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Te Tumu – Fast Track Referral Project

Summary of actual or potential adverse effects on the environment

Significant technical reporting has been prepared with the Te Tumu Structure Plan in respect of these matters. At a high-level, the actual or potential effects are:

Risks from hazards – Extensive studies have been prepared in support of the Structure Plan to map
and identify the impact of natural hazards that affect Te Tumu (geotechnical, seismic and liquefaction,
sea level rise, coastal erosion and coastal inundation, tsunami, and flooding risk). Consequently, the
Structure Plan effectively identifies areas that are "able to be developed" (i.e. where natural hazards
can be managed/mitigated/remedied to where they pose a low risk – for example - soil compaction
and foundation design to minimise liquification) and areas that are effectively "unable to be
developed". With other constraints (addressed below), there is an area of 340ha within Te Tumu
unavailable for urban development (to be utilised open space and the like). Land determined by these
investigations as being developable will be subject to detailed reporting at the time of resource
consent (for example geotechnical reporting).

The Stormwater Management Strategy addresses the management of flooding risks associated with new impervious surfaces from Te Tumu, along with the establishment of overland flows. This includes the Kaituna River overflow that is planned as part of the overall stormwater approach to Papamoa East and Te Tumu. This will mitigate potential adverse effects and remedy existing issues with the management of stormwater in Papamoa East.

- Cultural heritage and effects on Mana Whenua values Consultation with respect to Te Tumu has been extensive, and is on-going. Māori are landowners in the wider Te Tumu growth area (outside of sites 1 and 2). Mana Whenua connections to the land go back to the landing of the Te Arawa Waka with the site containing a large number of significant features and areas (such as pa sites, terraces, pits, middens, and community gathering areas). Structure planning identifies the values of all areas of significance to Māori, with the majority of these being located outside of 'developable' areas so that they can be protected and maintained (generally illustrated in the open space areas). Matters regarding archaeology, landscape and ecology area addressed below given the interconnected nature of these with cultural values.
- Archaeology effects Studies identified archaeological sites recorded in Te Tumu. As above, it is important for these sites to be recognised and protected (for example by the existing annotations of the District Plan). The Structure Plan identifies these sites, locating them in areas of open space.

Ecological effects – The site comprises a complex environment of terrestrial/fauna/flora ecosystems; natural freshwater bodies (streams and wetlands), flood plains, inundation areas and coastal dunes. Extensive studies have identified the high value features and ecosystems and have been mapped. Some features deemed to be of low ecological significance would be removed as part of the land development works, however the resource consent processes will suitably address this matter with appropriate ecological offsetting and compensation measures undertaken within the undevelopable areas of the site to recreate and restore any lost values.

The extent of areas unable to be developed is extensive, contributing to the 340 ha that is identified on the Structure Plan as open spaces. The Structure Plan establishes buffers and setbacks of development from coastal dune ecosystems, the stream, Kaituna River and wetlands. These are intended to provide opportunities for the enhancement of these ecosystems, in a manner which will increase indigenous biodiversity throughout Te Tumu and provide appropriate separation between development and valued ecological features.

Landscape and visual effects – The site is located within both the coastal and natural environments associated with Papamoa Beach and Kaituna River, with their associated high landscape and character values. The 340ha of land to remain undeveloped provides for exceptionally large setbacks, and buffering these high value natural environments from the proposed urban area. As would be expected, there is a strong correlation between areas of high natural character and landscape values and areas subject to hazards and/or high ecosystem values. The Structure Plan reflects this in terms of the level of certainty it provides in the maintenance of features that contribute to landscape values and character, and these are significant opportunities for enhancement for examples associated with the planting of riparian margins and buffers. This provides for the protection, preservation and enhancement of the significant natural and landscape values associated with the coast and river.

The landscape assessments have also identified that the developable areas of Te Tumu are appropriate for urbanisation from a landscape and visual perspective.

• Effects on reticulated infrastructure – extensive investigations into the infrastructure required to service Te Tumu have been undertaken. As would be expected for a growth area of this scale, significant infrastructure upgrades are required in respect to three waters, power and telecommunications.

A Stormwater Management Strategy has been developed to support the Structure Plan. Part of this is the Kaituna River overflow project.

- Transportation effects detailed and extensive investigations have been undertaken for transport connections and integration of Te Tumu with the wider network. The Kaituna Link (bridge over river) is envisaged by the submitter, to provide connectivity between the site and the Rangiuru Business Park (and surrounding areas) for employment opportunities and to support economic activity in the region. It will also improve Te Tumu and Papamoa East's emergency resilience by linking these areas with the Tauranga Eastern Link.
- **Economic effects** the positive economic benefits and employment opportunities are significant through the construction of houses, the centre, associated infrastructure, and road upgrades.
- Urban design and amenity effects Te Tumu is a logical location for an expansion of Tauranga in terms
 of urban form and a well-functioning urban environment. The new community can be established with
 high-quality urban design and planning, with schools, community facilities, recreational amenity and
 the like.

• Earthworks, infrastructure works and construction effects – these works will be managed at the time of resource consent in accordance with the District and Regional Plan provisions, best practice methodologies and relevant technical standards.