

DEV-OX-Attachment X-XX Swannanoa East Outline Development Plan

Land Use Plan

The Swannanoa East Development Plan adjoins the eastern edge of Swannanoa on the south side of Tram Road. This Large Lot Residential Zone provides for low density residential activities. The design and layout of development is largely dictated by the need to protect stormwater flow paths crossing the Site from east to west where building will be restricted.

The development will be staged to integrate the rate of development with the availability of wastewater capacity. No more than 15 residential lots will be approved until additional capacity is provided for either through the Long-Term Plan or private funding. (Refer to 'Water and Wastewater Network' below).

Movement Network

Any property access on to Tram Road shall be in accordance with the minimum standards prescribed in the District Plan.

A pedestrian connection shall be provided in accordance with CPTED (Crime Prevention through Environmental Design) standards connecting the ODP spine road to the preschool adjoining to the west. Provision has been made in the ODP for a road connection to Winter Road should the opportunity arise for this to happen. Such a connection (through to Two Chain Road) is not essential for the Site but allows for future-proofing as it would have the benefit of potentially reducing vehicle movements onto and from Tram Road by traffic heading /approaching from the south or west of the Site.

Approximately 2500m² of land has been set aside on the ODP for an extension to the Preschool's carpark which adjoins the Site. This shall be transferred to the Preschool on the approval of, or prior to, the first stage of the development.

Ecological Enhancements/ Landscape

The ODP provides for a range of initiatives that will enhance the ecological values of the Site including:

- (a) naturalisation and enhancement of the overland flow path along the Site's southern boundary;
- (b) Appropriate edge treatment along the eastern interface with the Rural Lifestyle Zone.

Stormwater

The Site shall be required to provide stormwater treatment for rainfall runoff generated during the first 25 mm rainfall depth (volume-based treatment devices) or the 5mm/hour rainfall intensity for 5 hours (flow-based treatment devices).

The primary method of stormwater disposal in the area will be via managed infiltration into land and discharge to surface water to mimic existing natural conditions.

Roof stormwater runoff shall be directed to a dual-purpose retention and detention storage tank. Retained water is to be used on site for non-potable use. Detained stormwater shall be controlled by a restricted orifice outlet slowing the release of stormwater discharged downstream, with stormwater discharge to be via a level spreader within each lot. This is to mimic the natural sheet flow and soakage to ground, as currently occurs on undeveloped land. Stormwater from driveways

and road areas shall be treated up to the first flush event. Management of driveway and road stormwater runoff shall be managed to ensure infiltration to ground and discharge to surface water maintains hydraulic neutrality.

On-site stormwater management shall be required to manage flows resulting from the proposed development. Flood hazard mitigation will be achieved by locating buildings away from or only on the edge of overland flow paths and ensuring that building finished floor levels have appropriate freeboard.

The southern overland flow path provides key conveyance for floodwaters across the ODP area. Its extent and depth should be confirmed by survey during subdivision design. Lot sizes that intersect with this overland flow path are made as large as possible to create space between building platforms for floodwaters to flow, with building platforms located in a series aligned with the flow direction of the overland flow path. These building platforms should be pre-determined by the developer at subdivision stage to ensure there is minimal impact on the overland flow paths conveyance capacity.

Accessways shall be designed to ensure access to habitable dwellings is achievable in the 2% AEP flood event.

A water race is located approximately 260 m from the south boundary and flows in an easterly direction and up the eastern site boundary. A second water race flows in an eastern direction along the southern boundary. These shall be retained and naturalised with riparian planting, with the latter having a 15-metre building set back to provide amenity and a buffer if it overtops the bank during heavy rainfall.

Water and Wastewater Network

There are several options available for wastewater servicing and further discussions are required with the Council as to which is its preference. The two most feasible options are:

- Install Septic Tank Effluent Pumping (STEP) onto the existing STEP network and undertake necessary upgrades of the downstream network and Bradleys Road pump station to ensure there is capacity to service the Site.
- Installation of a new Low-Pressure Sewer (LPS) network and run a new pressure sewer main to a point downstream of the Bradleys Road pump Station (preferred option).

The pump stations shall have a minimum of 24-to-48-hour storage requirement to allow for the staggered pumping arrangement.

No more than 15 lots shall be approved until Council has confirmed the capacity of the downstream wastewater network and the number of connections that can be made available.

The development of subsequent stages shall occur in a manner which does not exceed the capacity of the wastewater network for any one stage. Each subsequent stage shall be dependent on either private or Council funded upgrades to works to the existing downstream network allowing more capacity to become available for additional connections

Each property will be required to have an onsite potable water storage tank with sufficient capacity for 24 hours supply.

The potable water supply network shall be designed in accordance with the WDC Engineering Codes of Practice and SNZ PAS 4509:2008 *New Zealand Fire Service Fire Fighting Water Supplies Code of Practice*. The firefighting water supply classification will be FW2 in keeping with a residential area and Fire hydrants would be placed at no more than 135 m intervals.