

# High Flood Risk Case Study: Educational Establishment State Significant Development

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

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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 high flood risk State significant development application for a sensitive land use (an educational establishment) on flood-prone land.

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## Proposal Overview

A State significant development application for an educational establishment was lodged with the department. The application was for staged development approval of a new school building, refurbishment of existing buildings and concept approval for later stages to redevelop remaining areas of the school.

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## Flood risk associated with the proposal

The proposed development site is directly adjacent to a creek, which is a concrete-lined channel transferring stormwater flows north. The site is subject to both overland flooding and mainstream flooding.

The proposed development was identified as having increased risk from flooding as:

- the site is located directly adjacent to key stormwater infrastructure and was mapped as flood-affected within council's flood map
- the site was modelled to be flood-affected during a 5% annual exceedance probability (AEP) event, isolated by overland flooding during a 1% AEP event (H3 hazard) and impacted by severe overland flooding (H5 hazard) during a probable maximum flood event
- predicted flood warning times were relatively short, with modelling indicating flood waters may rise quickly
- the surrounding road network and available evacuation routes would be cut by floodwaters during an emergency under most scenarios
- the application did not demonstrate that flood-free evacuation could be achieved.

For these reasons, the department determined that further detail would be required to better understand the behaviour and risks of floodwater on the site, and to adequately assess the proposed flood evacuation and flood risk mitigation measures.

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## Additional consideration of flood matters

Consistent with circular PS 24-001, the department sought additional information and technical advice on flood aspects of the development proposal to inform its assessment. This included peer review of the flood modelling supporting the environmental impact statement, a technical review of a draft flood emergency response plan prepared by the applicant and a risk-based assessment of the flood risk to life under existing and post-development conditions.

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

- revision of the flood emergency response plan after approval to refine monitoring and response procedures during a flood emergency considering the recommendations of an independent specialist
- that key structures be designed to be structurally sound during a probable maximum flood event

- that applications for future stages of the concept plan be accompanied by a contemporary flood impact assessment and an updated flood emergency response plan.

In recommending that the State significant development application proceed, the department weighed up the flood risk with the strategic and site-specific merit of the application, increases to student numbers and the generation of construction and operational jobs.

The department found that, subject to the recommended conditions, the proposed flood mitigation measures would manage the risk to a tolerable level and ensure the remaining risks would not outweigh the strategic benefit of the State significant development application.