



boundary of the precinct (*refer Figure 6*). Therefore, the cut and fill that is proposed as part of Revision 12 of the ILP is not expected to impact on peak flood flow velocities at locations outside of the precinct boundaries.

3. Flood Scenario 3 – Design 100 Year Recurrence Local Catchment Flood

As discussed, investigations also considered the potential for the proposed cut and fill to adversely impact on flood behaviour during the design 100 year recurrence “local catchment” flood. This scenario allowed for consideration of major flooding of Eastern Creek with no tailwater effects from the Hawkesbury River. The results from this additional analysis are outlined in the following.

Impact on Peak Flood Level

The flood level difference mapping for this scenario is presented as **Figure 7**. It shows the location and magnitude of predicted changes in peak flood level.

As shown, the proposed cut and fill scenario is expected to increase peak flood levels across areas within the Riverstone West Precinct. However, the cut and fill proposal represented by Revision 12 of the ILP will not result in any increases in peak flood level across areas outside of the precinct.

Impact on Peak Flow Velocity

A velocity difference map was also generated to show the predicted increase in peak 100 year recurrence local catchment flood flow velocities under the adopted post-cut/fill conditions.

The velocity difference map is presented as **Figure 8** and shows the location and magnitude of predicted changes in peak flow velocity. It shows that the proposed cut and fill will increase peak flow velocities across some areas within the Riverstone West Precinct. The maximum increase in flow velocity is predicted to be about 0.5 m/s. This is predicted to occur on the western overbank of Eastern Creek within Lot 11 (*refer Figure 8*). As also shown, the proposed cut and fill is not expected to have a significant impact on peak flow velocities at locations outside of the precinct for this flood scenario.

I trust that the above summary of the results of the additional modelling suitably demonstrates that the proposed cut and fill represented by Revision 12 of the Indicative Layout Plan will have no significant impact on flood behaviour across adjacent properties within the floodplain of Eastern Creek.

Yours faithfully
WorleyParsons

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