



The key factors controlling the width of the buffer include:

- Digger Crayfish habitat (5 m);
- Water quality control (10 – 15 m); and
- Increased human disturbance (noise, light, vibration).

The Draft Plan of Subdivision has been amended to provide a buffer adjacent to the wetland that varies between 26 m behind Lot 6 to 13.9 m behind Lot 22. A 10m buffer has been provided adjacent to the neighbouring residence and woodland.

Permitted uses within the buffer are limited to ecological restoration. It is the intention of the stormwater management design to meet existing grades at the boundary between the buffer and the rear yards to maintain habitat opportunities for Digger Crayfish specifically, and other wetland associated wildlife generally. No trail is anticipated within the buffer and Block 134 Walkway will be removed from the Draft Plan.

In addition, with respect to the buffer the Environmental Impact Study (SLR 2018) recommends:

- Prior to the commencement of construction, the limit of the buffer is to be delineated and fenced with a permanent post and page wire or chain-link fence to avoid inadvertent intrusion of machinery or other activities such as stockpiling of materials. Temporary sediment control fencing can be attached to the fencing and must be maintained and remain in place until final grading and landscaping has been completed;
- Ecological restoration of the buffer is proposed to create a maintenance free area for pollinators, bird species that favour woodland/swamp edge, Digger Crayfish and in wet years, amphibians including Western Chorus Frog. This is to be seeded with a native species meadow mix (suitable for this growing region and soils). Native Milkweed (*Asclepias* sp.) should be incorporated into the buffer planting seed mix and where possible other natural areas on the property;
- All outdoor lighting (including any new street lighting and external lighting on buildings) should be directed towards the ground with cut-off optics and away from the natural areas.

In order to maintain groundwater levels in the wetland the hydrogeology report recommends:

- Pre-development groundwater recharge must be maintained to protect the wetland and to prevent adverse effects on the bedrock aquifer.
- Deflection of clean rooftop water to yards and open areas be included in the site design to maintain groundwater recharge
- A detailed water balance be undertaken to inform the location and extent of this mitigation measure (and to confirm no other measures are necessary).

In conclusion, based on the identified functions and applicable mitigation measures, we suggest that the buffer as illustrated on the accompanying figure provides the necessary protection to the natural heritage features at this location.

