

Toi Moana Bay of Plenty Regional Growth Study

Action plan summary document





Introduction

The purpose of the Government's new Regional Growth Study Programme is to set out the context, key opportunities, barriers and enablers for the improvement of economic performance in the regions. The wider Bay of Plenty is one of three regions chosen to participate in the programme.

The Bay of Plenty Regional Growth Study (RGS) is led by the Ministries of Business, Innovation and Employment (MBIE) and Primary Industries (MPI) at the national level, and the Bay of Connections at the regional level.

Consultants MartinJenkins were commissioned to prepare an independent report identifying a range of short to mid-term opportunities (0-10 years) that could assist in increasing investment, employment and incomes in the region. The RGS focuses on the wider Bay of Plenty's strengths and where central and local government, iwi, industry and the community can work together. It also identifies realistic opportunities for the region.

The study was launched by Ministers in May, which was the first step in the process. Since then, the region has moved into phase two – development of an action plan to identify how key opportunities can be realised, who is responsible and by when.

Action Plan

As part of developing the action plan, five workshops were held across the region, asking stakeholders to prioritise the opportunities in the RGS. They were asked to help establish the logical order of focus, identify the people and organisations that need to be involved and the specific actions required.

As a result of what you told us, nine key areas were prioritised for development and the resulting actions are summarised in this document.

These areas include: ***agribusiness, aquaculture, education and skills, forestry and wood processing, geothermal, horticulture, Māori land utilisation, visitor economy and water management.***

An RGS Action Group has worked closely with relevant stakeholders and government representatives to develop key actions for each area of opportunity, which include key barriers for success, resources required and those needing to be involved.

The required funding for each activity is an estimated cost and is not guaranteed. Part of the next steps include working collaboratively with central and local government, as well as related stakeholder groups and agencies, to source resources in order for implementation.

Progress on other opportunities not listed in the RGS action plan will continue as business as usual through existing Bay of Connections action groups or relevant economic development agencies.

Next steps

The action plan will be finalised and submitted to Government. It will then be launched in the region by Ministers in October.

Phase three – the implementation phase – will begin early 2016. How this phase will unfold is currently a work in progress, as the RGS programme develops. This is a new and exciting government programme of which the Bay of Connections region is on the cutting edge.



Agribusiness

Agribusiness is a significant economic driver in the wider Bay of Plenty, underpinned by the region's climate and natural resource base. In 2014 combined exports for dairy, meat and horticulture were \$2 billion.

Of major interest recently has been the need to diversify income risks for farmers highly exposed to a single commodity sector, reducing nitrogen discharges into waterways – particularly in Rotorua – and how to improve economic returns in the sector where possible.

Potential investment opportunities include **dairy goats, sheep milking, Manuka plantations for honey and oil, free stall dairy barns and biological farming for fresh milk.**

There is potential for long-term cooperative structures amongst regional landowners across all opportunities, particularly for Māori land trusts, given the lower nitrogen impact, job creation opportunities, suitability for certain land classes and the potential for vertical integration and ownership.

Of particular interest for this action plan is a focus on Manuka. There is an insatiable demand across the world for high UMF grade Manuka honey in cuisine, medical and healthcare products. Exports of NZ Manuka honey have grown from \$100 million in 2010 to \$187 million in 2014 and continue to grow at a compounding rate of around 30% per year.

There is great potential to expand Manuka honey produced in the Bay of Plenty, particularly for Māori industry involvement. There is also support from existing entities such as the Manuka Research Partnership PGP-funded research programme, aimed at developing necessary cultivars, husbandry and support tools to enable commercialisation of Manuka plantations as a viable land use, including on marginal land.

The next phase is to establish how these opportunities can be accelerated at scale. There are also several opportunities for new skills training across all initiatives and sub-regions.

| Opportunity | Recommended actions | Responsibility |
|---|---|--|
| Expand awareness of alternative land use and investment opportunities | 1. Collate existing business cases and publish | BOPRC, EDAs, Māori trusts |
| | 2. Undertake economic impact and analyses at farm/district level for all five opportunities | EDAs |
| | 3. Identify options for equity/investment funds to provide working capital and create MOUs | EDAs |
| | 4. Work with existing programmes/funds for support at early stages | Industry, MPI, NSTE, MBIE, EDAs |
| Identify Manuka strains suitable for expanding BOP industry | 1. Establish region-wide trials to test Manuka varieties | CRIs (Scion, PFR), iwi, landowners, BOPRC, MPI, TPK, industry groups |
| | 2. Establish a grants scheme focused on Manuka plantations with a goal of 500ha per year at \$2.5k/ha | MPI |
| | 3. Develop collective approach between various agencies; complete marginal land analysis | BOPRC, iwi, CRIs, industry, MPI, TPK, NZTE |



Aquaculture

The region's aquaculture sector is currently relatively small in the Bay of Plenty, however there is significant potential to grow the industry, which will have both economic and social benefits, with regional and national strategies currently in place to support this.

There are a number of regional advantages that will support a more significant industry, including abundant water space, a high number of sunshine hours per year, nutrient-rich waters, geothermal resources for water heating, and the University of Waikato's Coastal Marine Field Station based in Tauranga. There is also a significant Māori asset base and wider existing infrastructure to support development.

The ***Opotiki sea farm and harbour development, commercial trout farming and associated biodiversity opportunities*** are cornerstone projects to achieving the Bay of Connections Regional Aquaculture Strategy target of \$250 million sales by 2025. The BOC strategy is in turn a core element to achieving the national aquaculture aspiration to be a \$1 billion sector.

The Opotiki harbour development is a long-standing and core strategic initiative for Whakatohea iwi, with objectives of the Pathway to Work and associated initiatives to maximise employment opportunities for Whakatohea and local people. The harbour development is also a core infrastructure requirement which will provide the opportunity for other marine users and activities, tourism, fishing etc.

Commercial trout farming, including land-based freshwater and sea cages, is a high-value opportunity for the wider Bay of Plenty region, including the Māori economy, with strong iwi interest in this industry.

For commercial trout farming to eventuate, there is still a great deal to work through, including legislative issues. The realisation of this opportunity is dependent on the legislative environment changing to allow for commercial farming and sale of trout. Legislation in question includes the Customs and Excise Act 1996, Conservation Act 1987 and Fisheries Act 1996.

| Opportunity | Recommended actions | Responsibility |
|--|--|---|
| Opotiki sea farm and harbour development | 1. Cabinet paper for decision to invest in validation of sea farm and harbour developments | MBIE, MPI |
| | 2. Meet funding conditions, including: confirmation of harbour cost, ownership, RMA and other consents, viability, pathway to work, sea farm viability, provision of supporting infrastructure | ODC, utilities, funders, developers, ESL, WMOL, TMTB, Toi-EDA |
| | 3. Capital raising for sea farm and processing investments | ESL, WMOL |
| | 4. Investment in harbour construction | BOPRC, central govt, ODC |
| Commercial trout farming | 1. Amend legislation to allow farming and sale of trout | CG |
| | 2. Ensure resource consent process is clear | Councils |
| | 3. Determine capacity of current operations to supply seed stock, eg eggs, fingerlings | RAO, industry, DOC, MPI |
| | 4. Develop technical/how-to guide for commercial farming, eg how to access capital equipment, brood stock, science expertise etc | RAO |
| | 5. Develop economic/benefits picture, eg jobs, value add, factories, transport needs, etc | RAO |
| | 6. Identify locations for potential trout farming – land-based, fresh water and sea-based | RAO |



Education and skills

The region has a mixed performance on measures of education attainment. Positively, 18 year-olds in the region are slightly more likely to have an NCEA Level 2 qualification than 18 year-olds nationally.

However, there is significant variability in education attainment at the sub-regional level, with the Eastern sub-region particularly under-performing. For example, the proportion of youth not in employment, education or training in this sub-region is almost double the national rate.

As with other areas of New Zealand, Māori in the region also underperform on key education measures. This is exacerbated in the Bay of Plenty because of the large Māori population. However, the region's collaborative tertiary environment and strengthening relationships between industry, schools, tertiary organisations and communities provides a solid platform for education and skills development.

The Bay of Plenty Tertiary Intentions Strategy (BOPTIS, 2014-2019), which was developed through a highly consultative process, establishes clear priorities for improving the quality and relevance of post-secondary education, with a focus on meeting current and future labour market needs. There are also several examples of best practice initiatives to improve youth education in the region.

In developing this action plan, stakeholders recognise that forecast growth across the region's key industries will, in most cases, create increased demand for labour, particularly skilled labour. And with significant future workforce potential comprising young Māori, it will be important to place focus on increasing education participation and attainment levels for young Māori in particular.

This will involve aligning the education system with the social and economic goals of local communities within the region. This is a key area of focus for a multitude of local, regional and government agencies/organisations, and thus there is a need for improved coordination and advocacy for local and regional needs. Improving educational outcomes needs a 'whole of system' approach, requiring strong regional leadership and interagency collaboration, with industry involvement in partnership with the education sector.

Improving education attainment, participation and alignment to the region's current and future labour market needs will be essential to enabling other opportunities within this action plan to be realised, and therefore critical to improving incomes and increasing jobs in the region.

| Opportunity | Recommended actions | Responsibility |
|--|--|---|
| Enhance regionally-relevant tertiary education provision, including education pathways | 1. Establish an education leadership group to implement the BOPTIS and oversee development of a regional youth strategy | BOPTIS governance group, iwi education leaders, EDAs |
| | 2. Support expansion of coastal marine education by working with University of Waikato to expand education and research delivery, including providing funding for expanded marine centre in Tauranga | Regional funders, University of Waikato |
| Development of youth/rangatahi education and skills strategy | 1. BOP education leadership group to work with key stakeholders to develop brief and oversee development | BOPTIS leadership group, local government and central govt (MOE, MSD, TPK, MBIE, HMO) |



Forestry and wood products

The Central North Island, which includes the Bay of Plenty, is New Zealand's centre for forestry and related processing. The combination of the region's natural resources, emerging technologies, established support infrastructure (including clusters of highly-developed mechanical engineering), support services, research capabilities, and the increasing relevance of Māori as land and forest owners, present a unique set of opportunities to stimulate the industry's future growth.

Potential revenue growth from the forestry/wood sector is estimated at \$6 billion annually, which equates to 10% of the government's economic growth agenda target. The significant majority of this increase will be from exports, as the domestic market is limited by scale and application. Current log exports are predominantly A&K grade, which lend themselves to engineered wood products.

With significant recent processing capability investment by operators within the region, combined with strong projected demand growth, particularly from Asia, India, Japan and Korea, the Bay of Plenty has the potential to compete internationally in processed wood product markets.

Growth will largely depend on improving supply chain efficiencies to market, with opportunities identified at most segments of the value chain. Achieving scale will require industry in the region to work collaboratively, in order to identify export market opportunities, develop suitable products, production systems, applied technology and R&D.

It will also depend on working closely with iwi, in order to activate the significant Māori economy, in particular facilitating the productive use of Māori land assets, and involvement in downstream processing and markets.

| Opportunity | Recommended actions | Responsibility |
|---|---|--|
| Improve market access for processed wood products | 1. Provide funding support through WPMA for updated R&D strategy for wood and fibre processing | MBIE, WPMA, BOC/FWAG |
| | 2. Improve supply chain efficiency to market through supporting HPV permits to Port of Tauranga and Kawerau rail extension | FLAG, NZTA (existing resource), Kawerau industry, NZRail |
| | 3. Develop strong on-shore capability through annual conference on engineered timber, VIP visits | Grow Rotorua, FWAG, MPI |
| | 4. Update design/engineering standards for engineered wood products | MBIE, MPI, BRANZ |
| | 5. Resource a NZ engineered wood programme centred at Scion Innovation Park by establishing a network of capability incorporating relevant agencies | MPI, NZTE, MFAT, MBIE, Scion |
| | 6. Investigate provision of market R&D funds for emerging technology markets such as Japan, Korea and India | MPI/PGP, NZTE, MBIE; \$6m required |
| | 7. Partner with NZTE Capital Team to encourage investment flow from FDI | EDAs, FWAG, NZTE |
| | 8. Identify and address existing barriers to export market development | MPI, MFAT, NZTE, FWAG |
| Afforestation | 1. Support central govt with afforestation initiatives such as Toitu te Waonui and other projects | MPI, FOMA, TTW, Māori land holding entities with forestry interests, Scion, FWAG |
| | 2. Facilitate investment in expanded forest area by recognising environmental benefits and climate change | BOPRC, MPI, FGE |
| | 3. Investment in development of indigenous species plantations for high-value, commercial rotations (eg kauri veneers) | Scion, forestry R&D |



Geothermal

Geothermal energy is one of the largest sectors in the wider Bay of Plenty region and has unparalleled capacity for growth.

To date, the focus has primarily been on electricity generation, however in recent years opportunities to use geothermal resources as a source of thermal energy in direct and cascading uses has come to the fore for a wide range of applications. These include industrial timber and food processing, agriculture, aquaculture, tourism, balneology (medical bathing), and commercial and domestic heating.

Geothermal energy use provides financial benefits, and also reinforces New Zealand's 'clean, green' brand, as it is a low-carbon, renewable energy.

The purpose of developing this sector is to increase the speed and capability of our region to best leverage this growth sector. It will be determined how best to utilise this resource and attract large-scale industries to the region, by partnering with international expertise and using their market access.

In recent years, Māori have build their kaitiakitanga role in the sustainable intergenerational development and use of New Zealand's geothermal resources, and it is important this is recognised.

This action plan is in alignment with a national geoheat strategy being developed by the New Zealand Geothermal Association, NZ geothermal research programmes, GNS Science's potential development of a Geothermal Regional Research Institute, and the Bay of Connections Energy Strategy.

| Opportunity | Recommended actions | Responsibility |
|--|---|---|
| Business investment targets | 1. Identify and prioritise 10 geothermal-symbiotic industries, with 5 companies (50 in total) targeted for investment; action plans developed | MBIE, BOC Energy Sector Group |
| | 2. Document business model for distribution, plus identify and attract businesses to geothermal use; write paper on 'Kissing Frogs Model' for conference presentations | BOC Energy Sector Group |
| | 3. Develop 10 case studies on existing direct use activities in NZ and globally | MBIE, BOC Energy Sector Group |
| Increase Māori knowledge of direct use opportunities | 1. Develop Geothermal 101 – Start to Steam – governance training for delivery to Māori trusts; 2 trainings planned | MBIE, TPK, HMO |
| Develop 'green' branding | 1. Development and marketing of an NZ Green Geothermal brand to attract foreign direct investment | NZTE |
| Mineral extraction and product recovery from geothermal fluids and gases | 1. Research commercial feasibility of recovering products from geothermal brines and other elements, including economics of plant design, integration etc; deliver report on top 10 targets | MBIE research funding, delivered by GNS as part of existing resource |
| | 2. Clarify and distribute position of Crown Minerals Act; requires law reform | NZP&M funded, delivered by University of Waikato |
| NZ geo-heat centre | 1. Develop and operate NZ centre for direct use research and communication | MBIE funded through RRI, included in bid from GNS for Geothermal Research Institute |



Horticulture

The Bay of Plenty's horticulture sector is well-established, contributing just over 3% of the wider region's GDP. Kiwifruit represents the largest sub-sector at approximately two-thirds of the industry's GDP. The next largest sub-level sector, avocados, by value represents approximately 10% of that of kiwifruit.

Kiwifruit is well into recovery following the serious outbreak of the vine-killing Psa virus in 2010. The new, more Psa-tolerant gold varieties are highly productive and the 2015 harvest of a total 123 million trays is well in advance of pre-Psa levels.

Zespri's strategy is to increase industry revenue to \$3 billion by 2025, with current export revenue sitting at close to \$1 billion. This action plan will contribute substantially to industry achieving what has been considered an aspirational goal.

Regional Growth Study workshops highlighted a number of hurdles and opportunities for the horticulture sector, including the immediate priority of unlocking Māori land for kiwifruit. There is strong kiwifruit industry backing to develop a Māori governance structure to address key issues such as land use, water, education and skills. This will also be considered for adoption by the avocado industry.

Education and skills is a significant area of concern for the industry, and already there are a number of initiatives underway, including a horticulture trades academy at Katikati College, which is being supported by industry, but which will also require government backing.

Water is considered a major constraint for the sector. In the Eastern Bay, irrigation schemes will be required to assist in unlocking in excess of 1,000ha of land, most of which is in Māori ownership, while in the Western Bay the tension between water to service urban growth at the expense of horticultural productivity is an area of considerable concern.

| Opportunity | Recommended actions | Responsibility |
|--|---|--|
| Unlocking Māori land for horticulture | Promote kiwifruit as an opportunity for iwi/trusts and develop assessment tools to identify suitable land | Te Awanui Huka Pak, Māori trusts, Tuhono Whenua, Kiwifruit Māori Grower Council (to be established), Zespri, NZKG, Toi EDA, FOMA, TPK, HMO |
| Omaio kiwifruit expansion (EBOP focus) | Implementation of priority actions identified in comprehensive action plan | Industry, Omaio hapu, TPK, BOPRC, HMO, Toi EDA, MPI, ODC, MFE |
| Te Kaha kiwifruit expansion | Implementation of priority actions identified in comprehensive action plan | Industry, iwi, Te Kaha growers, TPK, BOPRC, HMO, Toi EDA, MPI, ODC, Te Tumu Paeroa |
| Development of a Māori governance structure and expand to other hort sub-sectors | Implementation of actions targeted at supporting and facilitating development of Kiwifruit Māori Grower Council | Te Awanui Huka Pak, Māori trusts, FOMA, Tuhono Whenua, Zespri, NZKG, Toi EDA |
| Education and skills | Implement actions targeting increased productivity of Māori land, and creation of career/job opportunities through education, engagement and training | Refer to comprehensive version of horticulture action plan |
| Water – industry risk and constraint | Implementation of actions to enable progression of irrigation development in support of unlocking Māori land for horticultural production | Toi EDA, BOPRC, HMO, WDC, ODC, kiwifruit industry, iwi, TPK, Te Tumu Paeroa |



Māori land utilisation

Growth of the Māori economy in the Bay of Plenty is fundamental to achieving region-wide growth. The Māori economy already contributes \$1.2 billion, or 11%, of the region's annual GDP, however there is significant room for improvement. Contribution can be improved by at least 10-30% over the next 10 years, realising an additional \$120 to \$320 million to the regional economy.

The Bay of Plenty provides the perfect environment to test new approaches to collaboratively (or collectively) address Māori land utilisation. A virtual Māori region will be established for wide eco-system land utilisation, taking ideas to proof of concept or failure quickly so successful ideas can be scaled and passed onto other regions.

The Bay of Connections He Mauri Ohooho (HMO) strategy has an integrated and coordinated approach that is well connected, networked and will innovate for success, and taking a mana-enhancing structure and genuine interface with Māori entities and collectives for the Regional Growth Study and this action plan at every level.

In order for the Māori economy to thrive, Māori need to be empowered as key drivers and champions of opportunities. Leadership also needs to be coordinated and integrated, to ensure efficient use of time and resources, as well as growing greater management capability. Increased collaboration is also needed between Māori entities and external economic players. There are a number of entities that are already collaborating and this needs to be showcased/celebrated and learnings shared.

Māori entities will require access to quality information to identify and assess specific opportunities within the Regional Growth Study framework, with government and industry also playing a key role.

Quality knowledge transfer, current infrastructure and increasing workforce skills and capacity in the region will also be key to unlocking the potential in the Māori economy.

| Opportunity | Recommended actions | Responsibility |
|---|---|-----------------------|
| Build a Māori eco-system to support land use optimisation | 1. Land use optimisation toolkit - complete stocktake of land use option, utilisation tools and existing prototypes to develop toolkit and deploy within region | HMO, contractor |
| | 2. Sector benchmarking and understanding potential land use - complete stocktake of benchmarking and assessment tools to develop fit for purpose prototypes and deploy within region | HMO |
| | 3. Development of land locked and small land holdings - undertake research to profile and quantify holdings, develop framework for improvement | HMO, agencies |
| Build Māori governance and operational capacity | 1. Draw on successful governance and competency diagnostic programmes, facilitate fit for purpose action plans | HMO |
| Trial sector optimisation at enterprise level (x 50 Māori trusts) | 1. Assess benchmarks and potential across horticulture, mixed livestock and dairy | HMO |
| | 2. Deploy fit for purpose prototypes to optimise Māori land utilisation in horticulture, mixed livestock and dairy | HMO |
| Model water quantity, access, limits and constraints | 1. Develop prototype, create additional data layer on infrastructure for implementation and deliver regionally | HMO |
| Support optimisation at enterprise level | 1. Support 5 land cluster projects seeking to fast-track optimisation/implementation (one cluster for each sub-region, 5 targeted participants per cluster, total 25 collectives in year 1) | HMO |



Visitor economy

The wider Bay of Plenty includes some of New Zealand's most well-established tourism destinations, with a diverse range of offerings for both domestic and international visitors, including Rotorua's geothermal and spa attractions, Taupo's outdoor events and recreation areas, Tauranga's services for cruise ship visitors, White Island in the Eastern Bay, and a strong Māori cultural offering throughout the region.

Tourism has the potential to grow significantly across the region and both the Tauranga and Rotorua Regional Tourism Organisations (RTOs) have set targets of doubling the value of their visitor industries to \$1 billion each. With Taupo included, this could become a \$2.5 billion regional sector. Collaborative marketing efforts are coordinated through the Explore Central North Island (ECNI) network, while individual RTOs also undertake their own marketing programmes through public/private partnerships.

Tourism New Zealand has identified various special interest tourism segments that have the potential to drive significant further value across the region. Two segments of specific interest to the wider Bay region are golf tourism and cycling. The region has several cycleways as part of Nga Haerenga and also several 'marquee' and NZ Experience golf courses.

High-quality access to the region is critical for growth and is primarily by road for domestic visitors and by a mix of road/air for international visitors. There are currently significant barriers regarding quality access to the region that needs to be addressed.

Māori are key participants in realising the full potential of the regional visitor economy, including landowners in strategic locations, geothermal, cultural history and various capacities as investors in the industry.

Given the abundant natural resources, activities and support structures in the region, there is also an opportunity to lead New Zealand in identifying and trialling alternative ageing and healthcare tourism programmes.

| Opportunity | Recommended actions | Responsibility |
|--|--|---|
| Develop collaborative regional tourism mechanisms to support growth of visitor economy to \$2.5b by 2030 | 1. Establish framework for RTOs, Māori RTOs and EDAs to determine how strategies can be enhanced through closer collaboration and what value a regional tourism initiative would deliver | RTOs, TNZ, MBIE, ECNI, iwi, Māori RTOs, EDAs |
| Golf (special interest tourism) | 1. Develop economic impact model in conjunction with TNZ to identify wider regional potential from more golf tourists | EDAs, RTOs, TNZ, Greg Turner Golf, MBIE |
| | 2. Work with MBIE to modify TGP fund criteria, so wider economic impact is used to support commercial business cases to funding golf course upgrades to meet TNZ standards | MBIE, RTOs, TNZ |
| Cycling (special interest tourism) | 1. Explore how existing/future govt funds could collaborate with local funds to accelerate strategic cycle trail development | EDAs, RTOs, Cycle Trail NZ, MBIE |
| | 2. Work with Cycle Trail NZ to get proposed cycle trails onto the Great Rides list | EDAs, RTOs, Cycle Trail NZ, MBIE, Trails Trust |
| Access and connectivity | 1. Develop business case and marketing with airlines on options for improved connectivity | RTOs, Air NZ, Jetstar |
| Bay of Plenty wellness strategy | 1. Establish multi-disciplinary team to develop strategic options and programmes to be trialled in target sub-regions initially, then rolled out across BOP | RTOs, DHB, MOH, MSD, QE Health, Māori health groups |
| | 2. Develop a 'better business case' of such programmes | MOH, Treasury, EDAs, RTOs |

Water



Access to water underpins growth opportunities across most of the key industries in the wider Bay of Plenty. Fresh water also sustains life, is vital for the health of people and the lifeblood of the natural environment. For Māori, fresh water is a Taonga and mauri. Demand for fresh water is projected to increase strongly in the region due to an increase in irrigated primary sector land, population growth, conversions from forestry to dairy, and efforts to improve the productivity of Māori-owned land.

In terms of resources, the region has 10 major rivers and 12 iconic lakes in the Rotorua catchment, three major hydro dams and five major river and drainage schemes. The Bay of Plenty's water quality is considered to be good, based on national standards, but fresh water resources are already under pressure and as a result, water quality is declining in some water bodies. With that, the region is also seeing an increase in the intensification of land use. This is particularly significant in the Western Bay, where maintaining productive land is competing with urban growth.

There are also issues around water rights and management, with increasing co-governance mechanisms as iwi settle with the crown. Increasing legislative requirements, data gaps in the understanding of the fresh water resource, and infrastructure constraints are also driving the need for a collaborative regional approach to water allocation and use. There has been significant investment in improving the science and data to better understand sustainable water management. More investment can be made to realise the opportunities in this region.

| Opportunity | Recommended actions | Responsibility |
|---------------------------------------|---|---|
| Resource data - soil | 1. Review and update NZ land use data and prepare a report mapping current potential against land use | Land Care Research |
| | 2. Carry out precision soil mapping of key regional areas | Agrioptics |
| Resource data - water | 1. Prepare Water Data Strategy, publish and make available to stakeholders to help with investment plans | Consultant |
| | 2. Drive efficient use of water allocation by implementing smart water programme | Irrigation NZ (leverage PGP funding) |
| Resource data – climate/soil moisture | 1. Fund additional climate monitoring stations/tensiometer, for better use of resources | |
| Open access platforms | 1. Develop and improve communications to stakeholders | Contractor |
| | 2. Enable opportunities to be driven by communities | |
| | 3. Produce applications for landowners to assess their current location, to assist with investment decisions | Consultant |
| | 4. Leverage information from all data sources | |
| Water bottling export industry | 1. Work with existing industry to understand growth potential and key constraints | WDC, BOPRC, Transit, NZTE, MPI |
| | 2. Develop understanding of future water requirements versus other users such as agriculture, horticulture and municipal | |
| | 3. Support relevant resource and land use consents to attract new investment in water bottling plant | |
| Centre of Excellence | 1. Identify how best to initiate and accelerate development, as a key enabling infrastructure for wider land use development and change to occur. | Grow Rotorua, RLC, TALT, TARIT, Scion, University of Waikato, Waiariki Polytech, NIWA |
| | 2. Pursue co-location of appropriate activities, eg lab testing and field station, as a first step | |