Proposed Plan Change
Ecological Assessment for land proposed for rezoning at Oakleigh Street, Maungaraki, Lower Hutt

Report for Hutt City Council

11 February 2011

Introduction

1. Arising from their Land Review Project, Hutt City Council (HCC) has proposed a Plan Change in respect of land currently zoned for General Recreation at 54 Oakleigh Street, Maungaraki.
2. According, HCC asked me (7 December 2010) to carry out an assessment of possible ecological effects of rezoning this land for General Residential Activity use, as part of the plan change process.
3. To this end I have examined relevant documents, including:
    - The Plan Change application documents and section 32 report, including assessment of open space and visual amenity by PAOS Ltd (December 2009) and a preliminary geotechnical assessment by Tonkin and Taylor (June 2009).
    - Aerial photos and maps of the site and surrounding areas, and various unpublished reports and field notes from parts of Hutt City.
4. I made a thorough site inspection on 21st January 2011, viewing the site from Belmont Regional Park and all sides of the current playing field area.
5. This assessment is made in the context of my general knowledge of the vegetation and natural history of Hutt City, and the Western Hutt hills.

Site description

6. The general features of the site have been fully described in other documentation of the site, and here I will only summarise the features that are relevant to the ecological assessment.
7. The land subject to the proposed plan change is a Hutt City Council owned parcel of land at 54 Oakleigh Street, Maungaraki (Lot 2 DP 33083) situated on the northern side of Oakleigh Street and is approximately 1.5ha in size (the Site). The proposed plan change only refers to the northern part of the Site which is approximately 8,500 m^2 in size. The proposed plan change will enable subdivision and development of the northern part of the Site for residential activity to the extend provided for by the General Residential Activity Area provisions of the District Plan while the southern part of the Site will remain General Recreation Activity Area.
8. The Site is part of a larger block of land (Title WN27A/676) purchased by Council for housing purposes in 1959. In 1969 the Council entered into an agreement with the Crown to provide for construction of a school on part of the land acquired for housing purposes, so as to provide education facilities needed as a result of the housing development. Otonga School was then built on part of the land and most of the Site was developed and used as a sports ground in conjunction with the school.
9. Otonga School closed in the 1990s and in 1999 was declared surplus and sold by the Crown. A 19-lot housing development is currently being constructed on the former school site. Road

access has been formed from this development between this site and Oakleigh Street, through the legal road within the Belmont Regional Park on the western side of the Site.

10. The Site is mostly a grassed playing field and has a strip of vegetation around its eastern, western and southern boundaries. It lies on a variable depth of uncontrolled fill over greywacke rock. It forms headwaters of small tributary of the Korokoro Stream, flowing westwards from the vicinity of Wattle Grove, through the playing field and the edge of the Belmont Regional Park and then northwest through the Park. The playing field is subject to poor drainage and damage from construction vehicles encroaching on northern side.
11. The playing field is regularly mowed and is fenced on its western and southern sides, along the boundaries with the Belmont Regional Park and residential properties on the northern side of Oakleigh Street respectively.
12. In the wider surrounding area, most properties are within the General Residential Activity Area and are largely used for residential purposes.
13. However, to the west of the Site lies the Belmont Regional Park, with an entrance on Oakleight Street close to the Site. There has been considerable work on recreational facilities at this entrance (parking, picnic and toilet facilities and interpretation). Beyond the immediate entry area significant restoration work has also been carried out, with the felling of old pine stands and replacement planting of native shrubs and trees on some of these areas.

Terrestrial vegetation and habitats

14. The Site would have originally been covered with lowland podocarp-broadleaved forest similar to that now within the Korokoro catchment within Belmont Regional Park.
15. Many parts of the Korokoro catchment, especially those close to edges, were milled for timber. Native forest within the Belmont Regional Park close to the Site is mainly low broadleaved forest dominated by mahoe, with abundant treeferns. The Site itself was cleared for residential and educational use. Some of this clearance may have taken place as recently as the 1960s after purchase by Hutt City Council.
16. Most of the Site is now playing field and adjacent grass-covered banks. Tree and shrub vegetation is confined to the western and southern edges.
17. Vegetation on the western side lies on a steep bank between the playing field and the entrance area of the Belmont Regional Park, occupying an area about 75 x 20 m^2. It would be described, structurally, as low broadleaved forest dominated by mahoe, mamaku, cabbage tree, fivefinger, ngaio, karo and tarata. Koromiko, toetoe, flax and boneseed are prominent in the understorey, as well as traces of old gorse. There are seedlings of several broadleaved shrub species as well as weed species, particularly flowering cherry, and I noted one small kahikatea tree.
18. Much of the vegetation of the western strip has been planted but some is likely to be naturally regenerated (following fire or logging) low broadleaved forest dominated by mahoe, with abundant treeferns. There are traces of old gorse in these areas.
19. This strip of vegetation lies partly within the Site and partly within the edge of the regional park which is designated legal road. It is contiguous with planted trees at the entrance to Belmont Regional Park to the south, and with low broadleaf forest and treefernland on the edge of the old school site and legal road bordering the park to the north. This vegetation has been significantly fragmented firstly by roading and parking facilities within the regional park entrance, and more recently by a formed and paved one-way road exiting from the residential development on the former school site.
20. The vegetation on the southern side is an even narrower planted strip, just over 100 m long, of about 10 m average width (varying from zero to about 15m). It is wider on its eastern side

and slopes down to houses on the northern side of Oakleigh Street. It is dominated by native and introduced broadleaved species such as tarata, pohutukawa, fivefinger, and karo.

21. Vegetation clearance for the back yards of several houses in #56-72 Oakleigh Street has encroached onto the southern strip of vegetation, especially at the southwest corner of the Site.

22. On the eastern and northern sides of the Site the vegetation is mainly grass on sloping banks, with scattered native and introduced plants which have low ecological values.

23. There are a number of introduced weeds which are pervasive in the western and southern edges. The species which are likely to be the most significant pest plants include boneseed, karo and flowering cherry. Wandering willie and montbrecia are abundant in the understorey.

24. The vegetation on both the western and southern edges is in poor condition. As well as being affected by weeds it has been fragmented by clearance for the new subdivision road connection, garden encroachment from houses on Oakleigh Street, and the death of some of the cabbage trees. On the edges of the playing field the forest has been constricted by the fence and some big trees are growing through or over this fence. Garden rubbish is common in the southern edge.

25. There is no stream or wetland habitat on the Site.

26. Fantail and harrier hawke were bird species seen on the day of survey. I would expect typical bird species of the Western Hutt hills to be present on and around the Site. The current vegetation on the Site provides very limited bird habitat, but the proximity of a range of forest and scrub habitat would provide habitat for a wide range of bird species (at least passing over)[1]. The vegetation on the Site would also provide limited habitat for a range of invertebrate species.

Values of the Vegetation

27. My observations did not record any distinctive or threatened plant species present on the site. The site directly adjoins the eastern boundary of Significant Natural Resource Area #26, Korokoro Stream Bush, identified in the District Plan. Korokoro Stream Bush is described as "the only large stand of lowland rimu-rata-tawa-kohekohe forest in the south west Wellington region" and I can confirm that no part of the Site could be included in this description.

28. I would not consider the vegetation on the Site as "natural vegetation", with the possible exception of the western edge which has minor natural vegetation values although it is partly planted and partly regenerated.

29. Arguably, the most important value (for amenity as well as ecology) of the western edge area is as an edge and buffer to the Belmont Regional Park at its Oakleigh Street entrance. This entrance is noted as a "main focal point and key development node" for Belmont Regional Park and advocacy for promotion of integration of Hutt City tracks with the Oakleigh Street park entrance is projected as a future change for the park[2].

30. The dominant weed species are likely to interfere with natural succession to native scrub and forest. All woody vegetation on the site is subject to extreme edge effects. These effects are the greater adverse effects of wind, frost, weeds and other disturbances on the edges and exterior portions of a forest area compared to its more intact core. Generally, the significance of the edge effect increases as the size of the remnant decreases. In this case, no part of the

[1] For example, the Normandale Residents' Association has listed a wide range of bird species seen at and near a small reserve on Poto Road about 1.5km northeast of the current site (submission presented at hearing on proposed Plan Change 15, August 2010).
[2] Greater Wellington Parks Network Plan, December 2010.

site is free of a dominating edge effect. Because of these influences on the vegetation it is unclear how the vegetation will develop without management intervention.

31. The Site has same value as habitat for birds (and to a lesser extent, insects). Because of the layout of the current vegetation the ecological value of the Site as habitat is low and the habitat values would be largely an amenity for residential neighbours in Oakleigh Street.

32. Because of the very small area of the Site, its composition and the fact that it lies on the edge of a very large tract of native vegetation in Belmont Regional Park its connectivity value in providing ecological connectivity (linkages between separated larger sites) is very low.

33. Overall, I consider that currently the Site has very low vegetation values, with the partial exception of the vegetation on its western edge.

34. Even when more advanced the vegetation would be typical of much other regeneration on both sides of the Hutt hills, and the effective area is only about 0.1 ha.

35. Therefore the loss of this vegetation even if the entire site was cleared would be of minor ecological significance.

Assessment of effects of re-zoning the land as General Residential

36. If the land is rezoned for residential use there is likely to be some loss of vegetation, mainly on the western and eastern sides. Existing vegetation on the southern and eastern sides is likely to be unaffected as it would remain in the General Recreation Activity Area.

37. If all the vegetation was cleared there would be a potential adverse ecological effect through the loss of vegetation, especially on the western edge, but because of the generally low values of the vegetation I consider this would be a minor effect.

38. Stormwater from residential development of the Site will be channelled either through the stormwater system below Acacia Ave and then to a stream in the Holdaway SR (discharging into Wellington Harbour) or into Korokoro Stream within Belmont Regional Park[3]. There may be an effect of slightly increased stormwater discharges resulting from an increased area of hard surfaces resulting from residential development on the Site.

39. All other ecological effects would be very minor. As discussed above, I do not consider that the vegetation on the site is significant, not does it offer significant habitat or connectivity values. I consider that the proposed rezoning would have no significant effect on the integrity of the Belmont Regional Park as a whole.

Measures of avoid, remedy or mitigate adverse effects

40. As the only vegetation effects arise from loss or fragmentation of the western strip, it would be desirable to retain as much of the vegetation on the western edge as possible. This has also been recommended for amenity reasons, and would minimise effects on the integrity of the Belmont Regional Park and in particular on the Oakleigh Street entrance to the park.

41. Vegetation loss could be minimised by the choice of traffic management for residential development on the Site. For maximum ecological benefit it would be best to have all vehicle access into and out of the site coming through the existing right of way from Oakleigh Street; however I understand this would not be feasible from a traffic management and safety perspective. As the ecological values at stake are relatively low some loss of vegetation on the western strip to accommodate traffic access would be acceptable.

[3] Letter of C Welling, GHD Ltd to G O'Meara, Capacity Infrastructure Services, 1 September 2010, regarding capacity of infrastructure services at Oakleigh Street.

42. However, it would be desirable to minimise the width of any access through the Belmont Regional Park and to combine it to the maximum possible extent with the access constructed for the residential development on the former school site. For this reason I would favour option 2 discussed in the traffic management assessment (Fig.2), i.e. a one-way through route with a 4.0 - 5.0 m wide carriageway and footpath only on one side. There would be minimal foot traffic expected to use the eastern side of a road in this position.

43. It is regrettable that it was not possible to plan the two residential developments (the former school site and the current Site) in conjunction with each other as it would have been much more desirable to use the same access for both adjacent sites.

44. It would also be desirable to retain other existing vegetation on the western edge of the Site. The indicative development plan indicates that about half of the westernmost house lot would lie over this strip. This vegetation should be protected from clearance by way of covenant (it lies on a steep bank and is unsuitable for being built on without extensive earthworks).

45. The remaining vegetation on the western and southern strips is on the land that will remain zoned recreation. This should be retained and enhanced by Council, including reinstatement of vegetation cleared from residential lots on Oakleigh Street.

46. Work on land bordering Belmont Regional Park on the western edge should be done in consultation with Greater Wellington Regional Council.

Summary and conclusions

47. I have undertaken an assessment of possible ecological effects of rezoning a portion of land 54 Oakleigh Street, currently zoned as General Recreation Activity Area, for General Residential Activity use, as part of a proposed plan change process.

48. Most of the Site is a grassed playing field and adjacent grass-covered banks. Tree and shrub vegetation is mainly confined to the western and southern edges, and has mainly been planted.

49. Vegetation on the western side, which borders the Belmont Regional Park and has the most ecological values, would be described as low broadleaved forest dominated by mahoe, mamaku, cabbage tree, fivefinger, ngaio, karo and tarata.

50. The vegetation on the Site is in poor condition. It has been very fragmented, is dominated by edge effects and is affected by troublesome weed species throughout.

51. Overall, I consider that currently the Site has very low vegetation values, with the partial exception of the vegetation on its western edge. The loss of this vegetation even if the entire site was cleared would be of minor ecological significance.

52. As the only vegetation effects arise from loss or fragmentation of the western strip, it would be desirable to retain as much of the vegetation on western edge as possible. This would also minimise effects on Belmont Regional Park.

53. I recommend a traffic management option that minimises vegetation loss, and the protection and enhancement of remaining vegetation on the western and southern strips of the Site.

Dr Paul Blaschke
11 February 2011

Appendix: Scientific names of species in text (to complete)

Blackberry*	*Rubus cissoides*
Boneseed*	*Chrysanthemoides monilifera*
Cabbage tree	*Coryline australis*
Flowering cherry	*Prunus serrulata*
Fivefinger	*Pseudopanax arboreus*
Gorse*	*Ulex europaeus*
Kahikatea	*Dacrycarpus dacridioides*
Karo*	*Pittosporum crassifolium*
Koromiko	*Hebe stricta*
kohuhu	*Pittosporum tenuifolium*
Mahoe	*Melycytus ramiflorus*
Mamaku	*Cyathea medullaris*
Mapou	*Myrsine australis*
Montbretia	*Crocosmia x crocosmiiflora*
Ngaio	*Myoporum laetum*
Pine*	*Pinus radiata*
Pohutukawa*	*Metrosideros excelsum*
Swamp flax	*Phormium tenax*
Tarata	*Pittosporum tenuifolium*
Toetoe	*Cortaderia toetoe*
Wandering willie*	*Tradescatia fluminensis*

* Introduced species to New Zealand or to the Wellington region