

**257<sup>th</sup> MEETING OF THE  
CANTERBURY REGIONAL COUNCIL**

**COUNCIL MEETING**

**TO THE CHAIRMAN AND COUNCILLORS OF THE  
CANTERBURY REGIONAL COUNCIL**

**MEMBERSHIP OF THE COUNCIL**

Cr T K Burke (Chairman)

Cr R A Budd	Cr A G Neill
Cr A S Carroll	Cr M E Oldfield
Cr E H Cunningham	Cr J F Slee
Cr R H M Johnston	Cr N J Wagner
Cr R M Kirk	Cr J M Waters
Cr R I R Little	Cr W E Woods
Cr A R McKay	

A meeting of the Council will be held on

**Thursday, 7 April 2005 at 9.30 a.m.**

**VENUE:** Council Chamber (First Floor)  
Pegasus Building  
58 Kilmore Street  
CHRISTCHURCH

**BUSINESS:** As per Order Paper attached.

Dr Bryan Jenkins  
**CHIEF EXECUTIVE**

**RECOMMENDATIONS IN REPORTS ARE NOT TO BE TAKEN AS COUNCIL  
POLICY UNTIL ADOPTED BY THE COUNCIL**

## COMPLIANCE WITH LOCAL GOVERNMENT ACT 2002 DECISION-MAKING REQUIREMENTS

Except as below, a statement of compliance and a completed decision checklist is required for any agenda item on a council committee or the council recommending that a decision be made. This will be the responsibility of the person signing off the agenda item.

### The compliance statement and checklist will not be used for:

- Recommendations that information be received or that the Council make a decision.
- Decisions taken under the Resource Management Act 1991 or the Biosecurity Act 1993 in relation to resource consents, decisions required when following the procedures set out in Schedule 1 of the Resource Management Act 1991, other permissions, submissions on plans, or references to the Environment Court.
- Decisions taken to proceed with enforcement procedures under various primary or secondary legislation or regulations, including procedures under the Resource Management Act 1991, the Biosecurity Act 1993, the Local Government Act 2002, and Environment Canterbury Bylaws.
- Administrative and personnel decisions that are entirely internal to Environment Canterbury.
- Other decisions where the procedures to be followed are set out in Legislation.

### COMPLIANCE STATEMENT

The council committee (or the council) must formally certify that:

- (a) It is satisfied that it has sufficient information about the options and their benefits and costs, in terms of the region's social, economic, environmental and cultural well-being and the effects on community outcomes, bearing in mind the significance of the decisions.
- (b) It is satisfied that it knows enough about and has given adequate consideration to the views and preferences of affected and interested parties bearing in mind the significance of the decision.

### INFORMATION CHECKLIST

(a)	A Statement of the Proposed Decision
(b)	A Statement of the Objective of the Proposed Decision and the Issue or Problem being addressed
(c)	A list of all reasonably practicable options, (including doing nothing).
(d)	For each option in (c): An evaluation of the Benefits and Costs, in terms of the region's social, economic, environmental and cultural well-being.
(e)	For each option in (c): A statement of the extent to which community outcomes would be promoted or achieved in an integrated and efficient manner.
(f)	For each option in (c): A statement of the Impact, if any, on Environment Canterbury's capacity to undertake its statutory responsibilities
(g)	If the Proposed Decision is a significant decision in relation to land or a body of water, a statement of how Maori values have been taken into account
(h)	A Statement of significant inconsistencies, if any, with any Existing Policy, Plan or Legislation arising from the Proposed Decision.
(i)	A statement how the views and preferences of affected or interested persons have been given adequate consideration during the definition of the problem or issue, the objective, the assessment of options and the development of the proposed decision, including the particular contribution of Maori to the decision-making process.

#### Notes:

The significance of proposals and decisions determines how much time, money and effort is put into exploring and evaluating options and obtaining the views of affected and interested parties. The significance of proposals and decisions is determined through reference to criteria contained in the policy on significance.

The policy on significance together with Section 76 of the Local Government Act 2002 set out the Council's requirements in relation to decisions. Some decisions can only be made through the Long-Term Council Community Plan, or after the Special Consultative Procedures set out in the Act have been used, (refer to the policy on significance and the Act).

All decisions of Environment Canterbury are subject to the decision-making requirements of section 76 of the Act unless inconsistent with specific requirements of other legislation.

**CANTERBURY REGIONAL COUNCIL**

**COUNCIL MEETING**

**ORDER PAPER**

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<b>AGENDA ITEM NO:</b> 3	<b>SUBJECT MATTER: STATEMENT OF PROPOSAL TO ADOPT THE 2005/06 ANNUAL PLAN</b>
<b>REPORT:</b> Council	<b>DATE OF MEETING:</b> 7 April 2005
<b>FILE REFERENCES:</b>	<b>PORTFOLIO:</b> All <b>PROJECT:</b> All <b>OUTPUT:</b> All
<b>REPORT BY:</b> Neil Pilbrow Portfolio Manager Finance & Corporate Services	<b>ENDORSED BY:</b> Wayne Thomas Director Finance & Corporate Services

## PURPOSE

The purpose is to adopt the Statement of Proposal to Adopt the 2005/06 Annual Plan.

## ATTACHMENTS (to be tabled at meeting)

The "Statement of Proposal to Adopt the 2005/06 Annual Plan" which contains:

- A draft of the 2005/06 Annual Plan.
- Group of Activities information relating to 2005/06.
- Reasons for variations in 2005/06 to the levels of service provision and targets in the 2004 - 2014 Environment Canterbury Community Plan (Community Plan).
- Proposed fees and charges under the Local Government Act 2002 and Resource Management Act 1991.
- Proposed amendment to the Revenue and Financing Policy.

The companion document: Project Outputs and Funding for 2005 - 2006

## RECOMMENDATION

(a) *That the Council adopt the Statement of Proposal to Adopt the 2005/06 Annual Plan, including:*

- *A draft of the 2005/06 Annual Plan,*
- *Group of Activities information relating to 2005/06,*
- *Reasons for variations in 2005/06 to the levels of service provision and targets in the 2004 - 2014 Environment Canterbury Community Plan (Community Plan),*
- *Proposed fees and charges under the Local Government Act 2002 and Resource Management Act 1991,*
- *Proposed amendment to the Revenue and Financing Policy,*

*and the companion booklet: Project Outputs and Funding 2005 - 2006.*

(b) *That the Council releases the Statement of Proposal to Adopt the 2005/06 Annual Plan and the companion booklet: Project Outputs and Funding 2005 – 2006, for public consultation on 30 April 2005, with close of submissions on 30 May 2005.*

- (c) *That the Resource Management Charges under the Local Government Act 2002 and the Resource Management Act 1991 be adopted, for inclusion in the Statement of Proposal to Adopt the 2005/06 Annual Plan.*

<b>AGENDA ITEM NO: 4</b>	<b>SUBJECT MATTER: NRRP VARIATION CHRISTCHURCH GROUNDWATER</b>
<b>REPORT:</b> Council	<b>DATE OF MEETING:</b> 7 April 2005
<b>FILE REFERENCES:</b> NRRP/2002/V003/PRE	<b>PORTFOLIO:</b> Water <b>PROJECT:</b> NRRP 034017 <b>OUTPUT:</b> New
<b>REPORT BY:</b> John Glennie Natural Resources Policy Manager	<b>ENDORSED BY:</b> John Talbot Director Policy and Planning

## PURPOSE

The purpose of this report is to seek approval from Council for staff to prepare a draft variation to introduce controls on new residential, commercial or industrial development in the Christchurch Groundwater Recharge Zone, so as to protect the quality of Christchurch's water supplies.

## ATTACHMENTS OR DOCUMENTS PREVIOUSLY CIRCULATED

A presentation on this matter was given at the Council workshop on the 2 March 2005. The report, circulated to councillors, prepared by Barry Loe in consultation with Environment Canterbury staff, formalises that discussion and provides the rationale for initiating the variation.

## CONSIDERATION OF OPTIONS

**Options available** – See attached report.

**Benefits and Costs.** There is an overall benefit, as outlined in the report, to Environment Canterbury taking responsibility for promulgating the controls.

**Community Outcomes.** Water quality in the recharge zone for Christchurch's water supply will be protected from the adverse effects of certain land uses.

**Statutory Responsibilities.** Initiating the variation falls within Environment Canterbury's statutory functions under the Resource Management Act.

**Effects on Maori.** Protecting water quality from discharges is consistent with Ngai Tahu/Maori water resource management outcomes.

## **CONSISTENCY WITH EXISTING POLICY, PLANS OR LEGISLATION**

Preparing the variation is consistent with the Proposed NRRP except that the variation would result in Environment Canterbury preparing the rules rather than both Christchurch City Council and Selwyn District Council having to do it.

## **VIEWS OF AFFECTED AND INTERESTED PARTIES**

See circulated report regarding submissions from Christchurch City Council and Selwyn District Council. The Proposed NRRP went through extensive consultation, including with Maori. If the variation proceeds it will involve further consultation with stakeholders, including Ngai Tahu/Maori.

## **FINANCIAL**

Costs of writing the variation will be absorbed within the NRRP water budget for 2004/05. In 2005/06, separate budget has been provided for notification and subsequent steps in anticipation of approval being given to develop the variation.

## **RECOMMENDATION**

*That the Council proceeds with a variation to amend the Proposed Natural Resources Regional Plan to provide for:*

- (a) Deletion of Proposed Natural Resources Regional Plan Chapter 4 Method WQL12(k)(d);*
- (b) regional rules: prohibiting residential, commercial or industrial development in Zone 1; and, controlling the use of nitrogen in Zone 1;*
- (c) the amendment of policies; and*
- (d) the amendment of the zone boundary of the Christchurch Groundwater Recharge Zone.*

## **Variation 3: Proposed Natural Resources Regional Plan**

### **Control Of Land Use In The Christchurch Groundwater Recharge Zone**

#### **Introduction**

Chapter 4 of the Proposed Natural Resources Regional Plan (PNRRP) contains a method under Policy WQL 12 requiring territorial authorities to change or vary their district plans to prohibit the subdivision of land for new residential, commercial or industrial development in the Zone 1 of the Christchurch Recharge Zone.

Several practical difficulties have arisen with this method, and staff believe that land use activities in Zone 1 should be controlled directly by regional rules in the PNRRP. The purpose of this paper is to set out the background to the issue and for council to consider a recommendation to proceed with a variation to the PNRRP.

#### **Background:**

Christchurch City is one of the few major cities in the world that has access to a source of untreated, high quality drinking water in sufficient quantity to meet the entire water supply needs of the City. The water is pumped from the confined aquifers situated beneath the City, and which are recharged from the adjacent unconfined aquifer to the west.

#### ***Christchurch Groundwater Protection Zone***

The area of land that comprises the “catchment” for Christchurch’s groundwater supplies is called the Christchurch Groundwater Recharge Zone<sup>1</sup>. The Zone is divided into two parts (Figure 1).

Zone 1 comprises the land to the west of Christchurch bounded by the Waimakariri River to the north and a line approximately between Halkett and Banks Peninsula to the south. Rainfall in this area and seepage from the nearby Waimakariri River enters the gravel aquifers, and the groundwater flows in an eastwards direction and enters the Coastal Confined Aquifer System that is the source of water for the City (Figure 1). Most of the land is within Christchurch City, with the remainder in Selwyn District. A significant proportion of the land is owned or administered by Environment Canterbury (Figure 1).

The groundwater in the Christchurch Groundwater Recharge Zone 1 occurs in an unconfined aquifer and it is situated quite close to the ground surface. This aquifer has little or no impermeable material overlying it, so rainfall soaks quickly into the ground, and there is little natural protection to prevent contaminants entering the groundwater (Figure 2).

Zone 2 of the Christchurch Groundwater Recharge consists of land covered largely by urban Christchurch, situated to the east of the Christchurch Groundwater Recharge Zone 1. In terms of protecting groundwater quality, Zone 2 is the area where a layer of low permeability surface sediments begins to develop and increases in thickness under the City towards the coast. As this surface confining layer of sediment thickens towards the coast, it provides a natural barrier to the downward migration of contaminants on or near the ground surface into

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<sup>1</sup> The Christchurch Groundwater Recharge Zone is defined on the planning maps that accompany Variation 1 to the Proposed Natural Resources Regional Plan

the groundwater. The groundwater beneath the confining material is under pressure, as evidenced in springs and artesian wells. This upward pressure also assists to prevent contaminants migrating downwards into groundwater. While contaminants can enter the groundwater if this layer is punctured or excavated, or the groundwater pressure drops through excessive pumping, there is a much lower risk to groundwater quality from activities on the land surface in Zone 2 than in Zone 1.

### ***Value of the groundwater resource to the Christchurch community***

- The Christchurch community places a very high value on having this high quality, untreated low cost urban water supply<sup>2</sup>.
- The water resource is also a major economic asset to Christchurch<sup>3</sup>. The Ministry for the Environment under its Water Programme of Action has identified potential water bodies of national importance. The Christchurch – West Melton groundwater system is ranked as having the highest economic value of any groundwater system in the country for existing and potential domestic use, and existing industrial use.<sup>4</sup>

### ***Vulnerability of the groundwater resource to contamination***

Several studies<sup>5</sup> have highlighted the vulnerability of groundwater in the Christchurch Groundwater Recharge Zone 1 to contamination.

Contamination will occur from:

- routine discharges into land e.g. runoff from roofs, stormwater runoff from roads, car parks etc.,
- accidental discharges or spills,
- inadequate containment or treatment systems, e.g. leaking containers or pipelines,
- sudden release of contaminants during an extreme natural event, e.g. earthquake or flood from the Waimakariri River, causing rupturing of storage tanks, pipes etc.

Expansion of Christchurch City to the west brings increasing pressure to develop the land in Recharge Zone 1. Changes in land use, such as the intensification of agricultural land use or the spread of residential and industrial development over the Recharge Zone 1 will increase the risk of groundwater contamination, and will inevitably result in a decline in groundwater quality. Should this happen the water supply for the City may need to be treated, or alternative sources of drinking water found. Each of these options involves considerable cost and results in the loss of the present supply of water that is so greatly desired. While the groundwater remains relatively uncontaminated these costs and losses are avoided.

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<sup>2</sup> ECan (2001) Summary of submissions on Our Water in the Balance – Christchurch west Melton issues and options document. Unpublished Environment Canterbury Report pp. June 2001. 59 pp.

<sup>3</sup> White et al (2004). The current economic value of the groundwater resource to Christchurch has been estimated at \$2.3 billion per year.

<sup>4</sup> MfE 2004

<sup>5</sup> Talbot et al. 1986; Hayward & Smith 1999; Lowe et al 2001; ECan 2001; Hayward 2002; PDP 2002

Experience from other countries where land uses and discharges have contaminated groundwater, in some cases causing illness and death in communities, has shown that preventing contamination of groundwater is the only viable approach to ensuring its continued use for water supply. Cleaning up contaminated groundwater to drinking water standards is unlikely to be achievable in a reasonable period.

Two prominent researchers observed:

*“ Attempts throughout the world at aquifer remediation where the goal has been to return a water-supply aquifer to a state where it meets drinking water quality standards, have almost without exception been a failure. If not an outright failure, they have made so little progress that expectation is for success not to be achieved in this century and maybe not in the next one.”*<sup>6</sup>

Planning for future growth of Christchurch is the objective of the Greater Christchurch Urban Development Strategy. This strategy will be developed during 2005/2006, and will take into account matters such as the protection of critical infrastructure for the city including the airport and the water supply<sup>7</sup>.

There are already some limitations to urban growth on land in the Christchurch Groundwater Recharge Zone. The implementation of noise contours around the airport limit residential development over part of the Recharge Zone 1, but these do not limit industrial or other land uses that are not noise sensitive.

#### **Thrust of Existing Provisions in Chapter 4 Relating to Protection of Groundwater Quality in the Recharge Zone**

Chapter 4 of the **PNRRP** identifies the vulnerability of groundwater resources in Canterbury to contamination from discharges and land use activities, and ensuring access to sources of clean drinking water as principle issues :

- Issue WQL3(2) specifically identifies that the water quality of the unconfined portion of the Christchurch Groundwater Recharge Zone is vulnerable to contamination from land use intensification and expansion of urban land uses in the area.
- Objective WQL3 is to ensure that the source water for a community drinking water supply is suitable for that use, and in the Christchurch Groundwater Recharge Zone the quality of the groundwater in the unconfined aquifer is maintained or improved so that the water entering the Coastal Confined Gravel Aquifer System is maintained in its current state and the water is suitable for human consumption without treatment. .
- Policy WQL12 establishes the steps to be taken to avoid contamination of community drinking water sources, including in the Christchurch Groundwater Recharge Zone. These provisions include:
  - All decisions under regional or district plans to change land use must recognise and provide for the protection of the quality of the community water supply;
  - Prohibiting after July 2004 the subdivision of land for residential, commercial or industrial purposes in Zone 1 of the Christchurch Groundwater Recharge Zone.
- The Methods to be used to implement Policy WQL12 are wide ranging, and include:

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<sup>6</sup> Freeze and Cherry (1989)

<sup>7</sup> Minutes urban strategy group

- Advocating to water supply authorities to promote awareness of the need for and undertake measures to protect water supply sources
  - Environment Canterbury managing land it owns or administers in a way that achieves the policies of the plan
  - Using the Regional Rules of the Plan, and conditions on resource consents to give effect to the Policy
  - Method WQL12(k)(d) which requires territorial authorities to incorporate provisions in their district plans to, amongst other things, prohibit the subdivision of land for new residential, commercial or industrial development in the Christchurch Groundwater Recharge Zone 1.
- Regional Rule WQL63 in the NRRP prohibits in Christchurch Groundwater Recharge Zone 1, new uses of large quantities of hazardous substances, and the use of land for mineral extraction except where these uses occur in the existing airport, quarry and business areas of Zone 1.
  - All of the above provisions are already in Proposed Chapter 4. It is not the purpose of this paper to raise them for debate. Rather, the key decision area relates to just one part of the methods, as bolded above. Essentially the variation will delete Method WQL12(k)(d) and add new land use control rules to the rules section of the chapter.

### **Submissions to PNRRP from the Territorial Authorities**

Christchurch City Council and Selwyn District Council have each made submissions of the provisions of Issue WQL3, Objective WQL3, and Policy WQL12 of the PNRRP

Christchurch City Council in its submission:

- supports Issue WQL3;
- supports the intent of Objective WQL3, with some minor modifications;
- supports the intent of Policy WQL12, but does not want to have to refer to a policy in a regional plan when making decisions under its district plan;
- seeks further justification of the threat posed to groundwater quality by residential land use;
- opposes the use of subdivision of land as an indicator of change in land use.

Selwyn District Council in its submission:

- supports the intent of Policy WQL12 but opposes some (unspecified) Methods;
- seeks that residential land use should only be prohibited where a significant risk to groundwater quality can be demonstrated;
- opposes the use of subdivision of land as an indicator of change in land use.

### **What Amendments to the PNRRP are Sought Through the Variation?**

1. Further consideration of the provisions of the PNRRP by Environment Canterbury staff since the PNRRP was notified has shown that Method WQL12(k)(d) employed in the PNRRP of requiring Territorial Authorities to implement prohibitions on the subdivision of land in their District Plans, may not be legally vires and is not the most effective or efficient method of implementing those provisions of Policy WQL12 that seek to prevent expansion of urban activities in Zone 1.

Staff now consider that Environment Canterbury should exercise its function under Section 30(1)(c) to control the use of land to protect water quality, and initiate a variation to:

- delete Method WQL12(k)(d)
  - prepare the necessary rules and other provisions that would allow Environment Canterbury to directly control the use of land for residential, commercial or industrial use in Zone 1 of the Christchurch Groundwater Recharge Zone.
2. Environment Canterbury Staff have recognised a wording issue with Policy WQL 12(2)(b)(i)3 and Rule WQL63. Clarification is required that where an activity is reliant on mineral extraction occurring the extraction must occur within Zone 1. Activities (such as gravel storage / processing) that result from mineral extraction outside Zone 1 are not intended to be caught by this policy.
  3. Environment Canterbury Staff have recognised a wording issue with Policy 12(2)(b)(iii) as it relates to the use of nitrogen for intensive agricultural / horticultural purposes. This issue will necessitate a new rule.
  4. Amendments to the boundary of the Christchurch Groundwater Recharge Zone ( Figure 3) should also be considered. The boundary defined in the Proposed NRRP Planning Maps intended to follow physical and administrative boundaries that reflected the hydro-geological differences between Zones 1 and 2, as far as practicable. In part this boundary follows the boundary between rural and urban zones in the Christchurch City Plan. Changes sought would include:
    - Modifying the boundary around the Yalhurst area as it is not concurrent with the City Plan due to outdated information being used when defining this boundary. The City Plan boundary has changed, and it is appropriate to make the two boundaries consistent.
    - Modifying the boundary around the Johns and Main North Roads (State Highways 1) intersection so as to recognise the existing geology / hydrogeology of a terrace. New geological / hydrogeological information has identified a confined aquifer, and it is appropriate that the confined aquifer be located with within Zone 2.
    - Modifying the Zone 1 boundary around the existing Christchurch City Business / Rural Zone boundary between Waterloo Road (State Highway 1) and Springs Road. The aquifer is unconfined and there is pressure to rezone this land for light and heavy industrial purposes.
    - Amending the Zone 1 boundary from the centre of the Waimakariri River bed to the southern edge of the primary stopbank / natural terrace. This will enable quarry operators to continue to remove aggregate from the Waimakariri River rather than the activity being prohibited.
    - Extending the boundary inland beyond Intake Road to the Waimakariri River to include all of the unconfined aquifer.

### **Why should Environment Canterbury make these Changes to the PNRRP?**

There a number of reasons that justify Environment Canterbury making these changes to the Plan. These include:

- Section 30 of the Resource Management Act describes the functions of a regional council under the Act. These functions include;
  - The establishment, implementation and review of objectives, policies and methods to achieve integrated management of natural and physical resources in the region, and

- The control of the use of land for the purpose of the maintenance and enhancement of the quality of water in water bodies (including aquifers).
- The RMA provides Environment Canterbury with the function and capability to implement land use controls to ensure that the quality of the groundwater in the Christchurch Groundwater Recharge Zone 1 is maintained or enhanced.
- Neither the Proposed Selwyn District Plan nor the Proposed Christchurch City Plan include provisions to manage land use in Christchurch Groundwater Recharge Zone for the purpose of protecting the quality of groundwater as a source of community drinking water.
- While SDC and CCC appear to support the intent of the provisions within NRRP, they may not agree to implement appropriate controls on land use. Even with their agreement, it will take many years, or quite possibly until the Plans are reviewed (2015 – 2018), to implement the necessary controls, meanwhile the water quality will be threatened by urban land use extending into Christchurch Groundwater Recharge Zone 1 as decisions are made on individual applications for subdivision lead to incremental intensification of land uses.
- Environment Canterbury’s legal advisors are not aware of any instances under the RMA where a regional council has, through a regional plan, directed a territorial authority to include specific provisions in a district plan. Further, there is no legal precedent from the Environment Court for this. Lengthy legal action could therefore result, delaying putting the necessary provisions in place. The legal advisors therefore express caution about using this approach, particularly as there is a more direct approach provided by s30 of the Act.
- Environment Canterbury can manage the process of implementing the controls. This will be more efficient than having two territorial authorities embarking on processes independently, and at different times, with Environment Canterbury overseeing these processes.
- The responsibility for the management of the controls, once established, could be devolved back to territorial authorities if this is considered desirable.

### **Why is this Variation to the PNRRP Proposed Now?**

The proposal for a variation is being suggested now because:

- The Environment Court has, under s293 of the Act, in its consideration of an application for an amendment to the Proposed Christchurch City Plan, notified that it considers there is a reasonable case for the plan amendment, and is seeking submissions to a hearing of the case. The hearing will be held in mid-2005.

The application relates to an area of land, being approximately 91 hectares, known as the Yaldhurst/Masham block, for which a change to the zoning in the City Plan is sought to allow the land to be used for residential and commercial purposes. This land is situated in the Christchurch Groundwater Recharge Zone, and currently straddles the boundary between Zone 1 and Zone 2. The boundary between the Zones in this area is the section that is proposed to be amended in the variation so that it follows the current zone boundaries of the City Plan. The suggested amendment to the boundary would mean that all of the Yaldhurst/Masham block would be in Christchurch Groundwater Recharge Zone 1.

This hearing in the Environment Court will be the first instance that the provisions of PNRRP Chapter 4 Water Quality relating to the Christchurch Groundwater Recharge Zone will be considered by the Court. Environment Canterbury's counsel for the hearing considers that its position in opposing this development will be significantly clarified if Council has embarked upon the process to introduce this variation to the PNRRP.

- The Environment Court is also considering, under s293 of the Act, the rezoning of land at the corner of Johns and Main North Roads from Rural to Living. This process has identified a confined aquifer below a natural terrace which is consistent with the adjoining Zone 2 geology. Although the zone boundary was located on easily identified land marks, so as to be acting consistently with the preceding Environment Court case, the Zone 1 boundary needs to be amended.
- Between Waterloo Road and Springs Road is land zoned Business which is located over the unconfined aquifer. The adjoining Rural Zoned land is under increasing pressure to be developed for light and heavy industrial use. Given that the geology is consistent with Zone 1, and the area bounds Zone 1, the boundary can be amended to provide greater protection to the unconfined aquifer and Christchurch City's water supply.
- The introduction of the provisions in the PNRRP relating to the Christchurch Groundwater Recharge Zone has created uncertainty for landowners in the area, as the mechanisms, process and timing to introduce controls on land use in the area are not clear. By having Environment Canterbury take responsibility for promulgating rules to control land use in Zone 1, this uncertainty will be reduced immediately, and landowners can participate in the due process of the variation to the PNRRP.
- The location of the Zone 1 boundary in the centre of the Waimakariri River will create difficulties in relation to aggregate extraction / flood control works given that the PNRRP seeks to prohibit mineral extraction within this zone. The realignment of this zone boundary will enable shingle operators to continue to remove aggregate whilst ensuring the protection of the quality of Christchurch's groundwater.
- The promulgation of land use controls to protect the source water of Christchurch City's water supply will reinforce the need to protect drinking water sources in the Greater Christchurch Urban Development Strategy.

### **Process from here**

From this point, there are two subsequent processes:

1. The initial process is to have Council consider whether to proceed with the variation. This would be sought at the Council Meeting of 31 March 2005.
2. If the Council supports the proposal for a variation then the project team would embark upon the following tasks over the periods indicated:
  - Consultation: stakeholder meetings, public meetings (1 - 29 April)
  - Undertake additional technical work - (1 - 29 April)
  - Preparation of a draft variation and section 32 report (2 -13 May)
  - Draft variation and section 32 report to Council workshop (1-2 June)
  - Council approval (30 June)
  - Notification of the variation (July 2005)

## Recommendation

*That Council proceed with a variation to amend the Proposed Natural Resources Regional Plan to provide for:*

- *Deletion of Proposed Natural Resources Regional Plan Chapter 4 Method WQL12(k)(d)*
- *regional rules: prohibiting residential, commercial or industrial development in Zone 1; and, controlling the use of nitrogen in Zone 1;*
- *the amendment of policies; and*
- *the amendment of the zone boundary of the Christchurch Groundwater Recharge Zone.*

## References

- ECan. (2001) *Our water in the balance: Christchurch West Melton rivers and groundwater: issues and options: a discussion document contributing to the preparation of the Natural Resources Regional Plan.* Environment Canterbury published report no. R01/1, January 2001.
- Freeze, A.; Cherry, J. (1989) "What has gone wrong" Guest editorial Groundwater 27(4): 458-459
- Glennie, J (2001) *Evaluation of how well minimum flow options from "Our water in the Balance" satisfy the requirements of the RPS Chapter 9 Objective 1 in relation to the Avon/Otakaro and Heathcote Rivers.* Report to Council September 2001.
- Hayward, S. (2002) *Christchurch / West Melton groundwater quality: a review of groundwater quality monitoring data from January 1986 to March 2002.* Environment Canterbury unpublished technical report U02/47, July 2002. 141 pp.
- Hayward, S; Smith, V. (1999) *Groundwater contamination by hydrocarbons in Canterbury: a review of 10 years monitoring data April 1988 to June 1999.* Environment Canterbury published technical report R99/11, August 1999. 55pp.
- Lowe, H., Rekker, J., Bright, J., Close, M. (2001) *Strategic approach to protection of groundwater quality in Canterbury.* Environment Canterbury unpublished report U01/12, February 2001.
- MfE (2004) *Water Programme of Action: Potential Water Bodies of National Importance* Ministry for the Environment, July 2004
- PDP (2002) *An assessment of the potential risk of groundwater contamination from land use activities in the Christchurch / West Melton recharge zone.* A report prepared by Pattle Delamore Partners Ltd for Environment Canterbury, 2 volumes plus appendices. Environment Canterbury unpublished report U02/49/1-2, July 2002.
- Talbot, J.; Weeber, J. Freeman, M; Mason, C.; Wilson, D. (1986) *The Christchurch Artesian Aquifers* North Canterbury Catchment Board, December 1986.
- White PA, Sharpe B, Reeves RR (2004) *New Zealand Water Bodies of National Importance for Domestic and Industrial Use* Prepared for Ministry of Economic Development, March 2004



Figure 2

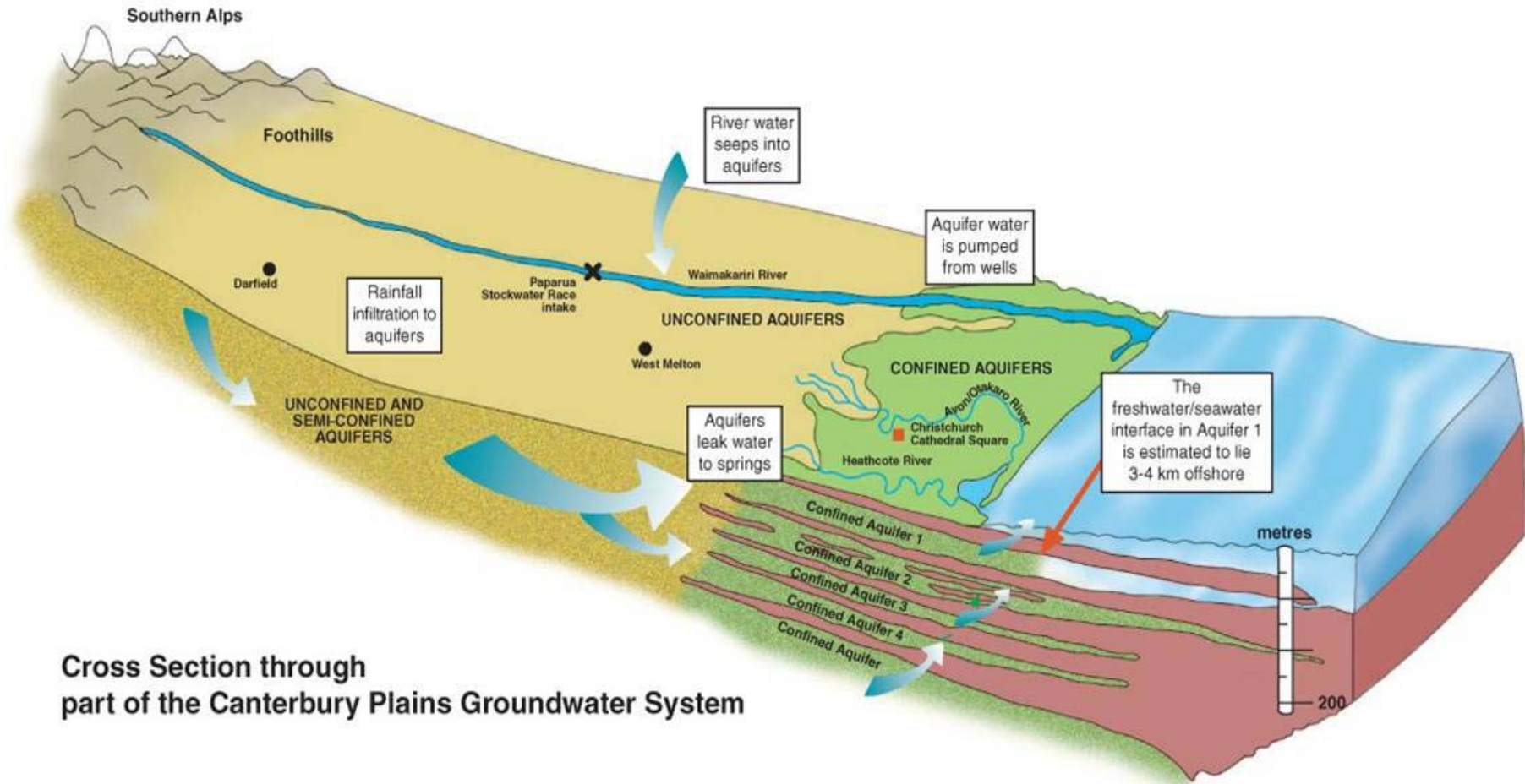
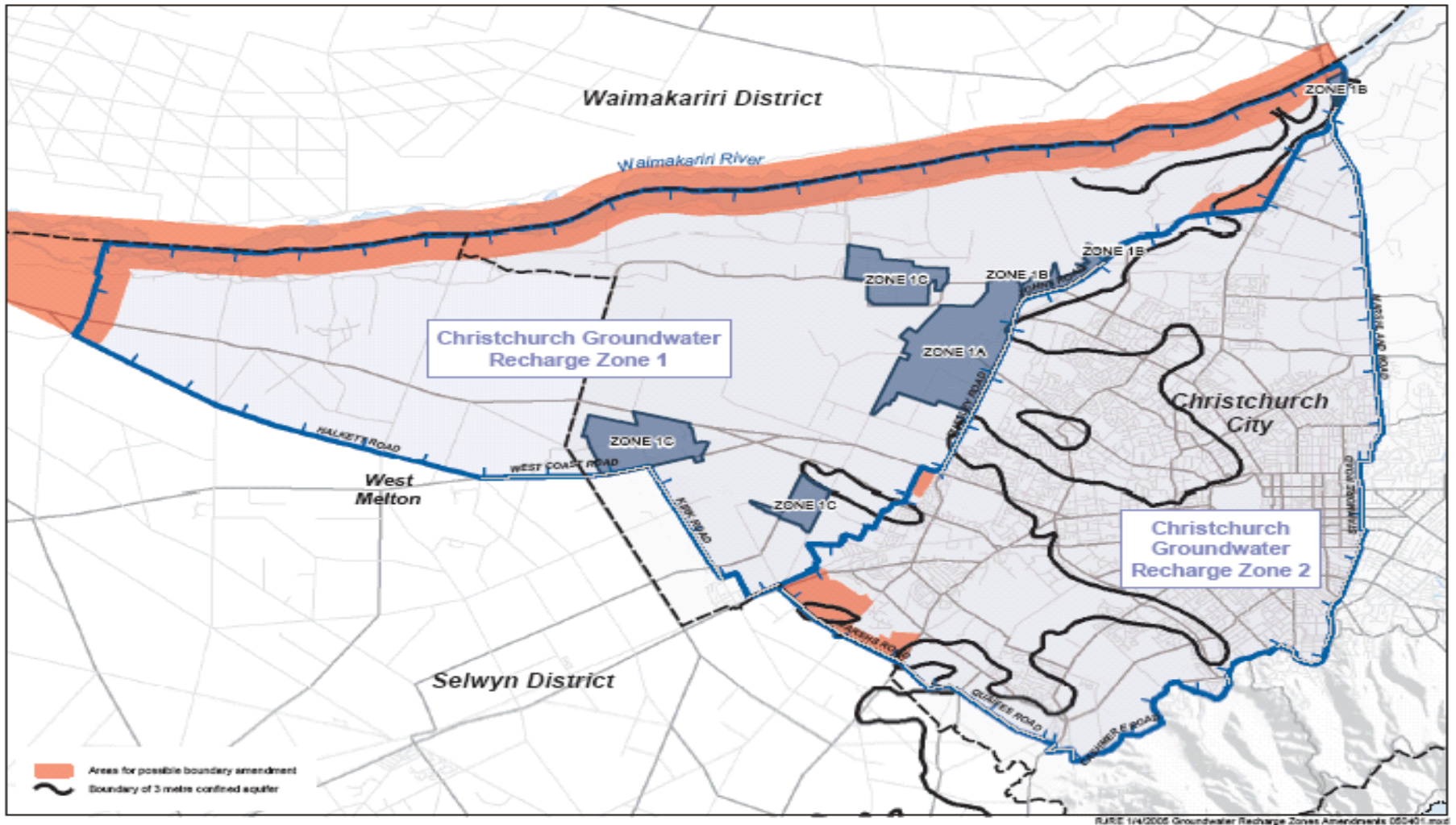


Figure 3



<b>AGENDA ITEM NO: 5</b>	<b>SUBJECT MATTER: SUBMISSION ON THE DRAFT WAITAKI WATER ALLOCATION REGIONAL PLAN</b>
<b>REPORT:</b> Council	<b>DATE OF MEETING:</b> 7 April 2005
<b>FILE REFERENCES:</b> PL5C 17	<b>PORTFOLIO:</b> Water <b>PROJECT:</b> Waitaki Plan <b>OUTPUT:</b> Submission
<b>REPORT BY:</b> John Glennie Natural Resources Policy Manager	<b>ENDORSED BY:</b> John Talbot Director Policy and Planning

## PURPOSE

The Waitaki Catchment Water Allocation Board released its draft Waitaki Catchment Water Allocation Regional Plan on the 19 February 2005, with submissions closing 20 April 2005. Council needs to approve its submission and forward it to the Board by the due date. Staff are working on a draft submission for Council to consider but it was not available for mailing out with the agenda.

## ATTACHMENTS OR DOCUMENTS PREVIOUSLY CIRCULATED

Councillors all received copies of the draft plan shortly after its notification. Please bring this to the Council meeting. Attached is a power point presentation for the meeting.

## BACKGROUND

The draft plan has been prepared under the Resource Management (Waitaki Catchment) Amendment Act 2004 by a Board appointed by the Minister and supported by MFE staff. Environment Canterbury will inherit the plan when it becomes operative and therefore needs to make a submission to ensure any concerns it has are raised for the Board to consider.

The process for plan preparation does not follow all the RMA Schedule 1 steps that other regional plans have to go through, for example, there are no further submissions or appeals to the Environment Court. Therefore, because there is only one opportunity to make input, it is vital that submitters have the opportunity to become informed about the correct way to interpret the plan so that submissions are well founded.

During preparation of the Council's submission staff were unable to get clarification from MFE or the Board of the many technical questions that arose while trying to understand the rationale for particular provisions. This was particularly so with the flow regimes/minimum flows, the specific instream values being managed for, and their individual flow requirements.

## THE PROPOSAL

This will be set out in the draft submission to be provided to Councillors. However some of the key areas being addressed are:

- a) Waitaki mainstem below the dam:

- the lack of documentation about instream values and flow needs, and therefore inadequate rationale for raising the minimum flow
  - inadequate documentation about the effects of the raised minimum flow on lake storage and the strategic capability of the generation system
  - reduced reliability of supply to existing irrigators
- b) Environmental flows/minimum flows
- Lack of detail about values and flow requirements for each value on a river by river basis
  - Minimum flows specified for reaches – no specific measuring point identified
- c) Lake Tekapo release of 3m<sup>3</sup>/s
- Possible adverse effects don't appear to have been considered
  - Sedimentation of substrate by Tekapo silt – could have significant impacts on whole aquatic ecosystem
  - Lake levels lower more frequently, for longer – amenity effects
  - Impact on strategic power generation potential
  - Potential for reduced frequency of flood releases because more storage to fill
- d) Allocation for irrigation and potential impacts on river/lake water quality
- Seeking a more integrated approach
  - Allocation should not be separated from the effects of its use
  - Major concerns about effect of increasing irrigation development – don't want a Lake Taupo type situation to develop
- e) Objectives/policies/rules
- Submissions seeking changes to content for a variety of reason, for example, for ease of interpretation/application at the consent stage, to make them workable for monitoring, etc.

## CONSIDERATION OF OPTIONS

- (a) **Options available.** The Council could choose not to submit but this would not be appropriate given the draft plan has many matters that need revisiting, the Council is the local authority most affected by the plan's content, and Council ultimately inherits the plan to implement when it becomes operative.
- (b) **Benefits and Costs.** Lack of information means such analysis is not possible in the time available. It is something that the Waitaki Water Allocation Board must do when considering all submissions.
- (c) **Community Outcomes.** The submission will help the Waitaki Water Allocation Plan contribute to Water Portfolio Outcomes 1,2,3,7,8,9,10,11,12,13 in the 2004 – 2014 Community Plan as the draft plan's content deals with all these outcomes.
- (d) **Statutory Responsibilities.** Under the RMA Amendment Act the Council inherits the operative Waitaki Water Allocation Plan to implement, including the review of existing consents and consideration of some 130 consent applications. Council will need to budget in future years for implementation and monitoring of the plan.
- (e) **Effects on Maori.** To the extent that the Council's submission is seeking adequate environmental protection to be provided through the plan, this will assist in achieving outcomes sought by Ngai Tahu.

## CONSISTENCY WITH EXISTING POLICY, PLANS OR LEGISLATION

Making a submission is provided for in the Amendment Act. The Council submission requests that some parts of the draft plan be modified to include matters covered by Proposed NRRP Chapters 4 and 5.

## VIEWS OF AFFECTED AND INTERESTED PARTIES

During the submission period there have been some informal discussions, but not consultation, with other affected local authorities and some science providers. Any party, including Ngai Tahu/Maori, is free to make a submission on the draft plan. It is not necessary that they be involved in contributing to Council's submission. Ngai Tahu, and affected runanga are almost certainly making their own submissions

## RECOMMENDATION

*That the Council approve the submission on the Draft Waitaki Catchment Water Allocation Plan and that it be forwarded to the Waitaki Catchment Water Allocation Board.*

<b>AGENDA ITEM NO: 6</b>	<b>SUBJECT MATTER: EVALUATION OF THE 2003 METRO TICKETING AND FARE CHANGES</b>
<b>REPORT:</b> Council	<b>DATE OF MEETING:</b> 7 April 2005
<b>FILE REFERENCES:</b>	<b>PORTFOLIO:</b> <b>PROJECT:</b> <b>OUTPUT:</b>
<b>REPORT BY:</b> Matthew Noon Strategic Planner (Operations)	<b>ENDORSED BY:</b>

## PURPOSE

The purpose of this report is to report back to Council on the evaluation of the 2003 Metro ticketing and fare changes.

## INTRODUCTION

In October 2003, there was a substantial overhaul to the ticketing and fares system for public transport in the greater Christchurch region.

The paper based monthly passes and operator specific multi-trip tickets were replaced with a contactless electronic smartcard, the metrocard, and the existing four hour transfer was reduced to two hours. In addition, section fares were removed and replaced with flat zonal charges.

Due to the significant impact of this change, this review seeks to evaluate the outcomes of the ticketing and fares changes against:

- Policies in the Regional Passenger Transport Plan 2002,

- Goals for the ticketing and fare system as identified to Council,
- Passenger feedback.

These criteria have been adopted as the Regional Passenger Transport Plan establishes the framework within which public passenger transport services for the Canterbury region are delivered. Any changes made to the Ticketing and Fares system must be consistent with this plan.

Prior to the introduction of the new system, significant research and analysis was undertaken with stakeholders representing all segments of the community affected by public transport. This research identified key goals and objectives that the new ticketing system should achieve and it was upon these that the Canterbury Regional Council deliberated, and adopted, the new regime. Achievement of these goals and consistency with the initial projections is also of interest.

Passenger feedback on their understanding, usage and satisfaction with the changes is the most significant criteria as the overall focus of the changes was to improve the service delivered to the customers. Without a high level of satisfaction for the new system, it would not matter if the changes were consistent with the Passenger Transport Plan, we would be failing to deliver at the most basic, but important, level.

As the ticketing and fare changes were a systemic change affecting the Greater Christchurch region, all analysis has been done on a system wide basis (i.e. no individual routes have been assessed) and South Canterbury figures have been excluded from the analysis.

It must be noted however, that it is the Regional Passenger Transport Plan 2001 which sets the policies and objectives that the ticketing and fare system must achieve. This plan will be reviewed in the 2005/06 financial year and will allow the community and Council to fully discuss and debate any desired changes to the fare system. Subsequently, this evaluation has focused on the ticketing and fare system as in effect currently and not on alternative structures.

## **REGIONAL PASSENGER TRANSPORT PLAN 2002**

As noted earlier, the Regional Passenger Transport Plan 2002 (RPTP), sets the policies and objectives that must be achieved in the delivery of public passenger transport services for the Canterbury region and any changes made to the Ticketing and Fares system must be consistent with chapters 13 (Funding) and 14 (Fares).

The following discussion looks at the relevant policies contained in these chapters and whether the changes were consistent.

### **Chapter 13: Policy 3.1**

*Environment Canterbury shall aim to recover at least between 40% and 60% of total costs of providing the subsidised public passenger transport network from fare revenue.*

For the 2003/04 financial year, system cost recovery was 51% compared to 52% for the 2002/03 year.

### **Chapter 14: Policy 4.1**

*The fare system shall primarily be used to support the patronage goals set by this plan, subject to achieving the overall cost recovery from fare revenue of at least between 40% and 60% of total costs of operating the system of contracted services.*

Fares need to be kept at levels that encourage patronage growth to be maintained and should not be used as a tool to maximise overall fare revenue.

Passenger research has shown that there has been no negative effect on patronage due to the ticketing changes. This is discussed in greater detail in section 4.4.

### **2.3 Chapter 14: Policy 4.2**

*The system of fares for use of the network shall provide for incentives for regular use of the network.*

With the previous system, other than for those passengers who purchased a monthly pass providing unlimited travel, there was no incentive for passengers to increase their patronage of the network. With the introduction of the \$3 per day (\$15 per week) maximum capped fare on the metrocard, passengers are encouraged to increase their ridership as there is no financial penalty to do so and additional travel is free.

### **Chapter 14: Policy 4.3**

*Maximum fares for use of contracted services shall be set from time to time by resolution of Environment Canterbury to achieve the patronage and cost recovery objectives of this plan.*

With the new fareset, there was a slight increase in outer zone cash fares based upon simplifying distance boundaries from the Bus Exchange to ensure legibility. The impacts of these changes were mitigated however, as passengers on the outer zone services are more likely to use a metrocard for which fare levels remained consistent with fares prior to the change.

### **Chapter 14: Policy 4.4**

*The system of maximum fares for use of the network shall provide for reduced fares only for persons under 18, and qualifying persons with a congenital or intellectual disability; and no fare shall be charged for persons under 5 accompanied by a fare paying passenger.*

The previous fares policy provided discounts to children under 15 and those between 15 & 20 who were in school uniform or could produce an authorised school identification card. This created significant confusion and inequity as an 18 year old at high school could receive half price fares while an 18 year old at polytech or university would have to pay full fare. This situation also contributed to driver/ passenger "drama" where there would be disputes over the correct fare leading to altercations.

Special discounts were also previously available to some groups such as blind passengers. The RPTP 2002 altered this to only those persons with a congenital or intellectual disability who attend workshops designed to assist their integration into the community.

Support is also provided to the transport disadvantaged through the funding requirement that fare revenue, on average, only has to meet half the total costs of providing the service. The fare levels as a whole thus enable transport to be affordable for the transport disadvantaged without additional discounts.

## **Chapter 14: Policy 4.5**

*The system of fares for use of the network to travel from one origin to a different destination shall provide for transfers within reasonable timeframes between routes and contracted operators without financial penalty.*

It is not realistic for a single scheduled bus route to service all origins and destinations. Subsequently, the transfer ticket was introduced which allowed passengers to transfer services without penalty within a set period. When three hour transfer period (later increased to four hours) was introduced, service headways were significantly greater than at present, requiring the transfer period to incorporate the maximum possible transfer time.

The four hour free transfer also made the ticket available for a return journey which became common practice and was regarded by some as an integral part of the system. The transfer ticketing system has particularly been favoured by the elderly and social welfare beneficiaries who were frequent users of transfer tickets which enabled them to make return trips within 4 hours.

There were also numerous calls for the four hours to be extended by those who could not access this “return” ticket. The four hours timeframe was seen as arbitrary which led to significant driver/passenger drama as some passengers tried to “stretch” the transfer period creating conflict for the driver.

The intention of this policy was that transfers should enable a complete journey to be made for a single fare. This would only apply for a one-way trip, not a return trip.

Inter-operator transfers were also limited under the previous paper-based ticket system as multi-trip tickets were operator specific. This required regular passengers to hold at least two multi-trip tickets to enable transfers to occur as a competitors multi ticket transfer was not assignable to another company.

The changes made as part of the ticketing and fares review have been fully consistent with this policy. It should be noted however, that the value attached to the “four hour return” by some passengers has not diminished and public feedback on this issue is still being received.

## **Chapter 14: Policy 4.6**

*Environment Canterbury shall not implement a system of peak period pricing for use of the network that has higher maximum fares at peak periods than the maximum fares for the equivalent off-peak service.*

Peak period pricing is pricing that reflects the additional capacity needed during peak periods. It also provides an incentive to spread the peak. Such a system would run counter to the objectives of this plan to increase patronage and to reward regular users of the service.

Peak periods for public transport are the same as those experienced for general traffic movements. As such, peak period pricing would, through higher fares, exacerbate congestion through making public transport less attractive when compared to alternative modes.

As the RPTP is a component of the Regional Land Transport Strategy which has a focus on containing congestion, it must be consistent with this strategy and cannot therefore allow a higher fare to be charged during the peak compared to off-peak periods.

It does not preclude higher maximum fares being specified for services that are simply being provided at increased frequencies during the peak periods.

The flat fare schedule that was introduced is consistent with this policy.

## **TICKETING & FARE SYSTEM GOALS**

The revised fare structure was set up to deliver a number of goals which were presented to Council in April 2002.

### **Faster boarding times**

With the opening of the Bus Exchange in 2000, delays due to bus stop dwell times (passenger boarding and ticket transactions) became of significantly greater concern. The move from dedicated stops in the Square to shared stops within the exchange, required all delays to be minimised and set a performance standard maximum of 2 minutes for passenger boarding.

Prior to the introduction of the metrocard, exchange boardings in the peak regularly exceeded 3 – 3.5 minutes, significantly affecting the throughput of passengers and vehicles. Since the introduction of the metrocard the average boarding times have reduced to under 1.5 minutes in the exchange as well as the faster en route boardings helping improve overall journey times.

### **Full integration of tickets and fares**

As discussed in section 2.6, the previous ticketing system penalised passengers through only partial ticket integration. Full ticket integration, including the Diamond Harbour ferry service, has now been achieved addressing one of the more significant passenger complaints.

### **Be egalitarian with discounting based on usage**

To access the discounts available under the previous ticketing system, passengers had to pay \$18.00 or \$60.00 (1 zone multi-trip or 1 zone monthly pass)<sup>8</sup>. This often penalised those on low incomes who may be public transport dependent, but who were unable to afford a large up front fee to access the discounts available.

The threshold to access the 25% fare discount was lowered to \$10 dollars with the metrocard significantly enhancing the discounts available. Some criticisms have been made regarding this \$10 threshold being too high. Substantial consideration of this level was undertaken with its appropriateness being based on:

- 45% lower than the previous threshold (\$10 c.f \$18),
- A lower threshold would result in increased reloading transactions which would delay services and be contrary to the goal of increasing boarding times,
- A \$5 dollar threshold would only provide one days travel (at \$3 per day).

Regular travellers who make 10 paid trips per calendar week, get additional trips in that calendar week free, effectively limiting the maximum fare to \$15 per week for unlimited travel (compared to a \$60 payment for unlimited monthly travel).

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<sup>8</sup> Different thresholds applied depending on the number of sections/zones traveled. One zone fares are referred to as they were the most common ticket type.

## **Reduce passenger/driver drama**

The multiple ticket types and fare zones increased the pressure on drivers and passengers to ensure that the correct fare was being paid. In instances where there were disagreements i.e., over section boundaries or transfer times, this “drama” impacted on both the passenger and the driver, who became a ticket inspector and was distracted from providing good customer service. Feedback from the operators regarding this issue, overwhelmingly endorses the ticketing changes with it making their jobs easier and quicker through removing a significant source of potential misunderstanding.

## **Simplify existing time and distance boundaries**

Previously there were in excess of 26 sections and 6 zone boundaries in the Greater Christchurch area of varying distances that were derived from old tramway markers and land uses. While there was a nominal distance of 1 mile attached to section boundaries, this was not consistent as different roads had different traffic treatments and a 1-2 section journey on the 31 Sumner route could travel 5 kilometres while the same journey on the 10 Harewood route would cover 3 kilometres – for the same price.

This system was simplified through extending zone 1 to include all areas in the Christchurch City rating area as well as Lyttelton and Rapaki. Additional zones were then identified on their distance from the bus exchange in 5 kilometre increments i.e. zone 2 – 20 km’s, zone 3 25 km’s, etc.

Similarly the 4 hour transfer time was an arbitrary period which did not treat all passengers equally and with improved frequencies, two hours in the maximum time required to reach any destination in the greater Christchurch area.

## **Be simple and logical for new passengers to understand**

As discussed above, there were a number of different ticket types and fares that applied depending on the services used and were hard for people to understand. This also created significant difficulties in trying to communicate this information to both new and existing passengers. The removal of section boundaries and flat fares has resulted in a very simple and logical system to communicate and use.

## **No financial penalties for transferring**

With the recognition that the public transport service cannot always provide a direct origin/destination link, the previous fare system penalised those passengers who were forced to transfer to reach their destination as other passengers who had a direct link could use their transfer for a return journey. In addition, while most destinations in Christchurch can be reached through one transfer, it may be quicker and easier to make two transfers (i.e. radial service to Orbiter to radial service) than transferring at the bus exchange. With the previous limit of one transfer, this option resulted in increased costs for passengers which have now been removed with the metrocard.

## **Maintain operator/system revenue flow**

The focus of the ticketing changes was to simplify the ticketing process and provide faster boarding times while not impacting on system revenue flows.

For the 6 months ending December 2004, the average fare for Christchurch was \$1.03 compared to \$0.97 for the same period in 2002.

Although the overall average fare has slightly increased, an analysis by ticket type shows that those passengers using a metrocard now pay on average \$0.89 per trip while cash passengers pay \$1.28 per trip. As the average cash fare increased, this was to be expected and provides further incentive to use a metrocard.

### Reduce potential for fraud

The potential to defraud the system was due to both the complicated section fare structure (which was difficult to enforce) and the reliance on a paper based system which was open to abuse (colour copied monthly passes, re-using tickets etc).

Through the removal of these key systemic weaknesses, the ticketing and fares system has become more robust and transparent.

### PASSENGER FEEDBACK

Although it can be seen that the ticketing and fare changes introduced in October 2003 have met all the technical goals they were designed to achieve, the most important test however is passenger satisfaction.

An independent market research company was contracted to undertake 450 on bus interviews with passengers to assess their views of the changes. In order to analyse the results of the 60+ age group separately, this sample was boosted by 110 to achieve 153 interviews of those aged 60+. The total number of interviews achieved was 560. The data was weighted at the analysis stage to represent the proportion interviewed in the main sample.

The statistical margin of error on the total sample interviewed, 560, is approximately 4.1% at a 95% confidence level. The statistical margin of error on a sample of 153 (those aged 60+) is approximately 7.9% at a 95% confidence level.

### Ticket Type

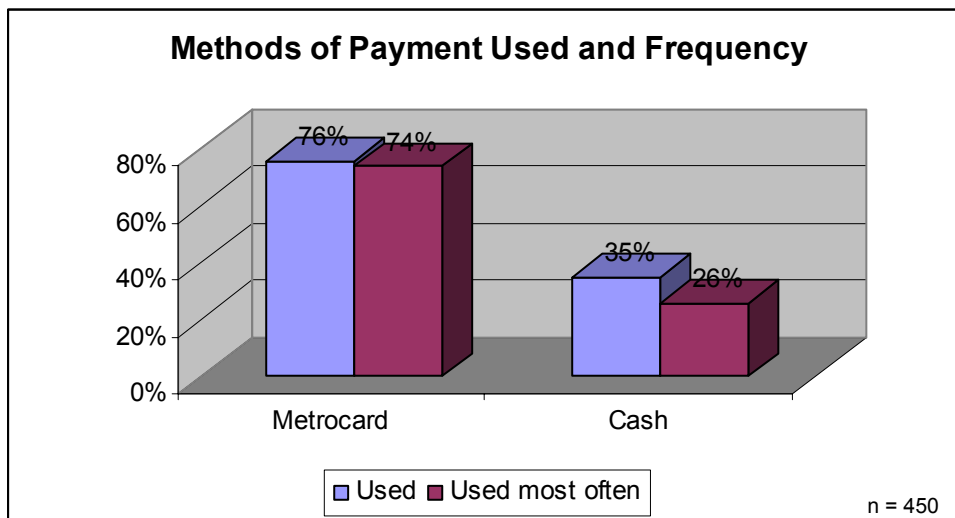


Figure 1 (note: respondents may use more than one method of payment)

It was projected, based on previous ticket sales (multi-trip and monthly passes), that 30,000 metrocards would be in use within 2 years of their introduction. By January 2005, the number

of metrocards issued exceeded 75,000 with 74% of passengers using them as their regular form of payment.

For the over 60+ age group, metrocard usage figures are slightly lower with 70% saying they use the metrocard and 30% using cash most often. It was identified in research conducted prior to the introduction of the metrocard, that the 60+ group may require additional guidance and support to adopt the metrocard.

The communication strategy conducted however, did not initially focus on key groups as it was aimed at achieving a high level of general awareness. With the high uptake of the metrocard during the first 6 – 9 months, targeted communication strategies were deferred until 2005, when sufficient time and resources could be allocated to such groups e.g. 60+.

Passengers were also asked, through an open ended question, why they did not use a metrocard.

Of the 107 bus users who did not use the metrocard, 47% stated their reasons as they “hadn’t got around to it” while 22% stated that they “don’t use the bus often enough” and 11% stated it was too inconvenient to apply for the card. For the 60+ group, the same reasons were given however, those who stated they hadn’t got around to it was slightly lower at 39% while those who felt they didn’t use the bus often enough was higher at 34%.

Given the benefits to the user through the use of the metrocard regardless of usage e.g the 25% fare discount, a concerted effort should be made to further encourage uptake of the card.

### Metrocard

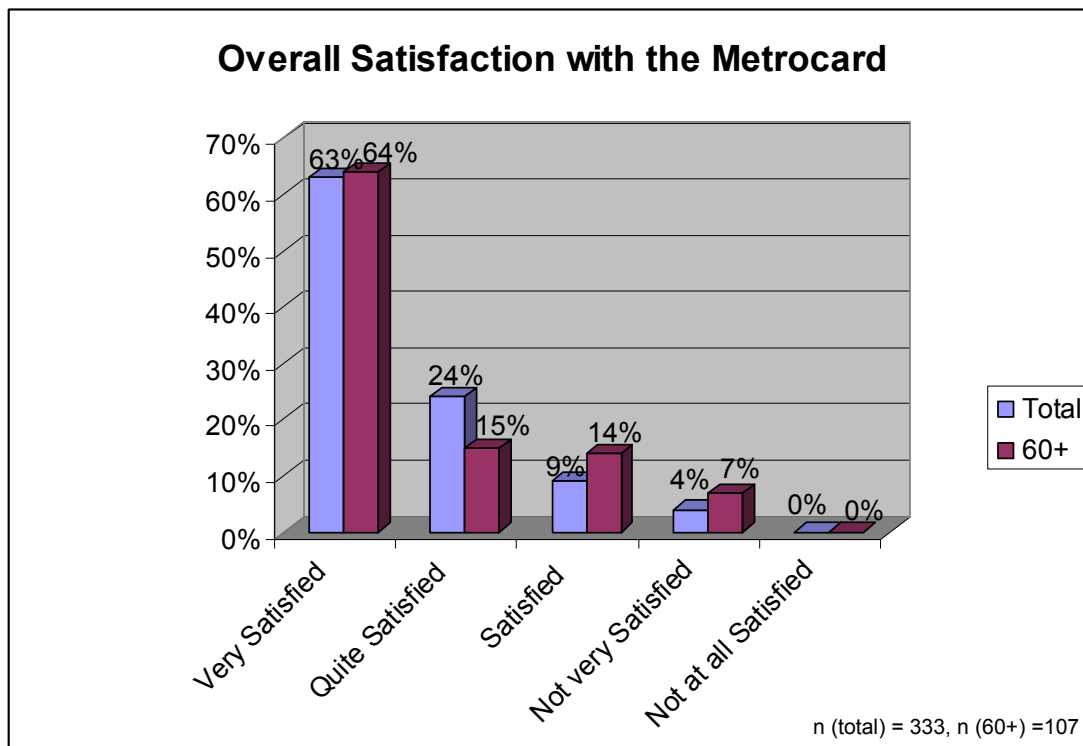


Figure 2

The majority (87%) of metrocard users were very/quite satisfied with the metrocard overall and a further 9% were satisfied.

Similarly, the 60+ group expressed a high level of satisfaction with 79% stating that they were very/quite satisfied.

The main reasons for satisfaction with the metrocard focused on:

- More convenient (41%)
- Don't need cash (35%)
- Cheaper than cash (29%)
- Easier to use buses/faster (23%)
- \$3 day/\$15 week maximum (8%)

Dissatisfaction, while low (n=11) focused on the transfer time as being too short, the minimum card top up level (\$10) and having to pay for replacement cards.

### Cost

For each method of payment used, passengers were asked how satisfied they were with the costs of using that method.

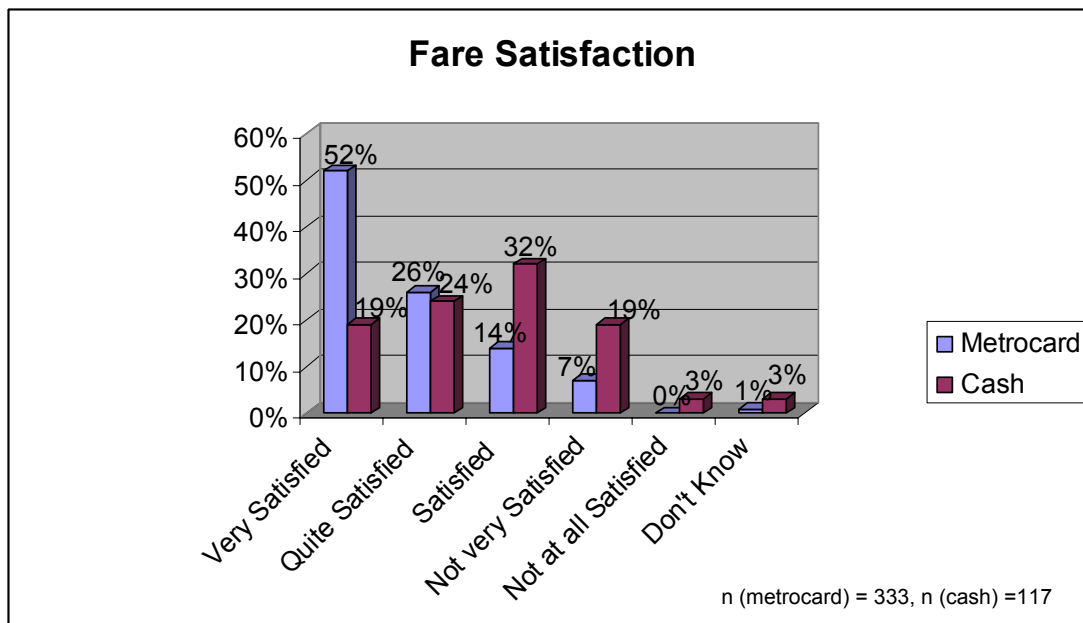


Figure 3

Nearly all metrocard users (92%) were satisfied or better with the cost of metrocard fares, with 7% not very satisfied. The overall proportion of cash fare users were less satisfied with 75% rating the cost of cash fares satisfactory or better and 22% not very or not at all satisfied.

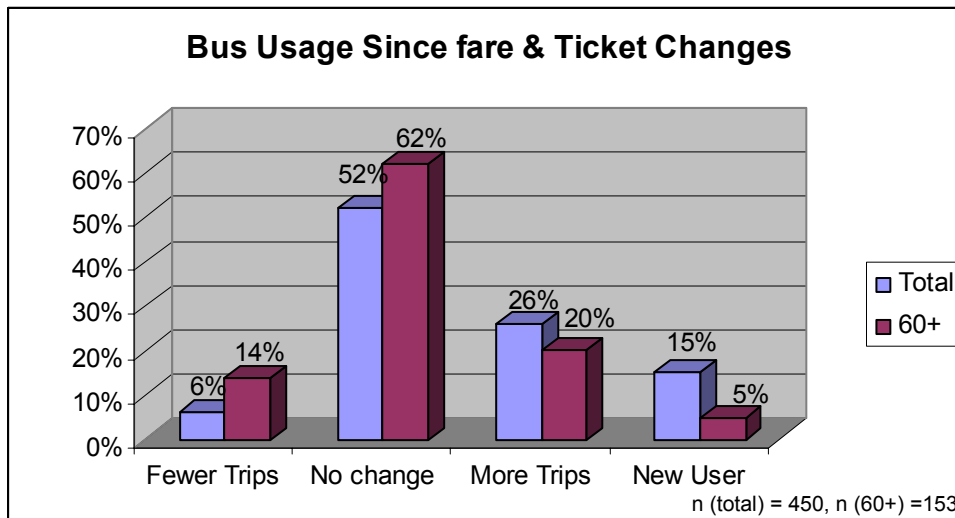
For the 60+ sample, 89% of passengers were satisfied or better with the metrocard fares compared to 68% of cash fare passengers.

While overall satisfaction levels with the cost of the metrocard were high, a sub-group analysis has shown lower levels of satisfaction with those travelling interpeak (86%) and those in domestic duties (71%) compared to other travelling periods or groups. As these groups were the most affected by the changes, a lower level of satisfaction is to be expected. Notwithstanding this however, there is a good level of satisfaction with the fare level.

The main reason for dissatisfaction with the costs of the metrocard and cash fares were they cost too much (n= 11 comments for the metrocard and n =32 comments for cash). Other reasons stated were the reduction of the transfer time from four hours to two (n= 5 & n = 9

respectively), not getting benefits if a short trip user (n = 5 & n= 1) and wanting to load less than \$10 on the metrocard (3).

### Bus Usage



**Figure 4**

As can be seen in figure 4, for the majority of passengers, the changes to the ticketing and fares system has had a neutral or positive effect on their usage.

For the 60+ group, their usage, while reflective of the changes experienced by other users does have a higher proportion making fewer trips. This can be seen to reflect the lower adoption of the metrocard constraining their ability to access the additional benefits e.g., unlimited daily travel.

As part of the original ticketing and fare structure research in 2002, passengers were asked “if this new fare structure was introduced, do you think you would use the bus for trips with Christchurch including Lyttelton more often, the same amount or less often?” This found that 7% felt they would use the bus less often for trips (13% 1-2 section users and 2% for zone users).

In the 2004 survey, with new users excluded, the total proportion claiming they make fewer trips than before the changes to fares and ticketing was 8% (15% previous 1-2 section users and 5% zone users), supporting the predications made based on the earlier research.

For those making fewer trips (n= 29), 16 respondents attributed their reduction to a change in circumstances, while 8 comments were made stating the service was expensive and a further 6 comments were made attributing it to the removal of the four hour transfer.

For the 60+ group, 10 respondents stated the loss of the four hour transfer was the most significant reason, followed by the service being more expensive (6) and change in circumstances (5).

## Ease of Travel<sup>9</sup>

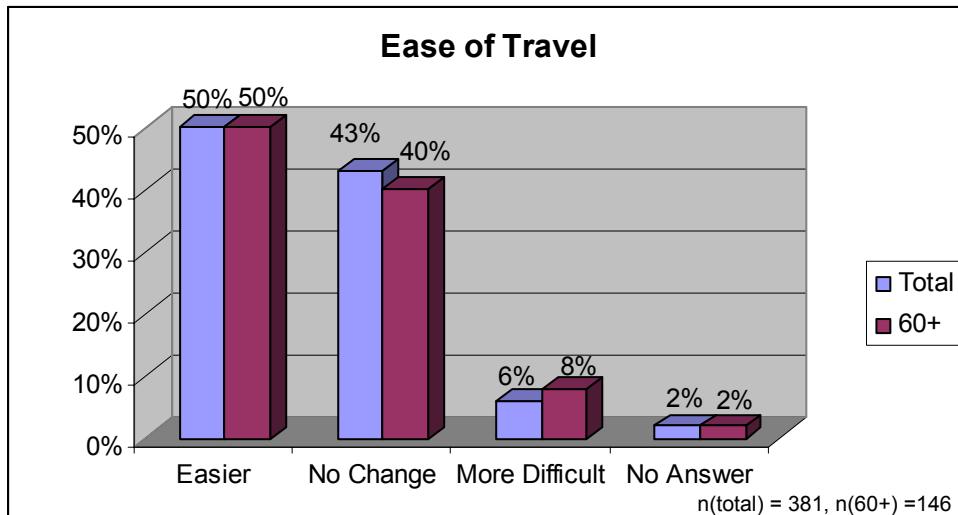


Figure 5

Half of all bus users and the 60+ group stated bus travel was now much/ a little easier compared to before the ticket changes. With approximately 40% in both groups indicating that the ease of travel had not changed.

Cash users were less likely to find their ease of travel having improved with only 32% stating it was now easier, compared to 57% of metrocard users. However, 55% of cash users had experienced no change while 10% (11) now found it more difficult.

Those respondents who thought travel was easier or more difficult were then asked to explain through an open ended question.

The majority that found travel easier gave the following reasons:

- the service offered by the metro system was better and faster (62%), this reason was also given by 73% of the 60+ group.
- 25% stated not needing cash was beneficial (21% for 60+),
- ease of use of the metrocard (16%) and,
- it was cheaper (7%).

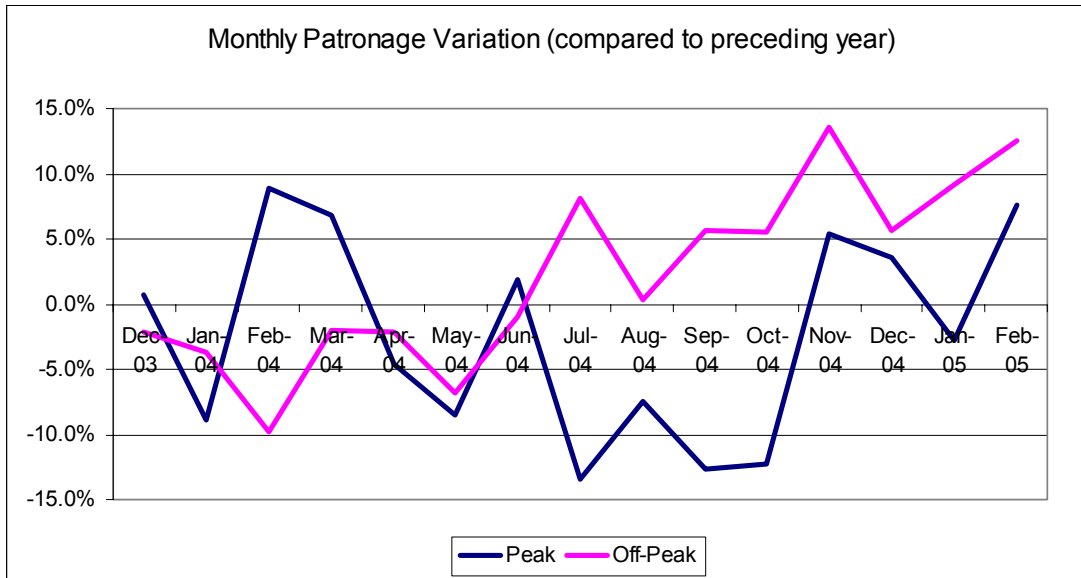
Of the 20 respondents who stated that travel was now more difficult, the majority (9) stated that it was due to the two hour transfer not being long enough, other reasons given included the monthly pass being easier (3), and that it now cost more (3). 11 respondents in the 60+ group stated it was now more difficult with the reduction in transfer time being given by 6.

## PATRONAGE IMPACTS

Since the new system was introduced, a number of calls have been received focusing on a perceived reduction in interpeak patronage and a reduction in certain groups of passengers' i.e the retired or low income.

While overall patronage did drop slightly in the 2003/04, this decline was occurring prior to the ticketing and fares changes and is reflective of similar drops in Auckland and Wellington. Since June 2004 however, this decline has slowed and interpeak patronage has increased (see figure 6).

<sup>9</sup> New bus users excluded



**Figure 6**

Similarly an analysis of passenger demographics from 2003 and 2004 has shown no discernable changes except with respect to the proportion of beneficiary/unemployed passengers which has decreased and can be attributed to the improved economic situation that has seen unemployment in Christchurch drop from 6.0% on 2002 to 4.4% in 2004.

The additional feedback received however, has highlighted some public confusion regarding the metrocard and the benefits it provides. This has been especially apparent with those in the over 60+ group. Through improved information and awareness of the metrocard, these areas can be addressed.

**CONCLUSION**

The changes introduced in October 2003 to the Christchurch Ticketing and fares system were the most significant alterations to the Christchurch passenger transport system since deregulation in 1991.

The removal of 1-2 section fares, themselves a hang-over from the tram days, the reduced transfer time and the shift to a smart card ticketing system was a substantial undertaking. The outcome however, has been extremely positive.

All of the key targets have been achieved, or exceeded:

- Faster boarding times at the exchange and en route,
- Full integration between operators,
- Removal of distance boundaries,
- No transferring penalties, and
- Maintain system revenue flow.

This has contributed to a system that has made it easier and more attractive to catch a bus through its simplicity.

The changed fare structure, especially with regard to the removal of the 1-2 section fare, has affected some passengers adversely.

The impacts on these passengers however, has to be evaluated against the improvements experienced by the greater majority with 50% of passengers now finding it easier to travel by

bus, compared to only 6% who find it more difficult. Similarly, 26% of passengers stated that they now make more trips compared to 6% who make fewer trips.

Of concern however, is the (albeit marginally) lower proportion of passengers in the 60+ age group who use a metrocard (70% compared to 74% total sample). This disparity is reflected in this group's under-representation among the passengers making more trips (20% c.f 26%) and a greater proportion making fewer trips (14% c.f 6%).

Public feedback has indicated that there is still a level of misunderstanding with respect to the metrocard, its attainment and usage. Further marketing regarding how the metrocard may be obtained and the benefits available, should encourage further uptake.

While there are still some community concerns about the reduction of the four hour transfer and the loss of 1 - 2 section fares, these are very close to what was projected and quite small compared to the benefits achieved by the ticketing and fare changes. These issues are not significant enough to require any changes to be made now, however these issues may be revisited as part of the Regional Passenger Transport Plan review in the 2005/06 financial year.

## **RECOMMENDATION**

*It is recommended that this report be received.*