‘Shovel ready’ Infrastructure Projects: Project Information Form

About this Project Information Form

The Government is seeking to identify ‘shovel ready’ infrastructure projects from the Public and certain Private Infrastructure sector participants that have been impacted by COVID 19.

Ministers have advised that they wish to understand the availability, benefits, geographical spread and scale of *‘shovel ready’* projects in New Zealand. These projects will be considered in the context of any potential Government response to support the construction industry, and to provide certainty on a pipeline of projects to be commenced or re-commenced, once the COVID 19 Response Level is suitable for construction to proceed.

The Infrastructure Industry Reference Group, chaired by Mark Binns, is leading this work at the request of Ministers, and is supported by Crown Infrastructure Partners Limited (CIP).

CIP is now seeking information using this Project Information Form from relevant industry participants for projects/programmes[1] that may be suitable for potential Government support. The types of projects we have been asked to consider is outlined in Mark Binns’ letter dated 25 March 2020.

CIP has prepared Project Information Guidelines which outline the approach CIP will take in reviewing and categorising the project information it receives (Guidelines).

Please submit one form for each project that you consider meets the criteria set out in the Guidelines. If you have previously provided this information in another format and/or as part of a previous process feel free to submit it in that format and provide cross-references in this form.

Please provide this information by 5 pm on Tuesday 14 April 2020**.**

As an initial task the Infrastructure Industry Reference Group has been asked to prepare a report on infrastructure projects/programmes that are ready for construction and could, if the Government deemed it appropriate, be deployed as part of a stimulatory package. It should be noted that the full impact of COVID 19 on the economy will not be known for some time, and the Government’s decision to accelerate any construction-related spend will be determined by its assessment of priorities at the time. This information is being sought in good faith, but no undertaking can be made that the criteria or any other considerations will not change or that any projects coming forward from the Reference Group will be accelerated, or any of the Reference Group’s recommendations adopted. This situation we all find ourselves in is truly dynamic.

This document relates to the gathering of project information only and is not a Notice of Procurement. It does not form part of any procurement process. It does not commit the Government or CIP to take any further steps, or provide any financial or other assistance, in connection with any information in response to this document or the projects to which that information relates.

[1] We refer to “projects” throughout. This this term includes programmes of work in all cases.

Section 1: Key Information [Criteria 2 and 3]

1. Project Title: Coastal and Marine Research Centre

2. Please provide your details:

Organisation Name:	University of Waikato		
Entity Type:	Tertiary Education Institution		
Contact Name and Role:	Alister Jones, Senior Deputy Vice-Chancellor		
Email Address:	Alister.jones@waikato.ac.nz	**Telephone:**	0274852236

3. Please provide a very brief description of the infrastructure project:

Background

The University of Waikato has operated a small Marine Field Station from leased premises in Tauranga since 2011. The Field Station has been extremely successful and is highly rated by stakeholders in the Bay of Plenty region, and quickly gained international recognition. It runs the only long-term estuarine programme in NZ, and the only marine natural products programme linked to agriculture futures (Blue2Green solutions). In addition, the Field Station leads both marine biosecurity research (e.g. invasive fan worms) and sea ecotox research (e.g. long-term Rena recovery research).

The leased premises the Field Station operates from have become increasingly inadequate for the scale and types of specialist research required to support new Zealand's marine and coastal environment and the University has been working with Tauranga City Council (TCC) since 2015 to identify and secure a site to establish a purpose-built research centre.

Project – construction of a Coastal Marine Research Centre

This infrastructure project is to build a multi-disciplinary coastal marine research centre in Tauranga providing a clear public benefit to the community, Tauranga City, the region, nationally, and internationally. The facility will provide specialist research laboratories including temperature-controlled marine and aquatic laboratories, PC2 aquarium capability, Ministry of Primary Industry (MPI) licensed marine biosecurity laboratories, bio-molecular and microbial handling facilities, data centre, engineering megatronics, machine learning, environmental laboratories, design workshops, and seminar spaces. The Research Centre will also include significant public and educational spaces to directly engage the community and to school-aged children.

Construction readiness

Covid19 has negatively impacted the funding for this project. Subject to funding from government this project can be shovel-ready within 12 months.

Public Benefits

The Coastal Marine Research Centre will host expanded research focused on enhancing the resilience and restoration of the marine environment and urban coasts. The new facility will enable the undertaking of research that generates new commercial activity in areas such as marine-derived pharmaceuticals, nutritional and agrichemical innovation. The multidisciplinary facilities will deliver research that provides practical marine and coastal engineering solutions to future port development, climate change, coastal protection, flood risk management, effluent control, and water management issues.

The Centre will provide a truly unique science education engagement site with a strong focus on building an understanding of the coastal and marine environments and how to protect them in the wider public and school-children. It will include a significant community education programme, interactive displays, live feed cameras in the harbour, aquarium show-casing marine species, together with demonstrating solutions to current coastal environmental issues.

4. This project will be located in which Territorial Authority: Tauranga City Council

5. Please confirm the project sector, category and type of infrastructure:

Project Sector	✓
Accommodation	☐
Agriculture, Horticulture and Forestry	☐
Alcohol Availability	☐
Bioscience and Biotechnology	✓
Construction	✓
Energy	☐
Film and Television	☐
Imports and Exports	☐
Information communications and technology	☐
Manufacturing and Production	☐
Retail Trade	☐
Tourism	☐
Wholesale Trade	☐
Central Government	☐
Local Government	☐
Other (research)	✓

Project Categories	✓
Three waters	☐
Transport	☐
Buildings and Structures	✓
Other infrastructure	☐

Project Type	✓
Critical infrastructure	☐
New infrastructure	✓
Replacement/refurbished infrastructure	☐
Repurposed infrastructure	☐

6. What is the total cost of the project (NZ$M): $50.6 million (estimate)

7. Provide a high-level breakdown of this spend (e.g. construction costs, professional fees, land, other etc.):

This project has been estimated at

- Construction costs estimate $38.75 million
- Professional fees estimate $7.5 million
- Land – no purchase cost, lease cost to be negotiated with TCC
- Fitout and equipment estimate $4.35million

8. Briefly outline the value the project will deliver in terms of employment contribution.

[Briefly describe the employment contribution the project will make (whether directly or within the supply chain). Further information can be provided in section 3]

a) Construction – this project will deliver for consultants, contractors and sub-contractors a forward programme of work for the next 2- 3 years. The University has a commitment to employing local contractors/sub contractors where possible to support local and regional economies. The nature of this project also includes the producers and suppliers of specialist scientific and engineering laboratories and equipment outside the construction industry.

b) Local Māori - Of note, the University has a commitment to working with Māori to improve employment outcomes as demonstrated in the construction of the Tauranga CBD campus. This would be a key component of this project. Firstly, we will work with the construction company to create opportunities for apprenticeships across all trades involved. Secondly, we will employ a team of Tauranga Moana Māori artists to create a facility with tikanga, cultural narrative and ancestral stories built into the fabric of the building.

c) Operational employment – this facility will employ 30 -40 full-time and part-time employees including academic staff, tutors, technicians plus estimated 6 staff in general facility operations, maintenance

contractors, security and cleaners.

d) University staff – this facility will also help retain staff across the University in services affected by COvid19 focused on international students, student support, scholarships and research developers.

e) Local economy – this facility will have a flow-on effect in supporting the local economy in retail, hospitality, transport, tourism, accommodation etc through events such as national and international conferences, seminars, local community events that will attract people to the region.

f) Regional and national business – the facility will directly contribute to employment outcomes in the region and nationally through providing skilled graduates and researchers for the science and technology sectors, entrepreneurial start-ups and companies generating new commercial activity from the research. This includes in pharmaceuticals, nutritional and agrichemical and aquaculture innovation.

9. Briefly describe how the project is currently/ intended to be funded:

The University of Waikato intended to fund the project through:

- University cashflow
- Philanthropic contributions
- Support from regional and local councils

10. Has this project previously applied for funding with any part of Government? Yes: ☒ No: ☐

- If Yes, please describe which part of government (i.e. PGF, NZTA FAR etc.), the outcome of the discussions and who such discussions were with (what Ministry and official).

The Marine Research Centre project was identified in the Proposed Covid 19 Stimulus Package submitted by the Western Bay of Plenty SmartGrowth Partnership Independent Chair Bill Wasley on 3 April 2020 to Ms Rebecca Maplesden Ministry of Housing and Urban Development, noting that the University of Waikato was applying for funding under the CIP process.

It is seen as an enabling project for the SmartGrowth Central Corridor Te Papa peninsular intensification and regeneration activity that will contribute to and support growth without dependencies on any other project.

Section 2: Construction Readiness [Criteria 1]

11. Please briefly explain the status of the project including confirmation that the project will fall into one of the three categories of readiness (see 12 below).

[Briefly describe project status]
Status: C

We confirm that this project could have been expected to commence construction by April 2021 but is unlikely to do so due to Covid 19.

Project milestones completed to date

- Two sites identified at Sulphur Point
- TCC submitted application 3 October 2019 to Department of Conservation seeking revocation of the recreation reserve status of part of Marine Park (6,952m2)
- Consultation undertaken with Tauranga Moana iwi and Ngai Tamarawaho
- Cultural Values Impact Assessment Report provided in 2017 by Buddy Mikare, Ngai Tamarawaho
- Consultation undertaken with stakeholders at Sulphur Point
- Geotechnical Interpretative Report 2017 commissioned by TCC
- International consultation and review of marine research facility designs and specifications
- Acquired detailed design plans and specifications for a number of international best practice facilities
- A bulk and location study prepared in 2017 outlining the requirements of the facility supported by initial engagement with traffic engineers, NZTA, the Port of Tauranga, Bay of Plenty Regional Council , Harbourmaster
- Issues register
- Initial funding discussions with private benefactors, Bay of Plenty Regional Council and TCC
- Business Case underway

Project Programme to construction commencement

- Decision on site and TCC lease requirements (1 month)
- Funding confirmation (1 – 2 months)
- Design process to resource consent (2 -3 months)
- Detailed design to building consent (4 – 5 months)
- Earthworks and site preparation (3 months)
- Tender and procurement process (2 months)

Note: several of these process will be run concurrently once funding is confirmed

12. Confirm which of the following categories the project best falls into.

Status	✓	**Further commentary (briefly set out barriers to commencement)**
A. Projects which currently are (or were) in the construction phase but have been put on hold due to COVID 19 and are likely not to progress, or to progress at a much slower rate or scale/scope, if not supported post COVID 19	☐	*[Insert your relevant commentary here]*
B. Projects which have a high expectation of commencing the construction phase within	☐	*[Insert your relevant commentary here]*

the next six months (by 31 October 2020), but are unlikely to do so due to COVID 19		
C. Projects which could have been expected to commence the construction phase within the next 12 months (by 30 May 2021), but are unlikely to do so due to COVID 19	✓	Barriers to commencement include delays in confirming the site and new funding arrangements

13. Confirm the status of key milestones

Status		✓	**Expected Date**
Procurement	*Suitable tender complete*	☐	April 2021
	Tender evaluation in progress	☐	
	Request for Tender in the Market	☐	
	About to put out a Request for Tender to the market	☐	
Detailed Design	*Detailed Design Complete*	☐	Feb 2021
	Detailed Design Underway	☐	
	Detailed Design to commence	☐	Oct 2020
Designations/Consents	*Approved*	☐	Oct 2020
	Lodged	☐	August 2020
	In preparation	☐	
Land Acquired	*Yes*	☐	
	Being negotiated under PWA (please indicate stage below)	✓	
	Has not commenced	☐	
Business Case or Investment Case	*Approved*	☐	
	Draft	☐	
	Underway	✓	
	None	☐	

14. Briefly outline any other comments on the key project timetable or key milestones

[Please briefly cover:

- *Key barriers / risks to the project being 'shovel ready'*
- *Expected timeframes and processes for acquiring necessary resource consents*
- *Any other additional information as required above*
- *Expected construction completion date.]*

Key barriers to the project being shovel ready include

- Determination of the site – Delays in the Department of Conservation decision on TCC application 3 October 2019 seeking revocation of the recreation reserve status of a parcel of land at Marine Park or delays in the process to obtain agreement with TCC on the alternative site at the north end of Sulphur Point
- Timeframes for decisions on funding
- Delays in the resource consent process

Expected timeframes and processes for acquiring necessary resource consents

- It is anticipated that the Resource Consent would be acquired by October 2020 as a significant amount of work has been undertaken in terms of the sensitivity studies that have been done around the land acquisition

Expected construction completion date is

- 20 months from commencement of construction

Additional information

- A key component of this project's ability to be shovel ready within 12 months is the research on international marine research facilities the University has undertaken over the past three years to inform the development of the proposed Coastal Marine Research Centre. Professor Chris Battershill and the General Manager of AIMS David Mead have garnered technical information on research centres, aquaria, laboratory design and fit-out from around the world based on an international review of best practice (funded by the Australian Federal Government). The University has access to design plans and specifications which will speed up the design process, and has staff who bring significant experience from New Zealand and overseas institutions in the design and fit-out of state-of-the-art marine and engineering research centres as well as science outreach centres of excellence.

Section 3: Overall Benefits and Risks [Criteria 4]

Please advise at a high level whether a project brings real value (in an economic, social and/or environmental sense) to New Zealand as a whole or the region in which it is located in line with Treasury's Living Standards Framework[2] and Sustainable Development Goals[3]. Please take into account, where relevant, the draft 2021 Government Policy Statement on land transport, available at https://www.transport.govt.nz/multi-modal/keystrategiesandplans/gpsonlandtransportfunding/gps-2021/, and the priorities that it establishes.

15. Briefly outline the social, environmental and economic benefits of the project to the local region and New Zealand and overall value for money.

[Include reference to any Business Case/Investment Case or an assessment that can demonstrate any contribution to the Government's wider goals with respect to social, environmental and economic objectives and value for money]

An initial investment of $50 million into the Coastal and Marine Research Centre will bring real, long-term, economic, environmental and social value to the Bay of Plenty region and to New Zealand. This will be realised through its construction, and through its operations, directly contributing to the human and natural capital assets at the core of generating sustainable intergenerational well-being for New Zealanders.

Treasury's Living Standards Framework

The Research Centre will benefit both the current and future economic/cultural/environmental/social well-beings of Treasury's Living Standards Framework. It will support the development of natural and human capital by specifically

- undertaking research that increases our understanding of the natural environment, the impacts of climate change, and identifies long-term sustainable solutions *(environmental well-being)*
- increasing skills, knowledge and qualifications in areas of national importance – marine science, coastal engineering, climate change, water quality etc *(economic and social well-being)*
- increasing employment opportunities and earnings across people in the Bay of Plenty region through higher qualifications and the development of intellectual property creating new entrepreneurial activity *(economic and social well-beings)*
- enabling the establishment of spin-off companies creating new jobs and producing new products in pharmaceuticals, nutrition, agrichemicals *(economic and environmental well-beings)*
- supporting Māori aspirations and cultural identity through the collaborative work with iwi to support the health of Tauranga Moana and species within the ocean *(cultural wellbeing)*
- reflecting iwi history and culture in the design and operational protocols of the building (as achieved successfully in the Tauranga CBD Campus) *(cultural well-being)*
- building the understanding of the general public in how to preserve the health of our marine environment and changing behaviours at an individual and community level *(social and environmental well-beings*
- continuing and increasing the global partnerships and networks of marine research scientists and institutions, governments, regional bodies and key stakeholders working together on collaborative, inclusive and sustainable projects

Sustainable development goals

The Research Centre is directly aligned with New Zealand's approach and commitment to the Sustainable

[2] https://treasury.govt.nz/information-and-services/nz-economy/higher-living-standards/our-living-standards-framework

[3] https://www.mfat.govt.nz/en/peace-rights-and-security/work-with-the-un-and-other-partners/new-zealand-and-the-sustainable-development-goals-sdgs/

Development Goals by specifically

- undertaking research that identifies threats to our unique coastal and marine ecosystems focused on enhancing the resilience and restoration of the marine environment and urban coasts *(SDG13 climate action, SDG14 life below water, SDG15 life on land)*
- delivering research that provides practical marine and coastal engineering solutions to future port development, climate change, coastal protection, flood risk management, effluent control, and water management issues (*SDG9 industry innovation and infrastructure, SDG13 climate action, SDG14 life below water, SDG15 life on land)*
- providing international leadership in coastal and marine science and engineering and the creation of solutions to local and global challenges based on regional, national and global cooperation. *(SDG17 partnerships for goals)*
- enhancing our nations leadership in engineering innovation, focusing on automated marine biosecurity surveillance, aquaculture (in-sea and on land) processing *(SDG9 industry innovation and infrastructure, SDG13 climate action, SDG14 life below water, SDG15 life on land)*
- integration with a planned Entrepreneurial Academy for the business leaders of the future, working on living projects that will lead the way to new high value commercial opportunity (*SDG9 industry innovation and infrastructure)*
- hosting internationally relevant research at Whakaari White Island, one of only a few places on the planet where shallow water Ocean Acidification research can be carried out *in situ* (in the many gaseous venting systems around the island). The proposed centre would constitute an International research portal to enhance access to the 'natural laboratory' that is Whakaari. (*SDG13 climate action, SDG14 life below water, SDG17 partnerships for goals)*
- contributing to increased quality of research-informed tertiary education across undergraduate, post-graduate and doctoral programmes in multiple disciplines including marine science, biotechnology, aquaculture, ecotoxicology, coastal restoration, engineering, climate change *(SDG 4 quality education)*
- supporting research-informed teaching in all parts of the tertiary network and collaborating with other regional tertiary institutions creating meaningful pathways for students and researchers between all levels of tertiary programmes *(SDG 4 quality education, SDG17 partnerships for goals)*
- providing a truly unique science education engagement site to inspire and educate young people about the marine environment and contribute to increased enrolments in STEM subjects *(SDG 4 quality education)*

16. What is the expected contribution to local/ national employment?

[Provide estimated number of jobs. Cross refer to question 0 as required]

Estimated number of jobs Note: the majority of roles are expected to be sourced locally from the Bay of Plenty / Waikato region

- construction phase is likely to engage 55 sub contractors estimated as 250 jobs
- estimated 24 consultancy practices will be engaged with an estimated 40 jobs
- wider supply chain estimated as 200 jobs
- Centre staffing estimated as 30 - 40 staff plus 65 PhD and Masters researchers, and 3 science communication staff and community volunteers
- local employment in facilities operations such as cleaning, security, estimated as 6 jobs
- potential spinoff companies estimated as a minimum of one company per year from 2022 will create multiple jobs. For example utilising mussel waste to create bioplastics and biomaterials/fertiliser from the over 50,000 tonnes wasted per year is valued at $50 million per year and employment of 30 -50 new staff in every mussel processing region.

Other employment generating opportunities will come from spinoff companies in areas such as

- seaweed aquaculture to provide feedstock for extraction of valuable bioproducts such as anti-methanogenic food additives for cattle estimated at $56 million per year
- anti PSA-V compounds as an organic solution to the kiwi fruit industry would save Zespri $500 million per year, an agricultural company and an extraction company would be setup with ultimate value estimated at $50 million per year in revenue

17. What are the risks associated with the project? Each risk should be ranked as high, medium or low and include a short explanation as to why it was given that risk rating.

Risk	Low/ Med/ High	Further commentary on risk
A. The risk of the project not commencing within the advised timescale	medium	Due to potential delay in securing funding and site
B. The risk the project will not be completed on time, to cost or to specification	low	The ongoing effect of COVID19 may affect the risk to the supply chain which can be mitigated by materials and labour sourced both locally and within NZ. The project will be managed by professional consultants and experienced project managers with the assistance of the University of Waikato and our robust procurement processes.
C. Risk the project will not realise the benefits outlined above	low	The current Field Station has successfully proved its value to the region and NZ, and its alignment with both the Living Standards Framework and the Sustainable Development Goals

18. Are there any other key project risks or any other information which would be useful background or context at this stage?

[Outline any other key project risks not covered above.

Provide additional information which may be of use to us at this stage]

Significant risk in delays

There is a significant and increasing risk that delays to this project will impact negatively on New Zealand and the Bay of Plenty's advancement in terms of natural capital and the environmental sustainable development goals.

Background

The research demands on the small existing Field Station in leased facilities have stretched the University's ability to the limit over the last five years due to insufficient and inadequate facilities. The University considered but discarded the option of investing in retro-fitting the leased space for two reasons. Firstly, the site does not provide the best environment for a research facility, and secondly a commercial lease does not provide the long-term stability and security required to invest significant crown funds in attempts to retrofit the buildings.

The University has been working with TCC since late 2015 to assess possible locations for a new purpose built research centre, this included both TCC land and privately owned sites. Two sites on Sulphur Point were chosen after an extensive analysis. After consultation on a site at the northern end (not recreation reserve) TCC determined to notify the Department of Conservation of the intent to seek revocation of the status of part of Marine Park at Sulphur Point.

Proven history of delivering benefits

The University has been undertaking research in the Bay of Plenty's coast and estuaries since the 1970s and in 2011 opened a small Coastal Marine Field Station in commercially leased facilities at Sulphur Point. Led by Chris Battershill, Bay of Plenty Regional Council Chair in Coastal Science, his team are recognised internationally for their estuarine and marine geology/coastal hazards expertise, their innovative approach to resolving environmental issues, and in providing opportunity associated with enhancing wealth generation (including job creation) in fields associated with the Blue Economy. They undertake contract research, collaborative research, consultancy, survey work, environmental monitoring programmes, data analysis and interpretation of coastal seabed and shallow water mapping. Researchers work in collaboration with iwi, industry, government agencies and Crown Research Institutes across a number of areas including biosecurity, coastal sustainability, ecology and agri-science.

The Field Station has a strong focus on sustaining Tauranga Moana and is the research home for Manaaki Te Awanui (Tauranga Moana Iwi research collective), working with all local iwi on projects to support the health of the Tauranga moana. This includes with Te Whanau Apanui, Opotiki and far eastern Bay of Plenty hapu for development of Opotiki marine precinct and support of aquaculture diversification in the eastern bay offshore farming region, and with Te Arawa (Maketu/Kaituna) for examining re-diversion of the Kaituna River back into the estuary, a research program internationally unique in examining geographic scale restoration. Additionally staff collaborate with Northland, Southland, East Coast and Taranaki iwi on issues of land-sea connectivity, coastal productivity and in particular the restoration of Taonga species including Toheroa.

The Field Station has long-term research/science provision associations with the Port of Tauranga (New Zealands largest commercial port), DoC, MPI, MfE and others with regard to urban and coastal development initiatives and marine protection. Led by Chris, staff played a key role in minimising the environmental impact following the grounding of the MV Rena on Astrolabe Reef, off the entrance to the Tauranga Harbour in October 2011,

The Field Station is also the base for major strategic initiatives for New Zealand including, but not limited to,

- the Antarctic Programme led by Professor Ian Hawes
- the Entrepreneurial Universities Programme focused on creation of a seaweed commercialisation platform and led by Dr Marie Magnusson
- the marine base for Genomics Aotearoa initiatives concerning Taonga species led by Maui Hudson and Chris Battershill
- emergent international portal to Whakaari White Island as a Smithsonian Institute Marine Geo site for examining Ocean Acidification (in development but for which a permanent, fit-for-purpose marine research facility is needed)
- University of California Regents/UoW program for collaboration across three major sectors of coastal research: environmental restoration, aquaculture and marine biodiscovery for medicinals (UC Davis, UC Santa Barbara, UC SanDiego/SCRIPPS)

The project has the support of key regional stakeholders such as Tauranga City Council, Bay of Plenty Regional Council, Priority One, SmartGrowth, and prior to COVID19 attracted the interest of private benefactors.

Section 4: Impact of COVID-19

19. Please briefly comment on the likelihood and timing of the project recommencing once the COVID 19 Response Level is suitable for construction to proceed

[For example when the Government moves away from level 4 restrictions will you be able to immediately commence/ restart the project?

What are the key conditions or barriers to commencing/ restarting the project? Please include cross reference to Q21 response (below) if Government support is required for the commencement/restart]

The project will be able to recommence immediately following the lifting of level 4 restrictions.

The key conditions to this are support from government with funding and confirmation of which site will be available at Sulphur Point. Once these are secured the University will be able to proceed immediately with the procurement of consultants and the design process.

20. What is the best estimate of the impact (financial/social/environmental) COVID 19 has had on the project and on local industry associated with the project?

[Please provide the best estimate in $ amount (or ranges) and unemployment numbers, and describe the nature of those impacts]

Financial impact – project funding

The primary financial impact of Covid19 has been loss of the ability of the University and potential contributors to fund the project, estimated at up to $50 million. The University of Waikato's bottom line has been significantly adversely affected by COVID19 and thereby its ability to invest in major capital infrastructure projects, and it is expected this situation will prevail for several years. Please note the University of Waikato is distinct from other universities because the Hamilton campus is located on land returned to Waikato-Tainui following the tribe's 1995 settlement with the government. This means that unlike every other New Zealand university, it does not hold significant land or commercial assets on its balance sheet that could be sold or leveraged to assist in funding during times such as these.

Financial and social impact – Bay of Plenty employment

The loss of funding for this project will impact on jobs and social well-being in the region for

- Bay of Plenty construction industry and supply chain estimated loss of 490 jobs and $32.8 million
- hospitality/transport/accommodation providers in the Bay through loss of international /national / regional events and conferences

Financial and environmental impact – potential loss of key scientists

Critically, delays from Covid19 in the project to create purpose-built facilities are increasing the pressure on researchers and scientists who have been struggling to undertake research in inadequate facilities for well over three years. New Zealand and the University are at risk of losing internationally renowned scientists and their important programmes because of the ongoing personal and professional pressure created by the current environment. There will be a long-term financial and environmental impact from this potential loss.

Financial and environmental impact – inability to deliver critical research

Covid19 caused delays from loss of funding for the project extend the period the University is unable to deliver new research projects focused on the environmental health of marine and urbans coasts and the creation of IP and commercial opportunities. This includes, but is not limited to, the following opportunities that require the new specialist facilities

- aquaculture initiatives including the urgent scale-up of the production of anti-Psa-V compounds from seaweeds for the kiwifruit industry
- full proof of concept research associated with the Entrepreneurial University project
- research examining Ocean Acidification (requiring specialist laboratories including a 'clean lab' for high end climate change/biogeochemistry research (eg White Is International Geohub) and the development of an international portal to Whakaari White Island as a Smithsonian Institute Marine Geo site
- biosecurity research projects such as current requests for solutions around Kauri Die back, Myrtle rust and Microsporin Bovis requiring specialist laboratories

Financial and environmental impact – delays in developing spinoff companies and ventures

Covid19 caused delays from loss of funding risk loss of the development of IP and innovative spin-off companies generating new commercial revenue. This includes in areas such as

- ventures for new fin fish aquaculture and Integrated Multi-Trophic Aquaculture ventures aligned with elaboration of the Bay of Plenty offshore aquaculture initiatives (8,000ha gazetted for aquaculture in the region/PGF $93.7m investment in Opotiki Harbour development and allied infrastructure including a marine precinct) *estimated value for 3 additional products of $171 million*
- value- adding waste streams from marine industry (eg Mussels) for food, fertilizer and bioplastics/biomaterials, *estimated value of $50 million per year*
- capitalising on pilot projects underway with NIML/Sanfords and engineering advances in automation for the seafood and aquaculture industry *estimated value between $50 - $100 million*
- biosecurity surveillance and remote sensing in general for environmental health monitoring
- marine additives/supplements and functional foods. This will draw on continued alliances in the pharmaceutical space with the National Cancer Institute in the US, national and Australian alliances in the health sector (Maurice Wilkins Institute, Ferrier Institute, Malaghan Institute and agencies in Australia such as the Eskitis Institute, QIMR and WAIMR)

21. Has this project already, or is likely to benefit from already announced Government led financial support for businesses (e.g. wage subsidy scheme/business finance guarantee scheme) Yes: ☐ No: ☒

- If Yes, please describe the scheme and extent of the support you have received/expect to receive.

22. Briefly outline the top 2-3 things that the Government can do to help progress this project. Please consider both financial and non- financial levers such as lowering regulatory barriers, adjusting Government procurement practices, fast-tracking resource consent processes.

[Top 2-3 actions (financial and non- financial) that Government can do to help progress or remove barriers to the project.]

1. Provision of full funding to enable the project to proceed
2. Fast track application to revoke recreation reserve status of site, or support to secure lease with TCC for second option at Sulphur Point
3. Fast-tracking resource consent processes and any regulatory barriers associated with services infrastructure at Sulphur Point

Note that any government funding provided for this project would create an owned asset on the balance sheet of the University, which would in turn flow through as an asset on the balance sheet of the consolidated crown accounts.

Please indicate clearly whether you consider any information you have provided in this form to be confidential. Confidential information will not be publically released, other than in anonymised form, except to the extent that any release is required by law.

The information in this form is not confidential.