APPLICATION TO BECOME A REFERRED PROJECT UNDER THE COVID-19 RECOVERY (FAST-TRACK CONSENTING) ACT 2020

Attachment 1 – Site Plan
Attachment 2 – Titles
Attachment 3 – NDH Concept Design Report Excerpts
Attachment 4 – Environmental Effects Assessment Summary

PART 1: APPLICANT

Applicant details

Person or entity making the request:	Ministry of Health
Contact person:	Lauren Semple
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Postal address:	PO Box 139 Christchurch Central 8140
Job title:	Partner
Email:	lauren@greenwoodroche.com

PART 2: PROJECT LOCATION

The application:

- Does not relate to the coastal marine area;

Site address/location:

The site for the new Dunedin Hospital (**NDH**) spans three blocks in central city Dunedin, located in close proximity to the central business district, the existing hospital campus and University of Otago facilities including the Medical School.

As shown on **Attachment 1**, the block framed by Castle, Cumberland and St Andrews Streets (the **Cadbury Block**) will house the proposed Inpatient Building, with the block to the North (the **Wilsons Block**) housing the proposed Outpatient Building and the block to the east of the Cadbury Block, framed by Anzac Avenue and Cumberland Street (the **Bow Lane Block**) housing a variety of non-clinical activities to support the functioning of the NDH clinical facilities.

Legal description(s):

The Cadbury Block is held in three separate titles:

- OT129/279 described as Section 53-55, 72-74 Block XVI Town of Dunedin and Part Section 56, 71 Block XVI Town of Dunedin, 6962m² more or less;
- OT304/181 described as Deposited Plan 5322, 7244m² more or less; and
- OT13B/665 described as Sections 60-67 Block XVI Town of Dunedin, 8097m² more or less.

The Wilsons Block comprises five separate titles:

- 933937 described as Allotment 4 Block XXI Town of Dunedin and Lot 1 Block XXI and Lot 2-3 and Lot 5-6 Block XXI Deposited Plan 312 and Lot 1-2 Deposited Plan 5915 and Section 43-44, 57-58 Block XXI and Section 59 Block XXI Town of Dunedin, 8088m² more or less;
- 902786 described as Section 45 Block XXI Town of Dunedin, Allotment 1-2 and Lot 3 Deposited Plan 3051, Part Lot 1 Deposited Plan 4790, Lot 2 Deposited Plan 4790, Lot 1-2 and Lot 3 Deposited Plan 9784, 4028m² more or less;
- 902787 described as Part Lot 1 Deposited Plan 1693, 5m² more or less;
- OT4B/1308 described as Lot 1 Deposited Plan 12082, 506m ² more or less; and
- OT282/82 described as Part Section 54 Block XXXI Town of Dunedin, 506m² more or less.

The Bow Lane Block is held in two titles:

- 290005 described as Lot 4 Deposited Plan 371694, 3905m² more or less; and
- 290006 described as Lot 5 Deposited Plan 371694, 1069m² more or less.

Copies of these titles are included as **Attachment 2.**

Registered legal land owner(s):

The Ministry of Health (**MOH**) is the registered owner of all of the above described parcels of land.

Detail the nature of the applicant's legal interest (if any) in the land on which the project will occur, including a statement of how that affects the applicant's ability to undertake the work that is required for the project:

The land has been lawfully acquired by MOH under the provisions of the Public Works Act 1981 for the purpose of constructing and operating the NDH.

PART 3: PROJECT DETAILS

Description

Project name: New Dunedin Hospital – Whakatuputupu

Project summary:

The new Dunedin Hospital is the largest hospital built to be undertaken in New Zealand and one of the largest ever infrastructure projects. It will support the SDHB's continued provision of high quality health services throughout the lower South Island, and will be a key urban landmark for Dunedin, testament to the city's long-standing role in health provision and health education.

Project details:

Introduction

The project involves development of a new Dunedin Hospital on a brownfields location in central Dunedin. With an estimated build cost of more than $1.4B, the NDH is the largest hospital build in New Zealand and one of the largest infrastructure projects ever undertaken. On completion, the NDH will support the Southern District Health Board's (**SDHB**) continued provision of high-quality health services throughout the lower South Island, and will be a key urban landmark for Dunedin, testament to the city's long-standing role in health provision and health education.

The project is necessary as a result of the current poor state of the existing hospital facilities. In particular, the existing hospital's clinical buildings have been found to:

- provide a deteriorating environment that is eroding quality of care, creating safety risks and potential harm and causing distress to patients and staff;
- result in inflexible and inappropriate care facilities that restrict service capacity, cause delays and increase outsourcing costs; and
- constitute care facilities that cannot absorb innovations, preventing efficiency gains and care improvements.

Extensive investigations have determined that these buildings are uneconomic to renovate or refurbish to resolve these issues.

As shown in the attached excerpts from the NDH Concept Design Report (**Attachment 3**), the NDH will comprise two main clinical buildings, an Inpatient Building located on the Cadbury Block and an Outpatient Building located on the Wilsons Block, together with an Ancillary Building located on the Bow Lane Block. The Inpatient and Outpatient Buildings will be connected by one, single level air-bridge and one three-level air-bridge over St Andrew Street (with both staff and patient/visitor access). The Ancillary Building will linked to the Inpatient Building by a single level air-bridge over Castle Street (with staff only access).

Resource Management Act 1991 Authorisations

Development of these buildings will require the following authorisations:

- a restricted discretionary activity consent for the NDH Inpatient and Outpatient buildings under the CBD Edge Commercial North zone (**CEC North**) provisions of the Dunedin City Second Generation District Plan (**2GP**); and

- a Notice of Requirement and associated Outline Plan of Works for the Ancillary Building on Bow Lane (located in an industrial zone adjacent to the CEC North zone).

Locating non-clinical, more industrial, facilities such as the loading dock and kitchen in the Ancillary Building on the Bow Lane Block provides a superior clinical outcome. However, it also requires use of industrially zoned land which, while well suited to the intended use, triggers a non-complying status if such uses are ancillary to hospital facilities (as they are in this case). Critically, the operation of the RMA means that the activity status of the Ancillary Building deems all parts of the project as non-complying with a resultant expansion in the scale and nature of the consenting enquiry. This creates an unacceptable time and outcome risk to the project. While the designation also gives rise to a wider enquiry (similar to a non-complying activity) it does not widen the scope of the enquiry for the balance of the project. Given that, the option to utilise a Notice of Requirement has been taken.

The consenting of the NDH project is being split into the following four distinct phases capturing all consents required for the project from Dunedin City Council and Otago Regional Council:

- Phase 1 – Demolition: consents from Dunedin City Council and Otago Regional Council for the demolition of existing buildings, structures, and services, including the associated disturbance of contaminated soils.
- **Phase 2 – NDH Development:** consents and a notice of requirement from Dunedin City Council for construction of the NDH Inpatient and Outpatient Buildings, Ancillary Building, and associated access, loading areas, patient drop off/pick up areas, landscaping, and temporary construction areas.
- Phase 3 – Site Preparation: consents from Dunedin City Council and Otago Regional Council for site earthworks, and piling for the new buildings, including the associated disturbance of contaminated soils.
- Phase 4 – Operation: consents from Dunedin City Council and Otago Regional Council for ancillary hospital operational activities including hazardous substances storage, signage, and discharges to air from the building plant.

The phasing of consents coincides with the overall timing of project design, construction, and operation, and specifically:

- Consents required under Phase 1 for site demolition have either been obtained, or are in the process of being obtained to enable the remaining demolition to occur.
- Timing of the Phase 3 site preparation consents is dependent on confirming soil contamination risks, the ground improvement methodology, and detailed piling design for the new NDH buildings. These consents will be sought separately from Dunedin City Council and Otago Regional Council upon completion of the necessary design work.
- Timing of the Phase 4 operational consents is dependent on confirmation of operational requirements for the hospital, including the nature and quantities of hazardous substances to be stored, wayfinding strategy for signage, and selection and design of the final building plant.

The NDH Project

The new Inpatient Building will provide acute specialist services, emergency intervention, diagnostic services, acute and elective surgery, medical and surgical inpatient care, paediatric and maternal inpatient care, and related clinical and non-clinical support services. The Outpatient Building will house consultation and treatment spaces, day surgery facilities, and procedure and diagnostic services. The Ancillary Building will house a variety of non-clinical activities which will support the functioning of the main NDH buildings. These activities include loading dock facilities, an industrial kitchen, cleaning and building services, plant and waste management. Once complete, the NDH will provide capacity for approximately 411 beds (including 30 Intensive Care Unit beds), with space for future expansion. The increased capacity (including the proposed shell spaces) is predicted to meet clinical demand through to 2043.

As part of its partnership with Te Rūnanga o Ngāi Tahu, MOH is working with Kāi Tahu consultancy, Aukaha Limited, to ensure that the NDH is designed in a manner which will support and enhance the health outcomes and cultural wellbeing of Māori.

The NDH will strengthen the existing connection to the University of Otago and the Otago Polytechnic in its capacity as a teaching and clinical training facility for medical, nursing and allied health staff. As a digitally enabled facility, it will support new and emerging technologies that improve the patient and staff experience, and provide the flexibility to adapt to future models of care. Reflecting the focus of central and local government on improving the environmental wellbeing and resilience of communities, the NDH is being designed to achieve the New Zealand Green Building Council Green Star 5 environmental rating and As-built certification. If that rating is achieved, it will be the largest public-sector led development and first hospital in New Zealand to realise that outcome.

Beyond its critical importance to the delivery of healthcare, development of the NDH will also have significant implications for the city of Dunedin. Initiatives are already underway to facilitate the training and upskilling of construction workers (including those at higher risk of unemployment) including the announcement of a $31.7M trades training centre at the Otago Polytechnic. In addition to the significant employment opportunities associated with construction of the NDH, the project is expected to have wide-ranging economic benefits for the city, including direct economic stimulus resulting from the construction spend and related activity. The NDH is also expected to catalyse a number of private and public-led projects, including an Inter-professional Learning Centre which will be delivered in conjunction with SDHB, Otago Polytechnic and the University of Otago, and a wider tertiary health training precinct supported by the University of Otago and the Otago Polytechnic.

In summary, this is a transformational project. Critically, it is also being delivered at a time where, in the face of the current and forecast social and financial impacts of COVID-19, the need for employment opportunities and economic stimulus is acute. As further set out in this application, the NDH will contribute to supporting New Zealand's economic and social recovery from the impacts of the pandemic, and will be delivered in a manner which promotes the sustainable management of natural and physical resources. Approval of the NDH as a referred project under the COVID-19 Recovery (Fast-track Consenting) Act 2020 (**Fast Track Consenting Act**) is therefore sought to support the certainty of the investment made in this project, and the accelerated realisation of the benefits it will provide.

Where applicable, describe the staging of the project, including the nature and timing of the staging:

The NDH will be delivered in two main stages. The conditions of the current facilities, particularly day surgery facilities, are such that relocation to new buildings has become a matter of urgency. For that reason, the Outpatient building on the Wilsons Block will be constructed first, followed by the Inpatient and Ancillary Buildings. Subject to receiving all necessary consents and approvals, the Outpatient Building enabling works could begin at the start of 2022, with the main construction phase commencing in late 2023. Enabling works for the Inpatient Building could then begin in January 2023.

In addition to prioritising the most urgent clinical needs, staging of construction in this manner will ensure a safer, more efficient transition of services from the existing hospital to the NDH.

Consents/approval required

Relevant local authorities: Dunedin City Council

Resource consent(s)/designation required:

- Land-use consent
- ~~Water permit~~
- ~~Alteration to designation~~
- ~~Subdivision consent~~
- ~~Discharge permit~~
- ~~Coastal permit~~
- Designation

Rule(s) consent is required under and activity status:

Relevant plan / standard	Relevant rule / regulation	Reason for consent	Activity status	Location of proposed activity
2GP	18.3.5.31 – Land use activity status	Hospitals are listed as a restricted discretionary activity in the CEC-North Zone. (Note the helipad and identified ground floor ancillary retail areas are captured within the 2GP definition of "hospital").	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	18.3.6.7 – Development activity status	New buildings and additions and alterations to buildings as part of the Dunedin Hospital redevelopment are listed as a restricted discretionary activity in the CEC-North Zone.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	18.6.1 – Boundary treatments and other landscaping	Not all landscaping areas provide an average of 1 tree per 5m of frontage. Parking areas do not provide an average of 1 tree per 10m^2 of landscaping.	Restricted discretionary	Cadbury and Wilsons Blocks

Relevant plan / standard	Relevant rule / regulation	Reason for consent	Activity status	Location of proposed activity
2GP	18.6.3 – Fence height and design	The screening structures within 10m of the Castle Street front boundary adjacent to the Mortuary, and Outpatient loading dock exceeds the maximum fence height of 2m.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	18.6.5.2 – Maximum and minimum building height	The height of the Inpatient and Outpatient Buildings exceeds the maximum height of buildings and structures above ground level of 20m.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	18.6.11 – Minimum glazing and building modulation (Rule is subject to appeal, however there is no equivalent rule in the Operative District Plan for this site).	Parts of the facades of the Inpatient and Outpatient Buildings visible from street frontages do not provide a maximum distance between building modulation elements of 20m, or minimum glazing of 20% across all floors.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	6.6.1.1 – Minimum parking space dimensions	The parking space layout will not meet the minimum dimensions.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	6.6.1.3 – Minimum queuing space for parking areas	The Cumberland Street entry to the Inpatient car park does not provide the required 12m of queue space.	Restricted discretionary	Cadbury Block
2GP	6.6.3.1 – Maximum number of vehicle crossings	The number of vehicle crossings onto Cumberland and Castle Streets from the site of the Inpatient Building exceeds the maximum of 2 on each road frontage. The number of vehicle crossings onto Castle Streets from the site of the Outpatient Building exceeds the maximum of 1 on this road frontage.	Restricted discretionary	Cadbury and Wilsons Blocks

Relevant plan / standard	Relevant rule / regulation	Reason for consent	Activity status	Location of proposed activity
2GP	6.6.3.3 – Maximum width of a vehicle access	The vehicle crossings from Castle Street serving the Inpatient VIE entry access, pick up/drop off area, and Outpatient loading dock exceed the maximum width of 9m. The vehicle crossings from Cumberland Street serving the Inpatient VIE entry access, and Outpatient pick up/drop area exceed the maximum width of 9m.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	6.6.3.4 – Minimum distances of new vehicle crossing from intersections and level crossings	The distance of the vehicle crossing from Cumberland Street serving the Inpatient Building pick up/drop off area is closer than 30m from the intersection with St Andrew Street.	Restricted discretionary	Cadbury Block
2GP	6.6.3.9 – Width of driveways	The vehicle driveways within the site do not comply with the minimum width requirements.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	8A.5.1.5 – Maximum volume of combined cut and fill for earthworks in the Hazard 3 Flood Overlay. (Rule is subject to appeal – however there is no equivalent rule in the Operative District Plan for this site)	Filling of the site outside of the footprint of the Inpatient and Outpatient Buildings will exceed the maximum 20m^3 fill in the Hazard 3 Flood overlay.	Restricted discretionary	Cadbury and Wilsons Blocks
2GP	4.5.1 – Temporary activity development standards	Temporary structures used for construction (e.g. cranes) will exceed the maximum height of buildings and structures for the zone of 20m above ground level, and will be in place for more	Restricted discretionary	Cadbury and Wilsons Blocks

Relevant plan / standard	Relevant rule / regulation	Reason for consent	Activity status	Location of proposed activity
		than 90 days.		

Resource consent applications already made, or notices of requirement already lodged, on the same project:

The following resource consent applications have been made to Dunedin City Council for the project:

- Removal of the foundations of the former Cadbury Social Club buildings (ref LUC-2019-352). Approved on the 7th of August 2019.
- Demolition of the former Cadbury Distribution Warehouse (ref LUC-2019-540). Approved on the 28th of November 2019.
- Demolition of the Wilsons Block buildings (ref LUC-2019-558). Approved on the 27th of November 2019.
- Demolition of the former Cadbury Factory buildings (ref LUC-2020-263). Approved on 12th November 2020.
- Undertake test piling activity on the Cadbury and Wilsons Blocks (ref LUC-20200365). Approved on the 25th of September 2020.

The following resource consent applications have been made to Otago Regional Council for the project:

- Disturbance of contaminated soil associated with the removal of the foundations of the former Cadbury Social Club buildings (ref RM19.237). Approved on the 12th of August 2019.
- Disturbance of contaminated soil associated test piling activity on the Cadbury and Wilsons Blocks (ref RM20.258). Approved on the 2nd of September 2020.

Resource consent(s)/designation required for the project by someone other than the applicant, including details on whether these have been obtained:

No resource consents are required for the project by someone other than the applicant.

Other legal authorisations (other than contractual) required to begin the project (eg. Authorities under the Heritage New Zealand Pouhere Taonga Act 2014) including details on whether these have been obtained:

Other authorisations required to begin the project include:

- Building consents from Dunedin City Council under the Building Act 2004. These consents have not yet been applied for.
- Archaeological authorities from Heritage New Zealand Pouhere Taonga (**HNZPT**) under the Heritage New Zealand Pouhere Taonga Act 2014. The application site contains six recorded archaeological sites (refs I44/894, I44/895, I44/817, 144/922, 144/923, and I44/924). Archaeological authorities have been obtained for all works on the Wilsons Block (ref 2020-745), and Bow Lane Block (ref 2019/481). An application for an authority for all works on the Cadbury Block is currently being prepared.
- Written consent from Waka Kotahi New Zealand Transport Agency (**Waka Kotahi**) under section 176(1) of the Resource Management Act 1991 to construct

air bridges over the state highway designation for St Andrew Street (ref D465), and Castle Street (ref 453). Consent has not yet been sought.

- Approval from Waka Kotahi under the Government Roading Powers Act 1989 for any temporary encroachment, structures, and traffic management required on adjacent state highways for construction activity. Approval has not yet been sought.

Construction readiness

<u>If the resource consent(s) are granted, and/or the notice of requirement is confirmed, when do you anticipate construction activities will begin and be completed?</u>

As noted above, enabling works for the NDH could commence in early 2022 subject to obtaining the necessary consents and approvals. On this basis, completion of the Outpatient Building would be scheduled for January 2025 while completion of the Inpatient and Ancillary Buildings would occur in April 2028. Onsite works would be occurring throughout this period, generating employment and economic benefits as set out in further detail in this application. A full project programme setting out the detailed design milestones, procurement timeframes and development targets has been prepared and is available on request.

PART 4: CONSULTATION

Government ministries and departments

Detail all consultation undertaken with relevant government ministries and departments:

Consultation has been undertaken with the following government agencies:

- Waka Kotahi
- Heritage New Zealand Pouhere Taonga

Consultation with Waka Kotahi has occurred in the context of the Shaping Future Dunedin Transport Programme, which is a collaborative project between Waka Kotahi, Dunedin City Council, and the Otago Regional Council to develop a Programme Business Case for the future of Dunedin's central city transport network. The programme includes reviewing the use of and configuration of State Highway 1 through the central city, improving safety and connections, and creating more options for car free travel, taking into account opportunities presented by new developments including the NDH.

Engagement with the Shaping Future Dunedin project team is ongoing and to date discussions have involved sharing information on the NDH project, seeking feedback on the evolving hospital concept design, and providing feedback on options for future changes to the transport network to ensure integration with the hospital. These include a potential downgrading of St Andrew Street from its current State Highway 88 status.

Consultation with HNZPT has occurred as part of preparing and obtaining archaeological authorities for the project and as part of the preparation of the separate resource consent application for demolition of the heritage protected street facades of the former Cadbury Factory buildings. Discussions with HNZPT have involved consultation during preparation of the application, confirming the scope of the Cadbury Confectionary Ltd building listing on the New Zealand Heritage List, seeking feedback on the Heritage Impact Assessment which formed part of the application, and reaching agreement on potential conditions of resource consent. Those agreed conditions now attach to the resource consent for the demolition of the former Cadbury Factory buildings which was granted on 12 November 2020.

Local authorities

Detail all consultation undertaken with relevant local authorities:

There has been ongoing consultation with the Dunedin City Council resource consents team on project consenting matters. Discussions have involved sharing information on the NDH project and the scope and timing of consents required, seeking clarification on District Plan interpretation matters, responding to questions on consents that have been applied for to date, and providing feedback on draft consent conditions. In addition, there has been the sharing of information, and discussions between the MOH's technical advisors and the Council's staff on urban design, transport, and servicing aspects of the ongoing design of the hospital. Engagement will continue as development of the design evolves.

Dunedin City Council has been informed of the intention to make this application for referred project status. We are advised that Council met on 17 November 2020 to confirm its support for the use of the Fast Consenting Act.

Other persons/parties

Detail all other persons or parties you consider are likely to be affected by the project:

Other parties that are likely to be affected by the project include:

- New Zealand Police, as operator of the Dunedin Central Police Station on the opposite side of Cumberland Street.
- Fire and Emergency New Zealand, as operator of the Dunedin Central Fire Station on the opposite side of Castle Street.
- Owners and occupiers of all other properties immediately surrounding the proposed site on Cumberland Street, Castle Street, Stuart Street, Bow Lane, and Anzac Avenue.
- Owners and occupiers of private residential properties located on the lower hill suburbs below the town belt between Russell Street and Park Street, who have views orientated towards the Otago harbour and peninsula (2GP assessment matter).

It is anticipated the relevant consent and designation applications would therefore be publicly notified, if progressed using the standard Resource Management Act 1991 (**RMA**) processes.

Detail all consultation undertaken with the above persons or parties:

Consultation has occurred with all adjacent property owners with respect to existing demolition work on the site.

In addition, a very high level of public engagement has occurred over the past four years regarding the location of the NDH within Dunedin. The public request to locate the new hospital within the central city with access to public transport links, the CBD, the existing hospital campus and the University of Otago, has been adhered to. A series of public forums providing updated information on the NDH project have been held throughout the last two years and a dedicated website has been developed to provide up to date information to the public on the progress of the project.

PART 5: IWI AUTHORITIES AND TREATY SETTLEMENTS

Iwi authorities and Treaty settlement entities

Detail all consultation undertaken with iwi authorities whose area of interest includes the area in which the project will occur:

Iwi authority	Consultation undertaken
Te Rūnanga o Ōtākou as the regional Papatipu Rūnanga of Te Rūnanga o Ngāi Tahu for the area	MOH has been working with mana whenua, led by Aukaha Limited, on the design and layout of the NDH. Mana whenua are a project partner on the NDH, and, alongside Aukaha, have: • prepared a cultural narrative precis which outlines Kāi Tahu history and values which are relevant to the NDH, including both the site and the surrounds, the buildings and the green and public spaces around it; • provided a name for the NDH - Whakatuputupu - and supporting narrative which illustrates the genesis and rationale for that name; • developed key design values intended to inform all aspects of the NDH, from presence and representation to models of care, Tikanga and protocol, naming and spatial design and architectural representation; • identified and described the Wāhi Tūpuna, being the parts of the landscape context which have significant influence over the Whakatuputupu site; • provided the Kāi Tahu creation narrative which outlines the whakapapa of the creation of life according to Kāi Tahu. This narrative will be embedded through planning, architecture, landscape and way-finding in the NDH to connect people and foster a sense of place; and • alongside the creation narrative, provided other co-design strategies to support the ongoing development of the NDH, including the Sustainability Framework and the Cultural Impact Assessment. MOH is committed to continuing its partnership with mana whenua on this project.

Detail all consultation undertaken with Treaty settlement entities whose area of interest includes the area in which the project will occur:

Treaty settlement entity	Consultation undertaken
Te Rūnanga o Ngāi Tahu	As above

Treaty settlements

Treaty settlements that apply to the geographical location of the project, and a summary of the relevant principles and provisions in those settlements, including any statutory acknowledgement areas:

The NDH project is located within Te Waipounamu as covered by the Deed of Settlement between the Crown and Te Rūnanga o Ngāi Tahu. The settlement dated 21 November 1997 records the matters required to give effect to the settlement of all of Ngāi Tahu's historical claims. The settlement is implemented in a legislative sense though the Ngāi Tahu Claims Settlement Act 1998.

There are no specific principles and provisions in the settlement, including statutory acknowledgements that specifically apply to the geographical location of the project.

None of the land on which the project activities will occur is land that has been or is required to be returned under the Ngāi Tahu Claims Settlement Act 1998.

PART 6: MARINE AND COASTAL AREA (TAKUTAI MOANA) ACT 2011

Customary marine title areas

Customary marine title areas under the Marine and Coastal Area (Takutai Moana) Act 2011 that apply to the location of the project:

None of the project activities will occur within a customary marine title area.

Protected customary rights areas

Protected customary rights areas under the Marine and Coastal Area (Takutai Moana) Act 2011 that apply to the location of the project:

None of the project activities will occur within a protected customary rights area.

PART 7: ADVERSE EFFECTS

Description of the anticipated and known adverse effects of the project on the environment, including greenhouse gas emissions:

A preliminary assessment of environmental effects has been undertaken for the purposes of this application for referred project status. The findings of that assessment are summarised in **Attachment 4** and the technical assessments which inform it are available on request. In an overall sense, the environmental effects of the project are found to be acceptable when assessed as required within the context of the surrounding environment and the relevant 2GP provisions. In particular, the assessment finds:

- The NDH has been designed to avoid or successfully mitigate most adverse urban design effects. The proposed building cluster will reinforce Dunedin's polycentric urban form, and building height, bulk, and scale are successfully mitigated by modulation and transitional volumes. While the visual effects of the air bridges over St Andrew Street are significant, they are offset by enhancements to the street edges, particularly the open spaces and environments towards and at the Cumberland Street end of the block.
- The design of the NDH supports CPTED principles, and is enabling of an environment which attracts people and gives a sense of wellbeing and safety. CPTED principles will continue to inform ongoing detailed design.
- The visual effects of the NDH when viewed from the surrounding areas are successfully mitigated. The intricate massing, together with variation in materials, result in the NDH reading as a collection of buildings rather than single structure, and produce a broken silhouette on the city's skyline.
- The wind effects of the NDH buildings are mostly within wind comfort criteria, and proposed trees and other vegetation will noticeably reduce wind speeds and the extent of the higher wind impact locations.
- The noise and vibration effects from the construction and operation of the NDH will comply with the relevant 2GP noise standards, or can otherwise be successfully minimised through mitigation measures.
- The NDH is accessible to a range of transport modes, and provides a level of parking that is equivalent to the existing hospital. The existing road network is able to accommodate the expected traffic generation, and vehicle access arrangements to and from the site have been designed to ensure the safety of pedestrians and cyclists, and the safety and efficiency of the road network.
- The NDH will not change the existing levels of flood risk in the surrounding area as a result of the displacement of floodwaters. While the volume of water displaced by the Ancillary Building will be significant, it will be no worse than that which would be generated by a permitted development of the land.
- The NDH will support reduction in greenhouse gas emissions through the use of low carbon electricity heating plant, energy efficient design, promotion of sustainable transport options, and achievement of a Green Star 5 sustainability rating.

As such, it is considered that, in effects terms, the project meets the sustainable management test of the RMA.

PART 8: NATIONAL POLICY STATEMENTS AND NATIONAL ENVIRONMENTAL STANDARDS

General assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard:

The following National Policy Statements and National Environmental Standards are relevant to the NDH project:

- National Policy Statement on Urban Development (**NPS-UD**) 2020.
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES-CS**) 2011.

The **NPS-UD** sets out objectives and policies for planning well-functioning urban environments under the RMA. Dunedin is a Tier 2 urban environment/local authority for the purposes of the NPS-UD, and the NDH is captured under the NPS-UD definition of "additional infrastructure".

The objectives and policies of the NPS-UD relevantly seek the following outcomes:

- A well-functioning urban environment that enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future (objective 1). In particular, well-functioning urban environments are to have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport (policy 1).
- Urban environments, including their amenity values, develop and change over time in response to the diverse and charging needs of people, communities and future generations (objective 4). The NPS-UD is specific in noting that significant changes may result in urban areas and that while these may be perceived to detract from the amenity values appreciated by some, they may improve the amenity values appreciated by others. Critically, the NPS-UD notes that such changes are not of themselves, an adverse effect (policy 6).
- Urban environments support reductions in greenhouse gas emissions, and are resilient to the effects of climate change (objective 8, policy 1).
- In relation to car parking, district plans are not to set minimum car parking rate requirements (other than for accessible car park), and territorial authorities are strongly encouraged to manage supply and demand of car parking through comprehensive parking management plans (policy 11).

The NDH project will be consistent with the objectives and policies of the NPS-UD for the following reasons:

- The NDH provides a primary health care facility critical to the southern health system, centrally located within Dunedin which provides for good accessibility, including by way of public and active transport. The proposal will therefore provide for a well-functioning urban environment that supports social, economic, and cultural wellbeing, and the health and safety of the local community consistent with objective 1 and policy 1.
- The NDH will enhance amenity values in an area of the Dunedin urban environment that is primed for revitalisation to meet the diverse and changing

needs of the community, including future generations, consistent with objective 4 and policy 6.

- The NDH will support reduction in greenhouse gas emissions through the use of low carbon electricity heating plant in place of coal fired steam boilers, along with energy efficient design, promotion of sustainable transport options, and achievement of a Green Star 5 sustainability rating. Furthermore, the hospital is being designed to be resilient to flooding effects, allowing for the anticipated effects of climate change to 2090. The project will therefore be consistent with objective 8 and policy 1.
- The NDH provides for on-site parking equivalent to the current hospital facilities including for the pick-up/drop off demands. On-site mobility parking in excess of the minimum requirements is also provided. The level of car parking provision is consistent with policy 11 which directs district plans do not set minimum car parking requirements. It is further expected that the Dunedin City Council will work collaboratively with MOH on plans for parking demand and supply management in the area surrounding the hospital.

The **NES-CS** provides a nationally consistent set of planning controls to ensure land affected by historical soil contamination is appropriately identified and assessed before it is developed, and contamination risks are managed as a result of soil disturbance and land use change to protect human health.

Contaminated land assessments have been undertaken for the NDH project which have identified that the Cadbury, Wilsons and Bow Lane Blocks have been subject to activities which have, or are likely to have resulted in soil contamination. The sites are therefore defined as HAIL sites and captured under the NES-CS regulations. Soil sampling on the Cadbury and Bow Lane Blocks as part of these assessments has confirmed the presence of soil contamination above normal background concentrations. Soil sampling will take place on the Wilsons Block following the demolition of the existing buildings, which currently physically restrict access for sampling.

Given the contaminated status of the land, resource consents will be required under the NES-CS for soil disturbance undertaken as part of the site preparation earthworks and piling for the development. Resource consents will also be required from the Otago Regional Council under its Regional Plans to disturb contaminated sites. As outlined in Part 3 of this application, these resource consents will form part of the Phase 3 – Site Preparation consents. Applying for and managing soil disturbance activities in accordance with those resource consents will ensure the requirements of the NES-CS are met, and human health is protected from contamination risks.

PART 9: PURPOSE OF THE ACT

Project's economic benefits and costs for people or industries affected by COVID-19:

Facilitating the accelerated consenting of the NDH via a referred project pathway under the Fast Track Consenting Act will both secure and bring forward, the Crown's significant budgeted infrastructure spend for the NDH and catalyse the additional direct and indirect economic benefits of that spend for Dunedin, the wider Otago and Southland regions, and the national economy.

The project cost is currently estimated to be between $1.4B and $1.47B. While approximately $100M has been spent to date on land costs and a further $127M has recently been provided to enable the design to be progressed through 2020/21, the majority of the budgeted spend is associated with construction. That significant budgeted spend cannot occur until consents are obtained and secured from appeal (in this instance a restricted discretionary activity consent for the Inpatient and Outpatient Buildings and a designation for the Ancillary Building). Any delay in securing those consents will therefore also delay the introduction of that infrastructure spend to the local, regional and national economies. Securing the project by way of the referred project pathway will significantly reduce that risk, without (as detailed in other sections) resulting in adverse environmental effects or significantly impacting on public participation in the process.

With respect to direct employment it is noted that at its peak, the NDH project is expected to generate approximately 827 FTE Dunedin-based jobs, with a peak of 700 FTE construction workers required two years after construction commences. Endeavouring to align this peak with the anticipated unemployment caused by the recessionary effects of the COVID-19 pandemic, is a key focus of this application.

In addition to the direct Crown spend, analysis undertaken by Sapere estimates that over its 10 year construction period, the accumulated incremental impacts of the NDH will add another $424.9M gross domestic product to Dunedin's economy and $246M in additional household income. Of the $246M in forecast incremental additional household income, $139.8M is attributed to direct wages for people working on the NDH; and a further $106.1M relates to wages for employees of businesses who supply those NDH workers (i.e. local grocery and retail stores).

In any "normal" economic cycle, economic stimulus of this quantum would be highly significant for the people and communities of Dunedin, Otago and Southland. However, this stimulus is particularly pertinent now given the ongoing and uncertain economic effects resulting from the COVID-19 pandemic.

Treasury's economic outlook released just prior to the October 2020 election confirms that the impact of COVID-19 remains substantial, particularly for those dependent on international tourism and education. For Dunedin and the wider Otago and Southland region, the economic benefits of the NDH will provide partial relief from these impacts, particularly from late 2022 through to 2026 where those benefits are expected to be most significant. In particular, analysis undertaken by Sapere shows that in 2023, when local unemployment is still above the long term trend, the employment effects from the NDH would commence, in part off-setting the predicted higher than normal unemployment rates. Any delay in realising the benefit of the economic and employment stimulus from NDH therefore negates this compensatory impact.

Put simply, Crown funds are already earmarked for this significant infrastructure development and will catalyse significant additional positive economic effects for the local, regional and national economy. Utilising the Fast Track Consenting Act will ensure that these benefits are realised at a time when the economy most needs them.

Project's effects on the social and cultural wellbeing of current and future generations:

Although social and cultural wellbeing is not defined in this Act or in the RMA, Te Manatū Whakahiato Ora / the Ministry of Social Development (**MSD**) defines social wellbeing as "*those aspects of life that society collectively agrees are important for a person's happiness, quality of life and welfare*". Drawing on nation-wide research data, MSD identifies those aspects to include health, knowledge and skills, paid work, environment, safety, time use and social connectedness.

Cultural wellbeing is defined by the Manatū Taonga / the Ministry for Culture and Heritage as "*the vitality that communities and individuals enjoy through participation in recreation, creative and cultural activities, and the freedom to retain, interpret and express their arts, history, heritage and traditions."* These aspects and themes are similarly captured as domains of wellbeing in Treasury's Living Standards Framework. Within that Framework, natural, social, financial/physical/intangible assets and human capitals are generators of wellbeing. Supporting current and future wellbeing means maintaining, nourishing and growing these capitals.

Hospitals and physical assets associated with hospitals are examples of physical capital which have a direct role in supporting incomes and material living conditions. Human capital includes the health, skills and knowledge of communities, while natural capital includes the natural environment and outputs of eco-systems which benefit people, such as landscapes, clear air, biodiversity, open spaces and sunlight.

Applying these concepts in the current context, the NDH will enhance the natural, social, financial, physical and human capital of Dunedin city and the wider Otago and Southland regions in a manner which will positively impact the wellbeing of those communities as they currently exist and into the future. Specifically it will:

- support the delivery of efficient and effective tertiary health care to meet the current and future needs of the Southern community, including by:
    - providing new, modern, fit-for-purpose facilities which improve patient safety and experience, and deliver enhanced, safer working conditions for staff;
    - providing capacity for significantly more elective surgeries over the medium to long term;
    - reducing the average length of patient stays thereby increasing the volume of services that can be delivered;
- be designed in a manner which ensures that the cultural wellbeing of communities is recognised, protected, and where possible, enhanced, including through:
    - the operational layout, which seeks to ensure that tikanga Māori can be upheld in relation to the provision of healthcare and arrangements for tūpāpaku (deceased);

    - the provision of functional spaces throughout the NDH for whānau and for the performance of cultural traditions, protocols and customs;
    - restoring the visibility of Te Rūnanga o Ōtakou's history, aspirations and values in the urban form of the NDH.
- provide increased employment opportunities both during the construction of the NDH and, through its increased capacity, once the NDH becomes operational;
- result in an enhanced urban environment with improved access for patients, whānau, staff and the wider community to landscaped public outdoor spaces including a significant 'green corridor' along the Cumberland Street frontage, and planted outdoor areas throughout the development.

In addition to providing specific employment opportunities, the NDH is also a catalyst for a wider skills training programme (Workforce Central) developed in conjunction with the Otago Chamber of Commerce and the Otago Workforce Development Committee with cross agency support from the Ministry of Social Development, the Department of Corrections, Tertiary Education Commission, Immigration New Zealand and the Ministry of Education, and grant funding from the Provincial Growth Fund.

Workforce Central aims to develop trades into an attractive and sustainable career choice, including through the provision of training and education opportunities that will connect with the NDH. The project will also support people in the region who are displaced due to COVID-19 into industry specific training, upskilling and re-skilling, playing a key role in promoting job retention and redeployment. This upskilling will also look to incorporate improved earning and social outcomes for Māori, Pasifika and other disadvantaged groups. In addition to providing on-site recruitment and training, Workforce Central will coordinate an induction programme for all site workers associated with the NDH. This will involve verification of competency and recognition of prior learning, literacy and numeracy upskilling, Ngāi Tahu education around the significance of the site to iwi and the community, and mental health awareness (via the connector and ASIST training).

In these respects along with the economic and employment benefits already described, the NDH is anticipated to have a positive effect on the social and cultural wellbeing of the current and future generations of Dunedin city and the wider Southern district.

<u>Whether the project would be likely to progress faster by using the processes provided by the Act than would otherwise be the case:</u>

For the reasons set out below, the project will progress more quickly using the processes provided under the Act as compared to what would otherwise be the case under the RMA. More critically however, given the purpose of the Act, use of this process will ensure that the economic and employment benefits of this project are not delayed but rather are realised at a time where forecasts indicate that the economic and employment impacts of COVID-19 are likely to be at their most severe.

As noted, MOH intends to seek a restricted discretionary consent for the NDH Inpatient and Outpatient Buildings and a Notice of Requirement and associated Outline Plan of Works for the Ancillary Building on the Bow Lane Block. For the reasons set out previously, this is the most certain, efficient and timely option for obtaining the requisite RMA approvals for the project.

Given the requirement to obtain a Notice of Requirement and a subsequent Outline Plan of Works as part of the NDH project, progressing this option under the RMA is expected to take an estimated 12 – 24 months based on 12 months for the resource consent and Notice of Requirement and a further 12 months for the subsequent Outline Plan of Works. If appeals are lodged it is expected that a further 12 months could be added to the timeframe. On the basis that the requisite applications are lodged in April 2021 following receipt of preliminary design, construction could commence in April 2023 at the earliest or April 2024 and beyond following resolution of appeals. As set out previously, this has the potential to delay the economic and employment stimulus that this project is expected to generate.

By comparison, utilising the Fast Track Consenting Act, a decision on an application lodged in April 2021 could be issued by July 2021, enabling MOH to progress the project nearly two years faster than would otherwise be the case. If construction can begin in early 2022, near peak numbers of direct and indirect employment associated with the NDH will occur during a period where unemployment rates are forecast to sit significantly above average (2022 – 2025). If construction cannot begin until 2023 or 2024, the peak numbers of employment associated with the project will occur when the unemployment rate has largely returned to normal.

Given the parlous state of the existing hospital buildings (and particularly the existing Clinical Services Block), delaying delivery of this project will also exacerbate the negative impacts these facilities are currently having on the delivery of healthcare to the Southern region and to the wellbeing of the community more generally.

In addition to the above, it is relevant to note that a very high level of public engagement has already occurred regarding the location of the NDH within Dunedin. As previously noted, the public request to locate the new hospital within the central city with access to public transport links, the CBD, the existing hospital campus and the University of Otago, has been adhered to. Regular public forums in relation to the NDH have also been held throughout the last two years. Extensive consultation has also been undertaken with:

- mana whenua, led by Aukaha Limited;
- key interest groups and stakeholders including Waka Kotahi, the University of Otago, and the Dunedin City Council;
- groups of key clinicians whose input experience and knowledge has critically informed the design and layout of the NDH; and
- the Local Advisory Group, a representative group established to facilitate the views of local government, the University of Otago and other relevant stakeholder on the NDH.

Further, public notification of the demolition of the heritage facades of the former Cadbury building to facilitate the hospital attracted only 3 submissions from members of the public and all were resolved prior to hearing.

As such, it is not considered that the loss of further public consultation opportunities during the consenting phase is likely to be seen as a matter of particular concern by the relevant communities of interest.

Whether the project may result in a 'public benefit':

Employment/job creation:

The NDH is, at its peak, expected to generate approximately 914 FTE Dunedin-based jobs. As set out in the section on economic benefit, the vast majority of these jobs (827) will be associated directly with the NDH (construction workers, consultants and IT). The remaining jobs are indirect/induced, resulting from the construction spend circulating in the wider economy. Aligning the provision of these jobs with a period where unemployment is expected to be higher than average as a result of the effects of the COVID-19 pandemic is a key feature of this application.

Housing supply:

The provision of housing does not fall within the scope of this project. Nevertheless, delivery of the NDH will require a substantial workforce. Current estimates suggest that approximately 300 of those workers will be moved into the city to meet that demand. The Local Advisory Group, established to provide local input and assistance with the NDH, is already underway with planning accommodation to house this additional workforce. Part of that work has involved early consultation with Kāinga Ora – Homes and Communities, Te Rūnanga o Ngāi Tahu, the University of Otago and the Otago Polytechnic.

Contributing to well-functioning urban environments:

MOH has engaged a team of consultants to provide input on the development of the NDH design to ensure that, among other matters, it contributes to a well-functioning urban environment in central Dunedin. In particular, McIndoe Urban has been providing urban design advice on the project, while Boffa Miskell has provided input on the visual impacts of the NDH and its alignment with the Crime Prevention Through Environmental Design guidelines. Transport experts from Novo Group have also been advising MOH on design options for the NDH which ensure good accessibility to the NDH, including by way of public or active transport.

In short, it is the conclusion of those experts (based on the latest designs) that the NDH will contribute to a well-functioning urban environment. In particular, McIndoe Urban concludes that the NDH will have many positive qualities that will contribute to a well-functioning urban environment. These include providing:

- reinforcement of Dunedin's polycentric urban form as well as strengthening its centre;
- more intensive activity that will enliven a key part of the central city;
- enhanced connectivity across the city;
- a choice of entry points and directions for enhanced way-finding;
- street edge quality and activation particularly to Cumberland Street;
- good quality public open space on a street and a neighbourhood currently lacking such space; and
- an accomplished work of contemporary architecture that will enhance the image of the city.

McIndoe Urban also notes that the extent and quality of open space along Cumberland Street will be a significant and tangible public benefit that may also be considered an 'offset' for any effects of the scale of the Inpatient Building.

Providing infrastructure to improve economic, employment, and environmental outcomes, and increase productivity:

The definition of "infrastructure" under the Fast Track Consenting Act does not include hospitals.

Improving environmental outcomes for coastal or freshwater quality, air quality, or indigenous biodiversity:

As set out further below, the NDH is expected to result in a significant reduction in the emission of greenhouse gases compared to the operation of the current hospital. This will support improved air quality in Dunedin overall.

The NDH will also incorporate elements of sustainable stormwater design, including treatment of stormwater from trafficked areas, potential use of vegetated swales or bio-filtration (rain gardens) for stormwater treatment prior to discharge to the Dunedin City Council network, and the avoidance of zinc or copper rich building materials. Incorporation of such measures will support improved coastal water quality in the harbour receiving environment to which the Council network discharges.

Minimising waste:

MOH is committed to ensuring that the NDH, in both its design and intended operation, reflects the global movement towards built environments that promote wellbeing and sustainability. To that end, waste reduction will be a key objective of the project. Through careful selection and specification of the materials, the design will showcase materials that are locally sourced, sustainably manufactured, have recycled content, are low in pollutants and minimise construction and operational waste.

As part of the Green Star 5 and As-built certification process, the following initiatives are proposed to minimise waste:

- An operational waste management plan will be developed in accordance with best practice approaches and will be reflected in the final design.
- The development of a construction phase on-site waste management plan and dedicated areas for sorting and segregating waste and recycling.
- The establishment of a contractual target of 70% of construction waste (by weight) being reused or recycled.
- Waste contractors and waste processing facilities servicing the NDH will be required to demonstrate compliance with the Green Star Construction and Demolition Waste Reporting Criteria.
- At least 95% (by cost) of all timber used in the building and construction works will either be certified by a recognised forest certification scheme or will be from a reused source.
- Where possible, building systems will be designed for standardisation to improve installation efficiency, and opportunities will be explored to enhance the potential for prefabrication of building management systems off-site.

- Sustainability dashboard displays will be installed to illustrate energy/water use for the building and to monitor the effectiveness of energy/water saving initiatives.

Contributing to New Zealand's efforts to mitigate climate change and transition more quickly to a low-emissions economy (in terms of reducing New Zealand's net emissions of greenhouse gases):

The NDH's contribution to mitigating climate change and assisting New Zealand to transition more quickly to a low-emissions economy will be primarily delivered through achievement of its targeted Green Star 5 rating.

The credit targets for the NDH which are of particular relevance to mitigating climate change and reducing greenhouse gases include:

- Environmental Building Performance. Targets must be set, measured and reported for at least two environmental performance metrics, including greenhouse gas emissions, operational waste and indoor environment quality.
- Greenhouse Gas Emissions Reduction: Reference Building Pathway. Points are awarded for this target based on both improvements to the NDH's facades and on its predicted ability to reduce its operational energy consumption and emissions toward 'net zero'. To that end, all buildings forming part of the NDH are being designed to target low carbon operational outcomes, including through:
    - high efficiency heat pump primary heating using low carbon grid electricity for reduced greenhouse gas emissions in the building operation;
    - best practice building systems commissioning, which will an include Independent Commissioning Agent and post occupancy building tuning.
- Accessibility. This target requires the implementation of design and operational measures that reduce the carbon emissions arising from occupancy travel to and from the NDH compared to a reference building. To encourage sustainable transport opportunities in accordance with this target, the NDH will include end-of-trip facilities with staff amenities and secure bike parking. Fleet car parking will also include electric vehicle charging points.
- Responsible Construction Practices and Operational Waste. As set out above, these will require development and implementation of Environmental Management Plans and Systems, as well as ongoing monitoring of performance against established measures.

Perhaps most critically in the context of emissions, accelerating the delivery of the low-emissions NDH will speed up the closure of the existing hospital which is heated using steam from coal-powered boilers. The use of this coal fuel combined with the inefficiency of the steam heating system is a key contributor to the high greenhouse gas emissions from the existing hospital. As noted above, by comparison, the NDH will utilise a heat pump central plant that is powered by a low carbon electrical grid as the primary energy source. This will significantly reduce carbon emissions during the operation of the NDH, particularly as compared to the existing hospital facilities.

Promoting the protection of historic heritage:

As noted above, the concept design for the NDH has involved a collaborative co-design process with Kāi Tahu's cultural advisory consultancy Aukaha. The co-design process

will continue as part of ongoing design development, ensuring that Te Rūnanga o Ōtakou's history, aspirations and values is evident in the urban form of the NDH, promoting the protection of Kāi Tahu's historic heritage.

In addition, MOH has committed to retaining the historic Dairy and Machine House building (formerly part of the Cadbury Factory) as part of its application to demolish the Cadbury Factory heritage facades. It has also committed, through the conditions on that (now granted) resource consent, to:

- have detailed building records of the Cadbury Factory prepared by a suitably qualified heritage practitioner;
- ensure that heritage buildings to be demolished are surveyed by a suitably qualified heritage practitioner to identify significant historical or archaeological features and historic building materials that can be salvaged for reuse in the NDH or otherwise made available to the wider community;
- ensure that a Heritage Conservation Plan is prepared by a suitably qualified heritage practitioner for any works related to the Dairy and Machine House building; and
- ensure that a Maintenance Plan is prepared by a suitably qualified heritage practitioner, setting out routine maintenance actions to ensure the preservation of the heritage fabric of the Dairy and Machine House building.

<u>Strengthening environmental, economic, and social resilience, in terms of managing the risks from natural hazards and the effects of climate change:</u>

As critical infrastructure, ensuring the operational resilience of the NDH in terms of risks from natural hazards and the effects of climate change has been essential to the overall design. In particular, it is recognised that the ability of such large developments to withstand a disrupted environmental context will be critical to strengthening New Zealand's overall environmental, economic and social resilience into the future. Again the Green Star 5 and As-built certification rating will support the NDH's contribution to that outcome. Most notably in this context, the credit targets for the NDH will require the preparation and implementation of a climate adaption plan that must as a minimum:

- summarise the key characteristics of the project, including the relevant climatic features;
- assess the climate change scenarios and impacts on the project using at least two timescales which are relevant to the project's anticipated life span; and
- identify the potential direct and indirect climate change impacts and potential risks for the project.

Solutions must then be included in the final design and construction of the NDH which specifically address the risk assessment components of the climate adaption plan.

In addition to adaption planning, the Inpatient and Ancillary Buildings will be designed to the highest level of seismic resilience in the Building Code (IL 4). This will ensure that its critical post-disaster function can be realised. Further, as part of the Green Star certification process, low damage principles must be incorporated into the design of the buildings.

In that context it is noted that the existing Clinical Services Building does not comply with the seismic requirements for such facilities under the Building Code. In a significant earthquake event, it is likely that that facility would be damaged to the point it was unusable. By way of example, there are very limited seismic restraints on internal plant and service infrastructure which would significantly compromise the day to day operation of the facility in a post-event scenario. By providing new buildings which meet or exceed the seismic performance requirements in the Building Code, the NDH will strengthen the resilience of the healthcare facilities in the Southern region to manage the risk from such hazards.

Finally, in response to recommendations in a flooding risk assessment undertaken by Jacobs, the finished ground floor level of all NDH buildings will be designed to RL103.820. The raised levels will provide protection from rain fall and coastal flooding (tidal, sea level rise and storm surge) events to a 0.2% (or 1/500 year) annual exceedance probability (**AEP**). The model used to identify this minimum floor level includes allowances for the effects of climate change through to 2090.

In summary, these measures will ensure that this critical infrastructure is resilient to the risks of natural hazards and the effects of climate change.

Other public benefit:

The wider community health benefits related to the development of the NDH include:

- forecast reductions in the average length of stay, allowing both better utilisation of the resource and the value of avoided patient time in the hospital;
- improved patient safety (lower risk of patient falls, hospital acquired infections etc); and
- improved experience for staff with resultant positive implications for staff satisfaction and job retention.

In addition, significantly more elective surgery is forecast to be delivered over the medium to long term as a result of the additional capacity (theatres and beds) resulting in shorter waiting times and better health outcomes for patients.

The NDH will also offer greater resilience to the southern healthcare system, enabling it to better respond to future growth in demand and to any sudden shocks, including the additional burdens from pandemics. Improved resilience will be achieved through the design of standardised, flexible spaces that can adapt to surges in clinical demand and different clinical uses. Unlike the current facilities, the layout of the NDH will provide adaptive separation of patient and staff flows through the buildings, along with a modern flexible ventilation system. Critically it will also be designed as a digitally enabled facility, capable of accommodating and adapting to current and emerging technologies and innovations in the delivery of care. In the current COVID-19 context where 'telehealth' has played a vital role in supporting the delivery of health care, that enhanced capacity will offer significant benefit for the Southern district.

Whether there is potential for the project to have significant adverse environmental effects:

Part 7 of this application provides a summary of the anticipated and known adverse effects of the NDH on the environment. In an overall sense, the environmental effects of the project are acceptable when considered (as required) in the context of the surrounding environment and the relevant 2GP provisions.

While it is noted in the assessment that the visual effects of the air bridges over St Andrew Street are significant, they are offset by enhancements to the street edge, particularly the spaces and environments towards and at the Cumberland Street end of the block. Furthermore, while the volume of floodwater displaced by the Ancillary Building development will be significant, it will be no worse than that which would be generated by a permitted development of the land.

The project in effects terms therefore meets the sustainable management test of the RMA.

PART 10: CLIMATE CHANGE AND NATURAL HAZARDS

Description of whether and how the project would be affected by climate change and natural hazards:

As previously, the design of the NDH is being progressed to, among other matters, increase resilience from the predicted effects of climate change and to protect against natural disaster events. For the NDH, these include:

- increased flood risk (both in terms of regularity and severity) caused by sea level rise and increasingly temperamental rainfall events;
- increase in ambient air temperature; and
- seismic risks.

Flood modelling undertaken by Jacobs shows that with the existing stormwater infrastructure and flood defences in the city and allowing for anticipated effects of climate change to a design horizon of 2090, the likelihood of flooding at the site is at least 10% AEP (1/10 year). The depth of ponded water at the lowest point in the streets around the site during a coincident rainfall and storm tide event is estimated to range from approximately 600mm above ground level at 10% AEP to 1500mm above ground level at 0.2% AEP (1/500 year).

Flood risk will be mitigated primarily through setting the ground floors of the proposed buildings (which contain critical emergency service functions) at RL103.820, a level that provides protection from flooding in a 0.2% AEP event, including allowance for the effects of climate change to 2090, effects of the development itself, and an appropriate freeboard. This floor level will ensure continued operation of critical floors in flooding events through to a 1/500 year annual exceedance probability. Based on these floor levels the mitigated potential risk of flooding is therefore assessed to be no more than low.

Cooling systems in the NDH will be designed and sized to take account of ambient air temperature increases.

In regard to potential seismic risks, as noted, the Inpatient and Ancillary Buildings will be designed as an Importance Level 4 (IL4) facility, to enable them to provide critical post-disaster functions to the community after a 'major' earthquake. In particular, the Inpatient Building will be base isolated to mitigate the risk of business interruption and major damage. The Outpatient Building will be designed as an Importance Level 3 (IL3) structure in recognition that it does not contain post disaster medical facilities, but is still required to be designed to reduce the extent of disruptive repairs and mitigate the risk of business interruption following a 'large' earthquake.

PART 11: TRACK RECORD

A summary of all compliance and/or enforcement actions taken against the applicant by a local authority under the Resource Management Act 1991, and the outcome of those actions:

No enforcement action has been taken against MOH by a local authority under the RMA.

ATTACHMENTS 1 – 3:

May be accessed through the following secure link:

Website: http://vshare.voffice.net.nz

Username: july@greenwoodroche.com

Password: MOHdun3d1n

ATTACHMENT 4: ENVIRONMENTAL EFFECTS SUMMARY

Note - the technical reports on which this summary is based are all available on request.

URBAN DESIGN EFFECTS

The urban design effects of the NDH have been assessed by **McIndoe Urban**, in the context of the existing environment, Dunedin City Council strategies and plans for the Central City, and the 2GP provisions that seek that streetscape amenity is maintained and enhanced, including through use of landscaping, and ensuring an architecturally interesting **façade** through building modulation and the use of glazing. Assessment of the development against Crime Presentation through Environmental Design (CPTED) principles has also been undertaken by **Boffa Miskell**. The findings of those assessments are summarised below.

The height of the NDH buildings will be conspicuous in many views. While the overall effect is appreciable, it is not however considered necessarily to be negative. Dunedin's city centre is already characterised by large and tall buildings and is therefore inherently capable of absorbing change with additional such buildings. These existing large and tall buildings are spread widely around in a series of clusters to create a polycentric urban form. The additional cluster formed by the proposal is located close to the city centre. Being well within the bounds of existing large buildings, the proposal therefore contributes positively to the centre's polycentric form and the wider character of the city.

The bulk of the buildings is exceptional in the Dunedin urban context. However, the overall form and design approach are sound from an urban design perspective. Additive composition and vigorous articulation of forms lessen the visual impact of the hospital's height and bulk, and produce a broken silhouette on the city's skyline. This allows the complex to present as a cluster of smaller blocks, which are individually comparable to existing multi-storey structures. The articulation of building forms and generous separation will also achieve a comfortable and respectful scale relationship between the new hospital and nearby heritage buildings and precincts.

Shading effects will arise from the location and height of the building mass relative to pedestrian areas that may be sensitive to shade, including Anzac Square and surrounding streets. Additional shading of Anzac Square will however be limited to relatively short durations in the afternoon between midday and 3pm either side of mid-winter. At any time when additional shade is cast, a significant portion of the square will remain in sun. For surrounding streets, there will be a slight inconsequential increase in shade in mid-winter relative to a permitted 20m high building height on the site.

Activation of the building edges of the Inpatient and Outpatient Buildings has been achieved on all frontages except for Castle Street, where the location of the 'back of house' operational and service areas, and a solid frontage limits the number of human scale-features in the façade and at the street edge. An appropriate urban design outcome has however been achieved by incorporation of terraced steps and landscaping that give a high level of streetscape amenity, cross block links that provide permeability through the site and assist activation of the street edge, and concealment of the service yards from the street.

The Ancillary Building is appropriately scaled and the 3 dimensional form and articulation of the building is well resolved, and in keeping with its environment. Ongoing design development will provide opportunities to further mitigate the utilitarian/service nature

of the building including by introducing minor tertiary elements to break the monotony of the long facades to Castle Street and Bow Lane. Further development of the landscape design in this location will also assist.

The development proposes two glass clad air bridges over St Andrew Street between the Inpatient and Outpatient Building for staff/patient circulation. The two bridges will have a significant effect by interrupting views along the street. However, the experience of the public realm will, on balance, be positive due to the enhanced edge quality along the street, eventful architecture, and visual lightness of the glass and steel air bridge structures which contrast favourably with the more solid building forms either side. A third air bridge is also proposed over Castle Street between the Inpatient and Ancillary Building to support logistic/service functions. This single storey, semi transparent glazed bridge is well proportioned relative to the Ancillary Building, and has only a 'moderate' adverse visual effect.

External ground level pedestrian connections around the site have been provided for, including a broad pedestrian crossing linking the Inpatient and Outpatient Buildings across St Andrew Street. A more direct pedestrian desire line however also exists between the north-facing main public entrance of the Inpatients Building with the west-facing main entrance of the Outpatient's Building, which can be readily accommodated by adding a further crossing point to provide for pedestrian convenience and safety. This is to be further explored.

Overall, the NDH has been designed to avoid or successfully mitigate most adverse urban design effects, in particular:

- The new hospital will be seen in a context of existing tall building clusters: the CBD, the existing hospital and the university. The proposed building complex including taller building forms will reinforce Dunedin's characteristic polycentric urban form. The additional building cluster gives added 'visual weight' to the city centre and establishes a stronger focal point within the vista.
- Building height, bulk and scale are successfully mitigated by strategies of strongly expressed formal modulation and the use of transitional volumes at edges.
- The St Andrew Street overbridges provide internal connections critical to the functioning of the hospital, and their effects are partially mitigated by transparency, and offset by enhancements to the street edges, particularly the spaces and environments towards and at the Cumberland Street end of this block. The single storey glazed Castle Street air bridge is well proportioned relative to the Ancillary Building.
- The extent and quality of open space provided along Cumberland Street is a significant and tangible public benefit that may also be considered an 'offset' for any effects of over-height buildings.
- By rebuilding the hospital in a central location, the proposal secures a prominent long-standing component of Dunedin's inner-city economy and identity.

The design of the NDH gives a sense of well-being and safety. The design provides definition between public/private uses and facilitates intuitive wayfinding through access management techniques. Most notably this includes the creation of a hospital street that provides the primary point of public arrival to the Inpatient Building, and separate staff access through the Pavilion Building, that will also support staff safety. Access management and safety will also be supported by swipe card access to secure parts of

the hospital, and a visually prominent security kiosk at the receptions of the Inpatient and Outpatient Buildings.

A number of recommendations have been made to ensure CPTED issues are suitably resolved at the detailed design level. This includes the use of well-defined entrances and physical control measures to define public/private access, providing clear sightlines that support informal surveillance, avoiding creation of entrapment spaces, development way-finding and lighting strategies, and including high quality durable materials in the surrounding public realm areas. Adherence to these recommendations will ensure that the CPTED effects of the proposal are acceptable.

VISUAL EFFECTS

The visual effects of the NDH have been assessed by **Boffa Miskell**, in the context of the existing urban fabric, and the 2GP provisions that seek buildings and structures are of a height that minimises as far as practicable adverse effects on the skyline vista of the city, particularly as viewed from Dunedin's inner hill suburbs across the upper harbour towards the Otago Peninsula.

The assessment has considered the viewing audiences, the potential visibility at a variety of representative viewpoints, and the visual effects that may be experienced from these viewpoints. The potential viewing audience (mid and long distance views) for the hospital buildings include residences near the edge of the escarpment of the upper residential hill suburbs, residences in the lower hill suburbs, and users of roads that connect across the town belt. In addition, views could be obtained from the eastern side of the Otago Harbour around and near the head of the harbour.

In views from the upper hill suburbs, visual effects will be mostly low or low-moderate, depending on the backdrop that the buildings are viewed against. Specifically, from the north and the south effects will be low, as the buildings would be visually absorbed into the urban context in the long distance views. In views from the west the visual effects will be low-moderate as the entirety of the built form is more apparent in the mid-distance, side-on views. However, in these views the buildings will not break the roofline of existing buildings against the backdrop of the waters of Otago Harbour due to the elevated viewing angle. Furthermore, the effects of the development are mitigated through the design and composition of the buildings that reduces the visual impact of its height and bulk.

In some of the mid-distance views from the lower hill suburbs to the west the buildings will protrude into views of the harbour and peninsula beyond, breaking the roofline of existing buildings. These visual effects will be moderate, without being significant. While the bulk of the buildings will lead to a moderate change in the views towards the harbour from these viewpoints, the architectural design with façade articulation and broken up built form would minimise adverse visual effects.

The views from the eastern side of Otago Harbour will only be affected to a low level, leading to less than minor visual effects, as the buildings are integrated in the poly-centric urban form without breaking the line of built development in the backdrop of the view.

Overall, the potential adverse effects of building height, bulk and scale are successfully mitigated by strategies of strongly expressed formal modulation and the use of transitional volumes at edges. The variation in materials, cladding systems and colour

will provide visual interest and a differentiation between the various parts of the building. In combination with the intricate massing and varied elevations, the buildings will read as a collection of buildings rather than a single massive structure. The proposed composite forms will produce a broken silhouette on the city's skyline where the proposal protrudes from the existing roofline against the backdrop of the harbour or town belt.

WIND EFFECTS

Wind impact assessment has been undertaken by **Meteorology Solutions** to inform the concept design process. The assessment has been undertaken in the context of the 2GP provisions that seek to minimise, as far as practicable, adverse effects of wind on pedestrian amenity and safety.

Informed by Computation Fluid Dynamics modelling, the assessment has compared the anticipated wind impacts of the hospital buildings against both the current pre-demolition extent of built development on the site, and the 'cleared' site scenario ahead of construction. A critical determinant of the anticipated wind impacts is the height of the hospital buildings. Taller buildings cause deflection of wind off the façade(s) as well as enhancing channelling of wind flow around and between the structures.

There is a relatively low mean wind speed climate for the Dunedin urban area in the vicinity of the NDH site. Once cleared of buildings in readiness for construction, significant wind impacts are not expected over the site or its surroundings. Following construction of the hospital, there will be an increase in the wind impacts in the surrounding streets, especially for Cumberland Street south of St Andrews Street. However, the higher wind impacts are mostly confined to the street area and in most locations are within the Lawson wind comfort criteria suitable for that location. Furthermore, no dangerous areas will be created for pedestrians in the surrounding area because of wind, based on the NEN 8100 wind danger criteria.

During west and southwest wind conditions, the new hospital will channel winds into the main entrance of the Inpatient Building, and also result in relatively high wind impacts being experienced in the vicinity of the entrance to the Outpatient Building on Cumberland Street. Such wind conditions however would only occur about 3% of the time (or about 250 hours per year).

Proposed landscaping, including trees and other vegetation, will noticeably reduce wind speeds and the extent of the higher wind impact locations. As such, it is anticipated that overall there will be no significant adverse wind effects on pedestrian amenity or safety.

NOISE EFFECTS

The noise and vibration effects from the construction and operation of the NDH have been assessed by **Acoustic Engineering Services (AES)**, in the context of whether such noise will comply with the relevant 2GP noise standards. The assessment has excluded noise from site demolition, ground preparation, and piling for the new buildings, which are covered in separate project consenting phases. The assessment has accounted for the location of the new hospital site within the existing elevated ambient noise levels of the Dunedin CBD, and also the presence of noise sensitive activities (including those containing sleeping areas) within the vicinity.

The most dominant noise and vibration sources during construction will be site works and excavation equipment, generators, concrete pumping/pouring, heavy vehicle

movements, and the use of cranes. Operationally, significant noise sources will be mechanical plant (e.g. standby generators, heat pump chillers, diesel boilers, extraction fans etc) and heavy vehicles associated with regular servicing and supply for the hospital. Operation of the hospital will also involve ambulance and emergency helicopter movements.

It is expected that construction noise and vibration for the Inpatient and Outpatient Buildings will comply with the relevant 2GP noise standards. Furthermore, it is expected that the majority of construction works for the Ancillary Building on the Bow Lane Block will comply with the noise standards, however due to the proximity of neighbouring activities, noise from excavators and heavy vehicles may not comply where construction occurs adjacent to the boundary. Installation of acoustically effective site hoardings, adopting standard best construction practice (e.g. restricting hours/duration of work, machinery and equipment specification, complaints procedures and appointment of a Noise Liaison Officer for the community), and implementation of a Construction and Vibration Management Plan will be used to further minimise construction noise and vibration effects. With these measures implemented, construction noise is not anticipated to produce a significant effect.

Once operational, it is expected the new hospital and associated mechanical plant and facilities will comply with the 2GP noise limits and accordingly not give rise to significant adverse noise effects. A shelter will be required to be constructed along the boundary of the Ancillary Building loading dock and the closest residential receptor (27 Anzac Avenue) in order to achieve compliance. With particular regard to ambulance and emergency helicopter movements, it is noted that these 'emergency service' noise sources are specifically exempt from having to comply with the 2GP noise limits. The facades of the new hospital buildings will also be designed to control noise break in to noise sensitive spaces from onsite and offsite noise sources. The level of acoustic insulation of the buildings will exceed that required by the 2GP noise insulation rules.

TRANSPORTATION EFFECTS

The transportation effects of the NDH have been assessed by **Novo Group**, in the context of the existing transportation environment, and the 2GP provisions that seek that adverse effects on the safety and efficiency of the transport network will be avoided or, if avoidance is not practicable, adequately mitigated.

Although potential future changes to the transport network (as signalled by the Waka Kotahi led Shaping Future Dunedin Transport project) have been taken into account to ensure the NDH can integrate with any future network changes, the transportation assessment has been undertaken within the context of the existing transport environment.

The hospital is well located to be accessible by a variety of travel modes, including by car, bicycle, walking, and public transport. In particular, the site is within a 200m walk of the Bus Hub on Great King Street, and is adjacent to on-road segregated cycle ways which provide for safe cycle access to the site. Sufficient cycle parking and end of trip facilities will be provided at the hospital to cater for expected cycle demands. A staff Travel Plan is proposed to encourage use of these travel modes over the use of car travel.

There is no minimum car parking requirement for new hospitals under the 2GP. Furthermore, the recently released NPS-UD specifies district plans are not to set

minimum car parking rate requirements (other than for accessible car parks). Notwithstanding, the new hospital will provide an equivalent level of car parking provision to the existing hospital of 181 spaces, of which 69 will be located on the site (including pick up and drop off spaces). Mobility car parking will be provided at a level that exceeds the 2GP and Building Code requirements. In addition, there is a large number of publicly available car parking spaces within walking distance of the proposed hospital which have capacity to accommodate additional demand. Opportunities for other off-site parking are also being explored, but do not form part of the current proposal.

The predicted traffic generation of the activity will be spread over several access locations. The number of vehicle movements are not expected to be high, particularly given the pick up/drop off movements will be split across accesses to Cumberland and Castle Street. The existing road network has sufficient spare capacity to accommodate the number of movements from the hospital in this location.

The number and width of proposed vehicle accesses reflects the need to separate operational vehicles (e.g. ambulances, goods vehicles, VIE tanker etc) from general traffic (e.g. public pick up/drop off), and to accommodate tracking paths of the types of vehicles expected to use them. The number of accesses is appropriate given the length of the site frontages, the current one-way configuration of Cumberland and Castle Streets, and the low pedestrian volumes on the Castle Street frontage. Furthermore, the location and width of the accesses and available sightlines, will enable safe crossing by pedestrians, and safe and efficient movement of traffic and cyclists on the adjacent roads, based on the anticipated types and numbers of vehicles using each access point.

The internal driveways are of a suitable width to ensure the safe and efficient movement of vehicles within the site. The layout of the proposed car parking areas will comply with the minimum requirements of the applicable NZ standards, ensuring they are practical and functional. Use of give-way signage at the exit from the Inpatient emergency department car park will ensure vehicle access to the site from Cumberland Street is not obstructed by exiting vehicles that would result in vehicles queuing and affecting the safe and efficient operation of Cumberland Street.

The Ancillary Building on the Bow Lane block will accommodate a loading dock for goods vehicles serving the hospital, accessed from Anzac Avenue. The traffic volumes on Anzac Avenue and predicted truck volumes accessing the site will be low, such that trucks will be able to access the site without any detrimental effects on pedestrian safety along the site frontage, and the safety and efficiency of vehicle and cycle movements on Anzac Avenue.

Overall the transportation effects of the NDH are anticipated to be acceptable, and not significant.

FLOODING EFFECTS

The hospital site is located on low-lying land approximately 1.8m to 2.5m above present-day sea level, 1km from the Otago Harbour shoreline. An assessment has been undertaken by **Jacobs** of the potential for flooding to impact the hospital site from three principal sources – nearby stream overflow, rainfall/runoff from catchments in the city centre and overflow from the stormwater network, and storm tides in the Otago Harbour. The assessment has been completed in the context of the 2GP provisions that seek to ensure the risk to development from natural hazards, including climate change, is no more than low in the short to long term.

Flood modelling shows that with the existing stormwater infrastructure and flood defences in the city and allowing for anticipated effects of climate change to a design horizon of 2090, the likelihood of flooding at the site is at least 10% AEP (1/10 year). The depth of ponded water at the lowest point in the streets around the site during a coincident rainfall and storm tide event is estimated to range from approximately 600mm above ground level in a 10% AEP event to 1500mm at ground level in a 0.2% AEP (1/500 year) event.

Given the location of the site and the nature of the surrounding infrastructure and development in relation to the sources of flooding, flood risk will be mitigated primarily through setting the floors of the buildings at a sufficient height above ground level to reduce risk. The ground floors of the proposed buildings (which contain critical emergency service functions) have been set at a level that provides protection from flooding in a 0.2% AEP ("1 in 500 year") event, including an allowance for the effects of climate change to 2090, the effects of the development itself, and an appropriate freeboard. Based on this floor level, the mitigated potential risk is assessed to be no more than low.

The concept design also includes earthworks to raise the level of the land around part of the perimeter of the new buildings to enable access from street level, and for landscaping and amenity purposes. The earthworks will reduce the volume of water that can occupy the site during a flood and will prevent overland flow across the site.

Modelling of the effects of the proposed earthworks on flood risk outside the NDH site shows that the required earthworks will tend to increase the flood water level and extent of flooding around the site when compared to site conditions prior to construction of the earthworks. This increase in flood extent is greater for flood events of higher likelihood of occurrence (10% AEP flood) than for those of lower likelihood (0.2% AEP). However, for both high and low likelihoods, the increase in modelled flood extent is limited and does not include properties additional to those that would already be flooded.

To the east of Cumberland Street, the increase in maximum flood level is generally less than 50mm for the range of likelihoods considered (10% to 0.2% AEP). Along Cumberland Street and to the west of the street the effect on flood levels is greater but more localised, extending as far as Great King Street. The maximum increase in modelled flood level in this area is approximately 200mm for the 10% AEP and approximately 70mm for the 0.2% AEP. While these increases in flood level are likely to have a more than minor effect on the absolute impacts of flooding to individual properties, under the 2GP definitions of flood risk relevant to the earthworks activities, the existing levels of flood risk are likely to remain unchanged.

Factoring in the Bow Lane block, the total volume of floodwater displaced by the development in a 1-in-10 year event could increase by about 30-40% with a broadly similar increase in the effect on flood depths (i.e. an overall effect of potentially up to 250mm to 300mm), which, while significant, is no worse than that which would be generated by a permitted development on the Bow Lane site that did not involve any earthworks.

GREENHOUSE GAS EMISSION EFFECTS

The NDH is being designed to significantly reduce greenhouse gas emissions. The existing Dunedin Hospital is heated by coal fired steam boilers at the Dunedin Energy Centre. The use of coal combined with the inefficiency of the steam heating system

makes this a main contributor to the high greenhouse gas emissions from the existing hospital.

The design concept for the new Inpatient Building and Outpatient Building proposes the use of heat pump central plant supplied by the low carbon electrical grid as the primary energy source. Backup diesel fired boilers will supplement the heat pumps to provide occasional peak load top up and emergency resilience to the heating system. The high efficiency of the heat pump heating plant using low carbon electricity will significantly reduce carbon emissions during the operation of the new hospital. Plans to move New Zealand's electricity generation to 100% renewable generation by 2030 will further reduce hospital carbon and greenhouse gas emissions.

Other operational measures to achieve low carbon outcomes include:

- Energy efficient system design and operation.
- Metering and automatic monitoring provisions to facilitate ongoing management and monitoring of operational efficiency and savings
- Best practice building systems commissioning including an Independent Commissioning Agent and post occupancy building tuning of the systems
- An emphasis on sustainable transport, including: adopting a travel plan that promotes use of public and active transport; providing low emission vehicle parks and EV charging; providing facilities to encourage active transport by staff and visitors such as cycle parks and end of trip facilities.

The project in effects terms therefore meets the sustainable management test of the RMA.