



Ruataniwha Plains Water Storage Scheme: Identification and evaluation of alternative investments

A report to the
Hawke's Bay
Regional Council

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Nimmo-Bell
& COMPANY LTD

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1 Executive summary

In considering the \$80 million investment decision by the Hawke's Bay Regional Council (HBRC) for the Ruataniwha Water Storage Scheme (RWSS), this independent review has identified and evaluated alternative investments. An overview of the Hawke's Bay regional economy and analysis of strengths and weaknesses provided the context for identifying transformational investment needs of the region.

Hawke's Bay's diverse natural resources allow for a wide range of land based rural production activity, including pastoral farming, forestry, fruit growing, wine production, vegetable growing and forestry, as well as underpinning an important tourism region in New Zealand. Together with associated processing industries and specialist manufacturing and service providers, these combine to form a substantial agri-business complex in the region. Given Hawke's Bay's major rural production and exporting orientation, it is significantly exposed to a range of external factors such as adverse climatic events (e.g. droughts), exchange rate movements and international commodity price fluctuations. Firms in the rural production sector are essentially price-takers on the international market. The majority of firms in the region are relatively small-scale and many of these have a strong service orientation. The region's manufacturing base other than processing agricultural and forest products is relatively small and significantly influenced by the state of the rural production sector. A modern and efficient transport infrastructure sector, and in particular the Port of Napier, is critical for the ongoing successful economic performance of the region.

Given the strengths and weaknesses of Hawke's Bay, investment needs to lift economic performance involve:

- Greater water availability and security for land based producers
- Increased range and specialisation in horticultural production (e.g. in dry summer cropping, based on the Hawke's Bay region's capability and experience in undertaking extensive horticultural production activity in the face of regular dry periods and major droughts)
- Increased value-added production and processing
- Further transport infrastructural improvements to facilitate freight movements to and from the Port of Napier
- Small business growth facilitation and support
- Larger proportion of jobs with higher skills and higher earnings levels within the primary production and processing sector
- Greater depth in the labour- market

HBRC's strategic economic objectives involve a preference for investing in Hawke's Bay Region where the investment qualifies as a suitable strategic, economic and financial opportunity. HBRC's investment portfolio is valued at \$297.4 million as of June 2013. HBRC's asset allocation is expected to shift from property to strategic operating infrastructural assets that produce financial returns for HBRC and economic returns for the region. From 45% of total portfolio in 2011, infrastructure investments and forestry assets are expected to grow to 68% of the investment portfolio by 2022.

Income from the investment portfolio contributes significantly to revenues of HBRC. From about 30% share of total revenues in 2011-2012, investment income is expected to contribute nearly 40%

by 2022. Over the 10 year forecast period to 2022, 86% of investment income is expected to come from dividend and net interest earnings, largely from infrastructure investments.

A valid assessment of alternative investments to the RWSS requires the alternatives to be aligned with HBRC's Investment Policy and be of the same asset class. These requirements lead to the qualifying and competitive criteria for identifying and shortlisting alternative investments to the RWSS. Alternative investments need to hurdle all qualifying criteria to be considered for short-listing and undergo competitive criteria analysis for comparison with RWSS.

Consultations with HBRC and key regional economic stakeholders including Hawkes Bay Regional Investment Company Ltd (HBRIC), Port of Napier, Hawke's Bay Airport, Business Hawke's Bay, Chamber of Commerce, Eastern Institute of Technology, Maori and regional economic development personnel and a literature review of HBRC's Long Term Plan and recent studies on Hawke's Bay economic development yielded an initial long list of investment possibilities. Filtered with qualifying criteria, 8 investment projects that had sufficient information were then profiled and assessed as being worthy for short-listing and further analysis. These included:

- Napier-Gisborne Railway
- Hawke's Bay Airport and Business Park
- Biomass from waste
- Regional processing facility
- Productive use of Maori land resources and Wairoa development
- Ngaruroro Water Augmentation Scheme
- Regional tourism development
- Oil & gas industry development

Our analysis revealed that none of these long-listed projects met the qualifying criteria for short-listing and detailed analysis.

New frameworks have been adopted to assess the financial and economic impact of the RWSS. The former utilised disaggregated Cost Benefit Analysis (CBA) between investors and farmers while the latter used the 88-sector model of the Hawke's Bay economy applying for the year ended September 2013.

The results of the disaggregated CBA scenarios for the RWSS show the following:

- Farmer Net Present Value (NPV) is positive in all scenarios (base case, slow and rapid uptake), both discount rates (5% and 8%) and across all time horizons (35, 70 and 100 years)
- Investor NPV is negative in all time and uptake scenarios at a discount rate of 8% however at 5% the rate return becomes positive for all scenarios except slow uptake over 35 years.
- From a national perspective, the 8% discount rate results in a negative NPV in the slow-uptake scenario across all time horizons and in the 35 year term for base case and rapid-uptake scenarios, otherwise it is positive. At the 5% discount rate the results are positive NPV in all scenarios across all time horizons.

All scenario results are highly sensitive to the discount rate. Which rate is appropriate is a function of perspective. From a commercial perspective the weighted average cost of capital is appropriate

which leads to a rate of plus or minus 8%. On the other hand society's discount rate is lower and more appropriately based on the social rate of time preference which is likely to be 5% or lower. On this basis there is a case for HBRC to base its decisions on the lower rate.

The main conclusions from the updated 2013 regional economic impact assessment are:

- The total Output impact for the RWSS Project construction stage is estimated at \$1.4 billion for Hawke's Bay and \$1.5 billion across New Zealand taking national flow-on into account
- In excess of 5,000 full-time job-years will be required in the Hawke's Bay region for the construction period. Butcher Partners (BP) has calculated these jobs will be spread over 12 years with 80% of the Project being completed by Year 5
- There will be a net gain due to the RWSS for Hawke's Bay regional GDP of over \$200 million annually.

Whilst most of the Output economic impacts of the RWSS will accrue to the Central Hawke's Bay district where the project is to be based, there will be flow-on gains for the other districts in particular Hastings which has a significant agricultural servicing, manufacturing and food processing base. At this stage, only relatively small gains are envisaged for Wairoa district but over the longer-term, the district (and the other parts of the Hawke's Bay region) should benefit from the general lift in economic activity and confidence in Hawkes Bay resulting from the RWSS.

The Butcher Partners report also suggests that HBRC will benefit from increased Port of Napier dividends (estimated at \$1.3 million annually) to the Council arising from the increased activity at the Port. In addition to this, the report indicates that "Councils in Hawkes Bay will benefit by an estimated \$2.4 million per year increase in rates, although this is not a pure benefit since they will have to pay for an increased range of services as a result of the increase in population and economic activity generally".

The dearth of investment ready alternatives encountered by this independent review reflects on the lack of urgency for a cohesive regional economic development and infrastructural investment plan for Hawke's Bay.

In our view, the RWSS remains the most economic alternative and a viable investment for the region considering the importance of the primary industries and the mitigation to the biggest risk to the region's economy (water shortage for agricultural production).

2 Introduction

2.1 Background and objectives

Section 77 of the Local Government Act 2002¹ requires the Hawke's Bay Regional Council (HBRC) to consider alternative options to achieving the same outcome as the \$80 million investment in the Ruataniwha Water Storage Scheme (RWSS). Consistent with Section 77, this independent review seeks to identify and evaluate alternative investments to HBRC's potential investment in the RWSS. The specific objectives of the study are to:

- i. identify potential investment **alternatives** (e.g. \$10million - \$80 million investment sizes);
- ii. evaluate their potential current and future contributions to the **Council's financial performance**;
- iii. evaluate their potential contributions to the **Hawke's Bay Region economy**;
- iv. assess their likely impacts on the promotion and achievement of **community outcomes** arising from the Council's plans and activities, including its environmental protection responsibilities;
- v. assess their **risks** to regional ratepayers and the broader regional community; and,
- vi. **compare** the results of these evaluations with the projected results of the RWSS investment.

2.2 Approach

We provide an overview of the Hawke's Bay regional economy and analysis of its main strengths and weaknesses in the context of identifying the transformational investment needs of the region. This is followed by an overview of the HBRC investment portfolio to highlight its contribution to the income base of the region to finance delivery of services to address community outcomes. In addition, a review of the asset allocation indicates the role of different assets in contributing to the financial and economic performance of the region.

Based on a review of the investment policy of HBRC, a set of criteria has been developed to identify and evaluate alternative investments. The criteria comprise 'qualifying criteria' to be used for short-listing potential alternative investments and 'competitive criteria' analysis for comparing these investments with RWSS.

Consultations with HBRC and key regional economic stakeholders (refer to **Appendix 2** for a listing of people interviewed) including HBRIC, Port of Napier, Hawke's Bay Airport, Business Hawke's Bay, Chamber of Commerce, Eastern Institute of Technology, Maori and economic development personnel canvassed ideas and information on alternative investments. This was supplemented by a literature review of HBRC's current Long Term Plan and recent studies on Hawke's Bay economic development requirements. The initial relatively long list of investment possibilities for the region then underwent a qualifying criteria analysis to determine whether or not they met the range of specific criteria (refer to **Appendix 3** for the qualifying criteria matrix analysis). A selection of 8 investment projects that had sufficient information were profiled and assessed for their suitability for short-listing and further consideration. The investment profiling process involved project description and rationale, assessment against the four 'pillars' of well-being (economic, social,

¹ See Appendix 1 for relevant sections of the Local Government Act 2002

environmental and cultural) and a determination as to whether or not they met the qualifying criteria.

Two types of economic analysis have been undertaken of the RWSS, a social Cost Benefit Analysis (CBA) and an Economic Impact Assessment (EIA). CBA is aimed at assessing economic efficiency. As such, the analysis attempts to estimate whether society is better off through the undertaking of the investment. If the net benefits (gross benefits minus costs) discounted at an appropriate rate, is positive then the investment should be undertaken. An EIA complements a CBA by examining the distributional impacts of an investment. It shows the multiplier flows of investment monies through the economy from the direct impacts of an initial investment to second round spending by businesses and then induced impacts resulting from household spending. Typically an EIA quantifies the impact of an investment on regional gross domestic product/value added, net household income and employment.

The substantive Butcher Partners (BP) consultancy report (Butcher Partners, 2013) prepared for HBRC in 2013 and its update report in February 2014 (Butcher, 2014), have been reviewed in relation to the potential economic impacts of the RWSS for the nation (Total), and the Hawke's Bay region as well as the expected spatial distribution of economic impacts over the regional economy. The evaluation specifically assessed the report's methodology and findings on:

- Cost-benefit analysis for scheme investors and farmers
- Economic impact assessment nationally, regionally and sub-regionally/local authority district level.

3 Setting the context

3.1 Overview of the Hawke's Bay regional economy

This overview section presents a short profile of the Hawke's Bay economy, key economic trends during the past decade and an assessment of the medium-term economic outlook.

Table 1: Profile of Hawke's Bay regional economy

Sector	Real GDP 2013	Regional Employment 2013	% annual average GDP growth past 5 years
Regional economy	\$4.1 billion	68,240	1.6%
Primary production and food processing sector	\$0.74 billion and 18% of total regional GDP	13,870 and 20% of total regional employment	0.1%
Other processing, manufacturing and utilities/construction industries	\$0.66 billion and 16% of total regional GDP	9,550 and 14% of total regional employment	1.9%
Services (excluding tourism but including owner-occupied dwellings)	\$2.41 billion and 59% of total regional GDP	40,040 and 59% of total regional employment	2.1%
Tourism	\$0.29 billion and 7% of total regional GDP	4,780 and 7% of total regional employment	1.0%

Source: Base data for the above calculations from the New Zealand Institute of Economic Research

The Hawke's Bay region is a relatively small component of the New Zealand economy, contributing approximately 3% to national economic activity. However, it makes important contributions to the national economy in respect of pastoral farming, horticulture, forest products, rural commodity processing and tourism. The overall economic performance of the region is consequently underpinned by the performance of its major primary industries base which also has a number of linkages to the tourism sector such as rural attractions/ amenities and the wine industry. Given the region's strong rural production orientation, its economic performance continues to be heavily influenced by 'external' factors such as climatic conditions e.g. drought, international market conditions, commodity prices and exchange rates.

The Hawke's Bay economy experienced an extended period of economic decline from mid-2006 but has been recovering gradually overall since 2008, although the global financial crisis triggered a further but shorter period of economic decline over 2009/10. Since then, annual economic growth rates of 1.9% (2011) and 2.9% (2012 and 2013) have been recorded for the region. The region's population has grown overall by only around 2% since the 2006 Census year, much less than the national figure. This is due to the region having experienced relatively high levels of net migration loss to overseas countries during the period, primarily employment related. Forecasts for the region indicate further although limited economic growth over the shorter-term. Considerably higher levels of growth are needed in the future in order for the region to improve its overall standard of living and labour productivity levels which are currently significantly below national levels.

Primary industries and related processing

The primary industries and related processing sector underpin the Hawke's Bay economy, accounting for approximately a quarter of total regional GDP and a higher proportion of total employment in the region. The sector comprises a wide range of production activities including fruit growing, vegetable growing, sheep and beef farming, dairying, forestry and logging, rural support services and rural commodity processing. The region's pipfruit production and supporting storage, transport and distribution activities represent around two-thirds of the national pipfruit industry. The region is also nationally important in respect of fruit and vegetable processing, wine-making, tanning and forest product manufacturing. In employment terms, the leading industries are, in order, pipfruit growing, meat processing, rural support services, sheep and beef farming, and fruit and vegetable processing.

Hawke's Bay is an important food processing centre in New Zealand, with this industry accounting for approximately 80% of all processing industry employment in the region. The strategic value and opportunity for the food processing industry nationally and internationally needs to continue to be recognized and enhanced in Hawke's Bay for the region's economic benefit. The region is already the base for a number of well-known major food processing enterprises such as Heinz Wattie, McCains, Enzafoods, Progressive Meats, Fresh Meats, Mission Estate Winery, Profruit, Simply Squeezed and Etika.

The rural commodity processing sector in Hawke's Bay accounts for about 40% of total regional employment in the primary production and processing industries. A significant lift in this figure, that is a much higher level of value-adding industry activity, is vital for the future economic growth and development of the regional economy. It is also important for lifting the region's already significant contribution to the country's export profile and performance. The NZ Institute of Economic Research (NZIER) is presently forecasting average annual real GDP growth for the national agricultural sector of about 2% over the medium-term, along with a similar rate of growth for the food processing sector.

Manufacturing and other secondary industries

The Hawke's Bay manufacturing sector is relatively small but diverse and in employment terms comprises principally the manufacturing of machinery, equipment and fabricated metal products. Its regional economic importance however relates to its servicing of the different needs of the rural production and processing sector. Whilst the sector has recorded a small fall in employment since the global financial crisis in 2008 nevertheless the level of employment has been stable overall during the past decade and this can be attributed in large part to its close links to the rural sector. To the extent that the region is able to further grow and develop its rural production sector and significantly expand the level of value-added industry processing in the area, there should also be more business opportunities for its specialist service manufacturing activities. This also applies to the utility services and construction industries in the region. In respect of the latter over the past decade, the farming sector has accounted for approximately 15% of the volume of all consented new building work in the Hawke's Bay region. NZIER is presently forecasting a significant 1.5-2.5% annual real GDP growth for the country's metal and machinery/equipment product manufacturing industries, for the next five years.

Services

The region's commercial services sector (broadly trade and hospitality services, transport/ storage and business services) is also closely linked to and significantly influenced by the servicing needs of the primary production and processing sectors. Specialist supporting services include for example cool storage of fruit, meat and beverage products; commodity transportation; international exporting activity; financial services; computer software provision, employment services and a wide variety of other business services. Commercial services account for approximately 40% of total regional GDP.

The Port of Napier is a critical part of the overall commercial transportation and logistics infrastructure in Hawke's Bay. Its export and import activities directly and indirectly influence a significant part of the regional economy. Over the past 25 years, international export volumes handled by the Port have almost quadrupled whilst import volumes have more than doubled. The Port is now the 4th largest container handling facility in the country. In excess of 85% volume growth is forecast for the Port over the period to 2026, given further rural production sector growth and the national promotion of shipping as a key transport mode.

Tourism

Hawke's Bay's natural resource advantages of climate, coastal location and diverse geography continue to provide the basis for a strong tourism industry in the region. Whilst the region is primarily visited by domestic New Zealand residents, nevertheless it also has a significant international market that has been boosted in recent years by increasing cruise ship tourism. Total annual direct visitor expenditure in the region is currently estimated at \$582 million, with tourism real GDP estimated at approximately \$300 million (7% of total Hawke's Bay GDP). Rural sector contributions to tourism occur in a variety of ways such as visitor spending on regional foods, rurally based visitor accommodation and tourism attractions, and the wine industry (e.g. restaurants, winery tours and cultural events).

Strengths and weaknesses of the Hawke's Bay regional economy

Hawke's Bay has relatively abundant natural resources that underpin a diverse rural production base and an important NZ tourism region, and provide a high-quality residential living environment. The modern, growing and efficient Port of Napier is critical for the ongoing successful economic performance of the region. This is supported by a significantly improving and higher quality freight roading-distribution network in the region. This is important because the regional economy is very open and linked to complex international distribution and marketing systems. Hawke's Bay is of sufficient population and business scale so as to enable the provision of a wide range of business and community facilities and services.

Given Hawke's Bay's major rural production and exporting orientation, it is significantly exposed to a range of external factors such as adverse climatic events (e.g. droughts), exchange rate movements and international commodity price fluctuations. Firms in the rural production sector are essentially price-takers on the international market. Relatively frequent drought conditions and horticultural sector irrigation requirements raise the associated issue of the lack of security of water in the region

for production activity. The majority of firms in the region are relatively small-scale and many of these have a strong service orientation. The region's manufacturing base other than processing is relatively small and significantly influenced by the state of the rural production sector.

Hawke's Bay's diverse natural resources allow for a wide range of land based rural production activity, including pastoral farming, fruit growing, wine production, vegetable growing and forestry. These activities together with associated processing industries and specialist manufacturing and service providers combine to form a substantial agri-business complex in the region. Hawke's Bay is currently one of New Zealand's key centres of horticultural production and has land ideally suited to intensive horticulture and arable cropping.

Major droughts have significant adverse flow-on impacts including continuing impacts over a period of time. An economic assessment of the impacts of the 2007 East Coast area major drought for the sheep and beef farming sector, undertaken for the Ministry of Primary Industries, indicated a \$297 million direct Value-Added loss within the sector itself and a region-wide total Value-Added loss of \$701 million over a three-year period, after comparing drought impacts with 'without drought' impacts.

There are a number of labour-force issues and challenges in the region associated with its strong rural industry orientation, such as the significant proportion of relatively low skilled work, relatively low pay rates and earnings levels, and major presence of short-term seasonal work (particularly in the horticultural industry) which requires a large short-term workforce including migrant labour. Statistics NZ information indicates that for the year ended September 2012, annual median earnings in Hawke's Bay across all continuing jobs within the primary production sector were \$38,560, compared to \$41,950 for 'all industries' and the top earnings industry figures of \$52,660 for education and training and \$50,670 for professional business services. It is noted that the comparable earnings figures for the other noticeably seasonal industries were retailing \$30,450 and tourism/hospitality services \$23,690.

Other labour-force issues in Hawke's Bay include:

- The limited number of larger employers in the region in the direct wealth creating primary production and manufacturing sectors and the dominance of very small-scale businesses across these two sectors
- An overall 10% fall in employment in the region's primary production sector since 2009.
- Since 2005, total employment within the region's processing sector has fallen by 2,110 or 22%.
- Since 2009, total manufacturing sector (excluding processing) employment has also fallen by 10%.

Given the strengths and weaknesses of Hawke's Bay, investment needs to lift economic performance involve:

- Greater water availability and security for producers
- Increased range and specialisation in horticultural production (e.g. dry summer cropping, based on Hawke's Bay's capability and experience in undertaking extensive horticultural production activity in the face of regular dry periods and major droughts)
- Increased value-added production and processing
- Further transport infrastructure improvements to facilitate freight movements to and from the Port of Napier
- Small business growth facilitation and support
- Larger proportion of jobs with higher skills and higher pay or Increased earnings levels within the primary production and processing sector linked to, for example, productivity enhancement, work upskilling and higher value production activity
- Greater depth in the labour market

Table 2: Hawke’s Bay strengths, weaknesses and development needs

	Strengths	Weakness	Regional development response
Overall	<p>Abundant natural resources; relatively diverse rural production base; an important NZ tourism region; high-quality residential living environment.</p> <p>Efficient Port of Napier; significantly improving and higher quality freight roading-distribution network</p> <p>Sufficient population and business scale</p>	<p>Significantly exposed to external factors such as adverse climatic events (e.g. droughts), exchange rate movements and international commodity price fluctuations (price-takers on the international market).</p> <p>Majority of firms relatively small-scale</p> <p>Region’s manufacturing base other than processing relatively small and significantly influenced by the state of the rural production sector.</p>	<ul style="list-style-type: none"> • Greater water security for producers • Further roading improvements and possible reinstatement of rail services to the north to facilitate freight movements to and from the Port of Napier • Small business growth facilitation and support
Primary production foundation	<p>Suitable for a wide range of land based rural production,</p> <p>Dominant pipfruit harvest and post-harvest centre</p> <p>Nationally important in fruit and vegetable processing, wine-making, tanning and forest product manufacturing.</p>	<p>Vulnerability to external threats</p> <p>Significant adverse flow-on impacts of major droughts, including continuing impacts over a period of time.</p> <p>Relatively low skilled work, low pay rates and earnings levels, and short-term seasonal work</p>	<ul style="list-style-type: none"> • Sufficient irrigation water and certainty of supply • Increased range and specialisation of horticultural production • Increased value-added production and processing • Increased earnings levels within the primary production and processing sector through productivity and value-adding
Labour	<p>Major orientation to the range of labour skills required by primary production, processing and servicing</p>	<p>Limited number of larger employers; dominance of very small-scale businesses</p> <p>An overall 10% fall in employment in the region’s primary production sector; processing sector down 22%; total manufacturing sector (excluding processing) employment down 10%</p>	<ul style="list-style-type: none"> • Larger proportion of jobs with higher skills and higher pay • Greater depth in the labour market

3.2 Overview of the HBRC investment portfolio

HBRC's investment policy complies with the Local Government Act 2002 and is consistent with HBRC's Long Term Plan and Annual Plans. The investment portfolio covers "financial assets and reserves which are held to produce a financial return within accepted risk parameters, and help achieve its strategic economic objectives, while collectively retaining their capital value over the period of their ownership." (HBRC, 2012)

HBRC specifies financial return as acceptable annual cash income and capital value. For HBRC, the target return after tax on shareholders' funds is 5%. HBRC defines acceptable risk parameters as sufficient cash (liquidity) available to fund ongoing operations; balance risks with potential gains to capital value and incomes; considers mix of investment classes and location; creditworthy counterparties having acceptable standing and credit ratings; no more than 33% of total portfolio to be invested in any one investment except for existing investments in Port of Napier Ltd (PONL), Napier endowment property and HBRC.

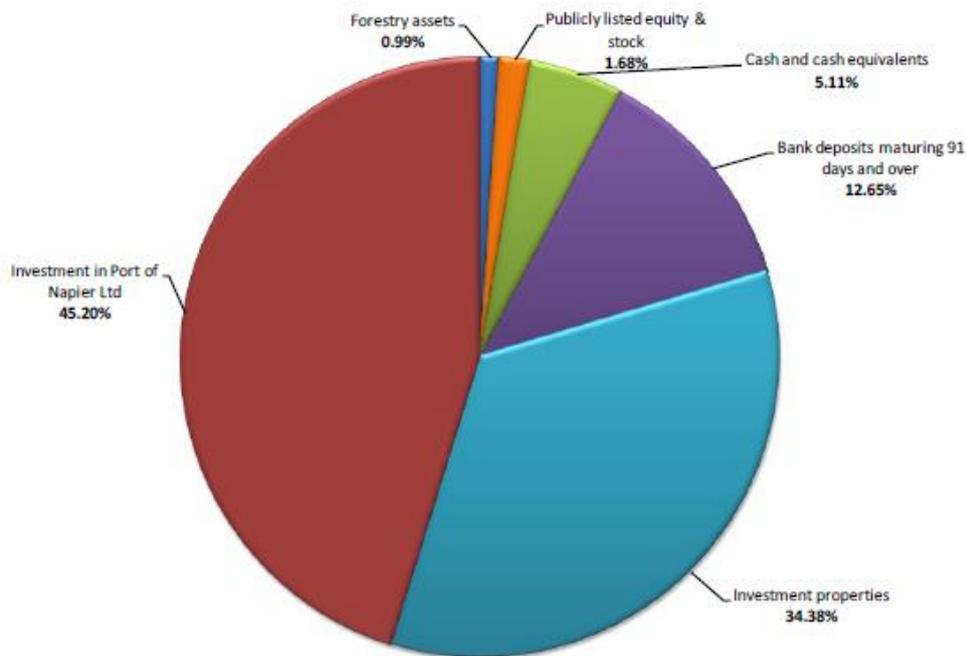
HBRC's strategic economic objectives involve a preference to investment in Hawke's Bay Region where the investment qualifies as a suitable strategic, economic and financial opportunity. Retaining capital value means optimising long term gain in capital value.

HBRC's investment portfolio totaling \$297.4 million comprise of the following assets as of June 2013 (HBRC, 2013):

- i. Financial assets
 - a. Available for sale financial assets -listed shares (\$1.2m), government bonds (\$3.5m), bank deposits (\$51.4m)
 - b. Loans and receivables (ratepayer insulation loans) - \$5m
- ii. Investment in council controlled organisation i.e. Hawke's Bay Regional Investment Company (Port of Napier Ltd) - \$177.4m
- iii. Investment property
 - a. Endowment leasehold land -\$48m
 - b. Other leasehold land - \$11.4m
 - c. Rental property - \$0.3m
- iv. Forestry - \$4.2m
- v. Derivatives (interest rate swaps) - nil

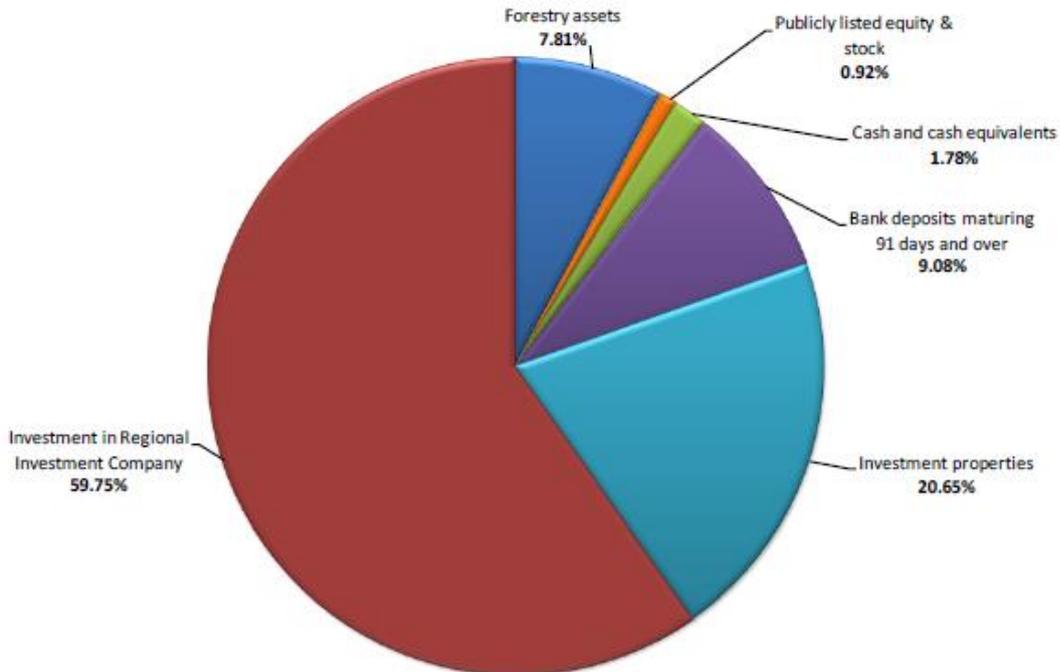
HBRC's asset allocation is expected to shift from property to strategic operating infrastructure assets that would produce financial returns for HBRC and economic returns for the region (HBRC, 2012). In 2011, investment properties account for 34% of the portfolio. By 2022, property assets shrink to 21% while infrastructure investments (HBRC) and forestry assets grow to 60% and 8%, respectively, of the investment portfolio (refer to next two charts).

Investments at 1 July 2011 (\$267 million)



Source: (HBRC, 2012)

Investments at 1 July 2022 (forecast \$488 million)



Source: (HBRC, 2012)

Income from the HBRC investment portfolio comprises of the following income statement items:

- i. Other revenue from investments
 - a. Dividends from financial assets and HBRIC
 - b. Interest income from financial assets
 - c. Rents from investment property
 - d. Gain (loss) on disposal of assets
- ii. Fair value gains (net of fair value losses) on investments
 - a. Financial assets
 - b. HBRIC investment
 - c. Investment property
 - d. Forestry
 - e. Derivatives

Income from the investment portfolio contributes significantly to revenues of HBRC. From about 30% share of total revenues, investment income is expected to contribute a greater share of total revenues rising to 40% share by 2022. Rising dividend and interest income, largely from HBRIC investments, drive increasing share of investment income. Over the 10 year forecast period, dividend and interest (net) revenues are expected to deliver 86% of investment income.

Table 3: Investment income and total revenues (2011 to 2022)

(\$'000)	Actual		Forecast									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Dividends	7,108	5,770	5,800	6,250	6,600	9,900	10,300	10,800	11,600	12,200	12,800	13,000
Interest	2,195	1,946	4,159	6,686	7,436	5,461	6,379	7,339	7,928	8,502	9,087	9,694
Interest on borrowing for investments	0	0	0	0	0	(169)	(1,144)	(2,513)	(3,563)	(4,444)	(5,213)	(5,907)
Leasehold (net of revenues sold to ACC)	3,206	3,413	1,796	141	137	137	136	136	136	136	136	136
Forestry income	0	2	90	125	221	304	546	1,113	2,048	4,595	5,070	6,525
Total investment income	12,509	11,131	11,845	13,202	14,394	15,633	16,217	16,875	18,149	20,989	21,880	23,448
Total revenues (net of investment cost)	37,754	40,084	39,746	40,589	43,090	45,263	46,571	48,233	50,515	54,562	56,650	59,081
Investment income as % of revenues	33%	28%	30%	33%	33%	35%	35%	35%	36%	38%	39%	40%

Source: (HBRC, 2012), (Collings, 2014)

4 Alternative investment evaluation

4.1 Criteria for evaluating alternative investments

A valid assessment of alternative investments to the RWSS requires the alternatives to be aligned with HBRC's Investment Policy and to belong to the same asset class as RWSS. Furthermore, the RWSS is classified as an equity investment managed by the Hawke's Bay Regional Investment Company (HBRIC) which is governed by an investment policy and statement of intent. Taking into account these restrictions, alternative investments need to hurdle qualifying criteria to be considered for short-listing and undergo competitive criteria analysis.

4.1.1 Qualifying criteria

Alternative investments need to hurdle all qualifying criteria to be considered for short-listing and undergo competitive criteria analysis. An alternative investment that fails any of the qualifying criteria listed below will not be considered in the short-list.

- i. Aligns with HBRC investment policy
Investment scope covers "financial assets and reserves which are held to produce a financial return within accepted risk parameters, and help achieve its (HBRC) strategic economic objectives, while collectively retaining their capital value over the period of their ownership." (HBRC, 2012)
- ii. Meets strategic economic objectives of HBRC
HBRC's strategic economic objective is to build and maintain an efficient export-oriented economy.
- iii. Aligns with culture and traditions of Maori
In particular ancestral land, water sites, waahi tapu, valued flora and fauna, and other taonga where the alternative investment involves Council making a significant decision in relation to land or a body of water (Section 77(c) of LGA 2002)
- iv. Equity investment class to be managed by HBRIC
While HBRIC's target investments are in water storage, land (improved land use/technology), infrastructure (commercial property) and logistics (Port of Napier Limited), it may invest in opportunities that have potential to enhance the economic well-being of Hawke's Bay and provide an adequate return (secure and sustainable over long term) (HBRIC, 2013)
- v. Investment size between \$10 million and \$80 million
HBRIC is exempt from rule in HBRC investment policy of no more than 33% of total portfolio to be invested in any one investment (HBRC, 2012)
- vi. Long term time horizon – over 10 years
- vii. Alternative investment that RWSS will 'crowd-out'
Investments that will proceed despite HBRC's \$80 million investment in RWSS will not be considered (e.g. planned investment signaled in the HBRC 2012-2022 Long Term Plan).
- viii. Will not proceed without HBRC investment
An alternative investment that will proceed without HBRC investment will not be considered.
- ix. Availability of suitably detailed project information
An alternative investment that has insufficient information (e.g. costs, benefits) will not be considered.

4.1.2 Competitive criteria

Alternative investments that hurdle the qualifying criteria will be shortlisted and assessed based on competitive criteria. The criteria may be weighted if some are considered more important than others.

- i. Regional economic growth and development impact
Regional impact measures similar to that applied in the RWSS analysis including output, value added (GDP), household income and jobs generated (Butcher Partners, 2013)
- ii. Net present value
NPV analysis comparable with the RWSS e.g. 8% and 5% discount rates, 35 year and 70 year investment horizons, NPV annuity (Butcher Partners, 2013)
- iii. Net-benefit to cost ratio
Net-benefit to cost ratio is used to rank investments given the limited pool of capital. This ratio can be computed from the RWSS cost-benefit analysis results.
- iv. Returns after tax on shareholders' funds
A minimum 5% return over the medium to long term for both dividend and interest income. For investments where HBRC has an active influence (i.e. ability to appoint member/s of the Board) an additional metric to be applied is operating surplus after tax to shareholders' funds of 10%.
- v. Ability to contribute to dividend and interest income expectations of HBRC in its 2012-2022 Long Term Plan
- vi. Risks to: regional ratepayers, broader regional community and environmental protection responsibilities
- vii. Ability to attract co-investors
This is ratio of total investment funding to HBRC funding – i.e. leverage multiplier.

4.2 Alternative investments: Profile analysis

4.2.1 Napier-Gisborne Railway

The objective of this project is to reopen and operate the Napier- Gisborne railway line as a commercial short-line freight business.

As a result of the March 2012 cyclone the Napier Gisborne line was seriously damaged. Kiwi Rail undertook an analysis comparing the costs of reopening, closing down or moth balling with the recommendation to mothball, which is the current status.

An approach was subsequently made by a group of business people to the Government to fund the reopening at a cost estimated by Kiwi Rail of \$3-\$5 million, but this has at this point been declined. The leader of the opposition has indicated that it is his hope and intention to reopen the line but this is subject to an understanding of how it could be paid for.

In June 2013 a commercial consortium announced a proposal to revive the line. The consortium includes experienced and successful road and rail transport operators, and industry representatives together with professional business advice. The consortium proposal is to raise equity of \$11 million

(no debt) for a company called Napier Gisborne Railway Ltd (NGR). The proposal is contingent on the national Government providing the funding to reopen the line.

It is intended that the company would own or lease its own locomotives, rolling stock and plant. It would be structured as a regional corporate enterprise with equity contributed by major customers, local government and potentially Treaty of Waitangi post claim entities. Subject to the line being restored for good, fit for purpose condition, NGR will commit to above and below rail maintenance and renewal costs from the beginning of the project. A key component of the project is a \$3 million Disaster Recovery Reserve to provide for future major unfavourable events such as washouts and major derailments. This is on top of normal annual budget provisions for repairs and maintenance. It is intended that the company will fully capitalise cash flows through the establishment period until breakeven at about year five.

Benefits to the region include an alternative transport mode to road, competitive pricing and improved routes security for the region significant food and fibre exported industries north of Napier. Providing good transport infrastructure will encourage further investment and development of industry and employment. Currently road transport from Gisborne south to Napier is unable to cope with 40 foot containers, the preferred method for significant amounts of primary product. There is considerable interest and commitment to the rail link as it would enable 40 foot containers to be transported to the port of Napier thus improving transport efficiency and provide the security of an alternative route.

The proposal as it stands does not meet the qualifying criteria of the Council's investment policy, as it does not meet the minimum \$10 million investment criterion. In addition, unless the government changes its view and is willing to invest the money to reopen the line it is very unlikely the project will proceed.

4.2.2 Hawke's Bay Airport and Business Park

Hawke's Bay Airport (HBA) is a key component of the regional transportation infrastructure and also of major and growing importance to ongoing economic growth and development in Hawke's Bay, from both a business development and tourism perspective. More recently, total passenger numbers through the facility have been steadily increasing (since 2010) and overall by almost 16%. The HBA Board wishes to build on this progress and to this end last year completed a long-term master development plan to guide future staged development at the Airport. The focus over the life of the plan includes catering for increased passenger numbers, the introduction of scheduled domestic jet services and working towards a trans-Tasman air link. HBA also wishes to progress further business establishment within its important new business park.

Discussions held with HBA staff for the purposes of this report identified potential investment opportunities in terms of the airport operation/business park development and the development of trans-Tasman passenger and freight capability. Aside from the potential business and tourism gains for the region resulting from the expansion of services and facilities (including the business park) at the Airport, it should also strengthen the region's national and possibly international links from both an economic and social/community perspective. However, at this time, HBA is unable to provide any comprehensive financial/business case details to support its future development intentions. Therefore, on account of this, the project does not meet the qualifying criteria.

4.2.3 Biomass from waste

The Waste Futures project concerns an investigation of future solid waste disposal approaches to be implemented in the Napier-Hastings area, following the end of the availability of the current Omarunui Landfill facility around 2027. The facility is jointly owned by the Napier and Hastings Councils. The next landfill area adjacent to the present one will incur a development cost in excess of an estimated \$50-60 million over the 60-year life of the facility. The consenting process for the new area is required to begin in 2016 and requires the Councils, amongst other things, to investigate all practicable disposal options. One of these is 'energy from waste' and an initial concept review on its feasibility indicates that it appears to be a more viable and attractive option than the current landfill approach.

Mana whenua values are an important consideration in the overall investigation, in relation to for example air discharge and landfilling impacts. A recent report from the Hastings District Council also indicates that implications for the wider community and the horticultural/food industries also need to be considered. Environmental considerations are fundamental in considering future waste disposal options within the Hawke's Bay region. It is understood that both broader waste management policy issues and specific waste disposal options are likely to be included in future local Council Annual Plan and Long-term Plan processes.

As the consideration of future long-term waste disposal options for the Napier-Hastings area is at a very early stage, it is considered that the project does not currently meet the alternative investment qualifying criteria particularly in respect of the availability of suitably detailed project information.

4.2.4 Regional processing facility

Based on the concept 'build it and they will come', the regional processing centre would process and add value to Hawke's Bay produce as well as draw from the larger catchment of Manawatu and Taupo. The scale of the regional processing centre, however, is contingent on increased production from RWSS (and possibly a Ngaruroro water scheme should it eventuate). It would require a coordinated regional approach involving Food Hawke's Bay, Business Hawke's Bay, HBRC/HBRIC, landowners, private investors (processing companies), skills training, research/incubator and logistics/infrastructure. The time horizon is over 5 years (Winder, Dunbar, & Bevin, 2012).

In economic terms, the cost and difficulty to build the plant are high but the returns are also potentially high (Winder, Dunbar, & Bevin, 2012). Cultural and environmental impact is manageable and expected to be neutral. Social impact is positive as it will generate employment, increase skills (training), develop entrepreneurship (incubator) and promote optimal use of land resources (including Maori land).

The regional processing facility fails the investment qualifying criteria test:

- It is not a true alternative as it is contingent on increased production from RWSS and possibly Ngaruroro water schemes.
- There is no available business case information.
- It has similarities to the New Zealand Food Innovation Network where there are already three centres in the North Island with Palmerston North as most proximate (others are Waikato and Auckland).

4.2.5 Productive use of Maori land resources and Wairoa development

Ngati Kahungunu is the third largest iwi accounting for 12% of New Zealand Maori population. Treaty Settlements provide the potential for Maori to be a significant investors in the region but settlements have yet to be completed and are of modest size (i.e. less than annual expenditure of local authorities). Wairoa has significant Maori-owned land. There is a case for public investment in removing barriers to productive use of Maori land and pathways to engage and secure benefits to Maori from regional development initiatives. The Ministry of Primary Industries (MPI) is a potential partner as optimisation of Maori productive resources is an objective in MPI's Statement of Intent. Investment may involve upgrading public infrastructure in Wairoa that will catalyse more productive use of Maori land (Winder, Dunbar, & Bevin, 2012).

Higher participation and economic performance is an outcome that Maori want and need to own themselves to be successful. Lifting the performance of Maori resources would deliver economic and social benefits in the region. Likely projects have a timeframe of around 5 years, investment costs which are expected to be low, difficulty high, but have potentially high returns (Winder, Dunbar, & Bevin, 2012). Investments are also expected to strengthen cultural outcomes and provide resources to enhance or protect environmental objectives. Such investments do not qualify as alternatives due to a lack of project investment information.

4.2.6 Ngaruroro Water Augmentation Scheme

This project concerns the provision of suitable water storage/surface water harvesting facilities in the Upper Ngaruroro River catchment in the region, to provide a long-term sustainable supply of irrigation water for both existing and new rural production land use in the catchment area. The Council commissioned a pre-feasibility study into the proposal in 2009. Amongst other things, the study concluded that at that time there were an estimated net 6,345 hectares of potentially new irrigable land to be serviced by community level water storage facilities, in addition to the existing irrigated area. The Ngaruroro River and Karamu Stream catchments are fully allocated and groundwater takes may be subject to minimum flow restrictions in the future. The project is intended to significantly enhance the security of water supply for both existing and new irrigators, with direct horticultural and other rural industry production gains resulting, as well as flow-on economic benefits to the Napier-Hastings area and wider region. Social benefits such as increased employment and work skill acquisition are also foreseen. Whilst the project involves the harvesting of a very important natural resource for the region, the pre-feasibility study also identifies some associated potential environmental issues that will need to be addressed, as well as cultural considerations.

As the project is currently only at the pre-feasibility stage and also included in the Council's current 2012-2022 Long Term Plan, it does not at this stage meet the alternative investment qualifying criteria in these respects. Further progress on project investigation is also contingent upon the outcome of the RWSS enquiry.

4.2.7 Regional tourism development

As part of the stakeholder consultations, a discussion was held with the General Manager of Hawke's Bay Tourism on potential future investment activity to further build the tourism 'product' base of

the region. In the course of the discussion, the following matters were mentioned - upgrading of Lake Waikaremoana tramping track support amenities, additional hotel-conference centre development, further Napier Marine Parade developments, additional Central Hawke's Bay visitor attractions, HB Airport developments including trans-Tasman air services and a funding pool for the attraction of major events to the region. It is understood that work is already underway or has recently been completed in relation to some of the listed items (e.g. hotel developments in Hastings and Havelock North, and Napier Marine Parade based tourism amenities). Tourism is an important industry for the Hawke's Bay region and to the extent that additional tourism 'product' in the area, along with existing amenities and attractions, attracts further visitors to the region, there will be associated economic and employment gains. The development of additional tourism products also provides a significant opportunity to further enhance the overall quality of the physical environment in the region, as has occurred with, for example, the upgrading of the central business areas within the four main urban settlements in Hawke's Bay and winery developments.

As it is understood that there is no formalised regional tourism 'product' development strategy in Hawke's Bay at the present time and no finalised detailed 'business cases' for the items listed above, it is considered that they do not meet the 'qualifying investment' criteria.

4.2.8 Oil & gas development

Hawke's Bay forms part of the 120,000 square km East Coast Basin (on-shore and offshore). MBIE considers this basin as the most promising shale oil source and gas hydrate area. On-shore exploration has been put on hold due to concerns with hydraulic fracturing while the Parliamentary Commissioner for the Environment conducts a national inquiry on environmental impacts of fracking in New Zealand. Exploitation of oil and gas resources involves multi-stage and mainly private investments taking many years to progress from exploration to production (5 to 20 years horizon) (Winder, Dunbar, & Bevin, 2012). There is an opportunity for the Port of Napier (in competition with Wellington) to invest in infrastructure that would service exploration activities in the short term and production in the long term.

In economic terms, the investment requirements are high, difficulty is moderate to high and returns are uncertain but potentially very high. In Taranaki, the oil and gas industry generated 5,090 direct and indirect jobs (FTEs) (Winder, Dunbar, & Bevin, 2012) thereby providing substantial social benefits. Cultural and environmental impacts are uncertain.

Development of oil and gas infrastructure is a potential regional investment, but not a suitable alternative investment to the RWSS at this stage due to uncertain cultural impacts and a lack of investment plans.

5 Assessment of RWSS cost-benefit and economic impacts

5.1 CBA review framework

The CBA review framework disaggregates the national costs and benefits into investors (which include HBRC) and farmers (ratepayers) to determine the net benefits to each of these key parties. This framework makes transparent the distribution of net benefits. From a national perspective, the benefit from RWSS is increased farm profit before water charges. Water charges are mainly transfers from farmers to investors to pay for irrigators' share of the off-farm capital and operating costs of the scheme. On disaggregated basis, water charges are a benefit to investors and a cost to farmers (i.e. deducted from farm profit).

The base case assumes a project life of 35 years. Two longer timeframes are considered: 70 and 100 years. In these cases ongoing maintenance, capital renewal and decommissioning costs should be considered. Maintenance and capital renewal costs especially for equipment with shorter life than the dam (e.g. pumps) have been factored in the cashflow through the use of economic depreciation, but decommissioning costs have not. However with the long time frame and the effect of discounting, these latter costs at the end of RWSS life are expected to be immaterial.

5.2 CBA findings

Farmer NPV is positive (see table below) in all scenarios (base case, slow and rapid up-take), both discount rates (5% and 8%) and across all time horizons (35, 70 and 100 years).

Investor NPV is negative in all time and uptake scenarios at a discount rate of 8% however at 5% the rate return becomes positive for all scenarios except slow uptake over 35 years.

From a national perspective, the 8% discount rate results in a negative NPV in the slow-uptake scenario across all time horizons and in the 35 year term for base case and rapid-uptake scenarios, otherwise it is positive. At the 5% discount rate the results are positive NPV in all scenarios across all time horizons.

Table 4: Cost-benefit analysis: Net benefits for investor, farmer and New Zealand

Scenarios	Investor	Farmer	National
Base case at 8%			
35 years	-	+	-
70 years	-	+	+
100 years	-	+	+
Base case at 5%			
35 years	+	+	+
70 years	+	+	+
100 years	+	+	+
Slow up-take at 8%			
35 years	-	+	-
70 years	-	+	-
100 years	-	+	-
Slow up-take at 5%			
35 years	-	+	+
70 years	+	+	+
100 years	+	+	+
Rapid up-take at 8%			
35 years	-	+	-
70 years	-	+	+
100 years	-	+	+
Rapid up-take at 5%			
35 years	+	+	+
70 years	+	+	+
100 years	+	+	+

Clearly, the lower discount rate of 5% makes RWSS acceptable in a cost-benefit analysis for investor, farmer and national perspectives. Even negative NPV for investors at 35 years can turn positive with the attribution of residual value to investors. The 5% discount rate complies with HBRC investment policy which requires minimum 5% return on shareholder funds over the medium to long term for both dividend and interest income (see 4.1.2 (iv)).

A different discount rate may apply for investors and farmers. Infrastructure investors such as RWSS investors typically have long term time horizons and expect stable cashflows. Farmers, in contrast, have diverse businesses, more volatile cash cashflow and higher risk exposure. As a result, investors can accept a lower discount rate than farmers. This can be seen in the nominal weighted average cost of capital in the New Zealand Stock Exchange. As at June 2013, while the overall market has a weighted average cost of capital of 8.4% (similar to the Treasury discount rate of 8%), the agriculture and fishing sector average 10% compared with the less risky energy sector which averages 7.6% (PWC, 2013). Adjusting for a long term inflation expectation of 2.5%, agriculture and fishing becomes 7.3% while energy sector becomes 5%.

5.3 Disaggregated CBA scenarios

At 8% discount rate, national NPV is marginal at 35 years even with the inclusion of RWSS residual value. Extending the time horizon twice or more, NPV turns positive at 70 years and 100 years. However, positive NPV is driven by farmer returns while investors experience marginal NPV.

Table 5: Base case at 8% (35, 70 and 100 years)

(\$'millions)	Investors	Farmers	Total
NPV at 8% over 35 years			
Water charges	191		191
Electricity generation	12		12
Increased farm profit		283	283
Capex (scheme)	-251		-251
Capex (farm)		-235	-235
Scheme operating costs	-27		-27
Net benefit	-75	48	-27
Benefit/cost ratio (x)	0.73	1.20	0.95
Residual value			8
Net benefit with RV			-19
NPV at 8% over 70 years			
Water charges	212		212
Electricity generation	13		13
Increased farm profit		317	317
Capex (scheme)	-251		-251
Capex (farm)		-235	-235
Scheme operating costs	-30		-30
Net benefit	-56	82	26
Benefit/cost ratio (x)	0.80	1.35	1.05
NPV at 8% over 100 years			
Water charges	213		213
Electricity generation	13		13
Increased farm profit		319	319
Capex (scheme)	-251		-251
Capex (farm)		-235	-235
Scheme operating costs	-30		-30
Net benefit	-55	84	29
Benefit/cost ratio (x)	0.80	1.36	1.06

At 5% discount rate, national NPV is positive across all time horizons starting at \$207 million at 35 years and reaching \$445 million at 100 years. Both investor and farmer NPV's are positive across all time horizons.

Table 6: Base case at 5% (35, 70 and 100 years)

(\$'millions)	Investors	Farmers	Total
NPV at 5% over 35 years			
Water charges	310		310
Electricity generation	18		18
Increased farm profit		468	468
Capex (scheme)	-266		-266
Capex (farm)		-280	-280
Scheme operating costs	-43		-43
Net benefit	19	188	207
Benefit/cost ratio (x)	1.06	1.67	1.35
Residual value			21
Net benefit with RV			228
NPV at 5% over 70 years			
Water charges	390		390
Electricity generation	21		21
Increased farm profit		598	598
Capex (scheme)	-266		-266
Capex (farm)		-280	-280
Scheme operating costs	-52		-52
Net benefit	93	318	411
Benefit/cost ratio (x)	1.29	2.14	1.69
NPV at 5% over 100 years			
Water charges	404		404
Electricity generation	22		22
Increased farm profit		620	620
Capex (scheme)	-267		-267
Capex (farm)		-280	-280
Scheme operating costs	-54		-54
Net benefit	105	340	445
Benefit/cost ratio (x)	1.33	2.21	1.74

The slow up-take scenario at 8% discount rate makes national NPV marginal across all time horizons. The marginal NPV is driven by poor investor NPV across all time horizons while farmers experience positive NPV.

Table 7: Slow up-take at 8% (35, 70 and 100 years)

(\$'millions)	Investors	Farmers	Total
NPV at 8% over 35 years			
Water charges	166		166
Electricity generation	13		13
Increased farm profit		245	245
Capex (scheme)	-251		-251
Capex (farm)		-207	-207
Scheme operating costs	-26		-26
Net benefit	-98	38	-60
Benefit/cost ratio (x)	0.65	1.18	0.88
Residual value			8
Net benefit with RV			-52
NPV at 8% over 70 years			
Water charges	186		186
Electricity generation	14		14
Increased farm profit		278	278
Capex (scheme)	-251		-251
Capex (farm)		-207	-207
Scheme operating costs	-28		-28
Net benefit	-79	71	-8
Benefit/cost ratio (x)	0.72	1.34	0.98
NPV at 8% over 100 years			
Water charges	188		188
Electricity generation	14		14
Increased farm profit		281	281
Capex (scheme)	-251		-251
Capex (farm)		-207	-207
Scheme operating costs	-28		-28
Net benefit	-77	74	-3
Benefit/cost ratio (x)	0.72	1.36	0.99

Even at slow up-take rate, NPV at 5% across all time horizons remain positive starting from \$144 million at 35 years and reaching \$383 million at 100 years. However, investor NPV is marginal at 35 years and turns to positive NPV if residual value of \$21 million is attributed mainly to investors.

Table 8: Slow up-take at 5% (35, 70 and 100 years)

NPV at 5% over 35 years			
Water charges	274		274
Electricity generation	19		19
Increased farm profit		414	414
Capex (scheme)	-266		-266
Capex (farm)		-256	-256
Scheme operating costs	-41		-41
Net benefit	-14	158	144
Benefit/cost ratio (x)	0.95	1.62	1.26
Residual value			21
Net benefit with RV			165
NPV at 5% over 70 years			
Water charges	355		355
Electricity generation	22		22
Increased farm profit		544	544
Capex (scheme)	-266		-266
Capex (farm)		-256	-256
Scheme operating costs	-51		-51
Net benefit	60	288	348
Benefit/cost ratio (x)	1.19	2.13	1.61
NPV at 5% over 100 years			
Water charges	369		369
Electricity generation	23		23
Increased farm profit		566	566
Capex (scheme)	-267		-267
Capex (farm)		-256	-256
Scheme operating costs	-52		-52
Net benefit	73	310	383
Benefit/cost ratio (x)	1.23	2.21	1.67

The rapid up-take scenario at 8% discount rate shows an improvement in national NPV at 35 years but not enough to make NPV positive even with inclusion of residual value. Longer time horizon at 70 and 100 years make NPV positive. However, investor NPV remains marginal across all time horizons.

Table 9: Rapid up-take at 8% (35, 70 and 100 years)

(\$'millions)	Investors	Farmers	Total
NPV at 8% over 35 years			
Water charges	199		199
Electricity generation	12		12
Increased farm profit		295	295
Capex (scheme)	-251		-251
Capex (farm)		-244	-244
Scheme operating costs	-27		-27
Net benefit	-67	51	-16
Benefit/cost ratio (x)	0.76	1.21	0.97
Residual value			8
Net benefit with RV			-8
NPV at 8% over 70 years			
Water charges	220		220
Electricity generation	12		12
Increased farm profit		329	329
Capex (scheme)	-251		-251
Capex (farm)		-244	-244
Scheme operating costs	-30		-30
Net benefit	-49	85	36
Benefit/cost ratio (x)	0.83	1.35	1.07
NPV at 8% over 100 years			
Water charges	221		221
Electricity generation	13		13
Increased farm profit		331	331
Capex (scheme)	-251		-251
Capex (farm)		-244	-244
Scheme operating costs	-30		-30
Net benefit	-47	87	40
Benefit/cost ratio (x)	0.83	1.36	1.08

The rapid up-take scenario at 5% discount rate shows positive national NPV across all time horizons. Both investor and farmer NPV's are positive across all time horizons.

Table 10: Rapid up-take at 5% (35, 70 and 100 years)

(\$'millions)	Investors	Farmers	Total
NPV at 5% over 35 years			
Water charges	321		321
Electricity generation	18		18
Increased farm profit		484	484
Capex (scheme)	-266		-266
Capex (farm)		-288	-288
Scheme operating costs	-43		-43
Net benefit	30	196	226
Benefit/cost ratio (x)	1.10	1.68	1.38
Residual value			21
Net benefit with RV			247
NPV at 5% over 70 years			
Water charges	401		401
Electricity generation	21		21
Increased farm profit		615	615
Capex (scheme)	-266		-266
Capex (farm)		-288	-288
Scheme operating costs	-53		-53
Net benefit	103	327	430
Benefit/cost ratio (x)	1.32	2.14	1.71
NPV at 5% over 100 years			
Water charges	415		415
Electricity generation	22		22
Increased farm profit		637	637
Capex (scheme)	-267		-267
Capex (farm)		-288	-288
Scheme operating costs	-55		-55
Net benefit	115	349	464
Benefit/cost ratio (x)	1.36	2.21	1.76

All scenarios are highly sensitive to the discount rate. Which rate is appropriate is a function of perspective. From a commercial perspective the weighted average cost of capital is appropriate which leads to a rate of plus or minus 8%. On the other hand society's discount rate is lower and based on the social rate of time preference which is likely to be 5% or lower.

5.4 EIA review framework

The focus of the review was on the methodology and analysis of Butcher Partners (BP, 2013 and 2014) in determining the Hawke's Bay region economic impacts of the RWSS and on quantifying the district level economic impacts. BP was not requested by the Council to quantify the latter impacts in their analysis.

The original report compiled by BP detailed the net regional economic impacts of the construction stage for the RWSS (including associated on-farm investment), increased pastoral and horticultural production and also additional processing activity. The resulting impacts estimates indicated the project to be of significant net benefit to the Hawke's Bay economy, with the project construction stage increasing regional GDP by a one-off amount of \$410 million (over a 12-year period covering actual project construction and related on-farm investment), along with a total employment impact of 4,700 job-years and additional household income generation of approximately \$270 million.

The annual economic impacts of the increased agricultural production resulting from the RWSS, once at full development, are estimated by BP at additional regional GDP of \$136 million, fulltime equivalent employment of 1,310 and additional net household income of \$59 million. These results incorporate multiplier impacts. The tentatively estimated impacts of additional processing activity in the region flowing from the increased agricultural production are additional GDP of \$120 million, FTE employment of 1,210 and additional Net Household Income of \$67 million.

The BP analysis of regional economic impacts of the RWSS for the Hawke's Bay economy used a year ended March 2007 input/output model for the region specifically constructed by BP. This is standard procedure for projects of this nature and resulting estimates of impacts for output or sales revenue, net (after tax) household income, employment/ jobs and value added/ gross regional product (regional GDP) for any particular project or event, can be objectively estimated using these models. All values were quoted in 2012 prices. It is noted that all estimates are dependent on the initial base primary data such as project cost and additional hectares irrigated, being as accurate as possible and this is assumed to be the case for the BP analysis.

Subsequent to its initial report in 2013, BP has revised upwards its earlier impact estimates thus resulting in the RWSS Project being slightly more attractive than the original estimates indicated. It is understood that the revisions followed the receipt of updated base financial/expenditure data for the project.

Deriving the economic impacts from construction is a relatively straight-forward process of aggregating the initial cost of all construction required (the RWSS Project itself plus on-farm investment) to derive the direct construction impacts. Using an appropriate economic impact model, the flow-ons from the construction expenditures within the regional economy (inputs from Project suppliers and additional household expenditure) can be estimated and added to the direct impact to derive the total impacts from all the construction activity. Typically for a regional economy such as Hawke's Bay, the direct construction output impact can be doubled via a multiplier to give the total impact for the regional economy in question. The total national or NZ-wide output impact will generally be slightly higher. If the construction stage requires some imported content from outside NZ, this will lower the overall GDP impact which is also estimated from the model as noted above.

The most important impacts from the RWSS arise out of increased irrigation of farmland allowing ongoing increased primary production as well as increased downstream processing, in the Hawke’s Bay economy. These impacts contribute to sustaining growth in the regional economy. Deriving these economic impacts is, however, more challenging than determining construction stage impacts. First, there is the challenge of estimating the value of increased primary production of vegetables, milk solids, and lamb for example. Secondly, there is the question as to whether there is sufficient capacity in the downstream processing sectors within the region to utilize the increased primary production (or will other regions benefit due to greater scope and diversity of existing processing capabilities). For example, the existing lack of milk solid processing capability and activity within the Hawke’s Bay region means that majority of any increased milk production will likely go to another region (at least initially) for processing.

5.5 EIA findings

The economic impacts for the Hawke’s Bay economy for RWSS construction and on-farm investment were calculated by BP using a March 2007 economic impact model of the Hawke’s Bay economy. These calculations have been reviewed using an 88-sector model of the Hawke’s Bay economy applying for the year ended September 2013 (WH Model). Not all impacts have been estimated separately. Only the Output impact measure has been independently estimated but all other impacts (jobs, income and value added or GDP) follow from the Output impact and concentrating on this impact measure is considered sufficient for validation purposes. The results in Table 11 indicate noticeably higher total economic impacts for the full construction stage with the use of the updated regional economic impact model, as this model incorporates changes in the structure of the regional economy since 2007 that impact the input-output linkages between different industries.

Table 11: Construction impact for Hawke’s Bay regional economy

Model Estimate	Output \$ millions	Jobs Job – years	Value Added \$ millions	Household Income \$ millions
BP revised estimates	1,200	4,700	410	270
Model y/e Sept 2013	1,366	5350*	468*	307*

*Estimated as 1366/1200 of value in BP row estimates above

Table 12 indicates the comparative construction stage flow-on impacts within the Hawke’s Bay region for the two models as well as the flow-on impacts to the rest of New Zealand under the later model. It is noted that the BP report does not estimate flow-ons from outside Hawke’s Bay but estimates from the WH model show a total New Zealand-wide impact of \$1,518 million. While construction cost estimates are often subject to change, the later model indicates a total regional output economic impact that is 14% higher than the BP figure which used an earlier Year 2007 model.

Table 12: Comparative Hawke’s Bay Construction Output Impacts for the Different Economic Models

Investment & Region	BP Model y/e Mar 2007 \$ millions	WH Model y/e Sep 2013 \$ millions
Total Direct Costs	690	690
Flow-ons from Hawke’s Bay	510	676
Total Impact Hawke’s Bay	1,200	1,366
Flow-ons from Rest of NZ		152
Total NZ-wide Impact		1,518

WH: Warren Hughes

Table 13 indicates the approximate allocation of the construction impacts amongst the various Hawke’s Bay local authority districts and also the Rest of NZ (RONZ) using the WH model. Whilst most of the Output impact will occur in the Central Hawke’s Bay District (80% of the total regional Output figure), a proportion of the associated input and labour requirement will be sourced from outside CHB district including the rest of New Zealand. This means that the CHB district’s share of the total regional employment, value added and household income economic impacts is considerably lower than for the Output impact. 90% of the New Zealand-wide construction impacts for the RWSS are realised within the Hawkes Bay region. Information provided by HBRC was used to assist in determining the district breakdown of the RWSS construction stage expenditure activity.

Table 13: Total Construction Stage Impacts for Hawke’s Bay Local Authority Districts and Rest of New Zealand

District or Region	% of Total NZ Output	Output \$ millions	Job-Years	Value Added \$ millions	Household Income \$ millions
Wairoa	1.3	20	514	50	30
Hastings	11.2	170	2000	170	115
Napier	5.6	85	1000	87	57
Central Hawke’s Bay	71.9	1091	1836	161	105
Hawke’s Bay Impact	90.0	1,366	5,350	468	307
Rest of NZ	10.0	152	377	32	23
NZ-wide Impact		1,518	5,727	500	330

The RWSS Project will provide additional irrigation capacity for approximately 25,000 hectares in Hawke’s Bay. This will allow extra production from pastoral farming and horticulture. BP analysed the value of this increased production and their original and revised (February 2014) results are summarised in Table 14.

Table 14: Annual Hawke’s Bay Agricultural Production and Processing Output Economic Impacts from Expanded Irrigation

Sector & Direct or Flow-on Impact	BP Model		WH Model	Comments
	Original	Revised	\$ m	
	\$ millions	\$ millions		
Pastoral & Arable Farming Direct	107	120	120	
Orchards & Vineyards Direct	53	60	60	
TOTAL DIRECT OUTPUT	160	180	180	
Backward Linked Flow-ons	120	145	174	WH used HB y/e Sep 2013 economic impact model
TOTAL IMPACTS	280	325	354	
Forward Linkages/Processing Total	340	380	192	WH used Waikato y/e Sep 2013 economic impact model
TOTAL IMPACTS	620	705	546	

The backward-linked flow-ons (supplier inputs into farm and orchard production) for the same direct output are \$29 million higher with the WH Model than the BP estimate of \$145 million. This probably reflects the later technology and regional development progress in Hawke’s Bay over the 2007-2013 period that is embedded in the later 2013 model. That is, sectors in Hawke’s Bay servicing households (e.g. retail, utilities, sport and recreation) have grown over the period and there is not the need to import goods and services to the same degree as may have been the case in 2007. More facilities now exist in the region to capture the household expenditure dollar.

The follow-on processing impacts from the raw primary production have been estimated by BP at \$380 million annually. Of course, as BP noted in their report, this assumes all processing capacity in the region has been put in place to process the increased pastoral and horticultural production. This is not reflected however in the current economic models for Hawke’s Bay. In their report, BP note that “milk processing is likely to be done outside the region as is almost half of meat processing.” In light of these comments, it appears that the \$380 million processing flow-on for the Output impact in Hawke’s Bay is too high. To check this possibility, the same direct impact totaling \$180 million was run through the Waikato Region model for the year ended September 2013. This indicated a \$192 million processing flow-on which appears more credible. It is noted that dairy and meat processing in the Waikato area is among the country’s most extensive and its food processing capacity is also significant although not as diverse as in Hawke’s Bay. The \$192 million follow-on processing output does seem a more credible estimate of processing gains that could be expected in a developed primary producing region such as Waikato or Hawke’s Bay. This lowers the annual Output impact for Hawke’s Bay from increased primary production to \$546 million, compared to BP’s \$705 million.

The lower Output impact of \$546 million means the other three economic impacts indicators need to be proportionately adjusted and this is done on a sector basis, that is, farming and farm support and processing in order to deal with the different employment measures used by the BP (FTE employment) and WH (Employment Count) models. Table 15 shows the latest BP model estimates together with the new WH model estimates.

Table 15: Revised Hawke’s Bay Annual Net Economic Impact Gains of the RWSS

Impact & Model	Output \$m per year	Jobs FTEs	Value Added \$m per year	Household Income \$m per year
BP Model Values				
Farming & Farm Support	325	1310	135	59
Processing	380	1210	120	67
Total Impacts BP Model	705	2520	255	126
WH Model Values				
Farming & Farm Support	354	1427	147	64
Processing	192	611	61	34
Total Impacts WH Model	546	2038	208	98
Percent reduction with WH results	23%	19%	18%	22%

It now remains to apportion these ongoing annual economic impacts over the four Hawke’s Bay local authority districts.

The RWSS Project will facilitate increased primary production for meat, milk solids (after dairy conversions), vegetables, fruit and grapes. These have been grouped into two sectors, namely Pastoral & Arable Farming and Orchards & Vineyards. Follow-on processing sectors have been identified as Vegetables, Wine, Meat Processing and Dairy Processing. The WH model estimates for Output and other impacts have been utilised in the following analysis.

The gains on all measures for each district are shown in Table 6 based on the WH Model estimated \$546 million Output gain for all of Hawke’s Bay. It is understood that the area to be irrigated from the RWSS is predominantly the Central Hawke’s Bay district. Currently, most of the processing capacity for Hawke’s Bay is based in the Hastings district but it is anticipated that Central Hawke’s Bay will strengthen its processing capacity over the medium to longer-term in response to the RWSS. The figures in the table below indicate that the Central Hawke’s Bay district accounts for approximately 60% of the total regional economic impact, taking into account both agricultural production and related processing activity and also direct and flow-on economic impacts. This is followed by Hastings district approximately 30%, Napier City 8% and Wairoa 2%.

Table 16: District Level Total Annual Direct and Flow-On Economic Impact Gains Flowing from a \$546 million Output Gain for the Hawke’s Bay Regional Economy

District	% share of Total Output	Output \$m/year	Jobs FTEs	Value Added \$m/year	Household Income \$m/year
Wairoa	2.0	11	35	4	2
Hastings	30.0	164	628	64	30
Napier	7.9	43	175	18	8
Central Hawke’s Bay	60.1	328	1200	122	58
TOTAL HAWKE’S BAY		546	2038	208	98

In terms of the regional GDP/Value Added impact, an estimated 70% of this impact emanating from the RWSS will be shared between Pastoral & Arable Farming and Orchards & Vineyards. This leaves 30% for the processing sectors as in Vegetables, Wine, Meat Processing and Dairy Processing. Currently, all of the very limited dairy processing activity in Hawke’s Bay is located in the Hastings district.

The totals in Table 16 indicate the economic impacts for the Hawke’s Bay region and its constituent local authority districts. Table 17 estimates the economic impact flow-ons into the rest of NZ for a total New Zealand-wide impact.

Table 17: Annual Gains for Hawke’s Bay and New Zealand Resulting from Increased Production and Processing

Region	Output \$ millions per year	Jobs FTEs	Value Added \$ millions per year	Household income \$ millions per year
Hawke’s Bay RC	546	2038	208	98
Rest of NZ	131	449	45	24
TOTAL New Zealand	677	2487	253	122
Hawke’s Bay share	80.6%	81.9%	82.2%	80.3%

In excess of 80% of all ongoing economic impacts created by the RWSS should be realised in the Hawke’s Bay regional economy. Potential flow-on to the rest of New Zealand include services such as insurance, financial, scientific and technical services.

In conclusion, it is considered that use of a later Year 2013 economic model (compared to the BP 2007 model) in deriving economic impact estimates for the RWSS Project, provides a more up-to-date assessment of impact measures. The BP methodology is sound using as it does an established economic impact assessment methodology or approach, supplemented by the use of input/output models specific to the Hawke’s Bay region, to the agricultural circumstances of the area and to the rural production expectations associated with the implementation of the RWSS.

The main difference in the two sets of economic impact estimates is that the BP annual ongoing impacts from increased primary production due to increased irrigation, together with follow-on

processing, are about 20% greater for the BP analysis than they are for the 2013 economic impact model. On the other hand though, the BP construction impacts are about 14% less than those estimated with the 2013 economic model. Overall, it is considered that these differences are not of such a magnitude as to negate the overall conclusion of BP that the RWSS will have a very positive net economic impact for the Hawke's Bay economy.

The main conclusions from the year ended September 2013 regional economic impact model are as follows:

- The total Output impact for the RWSS Project construction stage is estimated at \$1.4 billion for Hawke's Bay and \$1.5 billion across New Zealand taking national flow-ons into account.
- In excess of 5,000 full-time job-years will be required in the Hawke's Bay region for the construction period. BP has calculated these jobs will be spread over 12 years with 80% of the Project being completed by Year 5.
- There will be a net gain due to the RWSS for Hawke's Bay regional GDP of over \$200 m annually.

Whilst most of the Output economic impacts of the RWSS will accrue to the Central Hawke's Bay district where the project is to be based, there will be flow-on gains for the other districts in particular Hastings which has a significant agricultural servicing, manufacturing and food processing base. Butcher (2013) comments that "the increase in farming production and processed product is expected to go almost entirely to export. This will increase shipping through the Port of Napier..." (Page 28 of report). This should contribute to the economic impact gains of RWSS for Napier City. At this stage, only relatively small gains are envisaged for Wairoa district but over the longer-term, the district (and the other parts of the Hawke's Bay region) should benefit from the general lift in economic activity and confidence in Hawkes Bay resulting from the RWSS.

The BP report also suggests that HBRC will benefit from increased Port of Napier dividends (estimated at \$1.3 million annually) to the Council arising from the increased activity at the Port. These could possibly contribute to reducing rating requirements in the region. In addition to this, the report indicates that "Councils in Hawkes Bay will benefit by an estimated \$2.4 million per year increase in rates, although this is not a pure benefit since they will have to pay for an increased range of services as a result of the increase in population and economic activity generally" (Pages 2 and 26 of the BP 2013 economic impact report). Whilst the BP report does not provide any detailed analysis behind this rating gain, it is assumed that the increase is due to, at least in part, increased land values in Central Hawkes Bay district arising from the anticipated shift to more intensive forms of agricultural production following the implementation of the RWSS.

6 Conclusion

The dearth of investment ready alternatives encountered by this independent review reflects on the lack of urgency for a cohesive regional economic development and infrastructural investment plan for Hawke's Bay.

In our view, the RWSS remains the most economic alternative and a viable investment for the region considering the importance of the primary industries and the mitigation to the biggest risk to the region's economy (water shortage for agricultural production). While contribution to dividend and

interest income of HBRC's investment portfolio is currently unknown, this should be carefully considered in order to mitigate any risks to ratepayers considering the importance of investment income to HBRC's revenues. Complementary investments would also be required to maximise value of additional primary production arising from RWSS such as in water efficiency, skills and productivity, and value-adding infrastructure.

Infrastructure investments to diversify the region's economy will be essential as RWSS deepens the region's dependence on the primary sector and processing industry. A diversified economy would benefit the region's income and reduce the risks to the HBRC investment portfolio.

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Appendix 1: Local Government Act 2002 – Section 77 and related sections

77 Requirements in relation to decisions

(1) A local authority must, in the course of the decision-making process,—

(a) seek to identify all reasonably practicable options for the achievement of the objective of a decision; and

(b) assess those options by considering—

(i) the benefits and costs of each option in terms of the present and future interests of the district or region; and

(ii) the extent to which community outcomes would be promoted or achieved in an integrated and efficient manner by each option; and

(iii) the impact of each option on the local authority's capacity to meet present and future needs in relation to any statutory responsibility of the local authority; and

(iv) any other matters that, in the opinion of the local authority, are relevant; and

(c) if any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites, waahi tapu, valued flora and fauna, and other taonga.

(2) This section is subject to section 79.

Section 77(1)(b)(i): amended, on 5 December 2012, by section 25 of the Local Government Act 2002 Amendment Act 2012 (2012 No 93).

79 Compliance with procedures in relation to decisions

(1) It is the responsibility of a local authority to make, in its discretion, judgments—

(a) about how to achieve compliance with sections 77 and 78 that is largely in proportion to the significance of the matters affected by the decision; and

(b) about, in particular,—

(i) the extent to which different options are to be identified and assessed; and

(ii) the degree to which benefits and costs are to be quantified; and

(iii) the extent and detail of the information to be considered; and

(iv) the extent and nature of any written record to be kept of the manner in which it has complied with those sections.

(2) In making judgments under subsection (1), a local authority must have regard to the significance of all relevant matters and, in addition, to—

- (a) the principles set out in section 14; and
- (b) the extent of the local authority's resources; and
- (c) the extent to which the nature of a decision, or the circumstances in which a decision is taken, allow the local authority scope and opportunity to consider a range of options or the views and preferences of other persons.

(3) The nature and circumstances of a decision referred to in subsection (2)(c) include the extent to which the requirements for such decision-making are prescribed in or under any other enactment (for example, the Resource Management Act 1991).

(4) Subsection (3) is for the avoidance of doubt.

Section 79(3): added, on 7 July 2004, by section 9 of the Local Government Act 2002 Amendment Act 2004 (2004 No 63).

Section 79(4): added, on 7 July 2004, by section 9 of the Local Government Act 2002 Amendment Act 2004 (2004 No 63).

14 Principles relating to local authorities

(1) In performing its role, a local authority must act in accordance with the following principles:

- (a) a local authority should—
 - (i) conduct its business in an open, transparent, and democratically accountable manner; and
 - (ii) give effect to its identified priorities and desired outcomes in an efficient and effective manner:
- (b) a local authority should make itself aware of, and should have regard to, the views of all of its communities; and
- (c) when making a decision, a local authority should take account of—
 - (i) the diversity of the community, and the community's interests, within its district or region; and
 - (ii) the interests of future as well as current communities; and
 - (iii) the likely impact of any decision on the interests referred to in subparagraphs (i) and (ii):
- (d) a local authority should provide opportunities for Māori to contribute to its decision-making processes:
- (e) a local authority should collaborate and co-operate with other local authorities and bodies as it considers appropriate to promote or achieve its priorities and desired outcomes, and make efficient use of resources; and

(f) a local authority should undertake any commercial transactions in accordance with sound business practices; and

(fa) a local authority should periodically—

(i) assess the expected returns to the authority from investing in, or undertaking, a commercial activity; and

(ii) satisfy itself that the expected returns are likely to outweigh the risks inherent in the investment or activity; and

(g) a local authority should ensure prudent stewardship and the efficient and effective use of its resources in the interests of its district or region; and

(h) in taking a sustainable development approach, a local authority should take into account—

(i) the social, economic, and cultural interests of people and communities; and

(ii) the need to maintain and enhance the quality of the environment; and

(iii) the reasonably foreseeable needs of future generations.

(2) If any of these principles conflict in any particular case, the local authority should resolve the conflict in accordance with the principle in subsection (1)(a)(i).

Section 14(1)(c)(iii): replaced, on 5 December 2012, by section 8(1) of the Local Government Act 2002 Amendment Act 2012 (2012 No 93).

Section 14(1)(fa): inserted, on 27 November 2010, by section 6 of the Local Government Act 2002 Amendment Act 2010 (2010 No 124).

Section 14(1)(h)(i): amended, on 5 December 2012, by section 8(2) of the Local Government Act 2002 Amendment Act 2012 (2012 No 93).

Section 14(2): amended, on 5 December 2012, by section 8(3) of the Local Government Act 2002 Amendment Act 2012 (2012 No 93).

Source: www.legislation.govt.nz accessed 20 February 2014

Appendix 2: Stakeholders interviewed

1. Hawke's Bay Regional Council Members
 - Chairman
 - HB Regional Transport Committee
 - Chairperson of Maori Committee
2. Hawke's Bay Regional Council Executive
 - Group Manager Corporate Services
 - Group Manager Assets
 - Economic Development Manager
 - Economic Analyst and former Investment Manager)
3. Chief Executive Officer, Eastern Institute of Technology
4. Business Development Manager, Hawke's Bay Airport Authority
5. Chief Executive Officer, HBRIC
6. General Manager, Business Hawke's Bay
7. General Manager, HB Chamber of Commerce
8. General Manager, Hawke's Bay Tourism
9. Chief Executive, Pan Pac Forest Industries Ltd
10. Commercial Manager, Port of Napier
11. Rachel Landon, Project Manager, Hastings District Council
12. Mr Toro Waaka, Director Ngati Pahauwera Commercial Development Ltd
13. Napier-Gisborne Railway Ltd
 - Graeme Carroll
 - Don Selby and
 - Neil Buchanan,

Appendix 3: Long list of alternative investments and qualifying criteria

Investment	HBRC investment policy	HBRC strategic economic objective	Maori culture and tradition	Managed by HBRIC	Size \$	Over 10 years	Crowd out – not in LTP/HBRIC	Available information	Not proceed w/o HBRC	Pass or Fail
Port of Napier related infrastructure - distribution hub in the Whakatu business area		Fonterra withdrawal			<\$10m					Fail
HB Airport and Business Park				Potential to invest in expansion				No		Fail
Biomass from waste								No		Fail
Regional roading and bridging projects				No, central govt						Fail
Napier-Gisborne railway					<\$10m					
Upgrading and development of new regional sports and recreation facilities e.g. Hastings regional sports park				No			No, already in LTP			Fail
Upgrading and development of new regional community/social/cultural facilities				No			No, separate funding in LTP			Fail
Integrated regional tourism marketing							No, already in LTP			Fail
Regional processing		Similar to					Contingent	No		Fail

Investment	HBRC investment policy	HBRC strategic economic objective	Maori culture and tradition	Managed by HBRIC	Size \$	Over 10 years	Crowd out – not in LTP/HBRIC	Available information	Not proceed w/o HBRC	Pass or Fail
facility – maximise value add		NZ Food Innovation Network					on RWSS			
Productive use of Maori land programme; Wairoa economic development								No		Fail
R&D cluster on water efficiency & biotech with CRI, Massey for higher value primary production; Engineering and manufacturing cluster with EIT, Massey and businesses								No		Fail
Improved skills and educational achievement and pathways to employment e.g. Eastern Institute of Technology				Better alignment of current expenditure				No		Fail
Retirement (with investment) destination for young retirees								No		Fail
Develop oil & gas								No		Fail