

## Summary of the Preliminary Results of the Study

### **Study Overview and Methodology**

- The purpose of this Quantitative Risk Assessment is to systematically identify the potential hazards from Dangerous Goods (DG) traffic on Denison Street, analyse their consequences and likelihood of occurrence, estimate the resultant risks to surrounding land uses, and assess those risk levels against the applicable criteria. The output from this process will determine the land use safety implications of siting the proposed Bunnings development in the vicinity of existing potentially hazardous facilities [ie the Botany Industrial Park (BIP)], and an existing, well established DG transportation route (Denison Street).
- The transport risks were assessed against the Department's risk criteria for land use safety planning as outlined under Hazardous Industry Planning Advisory Paper No 4 (HIPAP 4) (see **Tag "B"**).

### **Preliminary Results: Bunnings Development**

- The study quantified the *individual* risk of fatality to the proposed Bunnings development from DG transport movements along Denison Street (DG movements) for the *current case* (based on actual traffic density) and a *hypothetical worst case* (based on a historical point in time when BIP production levels and associated DG movements were higher).
- The risks from existing chemical facilities operating within the BIP were considered in the assessment phase of the study.
- The preliminary results for both cases showed that:
  - the individual risk of fatality from DG movements at the proposed Bunnings site is below the Department's applicable individual fatality risk criterion for a commercial use of 5 chances in a million per year (*note that the yellow contour in **Tag "A"** does not encroach into the proposed Bunnings site*);
  - the combined level of risk of fatality from these DG movements when added to the risks posed by existing chemical facilities operating within the BIP is also below the Department's individual fatality risk criterion; and
  - the overall societal risk (probability of multiple fatalities) from the BIP and DG movements (and including the additional population from the Bunnings development) satisfies the indicative societal risk criteria under HIPAP 4.

### **Preliminary Results: Other Development**

- The results also indicate that part of an existing residential area located directly to the south east of the Denison Street/Wentworth Avenue intersection is currently exposed to a risk level slightly above the 1 chance in a million per year criteria (*note that the green contour in **Tag "A"** encroaches into the existing residential area*).
- However, this result is well below the 10 chances in a million per year criteria (where no residential intensification would be considered appropriate without risk reduction measures being implemented), and as such this result is considered acceptable for an existing situation.

### **Completion of the Study**

- The final report will carefully analyse the findings of the study and make appropriate recommendations if considered necessary.