

Private Plan Change 58: 12 Shaftesbury Grove, Stokes Valley - Rezoning to
Medium Density Residential Activity Area

SUMMARY OF EVIDENCE OF FRANCES MARY JEAN FORSYTH: ECOLOGY

23 SEPTEMBER 2024

1. Introduction

- (1) My evidence provides an assessment of the significance of ecological features and values located at, and adjacent to, 12 Shaftesbury Grove and the ecological constraints to Proposed Plan Change 58.
- (2) I have undertaken extensive literature and database surveys about the vegetation, flora and fauna at and around 12 Shaftesbury Grove as well as undertaking six site visits to survey current vegetation, flora and fauna, and sampling and surveying freshwater habitats.
- (3) I found that the land at and around the site had been extensively cleared in the early 1900s and had experienced patches of deliberate vegetation clearance and vegetation loss caused by fire during the mid to late 1800s. As the native vegetation returned it included introduced pine trees, and with time the dominance of pine trees began to increase as a percentage of the vegetation cover. Pines now comprise 32 percent of the total vegetation canopy cover at 12 Shaftesbury Grove. Pine seedlings and saplings are present underneath the native vegetation canopy.
- (4) Native vegetation the same, or similar to, the historical vegetation type in this area has been reduced to only 20-30 percent of its original extent.
- (5) Under the National Policy Statement - Indigenous Biodiversity 2023 seral (regenerating) native vegetation that is recovering following natural or induced disturbance is considered as being significant under the representativeness criterion, provided species composition is typical of that type of indigenous vegetation. The high levels of pine infestation mean that some areas of the vegetation cannot be considered significant.
- (6) There are also two threatened plant species, mānuka and sun orchid, potential habitat for lizards, and the headwaters of two streams, both of which drain to the Hutt River, and provide habitat for native fish. The headwater streams have Good to Excellent

water quality and support healthy macroinvertebrate populations. No rare birds were observed, but this does not rule out their presence during the nesting season.

- (7) No pest plant or animal control is currently being undertaken at 12 Shaftesbury Grove or on adjacent land except the wetland restoration behind Taita College.

2. Constraints to the proposed plan change

- (8) Clearance of native vegetation contributing to:

- Potential loss of habitat for rare lizards
- Loss of rare orchid habitat
- Increased fragmentation and reduced connectivity between the eastern and western sides of the hill for less mobile species such as plants and insects
- Increased edge effects
- Potential increase in numbers of mammalian predators
- Increased opportunity for weed dispersal and colonisation

- (9) Potential effects on aquatic habitats include:

- Reduced water quality in streams due to loss of buffering/shading
- Reduced food for downstream fish due to loss of riparian habitat for insects
- Reduced infiltration and groundwater recharge resulting in loss of base flows in streams
- Increased volume and velocity of stream flows during rainfall events
- Increased stream erosion during rainfall events
- Permanent loss of water quality in first order streams with cumulative effects downstream

3. Management of effects

- (10) I support the proposed management of potential adverse effects through Section 11.2.3 (C) of the Proposed Plan Change. This requires provision of an Ecological Plan for the site that is applicable to any future stages and subsequent subdivision applications. This will include an orchid management plan and a lizard management plan, details for pest plant and animal management, including wilding pine removal, and aquatic biodiversity management.

- (11) I am confident that the proposed Ecological Plan will result in adherence to the mitigation hierarchy of avoid, minimise, restore, offset, to achieve no net loss, or a net gain of biodiversity.