

Attachment for 2010 – 2015 Kiwi Captive Management Plan - Facility Review and Institutional Roles

Program participant facility	# enclosures	Size of each enclosure (m2) and holding capacity	Features	Planned facility developments	Current role in program eg breeding institution/hold bachelor group	Planned role in program
Auckland Zoo	Currently 3	57m2	Current nocturnal house (will be replaced Sept 2011)	Replacement of old nocturnal house with two new enclosures within new nocturnal house September 2011	Advocacy / Display	As current
	Expanding to 4 Sept 2011.	50m2	First of new nocturnal display for 1.1.0 kiwi	Set to open Sept 2011	Advocacy/display	
		70m2	Second of new nocturnal display for 1.1.0 kiwi	Set to open Sept 2011	Advocacy/display	
		312.5m2	Off display breeding pen 1		Breeding for captive population. (and/or ONE (Northland))	
		312.5m2	Off-display breeding pen 2 (with internal divider)		Breeding for captive population. (and/or ONE (Northland))	

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Hamilton Zoo	Mixed species, walk-through aviary.	3,780m ² - adult pair or juvenile crèche (number would be based on coordinator's advice).	Outside, on display aviary planted with NZ natives with bush and grassland areas, ponds and waterfall. Public access restricted to path and boardwalk. Other species include waterfowl, banded rail, kokako, kaka, kereru, etc.	Nocturnal house and off display breeding enclosures in Zoo's long term plan but no timeframe established as it is in Council's unfunded capital works programme	No holding at present, have held 0.1 in the aviary previously and have DOC Permit to Hold.	Planning to breed.
	Off-display aviaries	36m ² - there are 6 of these aviaries available for short term use for Zoo's native birds.	Outside, off display aviaries, planted with NZ natives.			

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Kiwi Birdlife Park (Queenstown)	Current enclosures: Two nocturnal houses	<ul style="list-style-type: none"> • 2 Identical nocturnal houses • Size: 53m2 (9.6m x 5.5m) • Each nocturnal house is currently holding one pair (2 kiwi) 	<ul style="list-style-type: none"> • Each nocturnal house is on display • Each can be separated with dividing fences if required 	<ul style="list-style-type: none"> • Increase capacity of incubation and chick-rearing facilities • Develop outdoor pens and possibly additional nocturnal holdings to accommodate an additional breeding pair and to accommodate holding of offspring • Please note that if the requirement to incubate, rear, hold or display additional eggs, chicks or adults became apparent we plan to develop facilities to accommodate this within the 5 year period, if possible. This would be after consultation with species coordinator and the fulfil Kiwi Recovery Group requirements. 	<ul style="list-style-type: none"> • Advocacy • Breeding of one pair of BOP brown kiwi • Use of mixed provenance brown kiwi pair to cross-foster BOP eggs where necessary • Small scale incubation and chick-rearing facility • Provision of feather and faecal samples for research purposes 	<ul style="list-style-type: none"> • Advocacy • Breeding of current pair of BOP brown kiwi • Provide an egg incubation and chick-rearing facility; including as a South Island BNZ ONE™ provider if required. • Temporary chick holding • Holding and breeding additional pair or pairs of brown kiwi • Consider/develop a crèche facility • Please note that if the requirement to incubate, rear, hold or display additional eggs, chicks or adults became apparent we plan to develop facilities to accommodate this within the 5 year period, if possible.

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Natureland Zoo	None at present	N/A	N/A	Plans for nocturnal house longer term	Would be advocacy	Advocacy
National Kiwi Centre (Moana/Hokitika)	1 enclosure	Size of enclosure is 82 m2	Nocturnal House – inside Public display	Increase kiwi enclosure – long term plan 2012-2013 Planned facility developments: To increase our advocacy ability we plan to maximise the use of our display area.	Current role is display and advocacy.	Planned role in programme is to continue advocacy by display live kiwi. If deemed appropriate we would be prepared to be involved in the breeding programme as resources allow.

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Nga Manu Nature Reserve	1 enclosure currently available	43.68m2	<p>On display</p> <p>Ability to separate enclosure into 2 pens</p> <p>Indoor Nocturnal House with Running water feature, night /day lighting, Mist system, ventilation, deep soil base and natural and artificial burrow choices.</p>	<p>Outdoor facility for chicks within a current enclosure.</p> <p>Construction of an open topped predator proof crèche facility approx ¾ ha.</p>	Breeding & Display	<p>Continue with breeding/display.</p> <p>Open to discussion regarding proposed crèche facility.</p>
Orana Wildlife Park and Southern Encounter Aquarium & Kiwi House	<p>NA9 – outside off display</p> <p>NA10 – outside/off display</p>	<p>270 m2 (one pair)</p> <p>270 m2 (1 pair or 2 individuals)</p>	<p>Extensive native planting. 3 x artificial burrows. Suitable for adult birds only.</p> <p>As above +</p>	<p>Currently in the process of adding outdoor kiwi juvenile enclosures and also purchasing additional incubators and other equipment.</p> <p>Planned juvenile facilities</p>	<p>Holding 2 pairs currently breeding.</p> <p>1 new pair (female to mature in a couple of years)</p> <p>1 young pair, yet to</p>	<p>Maximising breeding and display.</p> <p>Would like to produce enough chicks each year to rotate them through our 2 Nocturnal Houses, then</p>

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	NA11 – outside/off-display	405 m2 1 pair	permanent divider fence/shade-cloth gate. As above.	will be built in 2 stages. The first is building half of an interconnected 6 unit, fully enclosed kiwi rearing facility.	commence breeding (currently on display at Orana)	retire older birds for transfer/release or breeding.
	NA12 (currently under construction) – outside/off-display	675 m2 1 pair or 2 individuals	As NA10 above.		1 non-breeding pair on display at SEA&KH.	
	NA1 and NA 3 (two separate enclosures)	50 m2 approx	Native planting; 1 x burrow. Used to house kiwi under 1 kg.	Longer term plans to build a new Nocturnal House at Orana Wildlife Park which we plan to build in 4-8 years. This will be a replacement for the current nocturnal house.		
	Orana Nocturnal House – on display	56 m2 1 pair	On display; shade cloth divider fence available. 3 burrows.			
	SEA&KH Nocturnal House – on display	51m2 1 pair	On display; shade-cloth divider fence available. 3 burrows.			

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Otorohanga Kiwi House	Kiwi Pen 3	1300m2	Outside/Kiwi Watch Pen	NI Brown	Breeding Pair	Currently still looking at just housing 5 breeding pairs of North Is Kiwi. However, this could change once the two species of Spotted Kiwi are no longer on the books. As for display purposes, 2 pair of North Is Brown Kiwi are required. The sizes of the outside pens across the road from the Kiwi House are estimates of size only, due to the fact that none of the pens are square, and they follow the lay of the land.
	Kiwi Pen 9	600m2	Outside	NI Brown	Single male	
	Kiwi Pen 10	1080m2	Outside	NI Brown	Breeding Pair	
	Kiwi Pen 11	550m2	Outside	NI Brown	Breeding Pair	
	Kiwi Pen 5	336m2	Outside	Great Spotted	Kiwi Watch	
	Kiwi Pen 6	360m2	Outside	Little Spotted	Kiwi Watch	
	Noct Haus – morning	60m2	Inside	NI Brown/Great Spotted	Display	
	Noct Haus – afternoon	48m2	Inside	NI Brown	Display	
	Nursery Pens	130m2	Outside		Quarantine area	
Paradise Valley Springs Wildlife Park	None currently	None	None	Nocturnal house planned within 2 years	Advocacy	Display/ advocacy plus breeding off-display birds.
Peacock Springs/ Isaac Wildlife Trust	1	200 m2	Off display outside	Could if you want them	Breeding (off exhibit pair)	Breeding

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Pukaha – Mt Bruce	<p>Nocturnal house Enclosure 1 Enclosure 2 These 2 enclosures can be linked together (102 m2)</p> <p>We have outdoor areas to hold Ruakiwi and Chelsea</p>	<p>52 m 2 50 m2</p> <p>(6.5 m X 15 m)</p>	<p>On display On display</p> <p>Off display</p>	Our Nocturnal house is currently undergoing renovations which will include on display O.N.E. facility, (kitchen, incubation room, and brooder room)	We are currently holding a BoP male and a hybrid Female (hysterectomised) so ... NO breeding.	<p>We'd be interested in a breeding pair. I don't think RuaKiwi has ever produced fertile eggs.</p> <p>We were successful with a hybrid pair held in our nocturnal house in 2005/2006 producing 8 eggs – (and ONE efforts producing 4 chicks from the 4 fertile eggs).</p>

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Rainbow Springs Nature Park & Kiwi Encounter	Kiwi Encounter (KE)	Approx 45m ²	Public display during the day	Have recently glassed them in	Display birds only	Would like to continue to hold birds for both public display and breed captive pairs
	Nocturnal House – 3 pens	See column 4	Public display	Yes within 2 weeks these will be demolished as they are in such poor condition (October 2010)	Display birds only	
	Rainbow Springs Noc House – 2 pens	Ground plan provided	Public display in the evening	No	Display birds only	
	Rainbow Springs Night viewing aviary 4 runs	Ground plan provided	Off display – breeding runs	Possibly build new runs within 2 years as these are on an old rubbish dump	For breeding pairs and single off display birds	
	Adult runs – 8 runs	Ground plan provided	Breeding pens	No	For breeding pairs of rehab wild birds	
	Kiwi Encounter adult runs – 4 enclosures					
Te Puia	Two	80.810m (not specified)	One nocturnal house (1.1) One off display breeding pen (1.1)	No	Breeding & Display	We are breeding & Displaying birds

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Wellington Zoo Trust	<p>3 X enclosures</p> <p>1 x enclosure (can be separated into 4)</p>	<p>1 x 30 m2 (Tahi) (6.5 x 3.5 m2)</p> <p>2 nocturnal 15 x 4 m each</p> <p>22 x 16 m</p>	<p>On display in a nocturnal house. Not capable at present with separation facilities.</p> <p>Off display. Is capable of being split into four holding pens.</p>	No	Display and breeding	Display and breeding

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Westshore Wildlife Reserve	Total of 19 separate Kiwi enclosures comprising of: 4 large breeding pens; 7 smaller pens for holding single (sub-adult) birds; 8 small chick rearing pens.	Average size of each category: Large breeding pens; 170 square metres. Single holding pens; 37 square metres. Chick rearing pens; 15 square metres.	All enclosures at Westshore are utilised solely for the purposes of either ONE Kiwi Recovery or Captive breeding (as per the national CMP for NI Brown Kiwi).	There are no planned developments or extensions to the Westshore facility. The current infrastructure is sufficient to cater to the resources available and requirements of the work undertaken.	No display birds are held at Westshore. All Kiwi work carried out is either associated with ONE Kiwi Recovery, captive breeding (as part of the national program) or research work undertaken in conjunction with Massey University.	<i>Planned role in the Kiwi program is:</i> to continue to participate in ONE Kiwi Recovery within the Hawkes Bay region (and nationally if required); continue to breed captive held birds as part of the nationally coordinated program; continue to participate or support any research work for the benefit of the species.
(includes National Aquarium of NZ)	1 nocturnal House				Two display birds are housed at the National Aquarium of NZ in Napier (Nocturnal Kiwi House).	Display/Advocacy

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Whangarei Museum and Heritage Park	One	85 m2 (2 birds)	<p>Nocturnal house.</p> <p>This is our new facility opening 31/1/11 when our current nocturnal house will be closed.</p>	<p>Outside pens – 2 large adult / pair plus 3 chick pens.</p> <p>Subject to successful fundraising.</p>	Display only	<p>We plan to breed. We are committed to working with the kiwi program and have included a hatchery room within our new nocturnal house complex.</p> <p>We will be looking at applying for funding for outside pens as soon as we have the new nocturnal house up and running, but will need to avoid clashes with fundraising to update our Museum.</p> <p>We would certainly like to see the pens built well within the next 5 years.</p>

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Willowbank Wildlife Reserve	4	Combined size 450m2 Holding capacity 7	Nocturnal House display	Can create separating facilities or more enclosures easily.	Display/holding	We would love to display multiple species.
	4	Combined size 650 m2. Holding capacity 8	Display outside. Separation facilities in each pen		Display/breeding.	We would love to be breeding, at present we have 2 pairs and have the capacity for more. We also have a huge emphasis on display birds for advocacy both in the nocturnal house and outside pens at night.
	2	Combined size 3232m2. Holding 4 but can do more.	Off display, outside, predator free, fenced.		Off display, breeding/holding	