

Ōtākaro Avon River Corridor Regeneration Plan

**Land Use Assessment Report –
Whitewater Sports Hub**



October 2017
Revised May 2018

**REGENERATE
CHRISTCHURCH**
TE KŌWATAWATA



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1 Introduction

1.1 Purpose of this report

This report has been prepared alongside a number of Land Use Assessment Reports to inform the shortlist of options and ultimately the preparation of the Ōtākaro Avon River Corridor Regeneration Plan (Plan).

The purpose of the Land Use Assessment Reports is to define the scope and establish the specific drivers, benefits and objectives for the land use/s that will best contribute to the overarching vision and objectives of the Plan.

1.2 Context

This report investigates the potential opportunity to establish a whitewater sports hub in the Ōtākaro Avon River Corridor Regeneration Area¹ (Area) that provides a whitewater sports and recreation facility for and acts as a commercial visitor attraction.

This report has been informed by the ideas, suggestions and proposals received by Regenerate Christchurch relating to white water sports facilities (excluding large scale flatwater facilities – further detailed later in this report), as well as facilitated discussions with key stakeholders and organisations. Strategic alignment with other available reports and assessments (where available) has also been undertaken.

This report sets out:

- A definition for whitewater sports hub in the context of the Area, supported by examples where possible.
- The key problems/opportunities, benefits and risks connected with enhancing economic activity. This is supported by an investment logic map (ILM), shown in Appendix 1.
- The critical success factors relating to a whitewater sports hub the demand for whitewater facilities in the Area and an overview of potential options.

This report does not consider the potential for a whitewater sports hub outside the Area, but takes into account the impact of including a whitewater sports hub in the *greater Christchurch*² area.

¹ As defined in the Outline for the Ōtākaro Avon River Corridor Regeneration Plan (Regenerate Christchurch, 2017).

² All terms in italics have the meaning given to those terms in the Greater Christchurch Regeneration Act 2016.

While not a complete indicative business case, this report includes some of the steps contained within the Treasury’s guidelines for “Better Business Cases for Capital Proposals: Indicative Business Case”³, including critical success factors, benefits, risks, constraints and dependencies. Applying this approach provides a structure to test, refine and further develop the potential of a whitewater sports hub, which in turn will assist to inform the shortlist of land use combinations.

1.3 Appended and related assessments

This assessment of Whitewater Sports Hub land use is an appendix (separate volume) to the Land Use Assessment Report – Visitor Attractions.

³ See: <http://www.treasury.govt.nz/statesector/investmentmanagement/plan/bbc/guidance>

2 Land use description

2.1 Overview

Developing the Plan presents an opportunity to investigate the potential to create land uses within the Area that encourage and facilitate participation in sports and recreation and also create attractions for the benefit of Christchurch’s tourism industry. A whitewater sports hub in the Area could be used for a number of activities, including as a visitor attraction, a sporting and competition venue and an educational centre. This is why a separate report has been prepared on this land use.

From a water sports perspective, the Ōtākaro Avon River is home to a number of water-based sports in Christchurch, including kayaking, rowing and waka ama. The Area is accessibly located for large areas of Christchurch and close to the central business district, which is why the Area has also been identified as a potential location for future attractions.

The exact nature of any whitewater sports hub in the Area will rely on the availability of funding, the appetite for private investment and whether the concept works in with the wider vision and regeneration objectives. This report focuses on understanding Christchurch’s whitewater sports and visitor attraction needs through stakeholder and community engagement. It also establishes a number of key land use attributes which will help inform the development of a longlist of land use options.

2.2 What is a whitewater sports hub?

A whitewater sports hub is made up of shared facilities, which could include some or all of the following:

- Whitewater facility
 - Competitive kayaking
 - Commercial kayaking and rafting (pay to play)
- Small scale flatwater facility⁴
- Artificial surf facility
- Cable wakeboard
- Indoor facilities including:
 - Clubrooms for sports clubs, societies of other organisations

⁴ Note that large scale flatwater facilities are assessed in their own land use assessment report. Although a large scale flatwater facility and a water sports hub can be co-located with resultant advantages, there is no requirement for them to be together.

- Cafe and other concessions
- Gym and changing facilities
- Education and/or community facilities
- Associated dryland attractions⁵

2.3 Precedents and examples

To provide context, here are some examples of New Zealand and international whitewater sports hubs.

Vector Wero Whitewater Park, NZ



Credit: Vector Wero Whitewater Park, NZ

Vector Wero Whitewater Park is New Zealand's first facility to offer an artificial river and water course for recreation, sports, and emergency services training, school programmes and youth development. The whitewater park is developed and operated on behalf of the community by Second Nature Charitable Trust, which reinvests into educational and community programmes. The development cost was \$37m.

Parc Olímpic del Segre, Spain



Credit: Rafting Parc "L'Adventura Segura", Spain

Parc Olímpic del Segre is a whitewater facility in La Seu d'Urgell, Catalonia, Spain, built in 1990 for use during the 1992 Summer Olympics in Barcelona.

⁵ These could include attractions outlined in other land use assessment reports, or local site attractions such as ziplines, group celebration facilities, amphitheatre etc

<p>The Penrith Whitewater Stadium, Australia</p>	<p>The Penrith Whitewater Stadium was built in 1999 for the 2000 Olympics in Sydney. Like most other artificial whitewater courses this stadium covers its operating costs by charging passengers for guided raft rides. Whitewater slalom training (in kayaks and canoes) and competition alone do not generate enough revenue, any more than walking, cycling and flatwater sports do. The mix of all these activities is the critical success factor.</p>
<p>ASCI, US</p>  <p>Credit: Adventure Sport Center International , US</p>	<p>An example a little different from the urban centres and demonstrating a use of existing infrastructure to expand opportunities, is ASCI, in the hills of Maryland about halfway between Washington DC and Pittsburgh. ASCI used a storage pond that was originally built to supply water to the local ski field’s snow-makers during winter but lay idle in summer. It now provides a year-round adventure activity centre.</p>
<p>US National Whitewater Center, US</p>  <p>Credit: US National Whitewater Center</p>	<p>The US National Whitewater Center (USNWC) in Charlotte, North Carolina was the world’s first pumped whitewater facility designed for tourism and rafting, while also providing for Olympic-standard competition. The differences are significant in terms of visitation and profits. The USNWC has over 750,000 visitors a year in a city with a population of less than 1 million people. Activities include whitewater, zipline, flatwater boating, canopy tours, mountain biking, obstacle courses, conference space, restaurant, and outdoor concerts. Incomes exceed \$20 million (USD) per annum and the park has become the city’s number one attraction.</p>

2.4 Uncertainties and assumptions

This report has been prepared with the following uncertainties and assumptions.

Uncertainty	Assumption
Market demand	Sufficient users, including visitors to Christchurch, will use the facility at a high enough price to cover operational costs and provide a suitable return on capital investment.
Implementation of Plan	It is assumed that implementation of the Plan is enabled, including funding, land ownership, governance, management and delivery responsibilities.
Capital costs	Indicative forecasted capital costs have been developed based on limited and generic information. A range of potential costs has been provided. The cost will depend on the implementation options and plans pursued. These figures are for comparative purposes only and will require a concept design, implementation approach and more defined cost estimation to establish a more robust budget.

3 Strategic assessment

3.1 Purpose

This section outlines the case for change, by addressing:

- Strategic context
- Problem definition
- Investment drivers, existing arrangements and business needs
- Potential investment scope
- Benefits, risks, constraints and dependencies

This section has been informed by the community ideas, suggestions and proposals received by Regenerate Christchurch and through a stakeholder workshop.

3.2 Strategic context

The Greater Christchurch Regeneration Act 2016 establishes Regenerate Christchurch’s purpose to “support a vibrant, thriving Christchurch that has economic, social, and lifestyle opportunities for residents, businesses, visitors, investors and developers”. The overarching vision and objectives for the Area are:

Our Shared Ōtākaro Avon River Vision

The river is part of us and we are part of the river.

It is a living part of our city.

A place of history and culture

where people gather, play, and celebrate together.

A place of learning and discovery

where traditional knowledge, science and technology meet.

A place for ideas and innovation

where we create new ways of living and connecting.

**OUR VISION IS FOR THE RIVER TO CONNECT US TOGETHER –
with each other, with nature and with new possibilities.**

Our Shared Ōtākaro Avon River Objectives

For Christchurch

- Support safe, strong and healthy communities that are well-connected with each other and with the wider city.
- Provide opportunities for enhanced community participation, recreation and leisure.
- Create a restored native habitat with good quality water so there is an abundant source of mahinga kai, birdlife and native species.
- Create opportunities for sustainable economic activity and connections that enhance our wellbeing and prosperity now and into the future.

For New Zealand

- Develop the Ōtākaro Avon River Corridor Regeneration Area as a destination that attracts a wide range of domestic and international visitors.
- Establish a world-leading living laboratory, where we learn, experiment and research; testing and creating new ideas and ways of living.
- Demonstrate how to adapt to the challenges and opportunities presented by natural hazards, climate change and a river's floodplain.

The ultimate purpose of the Plan is to enable long-term uses of land within the Area that will contribute to, and support, the regeneration of east Christchurch and *greater Christchurch*. The vision and objectives have been developed in order to achieve this. In particular, the strategic context supporting a whitewater sports hub is driven by:

- Objectives for sport and recreation within Christchurch, Canterbury and the South Island, and specifically participation in sports to improve healthy lifestyles that achieve better health and social wellbeing.
- The “Christchurch Visitor Strategy: Setting the Direction 2016”⁶, which seeks a broader and cross-seasonal range of destinations and activities for visitors, to extend and expand their stay in the city.

⁶ See: <https://www.ccc.govt.nz/the-council/plans-strategies-policies-and-bylaws/strategies/christchurch-visitor-strategy>

- The “Resilient Greater Christchurch Plan”⁷, “Christchurch Economic Development Strategy”⁸ and other strategies which seek to change the future direction of east Christchurch by encouraging higher rates of visitation and greater economic activity, leading to stronger community resilience and wellbeing.

3.3 The case for change

The most common way people participate in physical activity nowadays is recreational, or “pay to play”

Participation levels in sport and recreation in Canterbury are among the highest in the world. However, societal and demographic changes are altering the way in which people participate, affecting demand for resources and facilities.

People are increasingly time poor, yet trying to fit more in. Increased pressure at work and less connectivity with our communities continue to impact on healthy and active lifestyles. Technology has accelerated communication and access to information in a virtual world and people no longer have to be physically present to participate. Examples of ticket leisure venues such as the Christchurch Adventure Park have indicated that there may be demand for this type of “pay to play” offering, but its foreshortened operation due to the Port Hills fire in 2017 means that there was an insufficient period to provide evidence.

Christchurch lacks attractions that cater for local residents and their visiting family and friends and international and domestic visitors

Although the Area faces issues around the quality of land for construction (including remediation costs), it provides a large open space near the central city and geographically linking to New Brighton. A whitewater sports hub has the potential to contribute to economic growth and increase the value of surrounding land by generating other visitor-related activities, attractions and amenities. It could create something unique for east Christchurch and help contribute to a strong and proud community in surrounding neighbourhoods.

It has been well documented through the Christchurch Visitor Strategy that Christchurch’s role in New Zealand’s national tourism network has diminished since the earthquakes. Christchurch is no longer the destination it was. Rather, it is primarily used as a gateway to other South Island locations. The Plan is an opportunity to investigate how the Area can help rebuild Christchurch’s tourism identity and re-establish the city as a destination.

⁷ Prepared by Christchurch City Council in 2016.

⁸ Prepared by Canterbury Development Corporation in 2014.

The Area has suffered from a loss of community facilities, exacerbating pre-existing social and environmental issues in the area. Recreation facilities are considered an essential priority by 44 per cent of Christchurch residents

In late 2014, Christchurch City Council prepared Community Profiles for wards in Christchurch. For wards in east Christchurch, Council identified that depopulation, loss of community facilities, disrupted transport networks and loss of connection with the natural environment had contributed to a loss of identity and connection.⁹

In an update of the Community Profiles, by 2016, east Christchurch residents were less likely to report feeling a sense of community with others in their neighbourhood (32 per cent compared with 46 per cent across Christchurch). This finding reinforces that the loss of community facilities such as sporting and recreational facilities where people meet and gather has impacted negatively on community connectedness.

In early 2017¹⁰, Regenerate Christchurch surveyed Christchurch residents to understand what they perceived to be the greatest community needs that the Ōtākaro Avon River Corridor could help to meet. Fair and easy access to parks, open spaces and recreation facilities was considered an essential priority for 44 per cent of survey respondents, making it one of the top 10 priorities for residents.

One in five (20 per cent) Christchurch residents indicated that it is essential that the regeneration of the Ōtākaro Avon River Corridor increases participation in recreation and sporting activities. Places for people to meet and gather, such as community facilities, were considered to be very important for 55 per cent of Christchurch residents.

It is widely recognised that investment in sport and recreation makes a significant contribution to economic activity and wellbeing

The concept of wellbeing includes social (including physical and mental health), cultural and economic wellbeing. There is compelling evidence to show that people who participate in sport and recreation are more productive employees, enjoy better health and have a better quality of life.

In turn, there are societal benefits and flow on effects in terms of savings across the health system.¹¹

⁹ Christchurch City Council, 2014 Community Profiles for Aranui/Wainoni/Bexley, Avondale/Dallington, Avonside/Richmond South, Bromley, Burwood, Christchurch Central, Greater Linwood, New Brighton/South Brighton, North New Brighton, Parklands/Northshore, Shirley, and Waitakiri//Travis Wetland.

¹⁰ Nielsen, 2017: Community Needs Assessment Survey For The Regeneration Of The Ōtākaro Avon River Corridor.

¹¹ Canterbury Wellbeing Index – Sports participation, June 2014.

<http://cera.govt.nz/sites/default/files/common/canterbury-wellbeing-index-june-2014-sec12-sports-participation.pdf>

For example:

- Based on Australian data, the premature death rate of the inactive adult population (due to inactivity) is estimated at 1,725 deaths per million, or 0.1725 per cent of the inactive adult population¹²
- A lack of adequate physical activity causes 7.9 per cent of heart disease in New Zealand, 9.8 per cent of Type 2 diabetes, 13.1 per cent of breast cancer and 14.1 per cent of colon cancer. Overall, it is thought that a lack of physical activity causes 12.7 per cent of all deaths in New Zealand¹³

Improved health outcomes from participation in sport and recreation (2009 data) were valued at \$3.95 billion, offset by accidental premature deaths and sport injuries that imposed costs of \$3.19 billion¹⁴

The case for change has been mapped in an investment logic map, see Appendix 1. That process is described in the following sections.

2.3.1 Investment drivers (problems/opportunities)

The first step in establishing a case for change is to identify drivers for investment. These drivers encompass the problems that need to be addressed, their causes and the related opportunity if they are addressed. Note that the problems identified in relation to a whitewater sports hub focus on Christchurch as a city, rather than the Area.

The following table provides an overview of the investment drivers which will help guide any decisions around including a whitewater sports hub in the Area.

¹² “The Cost of Physical Inactivity in Australia”, commissioned by Medibank Private, 2000.

¹³ “Physical Activity and Health Policy Statement”, New Zealand College of Public Health Medicine, August 2014, available at <http://www.ncbi.nlm.nih.gov/pubmed/22818936>.

¹⁴ “The Economic and Social Value of Sport and Recreation to New Zealand”, Paul Dalziel, Research Report No. 322, September 2011.

Land use driver	Causes of problem
<p>1. A lack of access to a range of sport facilities limits the potential participation in active sport leading to lower health and social wellbeing outcomes.</p>	<ul style="list-style-type: none"> • Participation levels of flatwater sports and recreation activities have increased across NZ and in Canterbury in recent years, with demand projected to increase further in the future.¹⁵ • There is currently limited governance and collective decision making capacity regarding access and use of water sports facilities in <i>greater Christchurch</i>, leading to inefficient use of the available facilities and limited long-term strategic planning. • Current and projected participation levels are not adequately catered for by the current water sports facilities in <i>greater Christchurch</i>. • This problem is also closely linked with affordability – see also problem three, below.
<p>2. The variety and quality of destinations and attractions in Christchurch limit how long visitors stay in Christchurch, which in turn leads to lower economic activity.</p>	<ul style="list-style-type: none"> • Pre-quakes there was a limited range of attractions, and the earthquakes damaged or destroyed facilities in Christchurch, further limiting the range and type of visitor attractions for tourists and locals. • The visitor attractions of Christchurch and Canterbury are less attractive than alternative visitor destinations such as Queenstown, which offer a greater variety and scale.
<p>3. A number of water sports have high barriers for participation, due to the financial and time commitments required to get to suitable locations.</p>	<ul style="list-style-type: none"> • Locations appropriate for water sports such as whitewater kayaking and rafting, surfing and wakeboarding typically require significant travel to reach. • Due to the lack of water sports infrastructure providing gear hire and training, participation in related sports often requires a significant financial investment.

2.3.2 Whitewater sports hub investment objectives

The whitewater sport hub investment objectives help determine Christchurch’s needs with respect to water based sports attraction. They inform the assessment of how a visitor attraction land use could contribute to achieving the overarching objectives and land use assessment criteria for the Area.

¹⁵ Regenerate Christchurch, 2017, Flatwater Facilities in the Ōtākaro Avon River Corridor: Indicative Business Case.

The whitewater sport hub investment objectives are to:

- Create a water-based recreation attraction.
- Increase participation in active sport.
- Generate employment opportunities and economic activities in east Christchurch.
- Provide a community gathering place to enhance people’s sense of connection to their community.

2.3.3 Benefits

To be able to measure the success of the land use, these benefits have been established.

- 1 A stronger community with improved connection and sense of pride in the area. This will lead to:
 - Improved safety and security
 - Enhanced sense of community
 - Improved mental health and social outcomes
 - Reduced cost of services
- 2 A healthier community through greater participation in sport and recreation. This will lead to:
 - Lower General Practitioner and emergency department visits, leading to savings in health expenditure
 - Higher levels of community connection, leading to lower crime and better mental health outcomes
 - Greater participation, leading to improved mental health outcomes
- 3 More employment options in east Christchurch. This will lead to:
 - Improved economic and social outcomes
 - Increased community ownership and connection
- 4 An enhanced reputation that attracts new migrants, investors and visitors. This will lead to:
 - Increased visitor spend
 - Attracting creative and talented individuals
 - Reduced outwards migration
 - Increased interest from investors to leverage off these advantages

2.3.4 Contribution to overarching vision and objectives

The whitewater sports hub land use is considered to contribute to the overarching vision by connecting people and creating places where people gather, play, and celebrate together.

The land use could contribute to the overarching objectives in these ways.

Overarching objectives	Link to whitewater sports hub benefits
For Christchurch	
<ul style="list-style-type: none"> Support safe, strong and healthy communities that are well-connected with each other and with the wider city. 	<p>A stronger community with improved connection and sense of pride in the area.</p> <p>This will lead to:</p> <ul style="list-style-type: none"> Improved safety and security Enhanced sense of community Improved mental health and social outcomes Reduced cost of services
<ul style="list-style-type: none"> Provide opportunities for enhanced community participation, recreation and leisure. 	<p>A healthier community through greater participation in sport and recreation.</p> <p>This will lead to:</p> <ul style="list-style-type: none"> Lower General Practitioner and emergency department visits, leading to savings in health expenditure Higher levels of community connection, leading to lower crime and better mental health outcomes Greater participation, leading to improved mental health outcomes
<ul style="list-style-type: none"> Create a restored native habitat with good quality water so there is an abundant source of mahinga kai, birdlife and native species. 	<p>No material benefit.</p>
<ul style="list-style-type: none"> Create opportunities for sustainable economic 	<p>More employment options in east Christchurch.</p>

Overarching objectives	Link to whitewater sports hub benefits
<p>activity and connections that enhance our wellbeing and prosperity now and into the future.</p>	<p>This will lead to:</p> <ul style="list-style-type: none"> • Improved economic and social outcomes • Increased community ownership and connection
For New Zealand	
<ul style="list-style-type: none"> • Develop the Ōtākaro Avon River Corridor Regeneration Area as a destination that attracts a wide range of domestic and international visitors. 	<p>An enhanced reputation that attracts new migrants, investors and visitors.</p> <p>This will lead to:</p> <ul style="list-style-type: none"> • Increased visitor spend • Attracting creative and talented individuals • Reduced outwards migration • Increased interest from investors to leverage off these advantages
<ul style="list-style-type: none"> • Establish a world-leading living laboratory, where we learn, experiment and research; testing and creating new ideas and ways of living. 	<p>No material benefit.</p>
<ul style="list-style-type: none"> • Demonstrate how to adapt to the challenges and opportunities presented by natural hazards, climate change and a river's floodplain. 	<p>No material benefit.</p>

2.3.5 Scope assessment

To support the development of the longlist of land use options, an initial scope has been developed. This takes a portfolio perspective, providing a minimum, intermediate and maximum scope with respect to potential costs, visitors and facilities. The potential facilities have been informed by public feedback and external research.

- Minimum scope – local: a small scale single water sports facility for training and educational purposes, aimed at local users. This option requires minimal initial investment and ongoing costs. The investment would be expected to be less than \$20m.
- Intermediate scope – national: a medium scale water sports facility for training, competition and educational purposes, which is also aimed at bringing in visitors/users from around New Zealand. Would include complementary activities, such as a cafe and club rooms. This option requires some level of development and infrastructure, with moderate initial investment and ongoing costs. The investment would be expected to be \$20m to \$40m.
- Maximum scope – international: a large scale water sports attraction with two or more facilities, eg whitewater and surfing, which can be used as a world class training and competition venue and brings in a national and global audience. Significant development with the aim of creating space with complementary facilities to bring in and cater for local, national and international tourists. The investment would be expected to be greater than \$60m.

2.3.6 Risks

It is also important to identify and record any potential risks around developing a whitewater sports hub, and their mitigations.

Risk	Mitigation process	Residual risk rating
Visitor demand insufficient to meet revenue forecast	Do a robust market analysis.	Moderate
Power and water supply insufficient	Ensure this is allowed for in infrastructure planning. UV treatment may be required	Low
Transport options not available to access site	Ensure this is allowed for in infrastructure planning.	Low
The whitewater sports hub becomes an island in east Christchurch and is not integrated into the community or creates	Ensure the attraction will support and encourage complementary amenities in the area. Ensure community buy-in and alignment with other projects.	Medium

gentrification or displacement in east Christchurch.		
The capital cost is greater than forecast.	The costs include in this assessment are indicative only. Progress more detailed studies prior to establishing budgets and establish a robust project management methodology.	High
Operating costs are greater than forecast.	The costs include in this assessment are indicative only. Progress more detailed studies prior to establishing budgets and establish a robust project management methodology.	High

2.3.7 Constraints and interdependencies

The following constraints have been identified for a water sports hub.

Constraints	Description
Land	The geotechnical and flood plain footprint of the land will affect what can be developed or built in the Area.
Population and visitor numbers	The population of Christchurch and the number of visitors able to travel to and stay in the city creates a constraint on the size and number of attractions which will be feasible.

The following interdependencies have been identified for a water sports hub.

Interdependency	Description
Current and planned aquatic facilities	Current attendance for Council’s recreation and sport centres is estimated at 3.8 million per year, which is still below the pre-earthquake peak of 4.7 million. The QEII facility provides a multi-pool indoor active experience with slides, hydrotherapy, lap swimming, spa pool and gym. Its facilities were specified to

Interdependency	Description
	<p>complement the Council’s regional aquatic offering and sized to suit the catchment area, which is primarily local.</p> <p>Reasons for visiting the whitewater sports hub will differ from those for visiting QEII or other Council facilities. Visitors are more likely to be existing aquatic facility users making additional visits or new users who currently do not use aquatic facilities.</p>
Flatwater sports facility	<p>A land use assessment report is being developed to explore what, if any, scope, scale and location of flatwater facility would make the largest contribution to the regeneration of the Area.</p> <p>There is a clear relationship between the concept of a whitewater sports hub and a flatwater facility, and these two reports must be seen in conjunction. However, the two concepts do not depend on each other for success. Each report will assist the development of the longlist of land use options and spatial design process.</p>
Clubs, schools and community facilities	<p>The opportunity for connecting, co-locating and/or sharing assets and services between organisations is recognised and will need to be considered in the spatial design process. See the Land Use Assessment Report – Community Spaces and Places for options and opportunities in creating or enhancing community gathering spaces.</p>
Land use assessment reports	<p>Land uses cannot be considered in isolation, and all land use assessments must be considered together.</p>
Other regeneration and urban master plans	<p>Any land use needs to consider other projects undertaken by Regenerate Christchurch, Development Christchurch Ltd and Christchurch City Council in nearby areas, including New Brighton and the central city.</p>
The Plan	<p>The Plan which sets out proposed land uses is being prepared under the Greater Christchurch Regeneration Act. The Minister makes the final decision on whether or not to approve the draft Plan. In making this decision, the Minister must have regard to/consider matters set out in section 38 of the Act. This includes considering the fiscal and financial implications of the draft Plan and whether the draft Plan is in the public interest.</p>
The Crown’s investment in land	<p>The Crown has made a significant investment in this land and is the critical decision maker in determining the future use of the Ōtākaro</p>

Interdependency	Description
	Avon River Corridor. The overall return on investment (financial and non-financial) is a critical issue for the decision makers.

4 Whitewater sports hub attributes and options

4.1 Purpose

The purpose of this section is to:

- Establish the critical success factors for a whitewater sports hub
- Understand the demand for a whitewater sports hub in east Christchurch
- Develop a set of example options to inform the development of a longlist of land use options

4.2 Critical success factors

Critical success factors are considered to be the attributes that are essential for ensuring any whitewater sports hub land use types align with the overall vision and objectives for the Area. The key point is that critical success factors are crucial, not desirable. Further, it is important to differentiate between critical success factors and design principles.

The following factors are considered essential to ensure the success of a whitewater sports hub in the Area if an area for a whitewater sports hub is included in the longlist of land use options (within the Visitor Attraction land use type). These factors have been developed as part of the work undertaken in this report.

Critical success factor	Description
Commercial viability	Revenue covers operational costs.
Affordability	Capital costs are affordable (particularly to address any technical requirements).
Visitor attractiveness	Attractive to visitor market as a high quality experience.
Co-location	Co-location with other uses and attractions to enhance demand and reduce costs.
Community linkages	Links to local community to enhance social and economic outcomes.
Transport & accessibility	Easily accessible transport options.
Water supply	Clean and abundant water supply.

4.3 Demand analysis

As detailed in the Land Use Assessment Report – Visitor Attractions, there is a clear need for attractions in Christchurch that cater for international and domestic visitors and local residents. The Visitor Projections study indicates total visitations of around four million per year, of which one million are unique visits, and one million ticketed visits.

4.4 Overview of potential options

3.4.1 Scale as a destination

The scale for the development concepts can be categorised into four types, as follows.

No.	Geographic type	Visits per annum (estimated or projected)	Example type of asset
1	Community asset	< 100,000	Sumner water play area
2	Community/regional asset	100,000–200,000	Proposed New Brighton Hot Salt Water Hot Pools Former QEII Leisure Park
3	Regional asset	300,000–750,000	Vector Wero Whitewater Park (Auckland) Margaret Mahy Family Playground
4	National asset	> 750,000	Christchurch Metro Sports Facility (under construction); multi use arena

3.4.2 Whitewater facility

The options for the scale and size of a whitewater facility depend on the number of courses (channels) and to a lesser extent the length and overall fall. This in turn affects the overall cost, but also the likely number of visitors attracted to the facility. However this factor only applies when a channel is over capacity, so further channels do not directly grow visitation.

For a community scale facility, a single course is sufficient. A wider range of facilities is required to attract over 100,000 visitors. A likely approach would be to develop either a long single channel, with one section steeper and another with a slacker gradient to allow for

casual visitors, or two channels (steep/fast and long/slow) with one pump servicing both channels.

Such a two course set up would be the equivalent of the Auckland Vector Wero course (regional asset), while a third channel could lift the attraction to international status.

3.4.3 Flatwater facility

Whitewater facility course/s must discharge into a lake of at least 6–8,000m².

A much larger lake is required to host competitive flatwater events such as rowing and flatwater kayaking, and is being considered in the Indicative Business Case for a Flatwater Sport and Recreation Facilities. Although there are synergies between a large lake and a water sports hub, they are not dependent on each other. From a commercial perspective, a very large lake is not required to attract users.

3.4.4 Dry facilities

A fundamental component of the attraction will be the dry facilities, with the key commercial outcomes gained by proving a wide range of income streams. Advice from specialist whitewater course designer S2ODesign, is that at the US National Whitewater Centre, one in four visitors use the course, with the remaining three as spectators. These spectators are a key source of income on food, beverages and associated services.

Options for complementary land-based facilities within the whitewater sports hub include cafes, fun activities, changing rooms, gym and clubrooms, community gathering facilities or educational facilities. These facilities could be developed in conjunction with sports clubs and societies, depending on the location of other facilities.

The options involve progressing from small scale dry facilities toward larger and all-encompassing facilities that incorporate commercial and community facilities. At this stage, the scope, tenants, users or other matters have not been investigated – this will need to be addressed as part of a detailed business case.

3.4.5 Cable wakeboard park

A cable wakeboard system is run by an electric motor and has a cable that runs between two or four towers with a ski handle to pull the participant. This becomes a big continuous figure 8 or oval course in an artificial lake, and can be operated commercially.

4.5 Options and forecast capital costs

Option	Description	Forecast capital cost ¹⁶	
		Optimistic	Pessimistic
A	Community asset (single) <ul style="list-style-type: none"> Flatwater area 6,000m² 300m long single course whitewater facility Cafe, associated concessions, administration and changing rooms 	\$1m \$15m \$2m <hr/> \$18m	\$2m \$20m \$4m <hr/> \$26m
B	Regional asset (dual) <ul style="list-style-type: none"> Flatwater area 6,000m² 300m long dual course whitewater facility Cafe, associated concessions, administration and changing rooms 	\$1m \$25m \$2m <hr/> \$28m	\$2m \$35m \$4m <hr/> \$41m
C	National asset (triple) <ul style="list-style-type: none"> Flatwater lake of around 6,000m² 400m long triple course whitewater facility Cafe, associated concessions, administration and changing rooms Gym and clubrooms Community gathering facilities Educational facilities 	\$1m \$35m \$4m \$5m \$1m \$1m <hr/> \$47m	\$2m \$45m \$6m \$10m \$1m \$1m <hr/> \$65m
D	Surf park only <ul style="list-style-type: none"> Surf park 	\$20m	\$30m
E	Cable wakeboard park <ul style="list-style-type: none"> Wake park 	\$4m	\$6m
F	National asset with surf park <ul style="list-style-type: none"> Flatwater lake of around 6,000m² 	\$1m	\$2m

¹⁶ Forecast capital costs estimated by comparison with similar projects. They are approximate only, for comparative purposes.

	<ul style="list-style-type: none"> • 500m long triple course whitewater facility • Surf park • Cafe, associated concessions, administration and changing rooms • Gym and clubrooms • Community gathering facilities • Educational facilities 	\$35m \$4m \$20m \$5m \$1m \$1m <hr/> \$67m	\$45m \$6m \$30m \$10m \$1m \$1m <hr/> \$95m
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4.6 Commercial viability

Select Evolution Limited was commissioned to assess the commercial viability of a range of leisure and recreation facilities for the Area. This included developing thumbnail commercial cases for a cable wake park, surf park and a whitewater facility.

Separately, S2O Design was commissioned to undertake a commercial analysis of the whitewater facility, based on a single channel facility.

The following table includes different assessments by the two analysts, based on different assumptions as to visitor numbers.

	Whitewater facility		Surf park	Cable wakeboard park
	Select Evolution	S20Design	Select Evolution	Select Evolution
Assumed visitor numbers	45,000 visitors	100,000 visitors	102,200 visitors	32,850 visitors
Capex	\$16,880,000	\$16,880,000	\$22,287,500	\$5,720,000
Revenue	\$1,839,600	\$10,835,855 ¹⁷	\$7,665,000	\$1,149,750
Opex				
	\$459,900	\$6,109,263	\$1,916,250	\$252,945
Payroll	\$515,088	incl	\$2,146,200	\$298,935
Cost of sales	\$183,960	incl	\$766,500	\$114,975
Management	\$91,980	incl	\$383,250	\$57,487.50
EBITDA				
	\$588,672	\$4,726,591	\$2,452,800	\$425,407.50
As a %	32%	44%	32%	37%
Potential ROI	3.49%	28%	11.01%	7.44%
Visits	45,990	100,000	102,200	32,850

This analysis indicates that:

- A whitewater facility may be commercially viable, but carries some uncertainty as to total visitors attracted and therefore the total revenue.
- A surf park and/or cable wakeboard park may be able to be developed with no or limited public sector investment.

¹⁷ Year Five of the P&L prepared by S20Design.

5 Conclusion

As a result of the work completed in this report, which included stakeholder workshops and consideration of the ideas, suggestions and proposals received by Regenerate Christchurch from the community, **it is recommended that the ability to allow for a whitewater sports hub in the Area is included in the longlist of land use options for further consideration as a visitor attraction.**

In particular, the following key points should be considered in any decision around including a whitewater sports hub in the Area:

- **It is recommended that a whitewater rafting and kayaking facility should be further investigated but may require some public investment to be commercially feasible.** Select Evolution considers that the demand for this type of facility is not sufficient to enable more than 45,000 paying visits per annum. However, the commercial analysis by S2ODesign indicates that a combined whitewater rafting and kayaking facility may be commercially viable for a private investor if it is able to attract sufficient visitors.
- **It is recommended that a travelling wave surf park should be further investigated.** The commercial analysis indicates an 11 per cent return on investment based on 102,000 visits per annum. Although this is below normal commercial investment thresholds, subject to other income sources being in place, this may be able to be enhanced sufficiently to enable private investment, with little if any public sector investment.
- **It is recommended that a cable wakeboard park should be further investigated but it may require some public investment to be commercially feasible.** The commercial analysis indicates a 7 per cent return on investment based on 33,000 visits per annum. Although this is below normal commercial investment thresholds, subject to other elements being in place including works to create a larger water sports facility, this may be able to be enhanced sufficiently to enable private investment.
- **Consider a combined whitewater sports hub in combination with supporting facilities and attractions that can support private investment across a portfolio of attractions.** As a combined facility, there will be potential economies of scale and efficiencies that can be leveraged as well as the use of shared facilities and infrastructure. Further consideration is required to determine the optimum mix of offerings that will avoid or minimise the need for public sector investment.

Appendix 1: Investment logic map

The investment logic map process provides a framework for identifying the problems which need to be resolved, the potential benefits from addressing the problems and the development of investment objectives with respect to a potential project or land use.

