



Summary of Alignment Options Assessment

Introduction

Two alignments nominally called the “River Alignment” and the “Landward Alignment” have been considered in detail for the Chystalls Extended Stopbank. **Attachment 1** shows the location of the two alignments. The upstream section of the stopbank, (approximately 600m) extending from downstream of the existing Chrystalls stopbank to the downstream boundary of Ashford Stud, of both alignments is identical.

The “river alignment” then follows the existing haul road immediately adjacent to the river and links into the North Island Main Trunk (NIMT) railway line at the northern abutment of the Otaki Rail Bridge.

The “landward alignment”, is located on the landward side of the Stresscrete yard and Winstone Aggregates extraction site, and joins into the NIMT railway line approximately 300m north of the Otaki River Bridge.

Both alignments also require a small section of stopbank to be built between the Railway line and the SH1 Bridge abutment.

Assessment of options

The assessment of options was undertaken using a multi criteria approach so that a range of attributes could be considered in the decision making process. Each of the attributes detailed in Table 1 below has been considered in detail in separate reports that outline the issues and their affect. Each of the component reports have then been summarised into a technical report titled “Chrystalls Extended Stopbank – Alignment Options Assessment Report” Report No GW/FP/T/06/145. The report has been prepared in such a way that it will be used as the basis for the designation and consent application. A copy of this report is available from the Manager, Flood Protection. The multi criteria approach is documented in more detail in the technical report. Scores between 1 and 5, where 5 is the most favourable were given to each attribute. Table 1 below summarises the scores given to each attribute with the Landward option being the favoured option with the highest score.

Table 1: Summary of Stopbank Alignment Assessment

Assessment Attribute	Riverbank Alignment	Landward Alignment
Stopbank costs	1.25	4
Security of flood protection measures	3	4.1
Planning and Landowner approvals	3.5	2.6
Environmental Effects	2.5	4.5
Construction and Maintenance	2.75	3.0
Iwi, cultural and community	2.5	3.75
Option Scores	15.50	21.95

A summary of the factors affecting each scoring is detailed below.

Costs

The total construction costs and maintenance clearly favour the Landward Alignment. A breakdown of the costs is shown in **Attachment 3** of this report. The additional cost for the River Alignment is to construct the river bank protection works to provide the necessary security to the stopbank.

Security

The Landward Alignment provides a higher level of security than the River Alignment as the majority of its length is well away from the river and more sustainable in the long term. The Landward Alignment can be more readily upgraded should future demands require. Parts of the River Alignment are located close to the active river channel meaning a higher level of bank edge protection will be required to ensure it does not get undermined in a major flood. Even with the bank edge protection works it will not be as secure as the Landward Alignment.

Construction and maintenance

Construction of the Landward Alignment will be easier because it will not disrupt the Winstones or Stresscrete operations. The Landward Alignment will be cheaper and easier to maintain, particularly, the river works.

Environmental

The Landward alignment better achieves the environmental outcomes of the Otaki Floodplain Management Plan (OFMP) and the subsequent Otaki River Environmental Strategy. One of the key environmental outcomes of the OFMP is to integrate the river and the river corridor into its wider landscape setting. The OFMP sets out to achieve this by ensuring we minimise the impacts of works, enhance the environmental values, provide a diverse habitat and enhance public access whenever we can.

Planning and land

The planning approval process for each option is roughly equal. The lower score for the landward option was because of the need to negotiate and acquire private land. The landowner has stated that he is prepared to sell the land required for the landward option provided he is fairly compensated for the loss. The designation and if necessary the acquisition process set out in the Public Works Act will ensure that he is fairly compensated. The Public Works Act process does have the potential to delay the project for up to 2 years should an acceptable agreement between the two parties be difficult to reach but the process for resolution is clearly defined and will provide certainty for Council.

Iwi, Cultural and community

The Iwi and community groups consulted over the stopbank alignment all favour the Landward Alignment.

Consultation

The alignment options have been widely consulted on over the last 12 months with support overall being for the landward option. The groups consulted with included:

- Ontrack
- Transit New Zealand
- Land Information New Zealand
- JL Andrews Limited
- Ngati Ruakawa
- Nga hapu o Otaki
- Winstone Aggregates
- Stresscrete
- Kapiti Coast District Council
- Friends of the Otaki River
- Otaki Community Board

Once a preferred alignment has been confirmed we will consult with the wider community and the adjacent landowners.

The community and Iwi groups saw the long term benefits of the Landward Alignment being greater than the River Alignment. The primary concern raised by Iwi was the groundwater water quality once the extraction is completed. An initial assessment by GW identified no major issues but more work will need to be done to confirm this. The ground water quality issue remains regardless of which option is chosen. The

environmental assessment has indicated that the landward alignment will provide better water quality in the lake because it has greater opportunity to connect the lake with the river environment. Winstone Aggregates also preferred the Landward Alignment as it creates a more effective buffer between their operation and current and future development. Stresscrete felt the Landward Alignment provided more benefits for the community in the long term and supported this option provided they continued to receive the same level of flood protection as they currently received. The Landward Alignment would do this. Ontrack and Transit were supportive of either option.