

## 2. ENVIRONMENT COURT DECISION - RUTHERFORD FAMILY TRUST LAND OFFER, AND BARNETT PARK FLOOD DETENTION BASIN

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The purpose of this report is to seek Council support for the acceptance of about 40ha of land for reserve from the Rutherford Family Trust. The offer is part of an interim City Plan zoning change approval granted by the Environment Court. This report also seeks approval for the possible use of part of Barnett Park for a detention basin.

### INTRODUCTION

#### Environmental Compensation

On 21 March 2003 the Environment Court approved the zoning of a portion of the Rutherford Family Trust land to LHA in its interim decision, but has required a number of matters of detail to be resolved to enable the decision to be finalised. Council staff are currently working through those details. The decision is based in part on the fact that environmental compensation is to be provided in the form of a reserve of approximately 40ha to be vested in the Council and that a retention basin is to be constructed in Barnett Park to serve this development and other developments in the area.

Clause [82] (1) of the Court's decision includes as a condition of rezoning:

*"The transfer, by way of environmental compensation of the rural block to the City Council as a reserve at or before depositing of the first residential subdivision plan."*

In response to the Court's decision the Council has to decide whether it is prepared to accept the reserve that is proposed to be vested in it through the Court decision.

#### Detention Basin

Barnett Park and its hinterland drains to the estuary in Moncks Bay via Rifle Range Drain and an overflow swale through Barnett Park. There is a history of drain overflows and backflow during storm events and/or very high tide events resulting in flood damage to low-lying residential properties in Wakatu Avenue, Bay View Road, Cliff Street and Main Road. For example, flood water was reported to have entered 8 houses and 24 garages during the October 2000 storm.

Many minor improvements have been made to the drainage system over the years to reduce flood risk to a level that is acceptable in comparison with other parts of Christchurch where flood risks exist.

Major system improvements including a flood detention basin in Barnett Park have been identified in the past. However, to date available funds have been committed to other capital projects of higher priority.

A recent interim decision by the Environment Court on proposed urban growth within the catchment provides the opportunity to reconsider major drainage improvements, in particular the flood detention basin. The cost of any basin that both reduced the flood risk to existing properties in Moncks Bay and provided stormwater control and treatment for future development within the catchment could be shared between the Council and developers. This may be quite advantageous to both parties.

#### **COSTS AND BENEFITS OF COUNCIL ACCEPTING THE 40HA (APPROX) ENVIRONMENTAL COMPENSATION AS RESERVE**

The proposed reserve adjoins, and is to the east of, the southern half of Barnett Park. It rises up above Barnett Park and at its highest point extends up to Mt Pleasant Road opposite the John Britten Park (refer to the attached plan). Included within the proposed reserve are areas of significant ecological value, potential for walkways, Paradise Cave and potential for a connection between Barnett park and John Britten Park.

## **Ecological Heritage Site Protection Benefits**

The proposed reserve covers about two thirds of Ecological Heritage Site 29.01. Ecological Heritage Sites are the City's highest value natural areas. There are only 49 Ecological Heritage Sites out of 500 Christchurch natural sites identified in 1993. If this land were to be managed as reserve, it would benefit the flora and fauna present on the site. It would allow management to focus on retaining and enhancing the ecological values of the site, rather than economic return on the land being the priority. For example, in some areas of grassland, lighter grazing might be more beneficial for biodiversity, and there are also patches of regenerating bush that could be fenced off. Environmental weeds could also be controlled. One of the major gullies on the land contains a largish area of flax and native shrubs which is uncommon on the City side of the Port Hills.

In the past, protection of Barnett Park from goats straying onto the park from adjoining properties was a problem. Acquisition of this land will enable the Council to establish better management control over this asset.

## **Open Space Context and Recreation Benefits**

The land offered is strategically placed and connects to Barnett Park, Britten Park, Richmond Hill and Mt Pleasant Road. The land is included on the Port Hills Park Concept Plan contained in the 'Port Hills Regional Park Acquisitions Strategy' which shows land desirable for acquisition. The Strategy was approved by the Council in 1999.

A major benefit of the offer is the chance to obtain permanent protection of the natural landscape along the eastern periphery of Barnett Park.

An opportunity to extend the Barnett Park walkway system up to Mt Pleasant Road and beyond will be of considerable benefit to local residents as well as people from other parts of the City. The Barnett Park walkway is one of the more important rural walkways in the City.

The Court's decision has also placed the responsibility for creation of a gravelled footpath between lower Barnett Park and one of the main gullies on the offered block on the Rutherford Family Trust. Included within the block is Paradise Cave. Acquisition of this area was anticipated in the 1992 Barnett Park Management Plan as was linking of public walkways with other Port Hills reserves and roads.

## **Waterway Management Benefits**

The Court's decision states that the gullies at least 10 metres either side of the gully bottoms will have to be fully planted and maintained by the landowner for three years. The Court's decision gives the Council the option of taking these land areas as reserve. Taking these areas as reserve offers some advantage to the Council as it will enable better long term control of the waterway.

## **Costs of Ownership**

Obviously the financial cost of purchasing the land is not an issue in this situation. Much of the development work associated with the land, such as planting and plant establishment will be paid for by the Rutherford Family Trust.

The balance of the property will be maintained by grazing which is unlikely to create a cost on rates. A new boundary fence on a suitable location between Barnett Park and the new land may be needed. The current boundary fence is difficult to make stock proof owing to the steep terrain and has been a problem for some years. Up to 800-900m of boundary fence may eventually be required and possibly 500-600m of native shrub protection fencing at a total capital cost of about \$13,000-\$15,000.

There will be some maintenance costs on the lower part of the land near Barnett Park where boneseed is established and a few other areas where shrub weeds occur. Ownership will carry the responsibility to contain shrub weeds in the lower valley. Ironically, allowing public access to the land may allow greater opportunities for weed invasion where new tracks are created, however this is not considered a major concern and is manageable.

## FUTURE URBAN GROWTH

In the long-term there is the potential for approximately 100 new residential lots within the overall Barnett Park catchment. Up to 65 of these could result from the recent interim decision by the Environment Court in respect of hill land west of Barnett Park within the land owned by the Rutherford Family Trust.

The decision allows 11.4ha of new residential modified LHA zoning on the upper slopes of Moncks Spur subject to many stringent conditions. In addition, the developer is required to provide 40ha of reserve land to Barnett Park as environmental compensation.

A stormwater disposal concept satisfactory to the Council is one of the many conditions that have to be met prior to the Court making its final decision later this year. All stormwater disposal options will be investigated in conjunction with a review of flood mitigation measures for the overall catchment. A flood detention basin(s) located in Barnett Park serving both flood control and stormwater mitigation purposes is expected to be the most attractive option. However, this will need to be confirmed by further investigations.

## BARNETT PARK MANAGEMENT PLAN

The development and management of Barnett Park is guided by the 1992 Barnett Park Management Plan.

The Plan divides the Park into three management zones:

<b>Zone</b>	<b>Description</b>
A	Cultural and active recreation (includes sports fields)
B	Exotic/indigenous transition.
C	Natural aspect

The "footprint" of a possible detention basin would occupy most of Zone B (see attached plan).

Particularly relevant Objectives and Policies from the Plan are:

3.1 Objective: "To provide a transition between the highly modified lower valley and the more natural hill slopes capable of accommodating less formal recreation activities appropriate to an informal setting.

Policy 1.1 The transition zone shall be enhanced with the planting of native trees and shrubs along the stream, around the pond and toward the head of the valley, and exotic planting for southerly shelter near the sports fields. Informal activities such as informal picnics, walking, running, nature watching, etc in keeping with the passive nature of this area shall be encouraged.

7.1 Objective: To protect native and exotic wildlife and their habitats subject to the requirements of the Wildlife Act 1953, and the management plan vegetation objectives and policies.

Policy 1.4 A pond/wetland area shall be created on the upper valley floor to encourage aquatic wildlife in the park and help show water velocities in the creek and its tributaries.

Comment: The pond/wetland area will need technical investigation and detailed design work to determine its ideal location and size and shape."

The overall objective of the zone is to provide an opportunity for informal individual and group recreation activities such as picnics between the formal highly modified sports fields of the valley flats (Zone A) and the totally native upper valley (Zone C). Zone B was intended to be informal and natural in appearance with large areas of native planting emphasising key natural features such as waterways and an area of exotic planting to provide shelter for the sports fields. The concept plan shows a largish open area where activities such as group picnics could be accommodated. No development has so far taken place in this area to implement the plan objectives.

The wording of the comment after policy 1.4 indicates that the pond shown on the concept plan is indicative only, and its size and location would be subject to further technical investigations in order to appropriately mitigate upstream stormwater effects. The water feature was also intended to encourage wildlife.

The management plan has already contemplated the need for flood mitigation measures in the Zone B area of the park. A flood detention basin in Zone B can also be seen as complementary to the objectives and policies of the management plan by incorporating features which will enhance recreation, planting, wildlife habitat and also bringing forward the development of a part of the park.

It is considered that implementation of the detention proposal will result in outcomes furthering the objectives and policies of the management plan with minimal adverse effects.

### **THE DETENTION BASIN**

If further investigations indicate that a flood detention basin(s) in Barnett Park is the preferred option for flood control and/or stormwater mitigation for future development, features of the basin design could include:

- A twin water quality/flood detention basin system
- A small permanent pond within the basin for water fowl
- Extensive planting of native grasses, shrubs and trees along the Rifle Range waterway and around the pond
- A passive recreation area that forms a transition between existing sports fields and the natural valley
- Possibly an additional junior playing field located within a normally dry compartment of the basin

The likely dimensions of a twin basin system are expected to be no greater than the following:

- Flood ponding area when full (once on average every 20 years) 2.7ha
- Permanent wet pond area 0.75ha
- Maximum water depth when full 2.5m
- Height of downstream embankment 3.5m
- Embankment side slope 1 vertical to 4 horizontal

It should be noted that for storm events greater than a 20 year return period, flooding will still occur over the existing flood-prone residential area. However, flood damage incurred will be reduced significantly. The potential for tidal flooding will also still remain.

### **NEXT STEPS**

The following action is proposed between now and 30 September 2003:

1. Seek community views on a flood detention basin located in Barnett Park.
2. Review flood mitigation measures for existing development and investigate stormwater disposal options for new development.
3. Reflect community feedback into the design of any detention basin.
4. Prepare a draft drainage cost sharing scheme for Council approval that splits capital costs fairly between the Council and developers.
5. Begin preparation of an application to Environment Canterbury for a discharge permit to the estuary.

Steps 4 and 5 above will also involve community consultation. Seeking community views in Step 1 above needs to be managed as the first phase of an integrated consultation process.

Flood control options were presented to the Redcliffs Residents' Association In November 1997. The meeting favoured the flood detention basin option over the other three presented.

### **SUMMARY AND CONCLUSIONS**

#### **Environmental Compensation Land Offer**

The 40ha (approx) offered to the Council has high natural, open space and recreation values. The Ecological Heritage Site alone is enough reason to acquire the property. However the community benefits of providing expanded walking activities around Barnett Park and legal access to Paradise Cave should not be underestimated.

Much of the initial development and planting maintenance in the gullies will be the responsibility of the Rutherford Family Trust. To summarise, the main benefits are:

- Permanent protection of Port Hills land
- Greater protection of an Ecological Heritage Site
- Greatly enhanced walkway opportunities in the Moncks Spur/ Moncks Bay area
- Bush restoration opportunities
- Paradise Cave protected

The costs of owning the land for the public benefit are not likely to be high, because most maintenance will be by grazing. Shrub and weed control will be the main maintenance cost on the Council. Overall the costs of ownership are far outweighed by the benefits.

### **Detention Pond**

There is a history of flooding on private property and streets in Moncks Bay. However, to date major flood mitigation works have not been undertaken because available funds have been committed to other projects with a higher priority at the time.

Future residential development of up to 100 lots within the catchment that includes Barnett Park depends on, amongst other things, stormwater control and treatment. A flood detention basin within Barnett Park could provide for new development and mitigate the existing flood risk, probably in a cost-effective way. However, this needs to be confirmed by further investigations.

A basin can be designed in a way that is consistent with the objectives and policies contained in the Barnett Park Management Plan.

### **COMMUNITY BOARD FEEDBACK**

The above report was considered by the Hagley/Ferrymead Community Board at its meeting of 2 July 2003.

The Board resolved:

1. To approve in principle the location of a flood detention basin for flood control and/or stormwater mitigation for new development within Barnett Park (Zone B).
2. That positive consideration be given to creating one full size playing field for winter sport in the lower basin with the possibility of two cross fields for junior sport with a central cricket wicket.
3. That the Board's views on a flood detention basin in Barnett Park be conveyed to the Parks, Gardens and Waterways Committee.
4. To recommend that the Parks and Waterways Unit seek community views on this proposal.

- Recommendation:**
1. That the approximately 40 hectares of land offered by the Rutherford Family Trust to the Council for reserve as part of the Environment Courts interim decision be accepted.
  2. That acceptance of the land be conditional upon the title being free of encumbrances (to the satisfaction of the Director of Legal and Secretariat Services) and all rates due being paid by the transferor up to the date of transfer.
  3. That the Council approve in principle the location of a flood detention basin for flood control and/or stormwater mitigation for new development within Barnett Park.

- (Note: 1. Councillor Broughton recorded her vote against the adoption of the foregoing recommendation.  
2. Councillor Anderton retired from the meeting during consideration of part of this report and took no part in the voting thereon. Councillor Pat Harrow (Deputy Chairman) assumed the chair for the balance of the meeting.)