



maven

# Flood risk mitigation business case

## Our proposal







# 1.0

# Whakapapa



# Whakapapa

## Our company

We are a values-based company and our culture is one of respect and integrity.

**Maven helps create vibrant and prosperous economies and societies by using our expertise to assist government to innovate, businesses to succeed and communities to flourish.**

Our 20 year old company has evolved from its Wellington-based technology roots to an international professional services company, with a broad and diverse range of capabilities and skills. With a portfolio of successful initiatives delivered across New Zealand, Australasia, the Pacific, Mexico and the Middle East. Maven has a truly local and international professional services team, with the expertise to understand and work across different cultures and societies.

Around 85% of our business is with public sector (or quasi public sector) clients. We work extensively with regional and local government organisations, as well as NGOs and Crown Research Institutes. Increasingly, our private sector work is growing as the stakeholder and collaboration challenges being experienced by the public sector become more ubiquitous across society.

The name of our company is taken from Malcolm Gladwell's best-selling book, *The Tipping Point*, which popularised the word **maven** the world over. Gladwell used the word to describe people who gather information and impressions, can pick up on new or emerging trends, and synthesise what they have seen and learned into new knowledge. A maven is a trusted expert who seeks to pass this knowledge onto others. It was an easy name to embrace as it epitomises our people.

We are owned by our people. Fourteen Mavens are invested in our business and its future. Our people are both the kete of our collective knowledge and the engine of our capabilities, and we have been single-minded in building a diverse team with complementary skills and experience, from a wide range of professional, social and cultural backgrounds. Collectively, we believe in Maven and have the drive and attitude to genuinely make a difference to the clients we work with.

Maven takes being a good employer seriously and regularly participates in the IBM Best Workplace Survey, a large annual workplace climate and employee engagement survey. Maven has been a regular finalist based on employee engagement scores and feedback that have ranked at the top of our sector. We are a former winner of the Best Small Workplace in New Zealand, and for successive years have been awarded the Five Year League Award for those organisations showing consistently high rankings over a sustained period.

While there are bigger companies in our sector, we believe there are no better companies. We have the size to bring diversity of thought and point of view and experience, but the smallness to bring personal engagement and commitment to everything we do.

We are a small nation and we all know each other. So while we are Mavens, our feet are firmly rooted in the soil of this place Aotearoa and in our whānau and friendships, and our passion is to look beyond the here and now in our work to help make this place better for all of us.





# Whakapapa | Ko wai mātou Our business case practice



**Darryn Thorn**  
Chief Executive

Darryn is the Chief Executive and an owner of Maven Consulting. Darryn grew up in Nelson and moved to the Wellington region in the mid 80s. He is married to Melissa and lives in Lower Hutt. He has two children - Caitlin who lives in Berlin, Germany, and Elliot who lives at home with him and Melissa.

Darryn has been with Maven for 21 years, joining shortly after its establishment, and has been involved in the leadership of the company for most of that time. He now leads a team of experienced professionals growing the business, doing fantastic work for clients, and making Maven a place where people want to come to work.

Darryn's professional expertise spans strategic analysis, business and commercial management, transformational change and programme and project management.



**Kent Duston**  
Principal Consultant

Kent is Pākehā with heritage from Scotland, Ireland and Uruguay via Melbourne. He grew up in Christchurch, has lived in Sydney, Wellington and the Wairarapa, and these days is based in Tāmaki Makaurau with his partner and stepdaughter.

Kent has decades of experience in investment advisory and business management, for both central and local government and the private sector. Since co-developing the Better Business Case training material for Treasury in 2014, Kent has developed investment proposals covering billions of dollars of investment for more than 50 organisations across New Zealand.

Recent investment cases have included the proposal for the \$100m Ōpōtiki Harbour in the Eastern Bay of Plenty, approved by the Provincial Growth Fund; a large-scale investment in Tairāwhiti's recreational and sporting facilities; and funding application to MPI for significant support alongside industry for the primary production sector in key international markets.

Kent's role in developing a business case is to lead the engagement. In practice this includes facilitating stakeholder and community workshops, developing the structure and rationale for the business case, and developing key aspects of the document. Kent's business cases and investment proposals have resulted in significant new funding being allocated in regional New Zealand, largely via the Provincial Growth Fund and Crown Infrastructure Partners.

He aha te mea nui o te ao.

He tāngata, he tāngata,

he tāngata





**Miranda Donovan**  
**Senior Consultant**

Miranda is a senior analyst with a passion for social research. Miranda has a strong background in solutions-focused qualitative research, using innovative research methods that are closely aligned with stakeholder goals.

Miranda has strong consulting experience, including a number of significant business cases and projects. This has included the business case and investment proposal for a major infrastructure project in the South Island, co-funded by central and local government, the business case for a significant community facility in Napier and a social wellbeing investment in Tairāwhiti.

Miranda has a passion for research and has led projects gathering data through structured interview processes, then applying these learnings to develop tangible solutions, including online educational systems and other resources. Miranda has also worked on nationwide evaluation projects developing tailored data collection tools.

Miranda places an emphasis on, and is conscious of embedding culture into the work she does and has experience in driving solutions that align with Kaupapa Māori.

Miranda holds a Master of Arts with First Class Honours in Sociology and a Bachelor of Arts, with a double major in Social Anthropology and Environmental Science.



**Natalia D'Souza**  
**Senior Consultant**

Natalia lives in Tāmaki Makaurau with her husband and two dogs. She applies an intersectional feminist lens to her work and is passionate about achieving social justice and improving equity and wellbeing in Aotearoa New Zealand.

Her background as an academic – most recently as Senior Lecturer – means she has over a decade of experience in qualitative and quantitative research projects and methodologies and has collaborated with a range of business and industry partners. This includes designing and undertaking a \$1.2 million Health Research Council and Worksafe-funded intervention project aimed at improving wellbeing in small and medium enterprises in Aotearoa New Zealand.

Natalia has also been a Director at Netsafe, an independent non-profit online safety agency, since 2020. Through her Directorship role she is a founding member of the Women's Online Safety Partnership: a multi-sector working group with a mission to minimise technology facilitated gendered violence.

Natalia has a PhD in Management, as well as a Bachelor of Science Honours (with First Class) in Psychology. She is also a member of the Institute of Directors.



**Ian Dickson**  
**Senior Economist**

Over the past 30 years Ian's career has spanned a number of roles including economist, public policy adviser, financial adviser and investment banker. In that time, he has developed a range of analytical skills and capabilities and deep familiarity with both private and public sector economic priorities and iwi investment principles.

Ian's areas of specialty include strategic business analysis and review, project and business valuation and capital structure analysis, economic benefit and cost-benefit analysis, risk analysis and risk management, state-owned enterprise financial modelling, Crown entities and Government department economic and financial analysis, banks, financial institutions and insurance assessment, securities design, mergers and acquisitions, and Treaty and commercial negotiation support.

Within Maven's business case team, Ian has developed the economic and financial models that underpin large-scale investments. His models are based in solid economic theory, using the latest thinking and overseas experience as a starting point for Aotearoa-centric analysis. This has included social return on investment (SROI) analysis, wellbeing valuation, and alignment of traditional cost-benefit approaches such as CBAX with the Living Standards Framework. Ian's work is increasingly focused on developing wellbeing valuation into an effective tool to support the Government's wellbeing decision making.

Ian has had considerable experience of working with senior executives, board members and professional advisers from different disciplines including, legal, accounting and audit, public relations, engineering and human relations. That experience has included managing professional teams to undertake complex financial and business projects.



# Whakapapa

## Our business case track record

We have developed more than 60 BBC-compliant business cases since 2014.

Maven's team has a strong track record in developing and delivering business cases for a wide range of agencies and investments. These have included small-scale investments of a few million dollars in regional New Zealand, through to multi-billion dollar national interventions. Our business case client list includes:

- **Infrastructure business cases** for central and local government, including educational institutions, harbours, sporting facilities, museums and cultural facilities, and administrative buildings.
- **Social investment business cases** for central and local government, including social and health interventions, wellbeing investments and climate change responses.
- **Intervention and process business cases** for central government, including security and assurance processes, innovation enablement, and core government functions.
- **Technology business cases** for central government, including significant ICT investments on behalf of a range of agencies and systems.

In many cases final approval of the investments has required Cabinet consideration. In most years, Ministers and Cabinet will consider multiple business cases developed by Maven's team, so we are intimately familiar with the disciplines and processes necessary to obtain the support of key agencies and the endorsement by the Government.

Our business case client list includes the majority of central government agencies including the Ministries of Justice, Education, Health, Primary Industries, Innovation and Employment and others.

At local government level we have undertaken business case work for territorial authorities in Auckland, Hamilton, Wellington, Ōpōtiki, Gisborne, Whanganui, Taupo, Waipā and others.

We have also developed business cases for CRIs and Crown entities such as Callaghan Innovation, a number of iwi across the North Island, private sector organisations and NGOs.



### Kaikōura Harbour – Kaikōura District Council/Kānoa

The business case proposes a significant investment to expand the harbour at South Bay to realise significant benefits in the tourism and marine research sectors.

Currently under Ministerial consideration.



### Tairāwhiti Sports Facilities – Gisborne District Council/Sport NZ

The business case proposes investment of \$110 million over the next decade in revitalising aging sporting infrastructure across the region, underpinned by a wellbeing model showing an \$8 return on every \$1 investment.

Currently under Ministerial consideration..



### EUL Land Release Plan – Taupō District Council

The document maps out how and when development land will be released to the market to enable affordable housing in the Taupō District, using a Four Wellbeings approach to investment value.

Approved by Council in mid 2022.



### Ōpōtiki Harbour Detailed Business Case – Ōpōtiki District Council/MBIE

The business case proposes \$100m to construct a new harbour in the Eastern Bay of Plenty to support the fast-growing aquaculture industry.

Approved by Cabinet in February 2020.



# Whakapapa

## Case study | Ōpōtiki harbour

Over a period of three years starting in late 2016, our business case team partnered with the Ōpōtiki District Council, local iwi Whakatōhea, and a range of other professionals to bring a harbour to life and revitalise one of the most deprived regions of Aotearoa.

The goal to create a harbour and build an aquaculture industry in the pristine offshore waters was visionary. The idea was first put forward in the late 1990s by passionate locals, and through a series of research projects and feasibility studies and overseas fact-finding missions, it slowly took shape – growing Greenshell™ mussels in the open ocean, destined for overseas markets.

But to grow the industry to the scale needed to address generations of poverty and neglect, a safe harbour is needed to provide the aquaculture companies with a base of operations. And the logical location is at Ōpōtiki, arrived at after an exhaustive assessment of the entire coastline from Tauranga to East Cape.

Local iwi Whakatōhea joined with the Ōpōtiki District Council to make the harbour a reality. Working with MBIE and later the Provincial Growth Fund, three business cases were developed at increasing levels of detail and sophistication over a five year period. Our team provided advice for the Indicative Business Case, then picked up the pen for the full Detailed Business Case and the subsequent PGF-requested investment proposal.

All the business cases followed the Treasury-mandated Better Business Case methodology, and utilised Investment Logic Mapping to define the problem statements, outline the benefits and identify investment KPIs.

Underpinning the document was a sophisticated and powerful economic model, developed by leading Senior Economist Ian Dickson. The model

demonstrated the significant positive impact the harbour would have on the local, regional and national economies, using proven EVA assessment methodologies.

The economic model assessed the key metrics: costs, benefits, operating costs and revenues, risks and more – and generated the whole-of-life and NPV assessments that demonstrate the economic value and viability of the harbour.

To account for the variability of aquaculture development, weather and earthquake events and the normal unpredictability of our regional and national economy, a statistical forecasting model was embedded in the economic assessment. This used Markov chaining and Monte Carlo analysis to explore the full range of possible futures, from the pessimistic to the optimistic, so decision makers could be confident the harbour is a good investment over the long haul.

Both the business cases and the economic model have proven themselves to be prescient. The latest job figures and economic growth figures from the Ōpōtiki District are tracking a little above the scenarios outlined in the documents presented to Government and approved by Cabinet. Ōpōtiki is well on the way to realising its future as the food basket of the world.

A redacted copy of the business case is available on request.

Our references for the work:

**Aileen Lawrie**  
Chief Executive, Ōpōtiki District Council  
m: + 64 21 819 342

**Lyn Riesterer**  
Mayor, Ōpōtiki District



Whakatōhea Chair Robert Edwards (left) greets Ōpōtiki Mayor John Forbes (right) in November 2019



# Whakapapa

## Case study | Tairāwhiti sports facilities

Sport is an integral part of life in Aotearoa, and nowhere is this more true than in Tairāwhiti – from netball to waka and from rugby to surfing, the region is awash in sport. Yet the regional facilities are suffering from under-investment and are mostly at the end of their economic life. Re-investment is badly needed, but the region doesn't have the financial resources to build what it requires.

In many ways Tairāwhiti represents the future of Aotearoa; it is forward-looking, intent on building a better future for its people, and increasingly led by iwi.

Maven has been working with a partnership of organisations – the Gisborne District Council, Trust Tairāwhiti and Sport Gisborne Tairāwhiti – for the last 18 months to put forward a funding proposal to central government. It's the most complex business case we've ever developed, covering a huge range of sports and recreational pursuits in cities and towns across the region, and it aims to address 30 years of neglect at a stroke.

The business case is grounded in a robust and thorough economic analysis, using the latest in international academic research and expressed in wellbeing terms. Our modelling demonstrates a return of \$1.91 in wellbeing outcome for every \$1 invested, showing the link between activity and improved quality of life in a range of dimensions. In our view, the analysis makes a compelling case for the Government to consider.

Getting to an investment proposal the entire community can stand behind has been a complex process. We've held workshops, attended community and sports club meetings across the region, met with iwi leaders and Marae chairs and community activists, and discussed possible approaches

with funding organisations regionally and nationally. We've talked through the investment logic with Wellington agencies, taken political advice and held hui in small coastal communities.

Along the way we've met fabulous and passionate people, listened to what they had to tell us and learned an enormous amount as a result. And we think the quality of the discussions and the input of the community is reflected in the quality of the business case. It sets out some compelling reasons for new investment, underpinned by Te Ao Māori – the analysis is multi-dimensional, taking account of the region's unique context, history, people and aspirations.

Work is still ongoing for Tairāwhiti. The final form of the document is now moving through the last stages of ratification from the partners and iwi before being formally presented to the Government by Rau Tipu Rau Ora, the peak body set up in the wake of the COVID-19 pandemic to lead the region's recovery.

A copy of the business case is available on request.

Our references for the work are:

**Audine Grace-Kutia**  
General Manager Communities, Trust Tairāwhiti  
m: +64 27 533 9184

**Stefan Pishief**  
Chief Executive, Sport Gisborne Tairāwhiti  
m: +64 21 194 8607





# Whakapapa

## Building a sustainable future together

### Inclusiveness

#### Our achievements and challenges

Maven has an Inclusivity Strategy. Our place in Aotearoa means we recognise and understand the need to consider and incorporate broader outcomes including social, cultural, environmental or economic. Maven's values have always included being an organisation that is inclusive and welcoming to all, though previously we have not always expressed this directly. We also acknowledge that we can do better.

Our strategy fosters and grows our people-centred, values-based culture; focusing on client centred innovation, collaboration, employee wellbeing and professional development. Day to day, this means promoting a culture of trust, an environment of empathy, and inclusive leadership and decision making.

We recognise that this will lead directly to better outcomes for our clients; being regarded as an inclusive organisation to work for and with, therefore attracting the best people to be Mavens; and increasing our performance, revenue and profit.

### Environmental responsibility

#### Our achievements and challenges

Maven takes sustainability seriously. As well as having taken the obvious steps around recycling and basic environmental stewardship in our offices, we have begun a programme of carbon minimisation right across our business, with a particular focus on travel. Current initiatives include:

- Measuring our carbon footprint using Toitū carbon assess – an online tool that translates standard business information into a carbon footprint. For 2020-2021 our footprint was 0.63kgCO<sub>2</sub>e/\$1000 of revenue, which is significantly less than the sector average of 25.09kgCO<sub>2</sub>e/\$1000, and a reduction of 80% on the previous year.
- An active mode initiative in our Wellington office that provides safe storage and change facilities for cycling. 23% of our in-office team now commute by bike or walk.
- Improving energy consumption, through energy efficient purchases and practices, has seen Maven's average monthly electricity use decrease by 37% over the past 10 years.
- Encouraging the use of MS Teams and Zoom has seen a decrease in travel (inter and intra city) with a reduction of 2.6kgCO<sub>2</sub>e/\$1000 of revenue on the previous year.
- A policy of EV vehicles wherever possible for rental car usage.



# 2.0

# Каурапа



# Kaupapa

## The importance of Te Ao Māori

**There is no Te Ao Māori unit within Maven.** There is no Te Ao Māori manager nor one person tasked with iwi liaison and consultation.

Instead, we are striving to weave Te Ao Māori into the very fabric of our company, a journey that started nearly two decades ago and which will continue for decades to come for all of us. Te Ao Māori is the unique worldview that underpins our identity as Maven within Aotearoa New Zealand, even for those of us who do not have iwi connections. It is the view of our place in the Universe that makes this country and this people different to all others on Earth.

And we are bound together by Te Tiriti o Waitangi, the foundation document of our nation. We wish to observe not just the principles of the Treaty but the actuality of a document that gives the obligations of partnership and the rights of sovereignty to Māori and Pākehā alike.

The heart of Te Tiriti is the expectation of a strong and enduring relationship between two peoples. So here in the whenua of Aotearoa, we embrace whakawhanaungatanga, the quality of connection, as foundational to how we work.

So before we can help you with a methodology, we must generate a relationship between us as partners in this work. In relationship to you, we will:

- Companion you – manaaki ki te tangata
- Challenging yourselves, ourselves and ideas we come across – whakawhitiwhakaaro
- Discover with you, acknowledging leadership – mana motuhake

We will take time to get to know you, and for you to get to know us, before we walk on together. In our view, this the core of what Te Ao Māori means to us and our work.

At the heart, we are practical people. So we have thought long and hard about how we bring Te Ao Māori and Te Tiriti to life in this work for NZIST, based on our experiences with similar mahi. Our approach stem from our values of respect and integrity, which underpin our commitment to craft solutions to kaupapa that change lives and add value to the quality of life.

Our objective is to bring about alignment and trust. To do this, we need to weave relationships, skills and experience with a sense of purpose, which in turn will enable the transformation of ideas into life changing experiences.

The key to working relationally means taking a systems approach: “ah, if you are wanting that outcome, how does that interact with this group over here? And here? And where are the loci of influence? What needs to shift, what is shifting?”

To be able to answer these questions requires engagement, respect and humility. We acknowledge the linkages and interconnections, known and unknown, so your situation, the work to be done, the outcomes to be achieved sit inside a wider network of connection. And that is why the foundation of Te Ao Māori is woven into the fabric of our day-to-day work, and not simply pasted over the top of traditional Pākehā ways of doing things.

We have all sat in meetings and on the Marae, and we have asked questions and sought advice, and – when asked – provided our point of view. And the more we have sat and listened, the more we have seen the success of Māori ways of doing things and listened to the aspirations of the emerging generation of Māori leaders, the more we have concluded that what is good for Māoridom is good for our nation.

As you will see from the following page, this approach becomes concrete when applied to the foundations of the work, by starting from what the research tells us about how Māori learn. Because if we can help Māori learn, then we will help Pākehā learn as well, and we will build a strong nation together.

Te Ao Māori means different things to different organisations. In our case, it means striving together, in full and open partnership, with the iwi and the hapū and the whānau and the people all together, and finding our common ground and our shared wisdom to stand as one, caring equally for each other.

And the following pages show you how we will do this.

**Ma te tika me te pono ka  
tū tahi tatou**

– It is by virtue of proper alignment and in truth we stand together



# Kaupapa

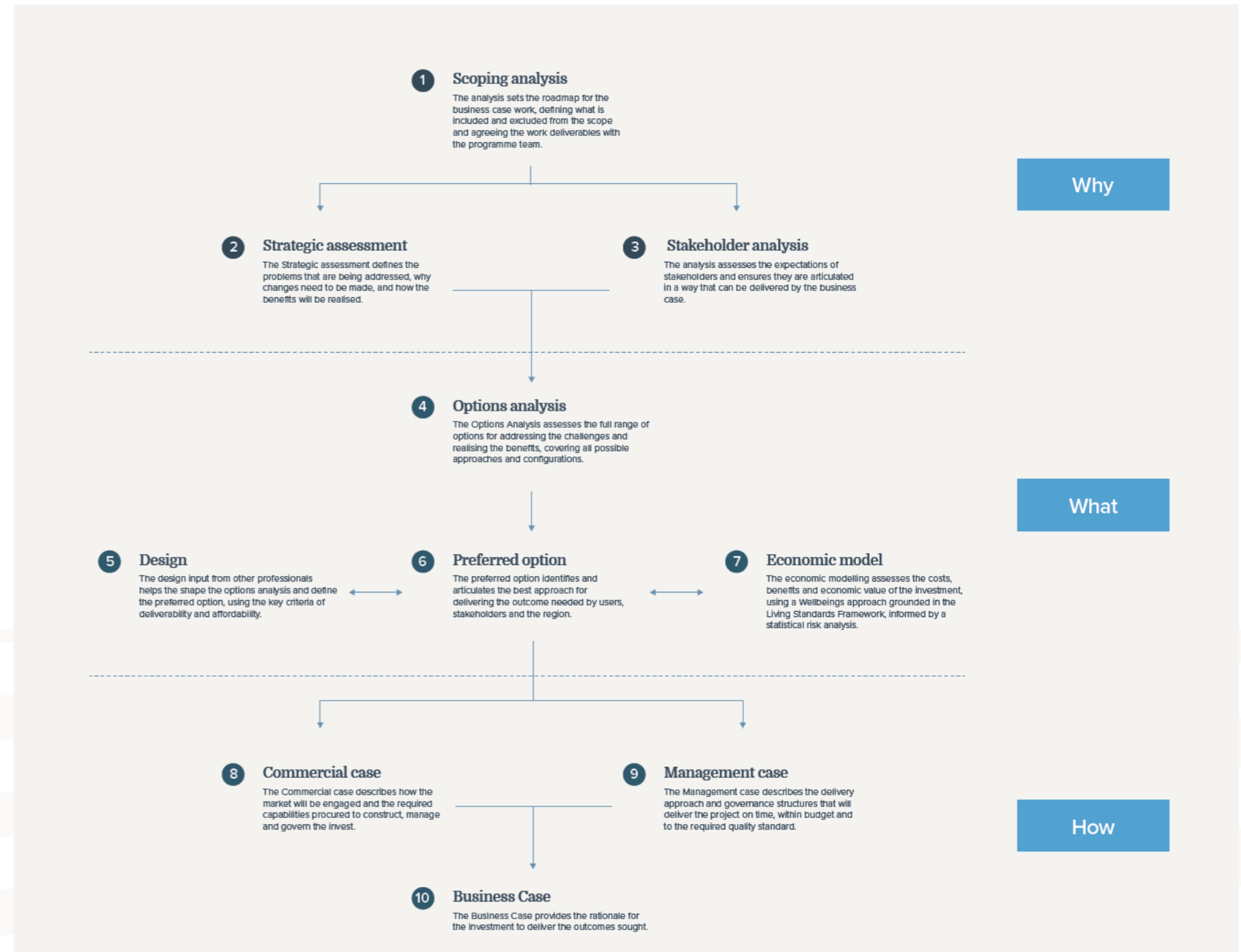
## Our business case development methodology

The diagram at right provides a high-level view of how we typically work with clients and stakeholders to develop and deliver a business case and economic model, and with it the information needed for decision makers to consider. Each engagement is individually tailored to the investment and the needs of stakeholders and decision makers, so the diagram is indicative.

Business cases are normally undertaken in three phases:

1. The **Why** phase confirms the scope of the investment, the expectations of stakeholders and the context. This results in a Strategic assessment document, which is part manifesto, part strategic vision, and part roadmap to the future.
2. The **What** phase brings together the threads of the objectives, the required functions and the wisdom of stakeholders into a preferred option – via the discipline of a full options analysis. The options analysis is a highly collaborative process that ensures all possible approaches have been examined, and that consensus exists for moving forward together. This results in an agreed option that has the support of stakeholders. And as part of this phase, an economic model is developed where required – typically using a four wellbeings/social return on investment analysis grounded in the Living Standards Framework.
3. The **How** phase brings the preferred option to life. It delivers an integrated and coherent business case describing the rationale for investment, with a clear-eyed view of the opportunities, costs, benefits, value and risks.

Maven has a strong track record in delivering investment outcomes using this approach, covering a wide range of investment classes.





# Kaupapa

## Delivering the outcomes

Once the preferred option has been developed and its economic viability established, the mechanisms for delivering the outcomes need to be defined. These are the Commercial and Management cases within the document, which describe the market engagement and project management approach respectively.

Developing this section of the business case pulls together the threads across a number of professions – the engineers, procurement specialists and project management professionals who will contribute their expertise and experience.

Completion of the business case brings together all the components into a coherent document that needs to be validated with stakeholders and the community. This is an interactive process, and our experience shows it is best done in person in workshop settings.

For governance groups and key stakeholders, a walkthrough workshop is a valuable way to understand the overall investment, gain feedback and insight, and build consensus about the requests being made to Government. These are facilitated sessions where we ratify both the logic of the investment and the fundamentals of the business case document. We have allowed for two of these sessions as the business case nears completion.

However, it's important to note that the final document is not the first version the project team will see; our process shares early drafts and precursor information, and we are always seeking feedback and input as the business case develops. We are proud of our writing and communication skills but we are not precious about our documents – so we welcome input at every stage of the process, as the different perspectives will improve the way we tell the investment story.

The example business cases are not just the result of Maven's development skills, they are also testament to our collaborative way of working with our clients and other professions.

### The importance of other professionals

Maven has extensive commercial and project delivery expertise, but in our experience getting the perspectives of a wider range of professionals adds significant value and robustness to any business case, particularly for infrastructure investments. So the development of the right delivery methodology is an inherently collaborative approach, and one where we welcome the input and advice of other professions.

In many cases we work with other professionals through multiple engagements. For instance, our work on the Ōpōtiki Harbour saw us collaborating with Tonkin + Taylor, one of the country's premier and most experienced engineering firms. And in developing the business case for the Kaikōura Harbour we had the pleasure of working alongside the same firm – and some of the same team members.

We always welcome the opportunity to work with and learn from other professionals. In recent engagements for infrastructure business cases, this has included architects, engineers, transport consultants, quantity surveyors and others. In some cases the professionals work for global firms, whilst in others they are locals who are deeply involved with the projects in their communities.

In all cases the process is highly collaborative. We facilitate workshops with all the professional services companies at the table, and we have attend workshops run by others where necessary. Throughout, we openly share information, knowledge and draft documents so there is a common understanding working towards a common goal.

### The importance of kōrero

Collaboration is easy to describe and much harder to do. In our experience and in our company, effectively working alongside stakeholders with a wide range of interests and concerns requires a three step approach:

- **Empathy** – It's important to listen and learn. Our workshops are always facilitated by team members trained in the discipline, so there's space for hearing diverse viewpoints and giving people the opportunity and time to talk about the real issues. Active listening works better for us than coming with too strong an agenda, because the success of any initiative depends on participants feeling they've been heard.
- **Understanding** – As the listening is occurring, we're constantly using techniques such as sociometry. When done with integrity, it is used to assist the group to explore relationships with each other and ideas to whatever level they feel comfortable. So it's not a case of our team observing and then making assessments that are held in secret; it's a key part of building on what people are telling us to help bring their ideas forward.
- **Synthesis** – Taking the input from workshops and meetings and conversations, we then use structured tools and techniques to analyse the various points of view and develop a way forward. Sometimes that means interest/influence/attitude matrices or working with the tools in our consensus frameworks, but we apply rigour and logic to assessing the best way forward for the group as a whole.

Our work is always a balance between the logical and the human; attempting to make change in organisations that balance the need for efficiency and effectiveness with the desire for human-scale interactions, with the space for people to be people.



# 3.0

# Mahi



# Tikanga mahi

## Our understanding of your requirements

The Regional & Unitary Councils' River Managers' Special Interest Group requires a business case to support large-scale and long-term co-investment in Aotearoa's regional and unitary council river control, flood protection and drainage infrastructure. This is a critical infrastructure investment for the nation, as management of rivers, drainage and flooding risks is key to the safety of communities across the nation.

The SIG is made up of regional and unitary councils who are closely collaborating to develop the way forward for co-investment. Given the scale and importance of the infrastructure, it is unrealistic and unsustainable for councils to carry the financial burden of maintenance and upgrades on their own – particularly as we grapple with the challenges of climate change.

Co-investment from central government is a necessary building block for long-term sustainability, and a business case is required to set out the rationale for funding. However, the timeframes for developing and tabling the document are short, due to the looming deadlines for Budget 23. This necessitates a completed document by 28 October 2022.

Thankfully, considerable work has already been done to identify the required projects and investments at a regional level, and to prioritise

them at a national level. The business case will build on work done by the SIG and its member Councils, and by consultants and engineers. The purpose of the business case is to pull these threads together, fill in the gaps of knowledge and rationale, and make a compelling case for investment based on a clear cost-benefit assessment.

While the deadlines are short, the SIG is expecting a positive reception from the Government, based on earlier conversations with Ministers and officials.

The final step is to develop the business case – and the balance of this document explains how Maven will achieve this for the SIG.

**Ka pū te ruha ka hao te  
rangatahi**

– When the old net is casted aside a new one is created



# Tikanga mahi

## Our approach to the work

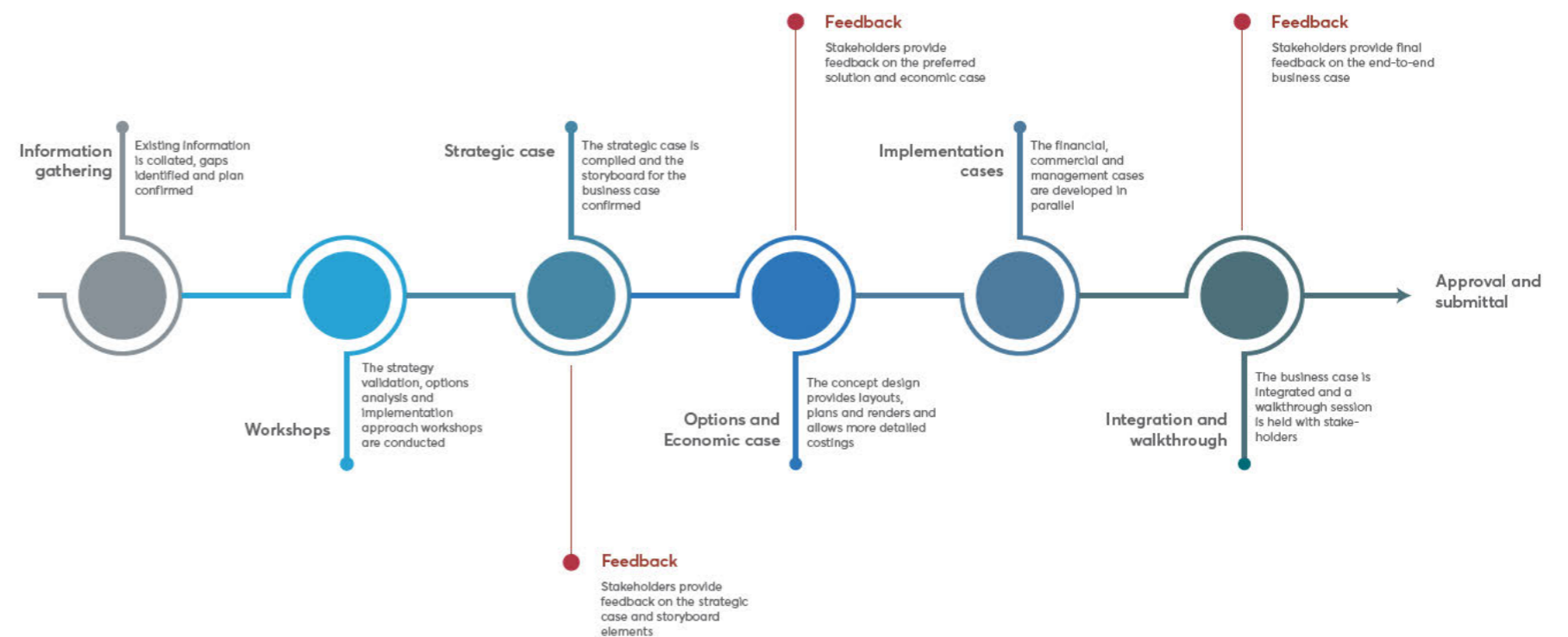
In the previous section we've described how we approach the development of business cases. In this instance, we are assuming that significant work has been done on the scale and form of the preferred solution, and that precursor work has been done on how it might be delivered and funded. Some limited work has also been done on prioritisation and the impacts of adverse events on different communities.

This engagement therefore needs to:

- Pull together the existing material into a coherent and compelling narrative about the necessity for long-term and sustained investment
- Fill in key gaps in the options analysis, particularly around ownership, delivery and other capability dimensions, so the rationale for the selected mix of projects and priorities is robust
- Develop the benefit assessment, working from the initial evaluation work from Tonkin + Taylor, using the appropriate statistical and social return on investment methodologies to make the case for investment
- Leverage the knowledge and expertise of the SIG and officials to build a compelling narrative for why investment is in the nation's best interests.

The flow of activity for how we will achieve this is shown at right: the process begins with collation and planning, progresses quickly to workshops with stakeholders, and then proceeds into document development and feedback. Alongside the main flow of activity, the benefits analysis described on the following page will be undertaken.

Our approach to the workshops and obtaining feedback on the document as it progresses is described at right.s



### The workshop approach

In order to validate the issues, agree the full range of solution elements and develop the implementation pathways, a suite of workshops will be required at the outset of the work. Given the timelines, we envisage the workshops being run back-to-back over two full days.

The purpose of these sessions is to validate the solutions and ensure there is consensus, fill in the gaps between the existing work and Treasury's expectations for the business case, and agree elements of the implementation and funding case that are likely to need further discussion. The workshops will build on existing material rather than starting with a fresh sheet of paper, so attendees will need to have a good familiarity with the work undertaken to date.

Participants should be drawn from the relevant governance groups, have sufficient expertise and knowledge to develop the solutions and the authority to agree to the options being put forward in the business case.

### Document feedback

There will be multiple points for stakeholders to provide feedback on elements of the business case, followed by a single feedback opportunity on the full document. We suggest the final version is released to stakeholders in an interactive walkthrough session where immediate questions can be answered and the attentions of people focused on the key matters.

Necessarily, the feedback windows will be short – it is likely that one week will be available for comments and suggestions at each of the feedback milestones. The documents will be provided in online form so the comments can be collated easily and transparently. Guidance will also be provided on the type of feedback that will be most useful in refining and improving the document.



# Tikanga mahi

## The challenges and opportunities

The very considerable amount of thinking and analysis that has gone into developing the options and the solutions provides a solid foundation for the business case. Without this effort, completing the business case in time for Budget 23 would not have been feasible, so the work to date has been invaluable.

However, the value of the investment is significant, at >\$1.5 billion over the next 10-15 years. This means there will be a high level of scrutiny from officials and Ministers alike.

In our experience, there are a number of key points of vulnerability for a business case such as this, mainly centred on the size and complexity of the investment and the limited time window to take the full range of officials on the journey. In this context, the primary challenges are:

- We need to demonstrate the value of the investment in a form that allows Treasury to understand and quantify the benefits
- We need to engage with a range of officials across a range of agencies, who may well have a view about the investment but only limited understanding of the context or rationale.

In many other circumstances, achieving consensus across the diverse stakeholder group could also present a challenge; in this case, however, we are assuming a working consensus around the prioritisation of investment and projects already exists, thanks to the precursor work at the governance level.

The key issues are discussed in more depth at right.

### Demonstrating the value of the solution

Most infrastructure investments provide for a straightforward assessment of benefits because they are focused on solving specific problems. In this case, the benefits are more diffuse and subject to high levels of uncertainty, as major flooding events occur rarely and with a great deal of unpredictability. In many respects, flood protection and river management infrastructure is akin to an insurance policy.

The primary challenge will therefore be to convince decision makers that it is worth paying the premium for the insurance – in this case, the significant investment in infrastructure – and that the costs should be borne equitably between regional and central government.

There is always a strong bias towards inaction on issues with large costs and uncertain outcomes, so a key objective of the business case will be to demonstrate that doing nothing is likely to be more expensive for the country than taking the recommended action. This requires we are specific and concrete about the risks so we can be specific and concrete about the benefits. How we achieve this is described on the following page.

### Taking officials on the journey

A key challenge for the business case is the delivery of a high-quality document by 28 October 2022, in order to meet the deadlines for Budget 23. The timeline for development of the case is necessarily compressed – and with it, the opportunity to engage with officials across a range of agencies.

There are three challenges in this area:

1. There will be limited workshopping of options and solutions at the start of the process, during September. As noted in our approach, the workshopping has necessarily been compressed into two days; not all interested officials will be available to attend, and expanding the participant list too far will undermine the quality of the outcomes.
2. There will not be the opportunity to circulate early-stage drafts of the end-to-end business case due to the compressed timelines. This means some officials – particularly if they have not been involved in the work to date – will only see the investment proposal when it is in its final stages. This means they will have a constrained window of time to comment on the proposed investment.
3. As the interval between completion of the case and its submittal to Treasury is short, only limited tailoring will be feasible at the final review stage. Should officials wish to revisit core decisions or re-work substantive areas of the case, there will be insufficient time to do so without missing the Treasury-directed dates.

There are only a few mitigations available for these issues, all of which are centred around maintaining excellent working relationships with key officials across a range of agencies. This is discussed further in the assumptions page.





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## Benefits, economics and uncertainty

Having the preferred solution to hand is insufficient rationale for a business case; rather, there must be a concrete quantification of the benefits the nation will receive from the investment; in effect, answering the question why this investment should be prioritised over better healthcare or addressing child poverty.

In this case, the risks from poor flood control are very significant – but the risks are a classic long-tail problem; that is, they don't occur very often but are catastrophic when they do occur. And the mechanisms for quantifying these risks and assessing them against other pressing national priorities is very poorly understood.

We use sophisticated statistical analysis tools to both understand the risks and quantify their impacts in economic, social, environmental and cultural terms, using dollar-equivalent values, supporting a social return on investment (SROI) model. We use the tools to build an economic model that demonstrates the real societal cost of inaction and the consequences of rare-but-catastrophic events, so decision makers can see in straightforward cost/benefit terms the importance of taking action.

We have built a number of these models, an example of which is described at right. Their purpose is twofold:

- To provide the robust economic analysis needed to demonstrate the value of the investment to decision makers, explained in straightforward numbers to a largely non-technical audience
- To provide the detailed analysis underpinned with solid economic theory and well-understood methodology, so other analysts and economists (such as Treasury) can have confidence in the robustness of the valuations and conclusions.

In this case, using statistical tools and SROI valuations is likely to be the only way to put an effective valuation on the benefits of the programme over the long term. And doing so is key to achieving priority in Budget 23.

### The real value of the forest

Our team was asked by the Gisborne District Council to provide an assessment of a Council-owned forestry block, which had commercial, environmental, social and cultural values. The forest had been planted in pinus radiata as a commercial crop following Cyclone Bola, and was now ready for harvest. The question in front of the Council and the community was whether to replant a commercial crop and maximise the economic return, or replant in ngāhere and maximise the environmental, social and cultural returns.

Our team built a sophisticated four wellbeings economic model, which included statistical modelling of a range of long-term variables – including log prices, growth rates, carbon values and more. Using shadow valuations we were able to put dollar-equivalent values on the non-financial factors, and produce a comparison between the commercial approach and replanting in ngāhere. The model also showed where the benefits accrued – whether they were realised locally, regionally or nationally.

The result was a clear and concise paper, easily understood by non-technical audiences, which has resulted in the forestry block returning to native bush.





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## Timeline and pricing for the work

The tables at right show the timelines for the work, based on the resourcing allocations. Key milestone dates are shown in bold.

The constrained timelines mean we will need to allocate sufficient resources to the work to undertake multiple activities in parallel. Our team will therefore be as follows:

- **Kent Duston, Principal Consultant**, will lead the engagement, facilitate the workshop days, guide the development of the business case, and develop specific elements of the document.
- **Ian Dickson, Senior Economist**, will undertake the development of the statistical and economic model, perform the analysis runs and produce the outputs ready for inclusion in the business case.
- **Miranda Donovan, Senior Consultant**, will lead the content development and construction of the business case, undertake the risk analysis and support the economic model development.
- **Dr Natalia D'Souza, Senior Consultant**, will undertake the supporting research and analysis work for the economic model development, and edit and peer review the business case.
- **Jeff Page, Consulting Manager**, will support the client engagement.

Based on our all-of-government panel rates and the activity durations on the preceding pages, our estimates are shown in the table at right. The estimates include the end-to-end development of the business case, concluding on 28 October. Should additional revisions be required past the completion date or support be needed to navigate the Budget 23 process, we will be happy to assist on a standard time and materials basis.

Activity	Start date	Completion date
Project start	Monday, 22 August	
<b>Information gathering</b>		
Project planning meeting	Monday, 22 August	Monday, 22 August
Information gathering	Monday, 22 August	Friday, 26 August
Storyboard development	Monday, 22 August	Wednesday, 24 August
Document template developed	Tuesday, 23 August	Friday, 26 August
Workshop planning	Monday, 22 August	Wednesday, 24 August
Workshop invitations sent	Tuesday, 23 August	Tuesday, 23 August
<b>Strategic Case</b>		
Strategic context development	Monday, 29 August	Friday, 2 September
Current state development	Monday, 29 August	Saturday, 10 September
Desired future state development	Monday, 29 August	Saturday, 10 September
Investment scope development	Monday, 29 August	Friday, 2 September
Risks, constraints, dependencies	Monday, 5 September	Friday, 9 September
Section integration	Monday, 5 September	Friday, 9 September
Released for feedback	Monday, 12 September	
Feedback duration	Monday, 12 September	Monday, 19 September
<b>Economic case</b>		
Strategic alignment development	Monday, 5 September	Friday, 16 September
Multi criteria analysis	Monday, 12 September	Friday, 23 September
Options analysis development	Monday, 12 September	Friday, 23 September
Prioritisation framework and model	Monday, 26 September	Friday, 7 October
Preferred option development	Monday, 26 September	Friday, 7 October
Benefits framework development	Monday, 5 September	Friday, 23 September
Outcome risk analysis	Monday, 26 September	Friday, 7 October
Released for feedback	Monday, 10 October	
Feedback duration	Monday, 10 October	Monday, 17 October
<b>Economic modelling</b>		
Source data gathering	Monday, 29 August	Saturday, 10 September
Wellbeing model development	Monday, 5 September	Friday, 23 September
Markov chain development	Monday, 5 September	Friday, 23 September
Simulation runs	Monday, 26 September	Friday, 7 October
Wellbeing valuations	Monday, 26 September	Friday, 7 October
Business case integration and narrative	Monday, 26 September	Friday, 7 October

<b>Financial case</b>		
Capex requirements	Monday, 26 September	Friday, 7 October
Projected cashflow	Monday, 26 September	Friday, 14 October
Funding sources and flows	Monday, 26 September	Friday, 14 October
Operating cost assignment	Monday, 10 October	Friday, 14 October
<b>Commercial case</b>		
Commercial framework	Monday, 26 September	Friday, 14 October
Construction pipeline assessment	Monday, 26 September	Friday, 14 October
Procurement requirements	Monday, 26 September	Friday, 14 October
Procurement strategies and shared services	Monday, 26 September	Friday, 14 October
<b>Management case</b>		
Governance structure	Monday, 26 September	Friday, 14 October
Programme structure	Monday, 26 September	Friday, 14 October
Programme delivery methodology	Monday, 26 September	Friday, 14 October
Delivery risk analysis	Monday, 26 September	Friday, 14 October
Recommendations and next steps	Monday, 26 September	Friday, 14 October
<b>Integration and release</b>		
Business case integration	Monday, 17 October	Friday, 21 October
Walkthrough workshop with stakeholders	Monday, 24 October	Monday, 24 October
Released for feedback	Monday, 24 October	
Feedback duration	Monday, 24 October	Thursday, 27 October
Business case complete	Friday, 28 October	

### Pricing for the engagement

Resource		Total
Kent Duston, Principal Consultant		\$51,750
Ian Dickson, Senior Economist		\$72,000
Miranda Donovan, Senior Consultant		\$81,000
Dr Natalia D'Souza, Senior Consultant		\$32,400
<b>Engagement total</b>		<b>\$237,150</b>



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## The assumptions we're making

We always work on the basis that a highly collaborative process generates a better result for our clients. We always prefer to work interactively, so we've made a number of assumptions about how our teams will work together:

- We assume that we will work with the SIG team in the first instance to refine and agree the timelines, milestones and deliverables, and that this will form the core of the joint project plan for the work.
- As noted earlier, we think the completion date is achievable. The key assumption, however, is that stakeholder engagement will be able to be accommodated on the dates in the plan, and there is a risk that timelines could move if stakeholders expect a more thorough or time-intensive approach.
- No contingency has been allowed in the overall duration and we assume that all components can readily proceed; however, we will be guided by you on whether further contingency is required.
- It is assumed that the existing documentation that the SIG and other stakeholders are holding is readily available. No contingency has been allowed for documentation to be created; should additional time be required to source the material, it will negatively impact on the timelines, with the possibility of additional costs.
- We assume you will provide administrative resource as needed for setting up meetings and workshops.
- SIG team members and other stakeholders who need to attend the workshops outlined in the approach are assumed to be available on the dates we mutually agree. Any unavailability of the required stakeholders may well have a negative impact on the planned delivery dates, along with the possibility of additional costs.
- We have assumed the workshops are group sessions that bring together the key participants in focused sessions. This approach means we have made little allowance for one-on-one meetings

with individuals or smaller groups; if these are required to address particular issues or concerns, there are likely to be impacts on the proposed delivery dates, along with the possibility of additional costs.

- We assume that all workshops and meetings will be in Wellington. As most of our business case team is based in Tāmaki Makaurā, some travel to the capital will be required where Zoom or Teams meetings are inappropriate. Travel will be charged at cost, but will be discussed with you first.
- We have assumed that all formal stakeholder feedback occurs as part of a single document revision for the components of the business case and the final integrated version. Should there be further document versions required as a result of subsequent feedback, there is likely to be additional cost and time required, which will be charged on a time and materials basis based on our advertised All-of-Government consulting panel rates.
- We assume senior decision makers from the SIG will actively engage in the process, as the input of your strategic thinkers is crucial to ensuring the work is aligned with your objectives and strategies, and that the end result is compelling for the Government.

Our time and budget estimates in this proposal allow for this interactive approach.





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