I N THE MATTER: of the Resource Management Act 1991

AND

IN THE MATTER: of a submission by the Director -General of Conservation to the WBOPDC Plan Change 18- Katikati Structure Plan.

1 Introduction

1.1 My name is Keith Leslie Owen. The Department of Conservation (DOC) employs me as a Senior Technical Officer (Protected Species) in the Bay of Plenty Conservancy Office at Rotorua. I co-ordinate protected and endangered species conservation management programmes throughout the Bay of Plenty Conservancy. I have worked for the Department over the last 15 years. Prior to that I was employed for 15 years as a Principal Wildlife Officer for the former NZ Wildlife Service in Nelson and Wellington. I have published a number of papers in scientific journals and written many reports on NZ wildlife and their habitats, threatened species and conservation management. I am a member of the NZ Ecological Society and the Ornithological Society of NZ.

1.2 My evidence will discuss the important indigenous wildlife values associated with the Beach Road Inlet wetlands and in particular their significance and how that relates to the Esplanade Reserve provisions, the subject of this hearing. I will discuss the mitigation measures needed to protect the wetland areas adjoining the esplanade reserve and how this could be achieved. I will also discuss the matter of cats and dogs and their detrimental impacts on wildlife and ways to avoid such impacts.

2 Tauranga Harbour

2.1 Tauranga Harbour is an extremely important habitat for wading and marsh birds and is listed in an inventory of the most important wetland sites in New Zealand (Cromarty and Scott, 1995). It meets the criteria as a Wetland of International Importance especially as waterbird habitat and thus meets the Ramsar Convention standards for international quality (Cromarty and Scott, 1995) set by the International Waterfowl and Wetlands Research Bureau, the Ramsar Bureau of the International Union for the Conservation of Nature and Natural Resources (IUCN) and the DOC.

2.2 Tauranga Harbour, covers about 21,800 hectares of primarily non-vegetated tidal flats with the remaining area comprising inter-tidal beds of algae and sea grass, mangroves, saltmarshes and other estuarine vegetation (Owen, 1993). Estuarine vegetation covers about 2,17.3 ha of the harbour. Of this 960.8 ha is predominantly estuarine rushlands, sedgelands, flaxlands, scrub and shrublands.

A further 1,098 ha is mangroves and 119.5 ha is freshwater wetlands mainly found on Matakana Island.

3 Wildlife Values Associated with the Beach Road Inlet.

3.1 DOC staff supervised by me undertook a survey of Tauranga Harbour over 44 days during the spring and summer of 1990, 1991 and 1992. The purpose of the survey was to determine the extent and wildlife importance of marshbird habitats on the harbour. We identified 140 sites notable as marshbird habitat on the harbour (Owen, 1993). The habitats comprised 1950.3 ha or 8.95% of the total harbour area, a very small percentage of the harbour but critical to marsh dwelling bird species as habitat. All of these areas of estuarine vegetation are recognised as important habitats to local or regional marshbird populations - North Island fernbird, banded rail, Australasian bittern and spotless crake (Appendix 1).

3.2 The Beach Road Inlet estuarine wetland (adjoining the proposed Park Road Esplanade Reserve) was one of these sites (Appendix 1). It was assigned a marshbird habitat quality ranking of high (based on a 3 tier ranking system of outstanding, high and moderate). It was one of 39 sites in the harbour to be given this ranking out of the 140 sites ranked. There were 13 outstanding ranked sites, 39 high ranked sites and 88 moderate ranked sites.

3.3 The Beach Road Inlet estuarine wetland, an area of 31.2 ha, is a large semi-enclosed inlet to the east of Park Road. The wetland has extensive areas of mangrove scrub and shrublands (0.5 – 3.0 metres high) with a relatively narrow margin of searush sedgelands, some oioi sedgelands along with some areas of a mixed association of searush, oioi and *Baumea juncea* sedgelands. Olearia solandri scrub and manuka scrub is also associated with this margin. Historically, the wetland was larger but the eastern side has been reclaimed for farmland with stopbanks erected to prevent sea access. In 1992 this area still contained modified saltmarsh. At the southern end stopbanks have been built to prohibit the sea and drains have been dug through the margins of the wetland. Aerial photographs show the past extent of the wetland. Rubbish especially shelterbelt prunings have been dumped into the wetland and stock have grazed parts of the wetland. This is having a detrimental impact on habitat and water quality in the wetland and the adjoining harbour.

4 Threatened Birds

4.1 The DOC recently developed a new system for classifying all New Zealand's species according to threat of extinction. Both North Island fernbird and banded rail are recognised by the Department as being "At Risk" species (Hitchmough, 2002) with a conservation threat ranking of "Sparse" (Molloy, Bell, Clout *et.al.*, 2002). I discuss each of these species further below.

5 North Island fernbird

5.1 North Island fernbird, an endemic passerine species (Appendix 2), was recorded at the harbour in good numbers (Owen, 1993). In terms of its threat of extinction it has a national conservation ranking of "Sparse" (Molloy, Bell, Clout *etal.* 2002)

i.e. it has small, widely scattered populations. Fernbird have been recorded from 27 Bay of Plenty sites (Rasch, 1989) with Tauranga Harbour having the region's largest population (Owen, 1993).

5.2 During my survey in January 1992 I recorded 5 North Island fernbird at the wetland. More recently in 1999 Wildlands Consultants Limited recorded 8-9 pairs of North Island fernbird at the wetland in a more intensive survey (Willie Shaw, pers.comm., 1999). Fernbird are very poor fliers and are secretive wetland dweller's preferring dense, low growing estuarine/freshwater vegetation as its specific habitat. It feeds principally on insects. It has a very limited distributional range, residing in remnant saltmarsh and freshwater wetlands and scrublands.

5.3 Birds pair for life occupying territories throughout most of the year and remain in the general territory area until the next breeding season. They are thus highly dependent on these wetlands for their existence. Once wetlands become fragmented by development it becomes increasingly difficult for birds to survive in such poor quality habitat and often they will become locally extinct at a wetland. The Inlet hold's sufficient area for about 10 pairs/territories. Historically they are likely to have occupied the adjacent modified wetland area on the eastern side of the Inlet.

6 Banded rail

6.1 The banded rail, a small secretive, uncommon native rail species (Appendix 2) also resides at the wetland where birds can be observed on the edge of the saltmarsh zone. This species is usually associated with saltmarsh and mangrove wetlands. It is more often heard calling than seen except in early morning or on dusk. During my survey in January 1992 I recorded several banded rail at the wetland. More recently in 1999 Wildlands Consultants Limited recorded 2+ pairs of banded rail at the wetland in a more intensive survey (Willie Shaw, pers.comm., 1999). In terms of its threat of extinction it has a national conservation ranking of sparse i.e. it has small, widely scattered populations (Molloy, Bell, Clout *etal.* 2001).

6.2 In a Bay of Plenty wide habitat survey in 1982-84 banded rail were recorded at only 8 sites including the harbour (Rasch, 1989). During the 1990-92 survey I recorded good numbers of birds at the harbour (Owen, 1993). This is a very significant population, being the largest in the Bay of Plenty and is nationally significant. The species has a very unusual, discontinuous distribution throughout New Zealand. It is found from Northland to Taupo but is absent from the rest of the North Island. It then shows up in the Nelson and Marlborough region but is then absent from the rest of South Island except for Stewart Island.

7 Increased Residential Activity

7.1 In the past the ecological integrity of the Inlet has been compromised by losses in marshbird habitat and the quantity and quality of freshwater inflows entering the wetland due to past drainage, stopbanking, stock grazing and the dumping of rubbish. These impacts have reduced the usage by marshbird species in the wetland today. With Plan Change 18 encouraging the increase and intensification

in residential development along north-east Park Road increased residential activity will place further pressure on wildlife inhabiting the Inlet.

7.2 In addition to this the wetland area has become invaded by some invasive plant species such as pampas which have colonised the area since it has become drier due to past modifications. This has changed the naturalness of the wetland and probably reduced its favourability to species like the North Island fernbird. The wetland does not provide the same diversity of habitats or attractiveness today as it would have in the past so these areas are probably not being used to the same extent by marshbirds today.

7.3 With residential intensification brought much closer to the Inlet margins, within 20-30 metres, domestic cats and dogs will very likely have a detrimental impact on the Inlets marshbirds. To rectify the situation and improve the ecological health of the Inlet it will be necessary to have the boundary fenced to exclude cats and dogs with the new fence alignment inland on the western margin of the access track. It also will require the creation of an esplanade reserve over the area. Along with this control operations are needed for pampas and other evasive plant species. All manmade stopbanks around the eastern perimeter of the wetland should be carefully removed to allow the wetland to recover from past modifications. Without all the above actions the wetland quality will become increasily impoverished thus losing its high wildlife value.

8 Cats and Dogs

8.1 North Island fernbird are very poor fliers, while both banded rail and pukeko (also a known resident) are reluctant fliers. All of these three species spend much of their time on or near the ground in the wetland and nest around the upper margins. They will all be detrimentally affected by the proposed residential infilling as the number of domestic cats and dogs kept as pets will increase substantially. Cats and dogs will be able to freely roam and have direct access to the nearby Inlet's margins and thus be in contact with wildlife. Thus they will impact directly on sensitive saltmarsh dwelling bird species by both disturbing and potentially preying upon them. This has the likelihood of causing local extinction of both species from the Inlet.

8.2 Studies have shown that cats prey not only on young rabbits, mice, rat's but also on native birds, lizards and insects (King *et al.*, 1996). Birds were present in over 20% of samples in 9 of the 10 mainland studies of feral cats diet (Gillies, 2001). In all 3 studies of the prey brought in by domestic cats in New Zealand, birds were the second most commonly caught prey (Gillies, 1998). Research shows domestic cats, although often well feed, will travel between 30-1770 metres from their home to undertake hunting excursions (Panaman, 1981).

8.3 There is very little that can be done to curb the hunting habits of domestic cats, because prey capture, killing, and consumption are relatively independent of each other, and the former two activities are independent of hunger (Leyhausen, 1979; Fitzgerald and Turner, 2000). Although birds are less important than mammals in the diet of cats ground-feeding birds are taken frequently. Various suggestions have been made to reduce the impact of cats on wildlife. Collars with bells are often suggested, but cats wearing bells do not bring in significantly fewer prey

(Barratt, 1998). Imposing a curfew, keeping cats inside at night is going to have little, if any effect in predation on bird's as most birds are active during day light hours when cats are outside.

8.4 Domestic dogs are also recognised as being detrimental to wildlife especially native birds, in particular if the dogs are left to roam freely around residential properties especially those close to the adjoining Inlet's mangroves and saltmarshes. Dogs are very likely to disturb birds by flushing them and/or chasing them and will kill and eat birds. There are many examples of dogs disturbing or preying on native wildlife.

8.5 Ideally a prohibition on cats and dogs in the new residential area is the best way to eliminate their threat to wildlife inhabiting the wetland areas. Pest fencing will benefit wildlife by excluding them from the western side of the Inlet but it does not prevent cats and dogs roaming over the wider area. Complete pest fencing of the greater Inlet area is the best option of all but is beyond the scope of this hearing.

9 Conclusions

9.1 Tauranga Harbour is recognised as a very important wildlife habitat. Beach Road Inlet is also an important wildlife habitat for a range of marshbird species in particular North Island fernbird and banded rail. The Inlet has suffered considerable environmental degradation due to past wetland drainage, stopbanking, restrictions on freshwater/tidal flows, stock grazing and pest plants. Studies clearly show that domestic cats and dogs are detrimental to native wildlife especially those marsh bird species known to reside in the wetland. There are two options for Council either make the new residential area cat and dog free or if this too difficult to enforce then erect a cat and dog proof fence within the esplanade reserve along the Inlets western margin to reduce considerably the adverse effects on the wildlife values of the wetland likely to be caused by Plan Change 18.

10 Mitigation

10.1 Consent conditions considered necessary to mitigate the establishment of the Plan Change include:

1. Making the area cat and dog free by registering covenants on each of the Certificate of Titles.

2. Establish a high quality 2.0 metre high chain link cat and dog proof fence along the wetlands western boundary.

3. Eliminate all plant pests including tall exotic trees from the wetland margin.

4. Undertake the planting of saltmarsh species along the margin and monitoring its re-establishment to ensure that the vegetation is recovering.

5. Monitor (bi-annually) all marshbird populations to ensure their survival at the Inlet.

6. Undertake intensive planting of native vegetation between the chain link cat and dog proof fence and the Inlet's western margin to provide a buffer to the proposed walkway activities.

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