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HAGLEY/FERRYMEAD COMMUNITY BOARD
5 MAY 2010

Minutes of a meeting of the Hagley/Ferrymead Community Board
held on Wednesday 5 May 2010 at 3pm in the Boardroom,
Linwood Service Centre, 180 Smith Street, Linwood.

PRESENT: Bob Todd (Chairperson), Tim Carter, David Cox,
Brenda Lowe-Johnson and Yani Johanson.

APOLOGIES: Apologies were received and accepted from Rod Cameron and
John Freeman.


The Board reports that:

PART A - MATTERS REQUIRING A COUNCIL DECISION

1. McCORMACKS BAY STEERING GROUP REPORT

General Manager responsible:	General Manager City Environment, DDI 941 8608
Officer responsible:	Asset and Network Planning Unit Manager,
Author:	Eric Banks, Parks and Waterways Planner

PURPOSE OF REPORT

-  1. The purpose of this report is to request that the Council receive the McCormacks Bay Steering Group report (refer **Attachment 1**, circulated under separate cover), to thank the Group for the work and support they have provided and that the report be utilised as a reference document in a future review of the McCormacks Bay Management Plan.

EXECUTIVE SUMMARY

2. The McCormacks Bay Steering Group was formed in October 2005. The Steering Group included representation from stakeholders groups, individuals within the Community and Council staff. The aims of the Group, documented in its "Charter" were:
- (a) To take a comprehensive planning view of McCormacks Bay, and within that view develop, research and evaluate a series of scenarios for the replacement of the Causeway culverts that identify and integrate the potential benefits for natural and recreational values.
 - (b) Provide a forum for a partnership process between the Community and the Council, and a model for future projects, as envisaged by the Local Government Act.
 - (c) Ensure the Council decision making process for the culvert replacement project is informed by the Community and that there is a two way exchange of information.

The Group Charter identified that the outcome of the Steering Group was a report based on research undertaken in collaboration with the Christchurch City Council, which makes recommendations on:

- (d) Design scenarios for the culvert replacement and associated natural and recreational values of the Bay, and;
- (e) Further required investigations.

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The report will be presented to the Council with the expectation it will be used as a reference document for the design of the culverts and in a future review of the McCormacks Bay Management Plan which will in turn inform future LTCCPs.

The Steering Group report completes the original aims and outcomes of the McCormacks Bay Steering Group.

3. McCormacks Bay consists of approximately 21.5 hectares including 8.5 hectares of parkland and islands above Mean High Water Springs (MHWS). Of those, three hectares are sports fields and 0.6 hectare community buildings. The islands are zoned Conservation 1A and the land is Open-Space 2. The Bay is separated from the estuary of the Avon and Heathcote rivers by the McCormacks Bay causeway.
4. The central culvert of the causeway was identified as requiring replacement in 2004. Through liaison with the Avon-Heathcote Estuary Ihtai Trust, a steering group of stakeholders and staff was formed to represent the community in making recommendations in relation to the design of the replacement culvert and to aspects of the wider Bay influenced by the culvert replacement.
5. The Steering Group investigations and deliberations have culminated in a comprehensive report prepared by Professor Kevin O'Connor on behalf of the Group. The report is entitled *'How and Why Christchurch City Council and the community should clean up McCormacks Bay'* and is the subject of this report. The Steering Group report is a comprehensive record of the background to the project, the work done to date and the recommendations for the replacement culvert and the wider Bay moving forward. It is these recommendations which have provided the framework for the replacement culvert design-work which will be presented to the Board for information at later date. A schedule of the Steering Group recommendations is included (refer **Attachment 2**).

FINANCIAL IMPLICATIONS

6. The 2009-19 LTCCP includes for the following operational expenditure relating to McCormacks Bay:
 - (a) 2009/10 - \$45,000
 - (b) 2010/11 - \$11,500
 - (c) 2011/12 - \$66,500

Any additional funding identified will need to be considered at the 2012-22 LTCCP.

7. Funding for the replacement of the central McCormacks Bay culvert is also included in the 2009-19 LTCCP. Any other capital funding would need to be considered at the 2012-22 LTCCP.

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

8. There are sufficient funds held within Asset and Network Planning Operational budget, Waterways and Wetlands Environmental Monitoring - Estuary Monitoring, to cover investigations recommended by staff in the current financial year (\$45,000). A similar amount would be available in either the 2010/11 or 2011/12 financial year, depending on culvert replacement timing and budget position at the time. No other costs associated with the recommendations of the Steering Group report are budgeted for in the LTCCP.

LEGAL CONSIDERATIONS

9. Not applicable to Steering Group Report.

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Have you considered the legal implications of the issue under consideration?

10. Yes, as above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

11. The recommendations of this report align with the Council's Community Outcome goals of Community, Governance, Environment and Recreation. Page 120 of the LTCCP states, "Provide a network of safe, accessible and attractive multi-purpose sports parks, in order to enhance exotic and native biodiversity, and waterways".

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

12. There is funding identified in the Asset and Network Planning Operational budget, Waterways and Wetlands Environmental Monitoring - Estuary Monitoring.

ALIGNMENT WITH STRATEGIES

13. Biodiversity Strategy, Draft Open Space Strategy, Strengthening Communities Strategy, Draft Climate Smart Strategy.

Do the recommendations align with the Council's strategies?

14. Yes, listed above.

CONSULTATION FULFILMENT

15. The Council has considered the wider implications for McCormacks Bay of the culvert replacement and convened the McCormacks Bay Steering Group to represent the wider community in a process sanctioned by the City Environment General Manager. The level of consultation undertaken through interaction with the Steering Group as representatives of the community and public meetings exceeds that required by the Local Government Act 2002 and the City Council's consultation guidelines.

STAFF RECOMMENDATION

It is recommended to the Council that:

- (a) The Steering Group report be received and its members be thanked for their report and time spent engaging with the Council leading to its preparation.
- (b) The Steering Group's report be utilised as a reference document in a future review of the McCormacks Bay Management Plan, which will in turn inform future LTCCPs.

BOARD RECOMMENDATION

It was decided on the motion of Yani Johanson, seconded by Brenda Lowe-Johnson, that the Board recommend to the Council that:

- (a) The Steering Group report be received and its members be thanked for their report and time spent engaging with the Council leading to its preparation.
- (b) The Steering Group's report be utilised as a reference document in a future review of the McCormacks Bay Management Plan, which will in turn inform future LTCCPs.
- (c) The Council allocate funding to undertake the Steering Group report recommendations for testing after the culvert is renewed (refer Attachment 2, point 6.9.2 Identification of Preferred Design Scenario).

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BACKGROUND (THE ISSUES)

16. McCormack's Bay, which was originally contiguous with the Avon/Heathcote estuary, was modified by the Tramway Board in 1907 when the causeway was built across the tidal mudflats. This greatly reduced the flushing potential and altered the hydrodynamics of the Bay. Skylark Island on the estuary side started to erode immediately after this and by 1922 it was reduced to mudflats. In 1933 the causeway was widened for motor traffic.
17. The Bay is currently connected to the main body of the estuary by one central and two small culverts at either end of the Bay's causeway (Figure 1). The central culvert consist of a six metre span culvert with a rip-rap/rock base and an invert level 0.1 metres below mean sea level. It was constructed in 1935 with some up-grading and strengthening interventions along the years and is now near the end of its service life and therefore needs to be renewed. Previously, in 1975, the western culvert was replaced by two 450 millimetre pipes, and in 1995 the eastern culvert was replaced by one 1200 millimetre pipe.



Figure 1

18. In 2004, the then City Solutions undertook an assessment of the engineering condition of the causeway and culverts. The full report covered the whole original extent of the seawall from what is now a car park in Scott Park to the intersection of Main Road and Beachville Road (a distance of about 1700 metres). Following the report, the Council identified the need to prioritise the replacement of the central culvert. In May 2005 a joint project was established following discussions between the Ihutai Trust and the Council. The joint project aimed at taking a comprehensive planning approach to the inter-related issues of culvert replacement and the rehabilitation of McCormacks Bay. Beginning in October 2005 with a public meeting, the Council has worked with the community on the issues of McCormacks Bay as they relate to the central culvert replacement.
19. In 2006 interested parties began meeting and formalised the McCormacks Bay Steering Group. The group consists of Avon-Heathcote Estuary stakeholders, local community and staff. A charter was developed and adopted by the group in August of that year. The charter is appended to this report (refer **Attachment 3**) and sets out the group's aims and outcomes.

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20. In summary the charter requires a community partnership with the Council be developed in the form of the Steering Group who will take a comprehensive planning view of the Bay taking into account natural and recreational values and culminate in a report to be presented to the Council making recommendations on a preferred design for the culvert replacement and associated natural and recreational values of the Bay and further required investigations. A goal and set of objectives were formalised by the Steering Group and are outlined in section 5.2 of the Steering Group's report.
21. The Steering Group report extensively outlines the environmental issues concerning the wider Bay. Detailed commentary is provided with regard to the Bay and estuary hydraulics, sedimentation, water quality, ecology and benthos. Chapter 6 of the Steering Group report should be read for further detail on the above. Chapter 4 and 5 of the Steering Group report outline the background to formation of the Steering Group and provide a chronology of the sessions and the work done by the group. A schedule of the Steering Group recommendations is included as **Attachment 2**.
22. As part of the project several environmental investigations have been undertaken by the Council to help inform the Steering Group and assist them to reach their recommendations as well as helping to establish the design parameters for the central culvert replacement. Although not as comprehensive as the Steering Group would have liked these studies have provided valuable baseline information for the Bay which is a starting point from which to build up further information.
23. The main environmental consideration that influenced the design parameters for the central culvert is the need to optimise the culvert design for improving hydraulic conditions within the Bay. The Steering Group believes that thorough drainage of the Bay is the most significant measure in restorative management in the Bay. Through the work done to date with regard to hydraulics, the Steering Group agreed that lowering the invert level of the central culvert by a minimum of 0.5 metres (to RL 8.55) is an essential feature of the culvert design for the good of the Bay.
24. The Steering Group also acknowledges that not all of the environmental considerations for the Bay can be addressed through the replacement of the central culvert but that lowering the sill level is one way to optimise the design given all of the other considerations. The Steering Group report outlines further works that could be undertaken to further improve the conditions within the Bay but are currently outside of the scope of the central culvert replacement project.
25. One of the key social and recreational considerations for the central culvert replacement project is the use of the water body and central culvert for kayak training purposes. Kayakers needs have been well represented within the Steering Group from the start of the project. Section 6.6 of the Steering Group report assesses and evaluates scenarios for kayakers and summarises their requirements. During the evaluation of the culvert and bridge models more attention was given to the duration of useful surface velocity (above one metre per second and duration of useful flow (above 5m³)).
26. The kayakers agreed that lowering the sill of the central culvert by a minimum of 0.5 metres would be acceptable but that widening the existing span from the six metres in conjunction with lowering the sill would have a significant impact on the two above parameters. Kayakers were also keen to see that the floor of the culvert should be as smooth as possible to create faster and smoother flow as well as improving safety by removing sharp rocks.
27. The kayakers also identified a number of other requirements that may not be within the scope of the central culvert replacement project. These have been comprehensively outlined within the Steering Group report.

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PART B - REPORTS FOR INFORMATION

2. DEPUTATIONS BY APPOINTMENT

2.1 INSPECTOR ERASMUS AND SENIOR SERGEANT DEAN, CHRISTCHURCH CENTRAL POLICE

Inspector Erasmus and Senior Sergeant Dean addressed the Board to provide an update on policing within the ward. Inspector Erasmus outlined to the Board the ongoing issues relating to burglaries and violence and the progress being made in addressing these.

The Chairperson thanked Inspector Erasmus and Senior Sergeant Dean for their deputation to the Board.

2.2 MAXINE TUPE AND WILF DEMPSEY, REPRESENTING THE WOOLSTON COMMUNITY ASSOCIATION,

Maxine Tupe and Wilf Dempsey, representing the Woolston Community Association, addressed the Board thanking the Board and the Linwood Service Centre staff for their support of the Woolston Gala Event.

The Chairperson thanked Maxine Tupe and Wilf Dempsey for their deputation to the Board and thanked the team involved with organising the Woolston Gala for a successful community event.

3. PRESENTATION OF PETITIONS

Nil.

4. NOTICE OF MOTION

Nil.

5. CORRESPONDENCE

5.1 LINDSAY CARSWELL

The Board received correspondence from Lindsay Carswell regarding the removal of a tree for the Stanmore Road Cycleway and Signalised Pedestrian Crossing, and a memorandum from staff regarding Stanmore Road Trees.

5.2 MOUNT PLEASANT COMMUNITY CENTRE AND RATEPAYERS ASSOCIATION

The Board received correspondence from the Mount Pleasant Community Centre and Ratepayers Association in relation to the removal of rubbish bins, and a request for dog excrement disposal bins in Old School Reserve.

The Board **decided** to request information about dog excrement disposal bins, including costs and usage.

6. BRIEFINGS

David Dally, the Customer Services Manager briefed the Board on the responsibilities of his unit and recent changes to the phone system to improve levels of service.

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7. COMMUNITY BOARD ADVISER'S UPDATE

The Board **received** updates from the Community Board Adviser on Board related activities. Specific mention was made to upcoming dates for meetings, Council consultations, and Customer Service Requests for February to April 2010.

Mention was made of information received by Board members following requests; this included the update on air quality concerns experienced by Phillipstown School, and staff memorandums relating street trees in Flesher Avenue and the removal of rubbish bins from parks.

8. BOARD MEMBERS' QUESTIONS

Nil.

9. BOARD MEMBERS' INFORMATION EXCHANGE

Board members expressed concern with road user safety at the Fitzgerald Avenue and St Asaph Street intersection owing to work on the Western Interceptor. The Board **requested** information on the traffic management plan for the Western Interceptor, the levels of monitoring, and enforcement.

PART C - REPORT ON DELEGATED DECISIONS TAKEN BY THE BOARD

10. CONFIRMATION OF MINUTES – 14 APRIL 2010

It was **resolved** on the motion of Tim Carter, seconded by Brenda Lowe-Johnson, that the minutes of the Board's ordinary meeting of 14 April 2010 be confirmed.

11. APPLICATION TO THE HAGLEY/FERRYMEAD COMMUNITY BOARD 2009/10 DISCRETIONARY RESPONSE FUND - SUMNER RESIDENTS' ASSOCIATION

The Board considered a report presenting an application to the Hagley/Ferrymead Community Board 2009/10 Discretionary Response Fund from the Sumner Residents' Association, for the reimbursement of a post office mail box rental fee.

STAFF RECOMMENDATION

It is recommended that the Hagley/Ferrymead Community Board decline the retrospective request from the Sumner Residents' Association for the reimbursement of a post office mail box rental fee of \$135, as it falls outside the criteria for the Discretionary Response Fund.

It was **resolved** on the motion of Bob Todd, seconded by Yani Johanson, that the Board approve the request from the Sumner Residents' Association and allocate \$135 from the Hagley/Ferrymead Community Board 2009/10 Discretionary Response Fund for the postal office mail box rental fee.

12. LOCAL GOVERNMENT "KNOW HOW" TRAINING WORKSHOP – FINANCIAL GOVERNANCE 101 AND DECISION MAKING

The Board considered a report seeking approval for interested members to attend Local Government New Zealand "Know How" Training Workshops – Financial Governance 101, to be held in Christchurch on Friday 2 July 2010 and Decision Making, to be held in Christchurch on Friday 9 July 2010.

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It was **resolved** on the motion of Tim Carter, seconded by Bob Todd, that the Board approve the attendance of Brenda Lowe-Johnson and Rod Cameron at the Local Government "Know How" Training Workshop on Decision Making, to be held in Christchurch on Friday 9 July 2010.

13. RESOLUTION TO EXCLUDE THE PUBLIC

It was **resolved** on a motion of Bob Todd, seconded by Brenda Lowe-Johnson, that the public be excluded from the following parts of the proceedings of the meeting, namely item 14.

14. COMMUNITY SERVICE AWARD NOMINATIONS

The Board considered a report presenting the Community Service Award Nominations for 2010.

It was **resolved** on the motion of David Cox, seconded by Tim Carter that:

- (a) The Board awards Community Service Awards to the following:

Lammert (Max) Visch
Fay Hartley
James Crook
Sally Barker
Margaret Logie
Pam Glubb
Jeanette Beaumont
Ann Allan
Ray Share
Malcolm McClurg
Sister Maria O'Connell
Maria Brooks
Selwyn Cossar
Kevin Rowlands
David Josland
Daryl Sayer
Des Lyons
Beverly Salter

- (b) That the Board grant the Chairperson and Deputy Chairperson the power to act to consider and decide Community Service Award nominations that are forwarded from another Community Board beyond this Board's timeframe.
- (c) That the decisions on this matter be removed from Public excluded.

The Chairperson thanked Board members and staff for their attendance and contributions, and declared the meeting closed at 5.41pm.

CONFIRMED ON THIS 19TH DAY OF MAY 2010

**BOB TODD
CHAIRPERSON**

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ATTACHMENT 2 TO CLAUSE 1

McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
<p>6.9.2 Identification of Preferred Design Scenario</p> <p>Our preferred scenario is a sequence of events that we recommend should be driven by the Council and Community (including the Estuary Trust, Estuary Association and their constituents) to achieve the necessary and effective replacement of Causeway culverts and the beneficial improvement of waterbody, wetlands and watermargins of the Bay.</p> <p>6.9.2.1 Core Features</p> <p>The core features of the design scenario are the following steps we recommend in the order in which they should occur: Council, Estuary Trust, Community and Service Providers may be identified for appropriate roles.</p> <ol style="list-style-type: none"> 1. Establish benchmark network for assessing and monitoring change in physical conditions of Bay floor including sediment deposits, possible changes in water column and changes in physicochemical features of sediment cores and condition of plant and animal benthic communities, as an outcome of central culvert change. The benchmark network would consist of 24 stations, six in each of three tidal levels and six in adjoining Estuary sandbanks (detail of network is collated in Section 6.8.2.4). 2. Arrange the completion of the above benchmark network by establishment and ecological assessment of a further eight stations at identified locations to supplement those already established by EOS Ecology. 	<p>Regarding points 1,2 and 3:</p> <ul style="list-style-type: none"> - Agree sample at 24 sites would ensure bay habitat is adequately represented. - Plant and animal life sampling will provide adequate indicators of impacts of central culvert change. Water columns only sample situation at one point and at one point in time. EOS pilot study indicated low levels of heavy metals. <p>Note: Even if core sediment material is organic, we believe that the impacts on the estuary will be minimal. This material will be so fine, that within the turbulent estuary with its waves and currents, it will remain in suspension. This will cause it to rapidly disperse and it is unlikely to be deposited in quantity in any one place to have a detrimental impact anywhere.</p>	<p>Sample benthic plant and animals and sea lettuce but not sediment (surface or core) or water columns.</p>	<p>\$67,800 per survey including particle sizing.</p>	<p>\$47,000 per survey.</p>

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
3. Arrange sampling and analysis at all stations for physicochemical features of sediment cores, as originally proposed.	<p>The dilution factor of the size of the estuary and its tidal regime would lower concentrations so much that its impacts will likely be undetectable.</p> <p>Even less likely is an impact on the beaches as the turbulence within the ocean and its diluting effect will be that much greater.</p> <p>To be certain however, staff recommend core samples be taken at the 24 sites for organic material and ammonia levels as part of the first (pre-culvert) sampling round. If it is shown that levels are significantly elevated, additional community based monitoring can be undertaken to assess any impacts.</p>			\$10,000 single sample round of core sediment.

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

MCCORMACKS BAY STEERING GROUP REPORT: HOW AND WHY CHRISTCHURCH CITY COUNCIL AND THE COMMUNITY SHOULD CLEAN UP MCCORMACKS BAY
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
<p>4. Install replacement central culvert designed to have these properties:</p> <ul style="list-style-type: none"> a) 6m width; b) invert no higher than RL 8.55; c) smooth vertical walls and smooth floor; d) full width of causeway <p>and to achieve in general the following performance functions</p> <ul style="list-style-type: none"> d) peak flood tide flow rate of 13.2 m³/s, e) peak ebb tide flow rate of 8.7 m³/s f) peak flood velocity greater than 1.50 m/s g) peak ebb velocity greater than 1m/s h) Bay high tide within of Estuary high tide; i) 0.5 m lowering of Bay low tide level below present; j) more than 100,000 m³ tidal volume, approx 20% increase; <p>with the following outcomes to the Bay:</p> <ul style="list-style-type: none"> k) water body to RL 10.27 at full tide covering 12.40 ha.; l) water body drained to RL 8.67 at total ebb tide; m) total area of actually drained bay floor 9 ha, a 35%.increase. 	<p>Precise targets not practical to achieve or measure.</p>	<p>Use as a general objective/guide only. See point 6 below.</p>		

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
<p>5. During installation of central culvert, ensure the following works are done:</p>	<p>Note all actions in point 5 will be part of the request for additional funding to construct replacement culvert.</p>			
<p>a) breach and remove rock/gravel barrier remaining from the "feeder mole" beside central culvert, to the full depth of the barrier, at its central area and at the southern end where it adjoins the eastern sportsfield reclamation.</p>	<p>Agree this would be beneficial. Central culvert should be straight forward; southern cut already exists. Inspection necessary to determine whether further excavation required.</p>	<p>Proceed during course of culvert replacement.</p>	<p>\$5,000</p>	<p>\$5,000</p>
<p>b) use suitable rock from feeder mole for providing high tide roosting on residual mole for enhancing cormorant and tern roosts at safe distance from kayak zone.</p>	<p>Agree this would be beneficial. Use large rocks. A wood/steel platform could be an alternative.</p>	<p>Proceed during course of culvert replacement.</p>	<p>\$2,000</p>	<p>\$2,000</p>
<p>c) clearance of both east and west culverts and their entrances and outlets of all obstructions.</p>	<p>Yes. East partially completed with improvement to drainage noted. West would require less clearing.</p>	<p>Proceed during course of culvert replacement.</p>	<p>\$3,000</p>	<p>\$3,000</p>

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
<p>d) maintain or rebuild kayak access and launching beaches at both north and south ends of the central culvert, removing rocks from estuary floor adjacent to northern end of culvert to assist kayak use.</p>	<p>The south side beach will remain largely untouched as is. Access to the north side could be improved with wooden steps.</p> <p>*Note: The sanctioning of facilities that would encourage parking and crossing road by kayakers subject to traffic planning approval.</p>	<p>Maintain existing beach at south end. Remove rocks from estuary floor adjacent to northern end of culvert to assist kayak use.</p> <p>Any additional work involving reclamation subject to consent and not recommended. Volunteers/kayakers remove rocks. Construct steps.</p>	<p>\$5,000</p>	<p>\$1,000*</p>
<p>e) restore vehicle access and parking facility for kayak-service vehicle on south side of Causeway beside central culvert.</p>	<p>Unlikely to change as a result of culvert construction. Not an official facility at present. May be possible to reconfigure berm area to provide more efficient parking space (retaining wall and fill). Ensure vehicle access on to beach and rock barrier not possible.</p> <p>*Note: The sanctioning of facilities that would encourage parking and crossing road by kayakers subject to traffic planning approval.</p>		<p>\$14,000</p>	<p>\$14,000*</p>

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ATTACHMENT 1 TO CLAUSE 8 Cont'd

McCormacks Bay Steering Group report: How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
f) with supervised volunteer help clear exposed floor of Bay wetland from all obstructions to drainage development.	Yes, all solid material can be removed.	Proceed at time of culvert replacement.	\$1,000	\$1,000
6. Monitor culvert performance over lunar cycle to establish that its performance is in line with model predictions. (It has been suggested that water level recorders on either side of the causeway might be used to calculate tidal change through all three culverts, these data being used to recalibrate hydraulic model and to determine net culvert flow rates from rate of change of water level in Bay).	Yes, this should be done.	Install water level recorders, if and when funding becomes available.	\$15,000	\$15,000
7. Arrange Community Monitoring Programmes <ul style="list-style-type: none"> • to assess over lunar cycle the actual attainment of tidal coverage and tidal drainage; • to continue periodic monitoring to ensure maximum feasible actualisation of potential drainage including noting of water retention phenomena; • to assess sea lettuce and other algal coverage and effects on drainage; • to commence soon and continue over a number of seasons to monitor bird species use of wetlands for feeding and of reefs and islands for roosting. 	Yes. Sea lettuce - possibly assess coverage as part of wider Estuary post outfall sea lettuce monitoring. NIWA have done annual reports to date including a McCormacks Bay site.	Organise community monitoring.	\$2,000	\$2,000

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
8. Arrange				
a) Photographic Monitoring of development of dendritic drainage	Yes. Use same location and camera settings each time. Also monitor sea lettuce and sea levels in the bay. Could be time lapse photography and use software to analyse.	Purchase camera and mounts. Steering Group or other suitable volunteers undertake, otherwise contractor can do.	\$2,000 camera gear \$2,500 monitoring	\$2,000 camera gear \$2,500 monitoring
b) Establishment of survey marks in drainage channels for monitoring any further depth change in erosion of sediments	Would be difficult to implement. It is extremely soft over most of the bed to both install markers and to return to measure changes.	Use photographic record and bathymetric survey instead, Refer point 11.		
c) Coordination of dendritic drainage monitoring with repeated analysis of sediment benchmark sites where these are affected by drainage.	Yes. Number of sites may be limited by available funding.	Repeated analysis as per staff recommendations for points 1, 2 and 3.	Refer points 1, 2 and 3.	Refer points 1, 2 and 3.
9. Arrange repeat monitoring of physical, chemical and biological condition of benthos by change from benchmarks established as events 1 and 2 above and arrange community participation in regular monthly water sampling of tidal inflow and outflow for physical and chemical quality analysis.	Refer comments for points 1, 2 and 3. Number of sites may be limited by available funding.	Repeated analysis as per staff recommendations for points 1, 2 and 3.	Refer points 1,2 and 3.	Refer points 1, 2 and 3.

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
<p>10. Resume macro-algal removal trials with mechanical brush equipment or suction equipment, and monitor outcomes, including re-infestation if any, as well as physical and biological changes in underlying sediments.</p>	<p>May not be necessary. Assess changes due to culvert first.</p>	<p>Assess changes to extent of sea lettuce prior to any resumption of sea lettuce removal trials. Not underlying sediments (as previously discussed in points 1, 2 and 3 above, and 6.9.2.2 Supplementary Features below.</p>	<p>\$40,000 per annum</p>	<p>-</p>
<p>11. Evaluate dendritic drainage development with geomorphologist, assessing the possible value of accelerating drainage and erosion of sediments by marking of drainage lines or other measures</p>	<p>Assessment of channel changes can be achieved by analysing the photographic record.</p>	<p>Employ suitably qualified person to undertake.</p>	<p>\$5,000</p>	<p>\$5,000</p>
<p>12. Review outcomes of all monitoring programs with Community within two years of culvert installation, in sufficient time to plan and fund in next LTCCP further developments if needed such as -</p>	<p>Two years after culvert installation would be beyond the 2012-2022 LTCCP. Note: Adjustments to the Annual Plan do not allow for new projects.</p>	<p>No recommendations at this stage, prior to future assessment of the bay.</p>		
<p>a) reconstruction of east and west culverts.</p>	<p>East end upgrade should only happen if McCormacks Bay Road is moved to improve the intersection in which case it would be part of that project cost. Replacement of the west end culvert with a 1350 millimetre diameter pipe by 20 metre length would cost about \$40,000.</p>		<p>\$40,000</p>	<p>-</p>

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate Steering Group	Cost estimate Staff
b) installation of further low drainage pipes	At least \$80,000 per pipe.		\$80,000	-
c) removal or relocation of one or more refuge islands	Preference for southern island to improve drainage, but may not be necessary.		\$36,000	-
d) reshaping of floor of Bay	Would be difficult undertaking and expensive.		At least \$500,000	

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ATTACHMENT 2 TO CLAUSE 1 Cont'd

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Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate - Steering Group	Cost estimate - Staff
<p>6.9.2.2 Supplementary Features</p> <p>These are features which might well accompany some of the steps outlined in the core features but which, unlike them, are not considered essential to the stepwise process of recovery of the Bay. They may have substantial natural history or recreational value. Some of them may be especially valuable for involving members of the local community. Many of them will be of value for the wider Estuary and its neighbours and users. They are not listed in order of priority or in any chronological order.</p>				
<p>Promote involvement of ornithologists and bird-watchers with Andrew Crossland in intensively monitoring temporary changes in feeding behaviour of different species of birds, during the period of accelerated drainage of the NE, NW and NC sectors of the Bay that may be expected soon after the installation of the new culvert.</p>		<p>Yes, should be undertaken.</p>		
<p>Have engineers and construction workers be alert for opportunity to create new roosts south of the main culvert for shag and cormorant and for other observed visitors such as Caspian tern.</p>		<p>Yes. Could incorporate into construction brief.</p>		
<p>Have engineers consider lowering and reshaping the sandy shoal to the south and west of the scour hole at the main culvert, especially with a view to improving drainage lines to the central culvert and possible use of this sandy material as coarse supplement for the enhancement of potential <i>Sarcocornia</i> (glasswort) beds at the head of the Bay.</p>	<p>See how drainage patterns develop first but dredging difficult/expensive away from hard edge. Access difficult. Possible use a barge. If undertaken, could use sand as described.</p>		<p>\$20,000</p>	<p>\$20,000</p>

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McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate - Steering Group	Cost estimate - Staff
<p>Promote possible water column studies adjacent to benchmark network reference sites, and possible suspended sediment sampling of the outflow of the main culvert, during and after construction period as a crude way of estimating the long time deferred contributions of the Bay to the Estuary discharge.</p>	<p>Water column studies covered in points 1, 2 and 3. Cost of \$25 per test for suspended sediment and turbidity for 24 sites would equal \$600 per sample. Assumes volunteers take sample. Could be dozens of samples required at sites where channel formation occurring. Nutrient and particle size analysis would be additional.</p> <p>Quantitative Sediment monitoring not necessary because we are more interested in the formation and evolution of dendritic tidal channels and the resulting improved drain out of the bay than the actual sediment flow rates. Much of the sediment sluicing is likely to be driven by significant storm flow events coinciding with low tide and as such the sediment yield rate will be highly variable and episodic. The dendritic channel evolution and changes in drainout can be monitored both visually and by photographic record.</p>		<p>\$600 per sample</p>	<p>-</p>

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McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate - Steering Group	Cost estimate - Staff
(continued from previous page)	Consideration should also be given to reengaging Eliot Sinclair to repeat their full topographic survey of the floor of the bay after five to 10 years. By comparing the new survey result with the previous survey the net gain or loss of sediment can be determined. - See also comments for points 1, 2 and 3 in 6.9.2.1.	Bathymetric surveys		\$10,000 in 2016 and 2021
Promote further trials to involve sea lettuce residues in the composting processes for which the City of Christchurch is increasingly renowned, even considering the already partly decomposed residues that may be revealed with better bay drainage and which may cause great nuisance if removed only at the whim of the tide.		Investigate likely cost effectiveness		

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McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate - Steering Group	Cost estimate - Staff
7.5.5 Commitment to Revision of McCormacks Bay Reserve Management Plan (see Steering Group report, page 143 for full text)				
Revision of management plan.	Agree management plan should be reviewed and above points should be considered for future revision of management plan following monitoring review (two years following culvert replacement). Management plan not currently on four year programme.	Review management plan schedule.		
Restore original bare character of islands.	Advice of the Council ornithologist is not to clear islands, apart from minor weed-eating in the vicinity of the current favoured wader roosting sites, until higher priority bird roosting sites in the coastal area have been fully utilised.	Not in short term.		

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McCormacks Bay Steering Group report: *How and Why Christchurch City Council and the Community Should Clean Up McCormacks Bay*
Extract from recommendations, sections 6.9 and 7.5

Steering Group recommendations	Staff comment	Staff recommendations	Cost estimate - Steering Group	Cost estimate - Staff
<i>7.5.6 Provision for Continuing Financial Support of Research for Unforeseen Information Needs (see Steering Group report, page 145, for full text)</i>	Steering group could make a submission on the next LTCCP.	Recommend against new specific contingency fund given current budgeting priorities and existence of alternative possible methods of funding unexpected research priorities.	\$1,000,000	-
<i>7.5.7 Planning for Future Use of the Causeway for Transport (see Steering Group report, page 147, for full text)</i>	Some aspects could be addressed as part of a revised management plan. Also being addressed via three laning/bus priority project.	Largely a transport issue.		

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ATTACHMENT 3 TO CLAUSE 1

McCORMACKS BAY STEERING GROUP

CHARTER

August 2006

Aims:

1. To take a comprehensive planning view of McCormacks Bay, and within that view develop, research and evaluate a series of scenarios for the replacement of the Causeway culverts that identify and integrate the potential benefits for natural and recreational values.
2. Provide a forum for a partnership process between the Community and the Council, and a model for future projects, as envisaged by the Local Government Act.
3. Ensure the Council decision making process for the culvert replacement project is informed by the Community and that there is a two way exchange of information.

Outcome:

1. A report based on research undertaken in collaboration with the CCC, which makes recommendations on:
 - Design scenarios for the culvert replacement and associated natural and recreational values of the Bay; and
 - Further required investigations.

The report will be presented to the CCC with the expectation it will be utilised in the production of design options for the culvert replacement and drawn upon in the preparation for future management and consultation relating to the Bay.

Background:

- In September 2004 Council staff determined that the central culvert needed to be replaced. In May 2005 the Avon-Heathcote Estuary (Ihutai) Trust met with Council staff and proposed that a comprehensive planning approach be taken. A joint workshop was held on 20th October 2005 and identified the following outcomes as desirable for the culvert replacement and the Bay.
 - Identify best options for structural design of the Causeway culverts.
 - Enhancement of the whole ecological system.
 - Management of silt.
 - Recreation resource is maintained and enhanced.
 - Community consultation is effective and community aspirations are met.
 - Knowledge is built and research is effective.

Group Structure and Process

Steering Group Members include stakeholder groups and individuals and who expressed an interest in being involved. The group will be advised by experts in fields such as coastal engineering, hydrology, and ecology.

Council Staff will provide information, support and advice to the Steering Group.

The Steering Group Facilitator will be neutral and will serve the group as a whole. The facilitator will be the spokesperson.

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ATTACHMENT 3 TO CLAUSE 1 Cont'd

Meeting Records will be overseen by the Facilitator. They will include a summary of key action points discussed at each meeting, agenda items for the next meeting, and any other relevant material. These records will be circulated to all Steering Group members and to other interested parties.

The Steering Group will try to reach consensus on the recommendations to be put forward to the Council.

The Report and Recommendations of the Steering Group will be presented to the Council and the public.

Meetings will normally be held on the second Thursday of every month at the Mt Pleasant Yacht Club, unless the group decides otherwise. The Steering Group will meet up until the delivery of the report.

Group Membership

Stakeholder Groups:

Avon Heathcote Estuary (Ihutai) Trust	Canterbury White Water Canoe Club
Canterbury Windsports Association	Christchurch Estuary Association
North Canterbury Fish and Game	Mt Pleasant Residents Association
Redcliffs Residents Association	

Individuals:

Humphrey Archer	(Resident & Environmental Engineer)
Bruce Coleman	(Resident)
Ian Russell	(Resident & Kayaker)
Kelly Hansen	(Resident & Kayaker)
Roy Walker	(Resident)

CCC Staff:

	Title	Unit
Eric Banks	Network Planner	Transport & Greenspace
Matt Cummins	Project Manager	City Solutions
Heather Holder-Lunn	Environmental Planner	City Solutions
Tony Lange	Asset Engineer	Asset and Network Planning

For more information contact:

Matt Cummins, Project Manager, matt.cummins@ccc.govt.nz Ph: 941 8236

Alisdair Hutchison, Ihutai Trust, hutchys@ihug.co.nz Ph: 326-6198

Adopted by the McCormacks Bay Steering Group 10/8/06

Compiled by Heather Holder-Lunn