the most recent flood events
- an amended evacuation plan identifying critical infrastructure upgrades required for evacuation purposes, with details on staging and delivery and including at least one pedestrian bridge and the levee forming part of Stage 1
- further details on the proposed levee, bulk earthworks, cut and fill strategy, and the provision of critical infrastructure above the probable maximum flood for all residents
- sections at various locations along the river to show levels (current and proposed) and relationships between river, embankment and future buildings
- the modelling and evacuation strategy be submitted to the department to enable independent peer review.

In recommending that the planning proposal proceed past Gateway, the department weighed up the flood risk with the strategic and site-specific merit of the planning proposal, including housing and jobs and the transformation of the city centre.

The department found that, subject to the recommended conditions, the proposed flood mitigation measures would manage the risk to a tolerable level and would not outweigh the benefits of the planning proposal.