



Submission on LTCCP

5 May 2006

Avon Heathcote Estuary Ihutai Trust

Email to: ccc-plan@ccc.govt.nz

Organisation Making

Submission:

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We wish to speak to our submission. We ask that the officer comments on our submission be emailed to us at least two working days prior to our attendance at the hearing.

The Avon Heathcote Estuary Ihutai Trust

1.1. The Avon Heathcote Estuary Ihutai Trust thanks the Council for the opportunity to comment on the LTCCP. It is the Trust's policy to be helpful and solution-oriented. We make this submission in good faith because we wish to help find a set of useful solutions.

1.2. The Avon Heathcote Estuary Ihutai Trust (AHEIT, The Trust) is a charitable society registered in 2003. It was formed as a result of community requests over many years for the formation of an organisation that included committed representation from statutory bodies, tāngata whenua and other agencies.

1.3. The vision of the Trust is

Communities working together for
Clean Water
Open Space
Safe Recreation
and
Healthy Ecosystems
that we can all enjoy and respect

*Toi tū te taonga ā iwi
Toi tū te taonga ā Tāne
Toi tū te taonga ā Tangaroa
Toi tū te iwi*

1.4. The Trust has a special relationship with the Christchurch City Council and Environment Canterbury. The elements of this relationship are set out in a Memorandum of Understanding (MOU) which was signed in 2003 by the Chief Executives of the Councils and the Chairman of the Estuary Trust. Each Council also appoints a member to the Trust's Board.

1.5. The MOU reflects the new mode of councils working in partnerships with community groups that is envisaged by the new Local Government Act with its focus on Community outcomes.

1.6. As agreed in the MOU the Trust has developed the Ihutai Management Plan. The implementation of the plan will be ongoing, and the Trust appreciates the partnership we have with the two Councils in the implementation process.

1.7. Further details about the Trust, its Constitution, the Memorandum of Understanding between the Councils and the Trust, the Trust's Management Plan, and its activities can be found on our web-site at www.estuary.org.nz

1.8. The Trust's Constitution (2002) includes in its objects the achievement of "...healthy working ecosystems for the Estuary and its catchments...." Further the Trust in its Management Plan (2004) states that references to the Estuary in the Plan should be read as encompassing the Estuary **and its catchments**.

2. Community Outcomes

- 2.1. We note that the Council has identified nine community outcomes it wishes to achieve with the implementation of its 2006/16 Community Plan.
- 2.2. We believe seven of these outcomes, as listed in Table 1, directly reflect the work of the Trust and underpin the budget allocations we are seeking in our LTCCP submission.

3. Ihutai Implementation Group

- 3.1. In June 2005 the Council agreed to actively progress the Ihutai Management Plan implementation with the Trust and ECan. A project team formed which included the three partners to the MOU. This group met a number of times through the rest of 2005 to prepare a list of feasible projects for inclusion in the CCC and ECan LTCCP's. Not one of these projects has been given priority by the Council for the next 10 years.
- 3.2. The Trust invested many volunteer hours in this process in good faith. We were reliant on the Council officers explaining and advocating for these projects. Unfortunately the implementation projects have become enmeshed in the Green Edge project, and we feel that the process and outcomes of the Ihutai Implementation Group have not been fairly represented to the Council.

4. Capital Projects

- 4.1. We have had a great deal of difficulty understanding the rationale and process used for prioritizing the capital projects. Of particular concern is the \$2m for Avon Heathcote Estuary Ihutai Trust being on the non-priority list.
- 4.2. There appears to be confusion about the Green Edge project and the implementation of the Ihutai Management Plan. While components of the Green Edge are included in the Ihutai Management Plan they are separate items that have been grouped together.
- 4.3. Because the Green Edge project had been considered part of the wastewater disposal options – ultimately the ocean pipeline – the removal from the current budget may have been justified by Councillors because of the increase in estimates for the pipeline project and the need to cut other (possibly related) costs.
- 4.4. Unfortunately, it seems the priority actions for the implementation of the Ihutai Management Plan have been lumped with the Green Edge when presented to Council, and therefore some projects of relatively low budget but with huge leverage have been excluded from the budget.

Table 1: Community Outcomes (Our numbering)
1. A City of Inclusive and Diverse Communities.
<i>Our diversity is seen, heard, valued and celebrated. All people feel a sense of belonging and participate in the community.</i>
The entire Avon-Heathcote Ihutai Estuary was traditionally considered a taonga and was a regulated mahinga kai for Ngai Tahu particularly Te Ngai Tuahuriri. Unfortunately, due to the long period of degradation of the Estuary, Ngai Tuahuriri now feel a sense of estrangement from their rightful place as guardians of the Estuary. At a meeting of the Te Ngai Tuahuriri and the AHEIT Board in July 2005, representatives of Ngai Tuahuriri Runanga expressed great appreciation for the work the Trust was doing to restore Ihutai. We see our partnership with Maori as critical to our success as current and future guardians of the Estuary.
2. A City of People who Value and Protect the Natural Environment
<i>Our lifestyles reflect our commitment to guardianship of the natural environment in and around Christchurch. We actively work to protect, enhance and restore our environment for future generations.</i>
In partnership with both the City and Regional councils the essential purpose of our Trust is to act as guardian of the Avon Heathcote Estuary/Ihutai, for and on behalf of the community of Christchurch. Our commitment together is to protect, enhance and restore the Estuary environment for future generations. We, the Trust, are actively seeking to carry out this commitment through the projects we have identified in the Ihutai Management Plan. This Plan contains a number of important projects, which we believe must be carried out in the early years of this LTCCP in order to achieve the environmental community outcomes sought by the Council in respect to the Estuary.
3. A Well-Governed City
<i>Our values and ideas are reflected in the actions of our decision-makers. Our decision makers manage public funds responsibly, respond to current needs and plan for the future.</i>
As the draft LTCCP contains no budget allocation for any items in our project implementation list for the next ten years we are struggling to understand how the Council, in respect to the Estuary, will meet either its stated outcomes or fulfill its partnership agreement with us under the MOU. We find no evidence in the budget that in respect to guardianship of the Avon Heathcote Estuary that the Council is responding to current need or planning for the future.
4. A Healthy City
<i>We live long, healthy and happy lives.</i>
<i>We will know when we are succeeding when: - our city environment supports the health of the community.</i>
We will not be living optimal long, healthy and happy lives relative to the resources we have on our back doorstep until we can swim in the Estuary without risk of illness, fish from the Estuary without risk of illness and play in the Estuary without unnecessary risk of injury.

Table 1 continued
5. A City for Recreation, Fun and Creativity
<i>We value leisure time and recognize that the arts, sports and other recreational activities contribute to our economy, identity, health and wellbeing.</i>
The Estuary is undoubtedly the most well used natural water body for aquatic based sports in Christchurch. There are over at least ten types of recreational users of this resource and many thousand of ratepayers who enjoy the leisure and sporting recreational opportunities it offers them. This number will grow rapidly once the waste treatment discharge is removed from the Estuary. Council's investment in the Estuary over the next ten years needs to reflect this usage.
6. A City of Life Long Learning
<i>Our learning opportunities help us to participate in the community and the economy. Quality education is available for people of all ages.</i>
In our request for funding we have identified that a public education programme about the effects of human activities on the Estuary is crucial to improve the health of it. Many ratepayers are unwittingly polluters of our waterways and Estuary. If we can educate them about the incredible ecological importance of the Estuary and the need for its protection we will be making an incalculable difference not only to the Estuary but also to the knowledge and understanding of our citizens.
7. An Attractive and Well-designed City
<i>Christchurch has a vibrant centre, attractive neighborhoods and well-designed transport networks. Our lifestyles and heritage are enhanced by our urban environment.</i>
The Avon Heathcote Estuary/ Ihutai is renowned nationally as one of the major aesthetic jewels in Christchurch's crown. Its natural beauty is central to the attractiveness of living in the eastern suburbs. Issues such as reclamation and continued pollution of its water body threaten this beauty and must be continually monitored and improved upon.

Table 2: Ihutai Management Plan (IMP) – Priority Implementation projects

Action in the IMP	Project Name	Brief Description of Project	Years	CCC Cost	Community Outcomes	Total Cost Additional Comment
Overarching Goal C Goal 3 Target 1 Actions 1 and 2	Survey of Estuary edge	Record reclamations, structures, designated roads, determine ownership	1-2	\$40,000	2, 3, 7	
Goal 2 Target 1 Action 2	Water quality	Monitor water quality in Estuary and rivers	1-10	\$150,000	1,2, 3,4,5	\$30000 per year CCC 50%, ECan 50% More than compliance monitoring, involves estuary wide sampling along transects used by Knox 1973 and Marsden 2004
Goal 1 Target 4 Action 2	Pollution prevention	Promote pollution prevention	1-10	\$56,000	1,2, 3,4,5	\$80,000. CCC 70%, ECan 30% Related to Integrated Catchment Management Plans
Goal 4 Target 1 Action 2	Stormwater monitoring	Stormwater and Estuary water quality relationship investigations	2	\$80,000	1,2, 3,4,5	\$100,000. CCC 80% ECan 20% Links to G4T1A3
Goal 4 Target 1 Action 4	Sewage Overflows	Publish sewage overflow sites, duration and frequency	2	\$10,000	2,4,5,7	Only 12 sites of 96 are monitored.
Goal 2 Target 5 Action 1	Fish survey	Identify fish populations(1965) fish survey	4-10	\$135,000	1,2,3,4,5, 6	First of 6 NIWA surveys over 10 years completed. 2 further surveys in CWW budget. Retention of funding for following 3 surveys critical
Goal 2 Target 3 Action 1	Sea Lettuce	Monitor and report sea lettuce removal of outfall	1-2	\$50,000	1,3,4,5	\$50,000 Links to Goal 2, Target 3, Actions 2 & 3
TOTAL				\$521,000		

5. Ihutai Management Plan priority actions

- 5.1. Table 2 gives a breakdown of the implementation projects the Trust believes are urgent and require funding in the 10 years of the Council's LTCCP.
- 5.2. **While we understand the enormous pressure on Council budgets at this time we ask you to fund \$521,000 for implementing the Ihutai Management Plan**

6. Green Edge

- 6.1. Many of the changes imposed on the Estuary and its adjacent land margins are largely irreversible. However there is great potential to restore and protect the remaining habitats, create new habitats, and emphasize the positive environmental attributes of some of the human induced changes.
- 6.2. In our submission to last year's Annual Plan the Trust asked that the \$9.28m budget on the LTCCP for the Green Edge project not be reduced. In the draft LTCCP this significant budget item has been cut and transferred to the ocean pipeline budget without the change being itemized in the draft LTCCP.
- 6.3. The Green Edge concept dates back to 1993. In July 2001 a project team led by City Solutions produced a proposal for consultation entitled Estuary Green Edge.
- 6.4. The vision and objectives of the Green Edge Project (2001)

VISION

To create an attractive, ecologically healthy and sustainable margin to the western edge of the Estuary, that represents and enhances the outstanding natural, cultural and recreational values of the Estuary's area.

OBJECTIVES

- To integrate the landscape, ecology, recreation and heritage values within the western margin of the Estuary known as the 'Green Edge'
- To recognize the dynamic and biologically rich nature of the Estuary
- To maintain, nurture and celebrate what is valued around the Estuary
- To satisfy existing and potential recreation needs and users and provide for public enjoyment

- To provide sustainable, attractive and environmentally friendly systems for stormwater and wastewater treatment
- To manage existing farm operations and activities to the benefit of wildlife
- To create coastal habitats and associated plant communities with particular emphasis on expanding opportunities for wildlife
- To provide interpretation information and associated facilities for eco-tourism and education
- To provide facilities and opportunities for research and the advancement of eco-technology studies
- To protect existing native plant communities and wildlife habitats

6.5. These objectives remain applicable.

6.6. In the last year the Trust has participated in discussions with others to consider what actions to prioritize which were part of the Green Edge project. A report has been prepared by URS, which lists 19 items with costings, and puts priorities on these.

6.7. The highest priority items are:

6.7.1. Green Edge contamination survey, we understand this has started.

6.7.2. Establish brackish salt marshes, including reed beds, along the whole length of the Estuary margin for ecological purposes – including large salt marshes at the edge of the Linwood Paddocks in place of existing pasture. \$356,000.

6.7.3. Improve public access, especially walkways, along the whole length of the foreshore and through the Linwood Paddocks including to Sandy Point and connecting the windsurfing area with the ponds. \$529,000.

6.7.4. Establish stormwater treatment wetland within Linwood Paddocks for Linwood Canal flows, including nutrient stripping, \$605,000.

6.7.5. We would also add the item to reinstate coastal bush to improve habitats. \$225,000.

6.8. In reviewing the Green Edge Workshop Report (October 2005) it seems that production of a Management Plan for the Estuary edge from Humphreys Drive to Bridge Street would also be a useful addition. This plan would focus on recreation, ecological values, restoration and amenity. Consultation would be required. \$50,000.

6.9. These priority items could be spread over a number of years, and total \$1,765,000

6.10. **We ask that \$1.5m of this be included in the 10-year budget**

7. Assessment of Services

7.1. As you are aware the Trust submitted on the Assessment of Sanitary Service during 2005.

7.2. We are particularly concerned about the reporting on these assessments that yet again the focus is only on public health, rather than an equal emphasis on environmental impacts as required by the Local Government Act 2002 (S125-129).

7.3. On page 216 of the LTCCP we are astounded at the sentence:
"Ecosystems in the majority of streams are in a degraded condition, however the impact on waterway habitats **appears to be accepted by the majority of the community** and a rigorous debate on the community costs and benefits of markedly improving environmental outcomes is required."

7.4. We ask for the evidence the Council has to justify such a statement. It is certainly at odds with the feedback we have from our members and networks. We and they are concerned about the degradation of streams, waterways and wetlands.

7.5. We also dispute the sentence on page 219 "The advanced secondary treatment process produces a high-quality effluent which is discharged into the Avon-Heathcote Estuary.

7.6. The discharge is not of a high quality. The levels of ammonia are excessive and endanger fish populations and other organisms in the Estuary.

8. Stormwater

8.1. Cities worldwide are becoming increasingly aware of the significant impact urban storm runoff has on natural water and aquatic ecosystems. It is time Christchurch faced up to the issue of the poor quality of stormwater entering our waterways, and the contaminants that this stormwater carries. Virtually the whole of urban Christchurch drains to the Estuary via the Avon and Heathcote Rivers and their numerous tributaries. Urban storm runoff contains heavy metals, hydrocarbons, suspended solids and bacteria. In the case of heavy metals, total amounts are higher than in oxidation pond discharges. Biochemical Oxygen Demand for 'first-flush' flows can be as high as raw-sewage.

- 8.2. Sediment carried in stormwater is the major contributor to loss of aquatic life in our urban waterways, especially in the upper Heathcote and its tributaries. It is time that sediment is recognized as a serious contaminant and that more effort be put into stopping the flow of sediment into the waterways.
- 8.3. Specifically we believe more effort should be put into:
- The prevention of sediment from earthworks from reaching the contributory drains and streams that flow into the river
 - The pre-treatment of stormwater from roads to prevent toxic organic and inorganic chemicals reaching the waterway.
 - Effective means of trapping toxic spills and other pollutants before they reach the river, and regular maintenance of these.
 - The limiting of impervious surfaces
 - The development of retention basins so that flows are maintained and peak flood flows attenuated.
 - The removal of silt from waterways and the reestablishment of gravel bottoms needed for fish spawning
 - The enhancement of the river ecology including the native fishery and the re-establishment of mahinga kai.
- 8.4. Investment is required to improve the stormwater water quality both in existing areas as well as in green-fields subdivisions.
- 8.5. There are also stormwater pipes discharging directly to the ocean beach in North New Brighton and in Sumner. The positive effects of removing the wastewater discharge 3km off-shore will be compromised at times, especially after heavy rainfall and sewage pump station failure, because of the contaminated stormwater discharge onto these beaches. The removal of these pipes should be planned to coincide with the wastewater pipeline completion.
- 8.6. As a result of the agreement reached over stormwater discharge from Aidanfield, the Cashmere Stream Living Streams group has been working with ECan to mitigate some of the effects of the stormwater discharge. For the City Council not to contribute \$1m over 10 years for this project is from our point-of-view a breach of the mediated agreement.
- 8.7. **We submit that the \$1m for Cashmere Stream Living streams development be given priority in the LTCCP.**

9. Surface Water Protocol

- 9.1. The Surface Water Protocol includes Integrated Catchment Management Plans (ICMP) as a tool for improving the water quality in our rivers, and for controlling land use and its effects on waterways.

Integrated Catchment Management Plan for the Heathcote River

- 9.2. Clearly, land use activities in the Avon and Heathcote catchments impact greatly on the water quality and quantity in the rivers and their ecological health. Small headwater springs and side streams are particularly easily damaged. Most of the contaminants that enter the rivers at various points along their course end up in the Estuary. These include silt from inadequately controlled earthworks, organic compounds and heavy metals from untreated runoff from roads and sewage system failures.
- 9.3. The Trust considers that the Heathcote River is under considerably greater degradation pressures than the Avon. It is therefore focusing its efforts on arresting the decline of the Heathcote.
- 9.4. In line with the philosophy of the Local Government Act 2002 the vision and implementation plan would be developed in partnership with the community. Project plans would be developed that included fairly tight time-frames and budgets for achieving changes to land use management practices and controls, and consequent improvements to the River. Such an approach would spearhead an integrated catchment approach to environmental management, and would be a vanguard project towards a sustainable City and for partnership projects with the community. The Trust would be pleased to work with the Council in scoping and developing such a vision and action programme.
- 9.5. **Budgeting for preparing such an Integrated Catchment Management Plans needs to be included in the LTCCP**

10. Ocean outfall construction

- 10.1. Two broad construction methods have been proposed for the pipeline – an open trench method or a tunneling method. In our submissions on the Resource Consent we advocated that a tunneling method should be used, at least for the Estuary crossing. We were hopeful that the commissioners would have made this a condition of the consent.
- 10.2. We would ask the Council to consider very carefully the adverse ecological consequences if an open trench method were used to lay the pipe across the Estuary. If a decision on the construction method comes before the Council we would ask that there be heavy weighting on the attributes of the methods proposed, and that financial costs are only considered if there is little difference in the environmental and social effects of the methods presented. We are aware tunneling will be more expensive.

10.3. **Because of the likely higher cost we ask that the Council show this additional cost for tunneling in this LTCCP.**

10.4. It is appropriate at this point to remind you that the world of water is changing. Many of the issue we face today with respect to the costs of water and it's use could have been avoided had we had the foresight to understand the consequences of growth on our city's infrastructure, overheads and running costs. These issues are discussed in Attachment 1, A Paradigm Shift for Water Management.

11. Walkways (p74)

11.1. Walking is one of the most popular recreational activities for people of all ages in Christchurch. It provides health benefits to many.

11.2. Provision of new walking tracks will enable more Christchurch people to enjoy this recreational and healthy activity.

11.3. In particular walkways around the Estuary edge are critical to preserve the public access, especially at Redcliffs.

11.4. Signage needs to be included so it is clear where the public access is, so there is no encroachment on private property.

11.5. The provision of \$2.1 million for walkways should be prioritized in the LTCCP. This could be substituted from some of the \$12.1m allocated to new leisure centers.

11.6. We see merit in promoting the City Perimeter walkway as a means of linking the various environmental initiatives being taken by the City Council.

Other items that may be unintentional errors?

- What is the planned end use for the dried Bio-solids? Will it have to be dumped after drying? From the figures in the LTCCP it seems that drying is going to double the costs of disposal? (page 59 & 71)
- What is "corporate expenditure"? (page 67)
- Clearly the proofreader does not know stormwater and sewage should not be directed down the same pipe. (page 71)

- It is a little strange that the new Art Gallery needs an additional boiler so soon after construction? Was this item left out to reduce construction costs? Retrofitting major plant items is almost always a lot more expensive than installing the correctly sized plant in the first place.
- Consequently, is not having adequate air conditioning in the new Art Gallery not the real reason for not attracting major exhibitions that attract high patronage?
- Having separate Civil Defence bunkers for the city and the region in the same city seems a logical nonsense. How are they to communicate and co-ordinate when there is a real calamity that destroys the city's transport and communication systems?
- The apparent lack of forward planning of the city and road system is difficult to understand. The end results being the destruction of the communities the roads are supposed to be supporting. For example Riccarton is now an overcrowded crossroads with a mall when it used to be a thriving village.
- What is wrong with the Memorial Avenue Roydvale intersection that requires \$130,000? (page 84) I drive or cycle through that intersection every day and it seems to be perfectly adequate for the purpose when compared to other intersections that have recently been "upgraded".
- What are "projects to be identified" doing in the budget (page 84)? If they are contingencies then they should be shown as contingencies. Otherwise the money should be allocated to projects that have been identified.

Attachment 1: A Paradigm Shift for Water Management.

Methods used by industrialized societies to manage water supply, wastewater, and stormwater were essentially established a hundred or more years ago. These methods were highly successful in addressing development and sanitation objectives, but today their functional and economic effectiveness in fulfilling environmental, quality of life and other objectives is often questioned. Conventional methods are evolving in new directions. At the same time, new technologies, and old ones in newly refined forms, are emerging that present new options for water systems. Institutional and managerial innovations are likewise emerging at a rapid rate. It appears that development of a new paradigm for water systems is both necessary and likely. The dominant paradigm and the emerging paradigm are broadly characterized below. These are simplifications of course, and many systems are in transition, but the rough differences in approach are instructive.

The Dominant Paradigm	The Emerging Paradigm
Human waste is a nuisance. It is to be disposed of after the minimum required treatment to reduce its harmful properties.	Human waste is a resource. It should be captured and processed effectively, and put to use nourishing land and crops.
Stormwater is a nuisance. Convey stormwater away from developed areas as rapidly as possible.	Stormwater is a resource. Harvest stormwater as a water supply, and retain or infiltrate it to support aquifers, waterways, and vegetation.
Build to demand. It is necessary to build more capacity as demand increases.	Manage demand. Demand management opportunities are real and increasing. Take advantage of all cost-effective options before increasing infrastructure capacity.
Demand is a matter of quantity. The amount of water required or produced by water end-users is the only end-use parameter relevant to infrastructure choices. Treat all supply-side water to potable standards, and collect all wastewater for treatment in one system.	Demand is multi-faceted. Infrastructure choices should match the varying characteristics of water required or produced by different end-users: quantity, quality (biological, chemical, physical), level of reliability, etc.
One use (throughput). Water follows a one-way path from supply, to a single use, to treatment and disposal to the environment.	Reuse and reclamation. Water can be used multiple times, by cascading it from higher to lower-quality needs, and by reclamation treatment for return to the supply side of the infrastructure.
Grey infrastructure. The only things we call infrastructure are made of concrete, metal and plastic.	Green infrastructure. Besides pipes and treatment plants, infrastructure includes the natural capacities of soil and vegetation to absorb and treat water.
Bigger/centralised is better. Larger systems, especially treatment plants, attain economies of scale.	Small/decentralised is possible, often desirable. Small scale systems are effective and can be economic, especially when diseconomies of scale in conventional distribution/collection networks are considered.
Limit complexity: employ standard solutions. A small number of technologies, well-known by water professionals, defines the range of responsible infrastructure choices.	Allow diverse solutions. A multiplicity of situation-tuned solutions is required in increasingly complex and resource-limited human environments, and enabled by new management technologies and strategies.
Integration by accident. Water supply, stormwater, and wastewater systems may be managed by the same agency as a matter of local historic happenstance. Physically, however, the systems should be separated.	Physical and institutional integration by design. Important linkages can and should be made between physical infrastructures for water supply, stormwater, and wastewater management. Realizing the benefits of integration requires highly coordinated management.
Collaboration = public relations. Approach other agencies and the public when approval of pre-chosen solutions is required.	Collaboration = engagement. Enlist other agencies and the public in the search for effective, multi-benefit solutions.