

11. OPTIONS AND INFORMATION-NORTH NEW BRIGHTON DUNES

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The purpose of this report is to clarify the options and consents the Council wants to investigate in relation to lowering sand dunes and providing better public access to North New Brighton beach.

BACKGROUND

At the meeting of the Parks, Gardens and Waterways Committee on 9 April 2003 two community groups, Coastal Image Group and SANDS (Supporting a Natural Dune System), presented information on their visions and aspirations for the coastal area in the Waimairi/North New Brighton area. Following their presentations the Committee resolved that the Parks and Waterways Unit prepare a report covering the following topics:

- The area between North New Brighton War Memorial Hall and Waimairi Surf Club. This is the area covered by the Coastal Image Group development proposal.
- The opinions of the community as presented.
- The information presented by Gary Tear.
- The positive aspects not just the sand dune height.
- The Environment Canterbury resource consent issues.
- Possible sources of funding.

The report presented to the Committee on 13 August 2003 analysed the requested topic areas alongside the current management regime, policy and legal implications of pursuing the Coastal Image Group option for dune management. Based on this analysis, staff recommended Council not review its current resource consent for dune height management at this time but carry out a range of consultation and information gathering exercises.

The Committee and Council did not support that recommendation and requested :

- *That Council investigate options and consents which may be available both to reduce the dune height and to provide better public access to North New Brighton beach"*
- *That the Coast Care team initiate discussions between Land Information New Zealand, the Department of Conservation and the Council with a view to rationalizing land tenure in the Christchurch coastal environment*
- *That the Coast Care team discuss with the Coastal Image Group how aspects of their vision for the area might be provided for within the Coastal parks Strategy 2000-2010*
- *That Council representatives on the Lincoln University Liaison Group include in their list of joint venture research topics a recreational needs analysis for Christchurch's coast.*
- *That the Parks and Waterways Unit investigate jointly funded research of local coastal conditions*
- *That staff report back to Parks, Gardens and Waterways Committee on progress on the above investigations by March 2004.*

INTERIM REPORT

This report has been prepared to seek some clarification as to the Committee's recommendation and to gain some clearer direction on the outcomes sought for dune management in Christchurch.

The previous report presented to the Parks, Gardens and Waterways Committee on this topic compared two options for dune management (lowered dunes with a hard landscaped treatment and the status quo of 8 metre high dunes, associated with habitat creation). The current resource consent held along with new consents needed for managing dunes at a lower height were also presented.

In order to clarify exactly what options Council is wanting investigated, some further options are outlined below for consideration;

- Option 1 – Current Management regime
- Option 2 – Current landscaping with lower dune
- Option 3 – Coastal Image Group landscape proposal with lowered dune

Any dune height variation will require new consents and technical studies supporting such an application. All of the options put forward are also done so in conjunction with some sort of dune planting or landscaping treatment as part of the proposal. The reasons for this are that dunes would

quickly erode without some form of vegetation cover and so any proposal to excavate or artificially move dunes requires immediate planting. Landscaping is therefore an integral part of any management or development option.

There are also some underlying actions/investigations which apply to all of the options presented.

LAND STATUS/SURVEY

As indicated in the original report the status/ownership of the majority of the dune area in North New Brighton is unclear. Regardless of what future dune management regime is adopted, ownership needs to be clarified.

Estimated cost for title searches and survey are approximately \$7000. This cost represents the first part of the process which would need to be followed up by working with Crown agencies on who the most appropriate management organisation might be (not necessarily the Council) and the process by which transfer might occur.

RECREATIONAL ACCESS ANALYSIS

The Committee recommended looking at public access to the North New Brighton beach. It has become clear through the process of compiling this and the previous report that there is a lack of information on who is using the coast and whether current access is adequate. It is also apparent that it is not possible to look at access in one part of the coast without looking at access in the context of the whole of the coast, given the interconnection between areas.

To carry out a recreational survey, including current non-users of the coast, and assess whether current access is meeting peoples needs, would be approximately \$10,000.

COASTAL DYNAMICS AND DUNE ANALYSIS

Advice from previous reports Council has commissioned on dune management, and in consulting a number of coastal scientists in the course of compiling this report, it is apparent that much more information is needed before Council could make a decision on whether it could have lower dunes at any part of the Christchurch coast while still having an acceptable level of coastal protection. The need for this information applies to any option to lower the dunes below their current heights.

The apparent consensus opinion on coastal modeling would seem to be that all of the models currently available do not necessarily reflect Canterbury conditions and that the findings from any of them could be challenged in some aspect. From an academic perspective, ideally a new model would be created and run based on local conditions. However, given the potential cost of such an exercise (\$100,000+) and the fact that a model has already been used and accepted by both the Council and Environment Canterbury, for resource management purposes it would be more cost effective to further refine that model.

The type of investigations needed to carry out that refinement is:

1. Analysis and collation of dune volumes (heights, width and length) and comparison with any dune lowering or storm movement which has occurred and the effect on volume. It is possible this could be carried out as a student research project (\$5000).
2. Run the model used in the 1998 series of coastal dynamic studies using the "on the water" information which is now available from the Wave Buoy and possibly wave run up information from the pier cam-era.

The potential costs for such an exercise, including a peer review of the work carried out, would vary depending on the consultant used but could be in the range of \$20,000-\$80,000. As an estimate for comparative purposes a mid range figure of \$50,000 is used for looking at dune lowering options.

These costs apply to studies for the whole Christchurch coast. Given coastal dynamics, sand movement along the coast and interactions between one part of the coast and another, it is not possible to isolate one small section of an open coast without looking at the whole area.

The results of these investigations may or may not support having lower dunes adjacent to Christchurch while retaining a sustainable barrier to coastal hazards. The Council would not be able to obtain the necessary consents to lower dunes without the technical information to prove its case. Some preliminary work has been done in this area in the form of a student dissertation running models previously used with more recent data. Results to date suggest that the original models underestimated erosion rates and as such dunes along the Christchurch coast could need to be managed at a greater volume than they currently are.

COASTAL POLICY

Some coastal policy issues also need to be borne in mind when considering the options outlined. The Council's current policies (City Plan and non-statutory) relate in general to the coast as a whole. If the policy approach were to be changed for one part of the coast in isolation from the rest then this decision could act as a precedent for any future decisions relating to coastal management. Such changes in policy direction will require the review of current policy if that policy no longer reflects the way in which the Council wants to manage the coast. Public consultation and plan changes will be a necessary part of that process, particularly in relation to the current Ecological Heritage status of the dunes. Council needs to be clear that it wants to move in taking a different approach to coastal management before making this decision.

OPTIONS

Option 1-Current management regime

Based on the Christchurch Beaches and Coastal Parks Management Plan, Coastal Strategy 2000-2010 and resource consent issued by Environment Canterbury, current coastal management is using the dunes as a natural defence against coastal hazards while increasing their amenity, stability and recreational values through planting and directing access to appropriate places.

Managing the dunes in the North New Brighton area fits within this framework and makes up part of the current Coast Care budget. Experience to date has shown this management regime to be successful in achieving a naturalised coastal defence system and research to date supports the height at which the dunes are being managed.

Direct Costs-Option 1

Activity/Report-Stage 1 (Investigations)	Cost
Land tenure/survey	@\$7000
Recreation survey	@\$10,000
Approximate Total-Stage 1	\$17,000
Activity/Report-Stage 2 (Consents, Capital, Maintenance)	
Current dune Capital and maintenance work-North New Brighton	@\$20,000
Approximate Total-Stage 2	\$20,000
Approximate Total	\$37,000

Option 2-Current landscaping with lower dune

This option would involve developing a lower dune in the North New Brighton area and replanting in a similar manner to current plantings (for dune stability on the foredunes and habitat/amenity in the back dunes) and controlled access points to limit erosion.

This type of treatment, along with any other involving lowering dunes, would require new resource consents from both Environment Canterbury and the Council supported by a series of technical reports, outlined above.

Direct Costs-Option 2

Activity/Report-Stage 1 (Investigations)	Cost
Land tenure/survey	@\$7000
Recreation survey	@\$10,000
Coastal data analysis and modeling	@\$55,000
Ecological surveys	@\$6,000
Approximate Total-Stage 1	\$78,000
Activity/Report-Stage 2 (Consents, Capital, Maintenance)	
Resource consent applications and appeals:	
ECan-land use in a Hazard zone CCC- consents for excavation and vegetation removal	@\$100,000
Capital development (excavation, planting and fencing)	@\$230,000
Maintenance (including establishment)	@15,000
Approximate Total-Stage 2	\$345,000
Approximate total	\$423,000

Option 3 – Coastal Image Group landscape proposal with lowered dune (5.5 metres)

This option was fully outlined and costed in the previous report. It involved lowering the dunes, building a retaining wall and pathway, viewing areas, parking, amenity planting (including large grassed areas) and increased maintenance costs.

Direct Costs-Option 3

Activity/Report-Stage 1 (Investigations)	Cost
Land tenure/survey	@\$7000
Recreation survey	@\$10,000
Coastal data analysis and modeling	@\$55,000
Ecological surveys	@\$6,000
Approximate Total-Stage 1	\$78,000
Activity/Report-Stage 2 (Consents, Capital, Maintenance)	
Resource consent applications and appeals:	
ECan-land use in a Hazard zone CCC- consents for excavation and vegetation removal	@\$100,000
Capital development costs (move sand, planting and hard landscaping)	@\$1,171,000
Maintenance costs	@\$30,000
Approximate Total-Stage 2	\$1,301,000
Approximate total	\$1,379,000

CONCLUSION

Previously options have been presented to Council in relation to dune landscape treatments and heights in North New Brighton. Some further options and clarification of the investigations needed to ascertain if these options are viable have been presented in order that the Committee clarify exactly what option it wants investigated and what level of resources/cost it wants allocated to those investigations.

Staff

Recommendation: That the Parks, Gardens and Waterways Committee recommend either Option 1,2 or 3 as the option to be investigated and level of resource committed to investigating recreational access and lowering the dunes at North New Brighton.

Chairman's

Recommendation: That the above recommendation be adopted and a copy of this report sent to the Burwood/Pegasus Community Board.