

Medium Flood Risk Case Study: Residential and mixed-use State Significant Development

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 when assessing a medium flood risk State significant development for residential and mixed uses development on flood prone land.

Proposal Overview

The State Significant development (SSD) for residential and mixed-use development was lodged with the department. The application was for the construction of 3 multistorey residential buildings (and 4 townhouses. The development would provide 650 residential dwellings, ground floor retail, a community facility building), and public open space.

The application would deliver approximately 1,500 construction jobs and 80 operational jobs.

Flood risk associated with the proposal

The department assessed the residential and mixed uses development as a medium-flood-risk proposal. The proposed development site directly adjacent to a creek. The site is partially affected by flooding during the 1% annual exceedance probability flood event and probable maximum flood. It was considered a medium risk due to the proposed residential land uses.

For these reasons, the department asked for further detail as part of the applicant's response to submissions 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 from the applicant on flood aspects of the development proposal to inform its assessment. This included a request for a flood impact assessment (FIA) and flood modelling, which were subsequently reviewed by the department and the local council.

After reviewing the additional information and submissions, the department was satisfied that the application had adequately considered flooding and that the project demonstrated an appropriate response to the site's flood risk.

The flood impact assessment indicated that the proposed development would not encroach within the 1% annual exceedance probability flood event and would result in minimal change to flood levels compared to existing conditions. Regarding the probable maximum flood event, one of the multistorey buildings (located at the lowest elevation and closest to the creek), was designed to be above the probable maximum flood level. The flood impact assessment also included a framework for a flood emergency response plan to demonstrate that a flood emergency can be safely managed for the development.

The department's assessment report recommended the application be approved subject to conditions requiring:

- the applicant complies with all flood recommendations provided in the flood impact assessment
- a detailed flood emergency response plan being developed for all buildings

- all habitable floor levels and basement ramps be designed to be above probable maximum flood level
- that key structures be designed to be structurally sound during a probable maximum flood event.
- all fencing to be constructed in a manner that does not detrimentally affect the flow of flood water onto adjacent properties.

In recommending that the SSD application proceed, the department weighed up the flood risk with the strategic and site-specific merit of the application, the public benefits (through the provision of social housing dwellings, community facilities and new public open space) and the generation of construction and operational jobs.

The department found that, subject to the recommended conditions, the development's design would manage the flood risk to a tolerable level, as the development would be located above the probable maximum flood event level and would not result in adverse flood outcomes for the surrounding area.