

13. TP2000 PROJECT: PROPOSAL FOR A PENGUIN COLONY AT BOULDER BAY

RR 9937

Officer responsible Environmental Policy and Planning Manager	Author Liz Briggs Senior Planner (Conservation)
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The purpose of this report is to provide information on the above TP2000 project to the Board and Environment Committee members, and the implication of the Council decision on the baches at Taylor's Mistake and Boulder Bay on the future of the project.

1. INTRODUCTION

The white flippered penguin (*Eudyptula albosignata*) is a rare and endangered species found only on Motunau Island and certain bays around the Banks Peninsula. Motunau Island, off the east coast of North Canterbury, is free from introduced animals and predators. It therefore contains the largest number of penguins, with an estimated total in 1962 of 800 – 1,100 pairs. This is thought to represent over 60% of the total population. However, it is likely that the island will soon reach “carrying capacity” for the penguins because of competition for nesting sites with seabirds, and the small size of the island.

Dr Chris Challies (BSc, B for Sc, PhD (zoology)) has been studying the penguins since the 1970's and is a recognised expert in this field. He has stated that over the past 15 years, predators particularly ferrets, have taken a heavy toll on the Banks Peninsula colonies, and this is the main reason for penguin now being classed as “endangered.”

Colonies are known to exist along the northern coastline of Godley Head, between Taylor's Mistake and Boulder Bay, and in bays around Akaroa Harbour. Early this year, a 30 hectare reserve and important nesting site on the north side of Flea Bay near Akaroa, was bought by the Nature Heritage Fund. It is adjacent to the 210 hectare Pohutu Marine Reserve which was established in December 1998. The penguin reserve was bought from a local farmer, and will be administered by the Department of Conservation in conjunction with the marine reserve.

Dr Challies says that Godley Head has supported colonies for some time, but the numbers have fluctuated, depending on the level of predation, the suitability of safe nesting sites, and the success rate of breeding. At present, there is a thriving colony of approximately 39 pairs in Harris Bay, which is on the north side of Godley Head, roughly half way between Taylor's Mistake and Boulder Bay (see Appendix A). Dr Challies estimates that there were up to 90 pairs in 1970, but these were progressively removed through predation until only 16 pairs remained. This year, the numbers have increased to approximately 39 pairs, due mainly to the construction of a predator-proof fence around Harris Bay. The fence was funded by the Christchurch City Council, under the Coast Care Programme. It is important to note that most of the existing nesting sites for the penguins are in the Conservation 1A Zone, which is the old “paper road” along the coastal margin. This is owned and managed by the Christchurch City Council. The rest of Godley Head Farm Park is zoned Conservation 1, and is owned and managed by the Department of Conservation.

The number of suitable nesting sites around the Godley Head coastline is primarily dictated by the topography and prevailing weather patterns. The penguins require a site which is relatively sheltered from the rough weather and heavy swells associated with the southerly and north-easterly winds. They also need to be able to land on smooth boulders, pebbles or sand, and away from steep cliffs and jagged rocks. This therefore means that the most suitable sites on Godley Head are on the northern coastline, from the western end of Harris Bay to Boulder Bay (see map on Attachment A).

2. THE TP2000 PROJECT – A NEW PENGUIN COLONY AT BOULDER BAY

The following is an outline of the proposal as compiled by Dr Chris Challies and David Evans, the Godley Head Group Task Leader leading this project:

“Concept

It is proposed to establish a new colony of penguins using the ‘chick transfer’ technique. This involves shifting full-grown chicks from other colonies to the new site where they will be left to go to sea in the normal way. Chicks become independent of their parents at this age. Transferred birds are not disadvantaged by the process and typically behave in the same way as those bred locally. Many will return to the release site during the next two breeding seasons as non-breeders, and later most nest in the same general area. Others will nest in adjoining bays.

The ‘target’ size for the new colony will be about 300 breeding pairs. This will require having an average of 300 chicks fledge from the site each year (ie the number that would be produced by a colony of 300 pairs in an average year). These will be mostly transferred chicks supplemented from about the fourth year by an increasing number of chicks bred in the colony.

Once establishment of the new colony is under way a start will be made on developing an associated visitor-viewing and educational programme. This will be modelled on the world-renowned ‘penguin parade’ at Phillip Island near Melbourne. There penguins come ashore in the late evening and cross the beach in small groups on their way inland to their nesting areas. Visitors pay to watch this ‘parade’ at close quarters under lights. Information on penguins, other wildlife, and the local environment is provided in an adjoining visitors centre. It is envisaged that visitors will eventually provide sufficient revenue to fund running costs and associated conservation efforts; as is the case at Phillip Island.

The new colony could play an important part in the long-term conservation of the white-flippered penguin. With adequate control of predators, the numbers of penguins breeding in the Christchurch area will increase to be the largest, and potentially safest, concentration on Banks Peninsula.

Chick transfers

Most of the chicks transferred will have to come from Motunau Island which at present supports over 60% of the total white-flipped penguin population. This colony is increasing and could easily sustain a modest off-take of chicks. Some chicks will also be obtained from accessible nesting areas within 5km of the new colony. The numbers available from this source are expected to increase as transferred birds become established in adjoining bays.

The chicks will be transferred when they are fully grown and ready to fledge; their parents stop feeding them at this stage. They will be shifted to the new site in one movement then confined in 'nest boxes' for 24 hours to calm down. Once released they usually leave for sea at the first opportunity.

Preferred site

The most suitable site in the wider Christchurch area for the new colony is Boulder Bay on the north side of Godley Head. It has the following characteristics which, on balance, cannot be matched elsewhere.

- **History of penguins** – *The Godley Head area has long supported colonies of the white-flipped penguin. Although few pairs have attempted to nest in Boulder Bay in recent years, there is a thriving colony 200m away in Harris Bay. Studies in this colony over the last 20 years have proven the suitability of the general area for penguins.*
- **Suitable landing beach** – *Boulder Bay has a small, well defined beach sheltered by rocks from the direct effects of the heavy north-easterly seas that periodically batter this coast. Penguins should be able to land there in all but possibly the worst sea conditions.*
- **Ideal site for colony** – *The valley behind the beach expands into a rough amphitheatre which would provide ample nesting space for 300+ pairs of penguins within 50 – 150m of the sea. Access for the penguins would be up the floor of the valley from a landing in the middle of the Bay. There is room for a possible visitors centre on the east side of the valley.*
- **Possible to protect from predators** - *The penguins in the colony could be protected from mammalian predators with a ring fence, and those in adjoining bays by trapping predators on the ridge back to Evans Pass. The fence would extend around the hillside below the present walkway and be secured at both ends at impassable coastal bluffs. A suitable trapping programme has already been proven.*
- **Good access** - *There is a public road from Evans Pass to a terminal parking area on the top of the ridge 800m from Boulder Bay. A 'private' road extends from the parking area to within 250m of the Bay. Boulder Bay can also be reached from the Taylor's Mistake to Godley Head section of the Godley Head walkway.*

- **Compatible land tenure** – All of the land involved is in public ownership. The coastal strip is unformed road vested in the Christchurch City Council; the rest is Recreation Reserve vested in the Department of Conservation. At present it is used for non-specific public recreation.

There are several buildings (=baches) in Boulder Bay whose retention would be incompatible with this proposal. It is understood the owners lack title and the relevant agencies are attempting to have them removed.

Development of the site

The Boulder Bay site will need development over the first few years to accommodate the penguin colony. There are three aspects in particular that will have to be addressed at an early stage.

- **Clean up of site** – It is assumed for this purpose that the buildings in the Bay will be removed by the present owners. Following this a general clean up will be needed to get rid of rubbish and other unwanted remains of human habitation. Ideally this should be done before the first chicks are released, but if this is not possible it should be completed within 12 months. Some of the large trees in the valley will also be removed at this time.
- **Construction of colony** – The penguins will be provided with wooden nest boxes similar to those presently in use in Harris Bay. These will be set into the ground and spaced out over both sides of the valley up to 150m inland. About 50 will be needed initially to hold transferred chicks; the number will be increased eventually to about 400. A system of tracks will be built up the valley to give the penguins easy access to the nest boxes.
- **Protection from predators** – The predator-proof fence should be completed within 20 months of the first release of chicks. Some of the by then 2-year-old birds are likely to nest in the area during the following breeding season. Predator trapping is already being undertaken on the ridge back to Evans Pass; this programme will be maintained.

Timetable

Development of the penguin colony will be progressive with the number of breeding pairs increasing steadily as more and more of the transferred birds reach breeding age. If all goes to plan the transfer of chicks would be completed in about ten years, and the colony would reach 'target' size in 13 years. By then the visitor-viewing and educational programmes could be well established."

To date, the project has attracted funds totalling \$47,000. The sources are:

\$26,000	from Pacific Conservation and Development Trust
<u>\$20,000</u>	from the Community Trust
\$ 1,000	from Port Company
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\$47,000	
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3. DEPARTMENT OF CONSERVATION ADVICE

Godley Head Farm Park is owned and managed by the Department of Conservation. The following is the latest response from Richard Suggate, North Canterbury Area Manager, to a letter from David Evans requesting support for the proposal:

“Dear David

Godley Head: Proposed Penguin Colony

Mike Cuddihy has passed on to me your letter of 17 February 1998 for a response. My meeting yesterday with you, Di Menzies and Chris Challies was very helpful in giving me a greater understanding of what you propose.

The concept of establishing a penguin breeding colony on Godley Head adequately protected from predators is one that the Department supports. The proposal which could eventually develop to include a self-funding interpretation centre will be of benefit to the penguins and provide a valuable educational resource for the general public.

A number of issues will have to be resolved before approvals for the three early stages of site development (clean-up, colony construction, fence construction) can be given. These are:

- 1. Adequate public consultation on the project.*
- 2. The formation of a registered body that can be responsible for the long-term implementation of the penguin colony proposal.*
- 3. The preparation of detailed site planning and transfer programme.*
- 4. The resolution of public access issues within the fenced area and through the fence.*
- 5. A practical resolution to the problem of the location of the 10 baches within the proposed colony or penguin access area.*
- 6. The details of the penguin chick transfer from Motonau Island to ensure that the breeding population on that island will not be adversely affected.*
- 7. The nature of the supporting predator trapping programme on the rest of Godley Head.*

I look forward to further discussions with you as you refine your proposal.”

4. DECISION ON THE FUTURE OF THE BACHES AT BOULDER BAY

The Council decision (165D) on the future of the baches at Taylor's Mistake and Boulder Bay was made available to the public and submitters on Monday 10 May 1999. The recommendation relating to the Boulder Bay baches is that the coastal margin zoned C1 in the Proposed City Plan be rezoned C1A and that the ten baches within this zone be **scheduled** as **continued permitted uses**. (See Attachment B for location of scheduled baches).

The decision contains rules attached to the scheduled activities as follows:

2.5 *Scheduled Activities*

- a) *Any existing residential unit (bach) located in the Conservation 1A zone in the Taylor's Mistake area shall be a **permitted activity**.*
- b) *Any scheduled activity which does not comply with the critical standards under Clause 2.5.1 shall be a non-complying activity.*

2.5.1 *Critical Standards*

- a) *No residential unit (bach) shall be added to or altered in any way, other than for maintenance, which would diminish the historic character of the bach.*
- b) *No new residential unit (bach) shall be erected to replace any existing residential unit (bach) which has been destroyed by fire, rockfall, storms or any other event.*

5. IMPLICATIONS OF THE DECISION ON THE TP2000 PROJECT

If, as stated by Dr Chris Challies and David Evans, this project cannot succeed unless most of the baches in Boulder Bay are removed, then it is highly unlikely that this will be resolved by the Year 2000.

It is probable that references (appeals) will be lodged by submitters such as "Save the Bay Limited" or the Royal Forest and Bird Protection Society of NZ (North Canterbury Branch) both of whom were opposed to the retention of any of the baches. Given the large number of references likely to be lodged as a result of all the decisions on the City Plan, and the backlog of references waiting to be heard, it would seem impossible that this issue will be resolved through the Environment Court before the end of this year.

It should be noted that the decision, written by Commissioner Neville Marquet, Solicitor was adopted by Council on Monday 22 March. In the decision, he states on Page 62:

"Furthermore, the issue of the baches is not related to the proposed penguin development. Provisions for the baches at Boulder Bay is merely enabling ... as also are the provisions of the C1A Zone that I recommend to be put in place in lieu of the C1 Zone. Planning provisions of the District Plan are not to be used as a means of licensing nor, as I have already stated, as a means of pre-empting the bay for any penguin development which is far from certain."

In conclusion, the Council is now committed to resolving the future of the baches under the provisions of the Resource Management Act 1991 and probably as a result of a decision from the Environment Court.

The Department of Conservation have stated that a number of issues will have to be resolved before approval for the penguin project can be given, including *“a practical resolution to the problem of the location of the ten baches within the proposed colony or penguin access area.”* This will obviously take time.

It is not the intention of this report, nor is it appropriate, to discuss the merits or otherwise of the decision on the baches. Therefore the main concern is for the protection of the white-flipped penguin.

The following section looks at a summary of points raised and the options available to the Council if it wishes to become involved in the conservation of this endangered species.

6. SUMMARY AND OPTIONS AVAILABLE FOR THE CONSERVATION OF THE WHITE FLIPPED PENGUINS ON GODLEY HEAD

Summary

- The white flipped penguin is an endangered species found only on Motunau Island and Banks Peninsula.
- Numbers nesting around Banks Peninsula have been severely depleted by predation, mainly from ferrets.
- Godley Heads contains small colonies nesting in bays between Taylor’s Mistake and Boulder Bay.
- Godley Head is owned and managed by the Department of Conservation who also have the mandate for protection of endangered species. However, most of the penguins nesting sites are in the C1A Zone along the coastal margin, which is owned and managed by the Christchurch City Council.
- The TP2000 project, to establish a new penguin colony at Boulder Bay, has attracted funding to date totalling \$47,000 from the Pacific Conservation and Development Trust, the Community Trust and the Port Company.
- The City Council has had no involvement to date in the funding or feasibility of the project.
- The project, as outlined, states that a new colony of penguins at Boulder Bay cannot be established while the majority of baches remain.
- The Council decision to retain the baches therefore jeopardises the project if it continues to be focussed only on Boulder Bay.

- This decision will undoubtedly be appealed to the Environment Court, but an outcome is highly unlikely before the Year 2000.
- At the time of writing this report, the TP2000 project members had not indicated whether they intended to reassess their priorities given the above information.

Options

The most obvious option, at this stage, is to enhance and protect **existing** nesting sites between Taylor's Mistake and Boulder Bay, with the aim of boosting numbers in existing colonies. Dr Challies has stated that since the predator-proof fence was erected above Harris Bay, the numbers have increased from 16 - 38 pairs. It would presumably be possible to extend this fence westwards, so that it provided protection from predation to other small colonies. This would have to be done in consultation with the Department of Conservation.

Once the nesting sites had been secured, it maybe possible to provide information and viewing platforms from the existing walking track above the cliffs, overlooking the penguin colonies. The feasibility of this would need to be investigated with the Department of Conservation, but it would be a cheaper and more practical option than the one presently being put forward by the TP2000 project.

In the long term, Godley Head provides exciting and accessible opportunities for eco-tourism, based on the existing marine and wildlife values and stunning topography and landscape. The white flippered penguin could provide an attraction to rival the penguin colony at Philip Island in Melbourne, and the albatross colony on the Otago Peninsula near Dunedin. However, the first step should be the protection of the species and the provision of safe habitats to boost numbers. The location of a visitors centre and related tourist attractions in such a sensitive setting requires not only a detailed feasibility study, but also approval or assistance from the Department of Conservation.

The views of the Board are sought prior to the following recommendations going to the Environment Committee:

1. That the above information be received.
2. That any Council initiatives should concentrate primarily on measures to secure existing penguin colonies from predation and increase penguin numbers.
3. That this report be referred to the Parks and Recreation Committee to seek additional funding for penguin protection under the Coast Care Programme.

The proposed recommendations of the Chairperson of the Environment Committee are to be circulated to members with this report.

Chairman's

Recommendation: For discussion.