STATEMENT OF ENVIRONMENTAL EFFECTS

Installation of a Heat Pump System for Manly Andrew ‘Boy’ Charlton Aquatic Centre

1 Kenneth Road, Manly

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Contents

1. SUMMARY & BACKGROUND

This statement of Environmental Effects accompanies plans and details as follows:

- Dwg DA00 Issue C dated Oct 19 – cover sheet, drawings register, site location photo
- Dwg DA01 Issue C dated Sept 2024 – site plan, Construction Sediment Control Plan
- Dwg DA02 Issue C dated Sept 2024 - existing floor plan
- Dwg DA03 Issue C dated Sept 2024 – proposed floor plan
- Dwg DA04 Issue C dated Sept 2024- roof plan
- Dwg DA05 Issue C dated Sept 2024 – elevations, section
- Dwg DA06 Issue C dated Sept 2024 – demolition plan
- Dwg DA07 Issue C dated Sept 2024 – construction methodology plan

The proposal is for installation of a electric heat pump system for the Manly Andrew 'Boy' Charlton Aquatic Centre (MABC), The heat pump will be located in the neighbouring LM Graham Sports Building which houses the existing Cogeneration Plant, Public Toilets and Sports Amenities to the east of the carpark. .

The LM Graham Sports building is owned by Northern Beaches Council.

2. RELEVANT PLANNING LEGISLATION

The following planning legislation is:

- Environmental Planning & Assessment Act, 1979 (as amended)
- Environmental Planning & Assessment Regulations 2000
- Manly Local Environmental Plan 2013
- Manly Development Control Plan

3. PROPERTY DESCRIPTION & LOCATION

The subject site is located at 1 Kenneth Road Manly, and is known as Manly Andrew 'Boy' Charlton Aquatic Centre (MABC) and LM Graham Reserve. It is located at the intersection of Kenneth Road and Balgowlah Road with recreational uses, being LM Graham Oval and Manly Golf Course to the west and north, and mixed residential including apartment blocks and single houses to the south and east.

The MABC site comprises an outdoor carpark, two outdoor pools(25 metres and 50 metres), and a paddling area while the main building comprises a 25 metre pool, program pool children's water play, spa, sauna, fitness centre and associated offices. The reserve comprises playing fields and associated facilities. The heat pump will be located within the LM Graham Reserve Cogeneration Plant, Change Rooms and Amenities building located on the Kenneth Road frontage.

Figure 1: Aerial photo of Manly Andrew 'Boy' Charlton Aquatic Centre and surrounds

Under the Manly LEP 2013, the site is zoned Public Recreation RE1. The proposed heat pump, being ancillary to the main use of the site for recreational purposes is permissible with consent.

4. PROPOSAL

The proposal is to install an energy efficient electric heat pump system in the LM Graham Reserve Cogeneration Plant, Change Rooms and Amenities building. This heat pump will enable MABC to cease the use of gas to heat the pools and domestic hot water, leading to better environmental and financial outcomes for Northern Beaches Council.

The proposal consists of the following:

- Installation of the heat pump and associated equipment and plant in the existing co-generation (co-gen) plant room in the amenities building on the north-eastern corner of LM Graham Reserve, adjacent to MABC.
- Expansion of the co-gen plant room into the existing umpire's room and extension of the façade of the area to north of the main front building still within buildings footprint.

- Raising the roof over the co-gen plant room to allow for better ventilation. The proposed roof is a skillion roof facing south, with metal mesh on the three sides.
- Installing louvres along the northern and eastern façades to Kenneth St and carpark area to the extent of the co-gen room to provide additional ventilation for the heat pump system.
- Laying flow and return pipework between the LM Graham building, across carpark and into MABC area to connect into existing pools infrastructure.
- Change of two corridor areas within the LM Graham building into rooms for displaced storage areas.

5. PROJECT RATIONALE

Council's Community Strategic Plan 2018-2028 (CSP) provides a vision for the Northern Beaches for the next decade, with sustainability being central to this. Goal 4 of the CSP includes looking at strategies for Council to explore and invest in technologies and processes such as renewable energy that deliver long term environmental benefits.

Council has already installed a 265kW solar system on the roof of the MABC building, offsetting around 25% of the Centres energy use and saving more than $120,000 over the past four years. A previous old heat pump was removed when the Centre was upgraded in 2016 with gas used for all pool and domestic hot water heating. Council now wishes to install a new energy efficient, electric heat pump system for environmental and financial reasons.

Gas currently accounts for around 34% of total Council's own emissions and ~90% of this is from the MABC,. With Council purchasing 100% renewable electricity through its power purchase agreement (PPA) since January 2021, this proposal is expected to reduce the Centre's emissions by over 1,400 tonnes CO2-e annually, providing a critical path to achieve Council's adopted net zero targets. The proposal would see energy bills reduced by an expected $554,000 each year, through the use of highly efficient water heating equipment, and result in the site being powered solely by 100% renewable electricity.
The new heat pump proposal involves upgrading both the pool water and domestic water heating systems at MABC. Two existing gas boilers and two existing cogeneration units are to be decommissioned and upgraded to four energy efficient, electric heat pumps.

Council has commissioned a detailed technical feasibility study to assess the viability of the project, which determined the site can operate more cost-effectively from heat pumps whilst maintaining the current level of service to the community.

6. DEVELOPMENT HISTORY

DA177/13: Consent granted on 18/12/2013 for alterations and additions to the existing Andrew "Boy" Charlton Manly Swim Centre including partial demolition of existing facility structures, construction of an all purpose aquatic centre comprising of a twenty-five (25) metre eight (8) lane lap pool, seating for one hundred and fifty (150) spectators, program pool, leisure pool, spa pool, sauna and steam room, administration rooms, plant rooms, gymnasium and group fitness/multipurpose space, kiosk, amenities, with the retention of the outdoor 50 metre pool, outdoor toddlers pool, outdoor twenty-five 25 metre pool and plant rooms, on-site parking for 46 cars, 170 car

parking spaces in Kenneth Road and a separate community facilities building containing change rooms, amenities, storage and a bus shelter.

DA261/13: Consent granted on 20/03/2014 for demolition of existing 25 metre pool and construction of a new water polo swimming pool, retaining wall, screening, landscaping, spectator seating for Swim Centre (DA0177/2013) - Andrew Boy Charlton Swim Centre

DA2019/1075: Consent granted on 29/11/2019 for alterations and additions to Recreation Facility (Indoor) Installation of a 265kW Photovoltaic cell system of the roof of Manly Boy Charlton Aquatic Centre.

7. MANLY LOCAL ENVIRONMENTAL PLAN 2013

Clause 2.3 Zone objectives and land use table

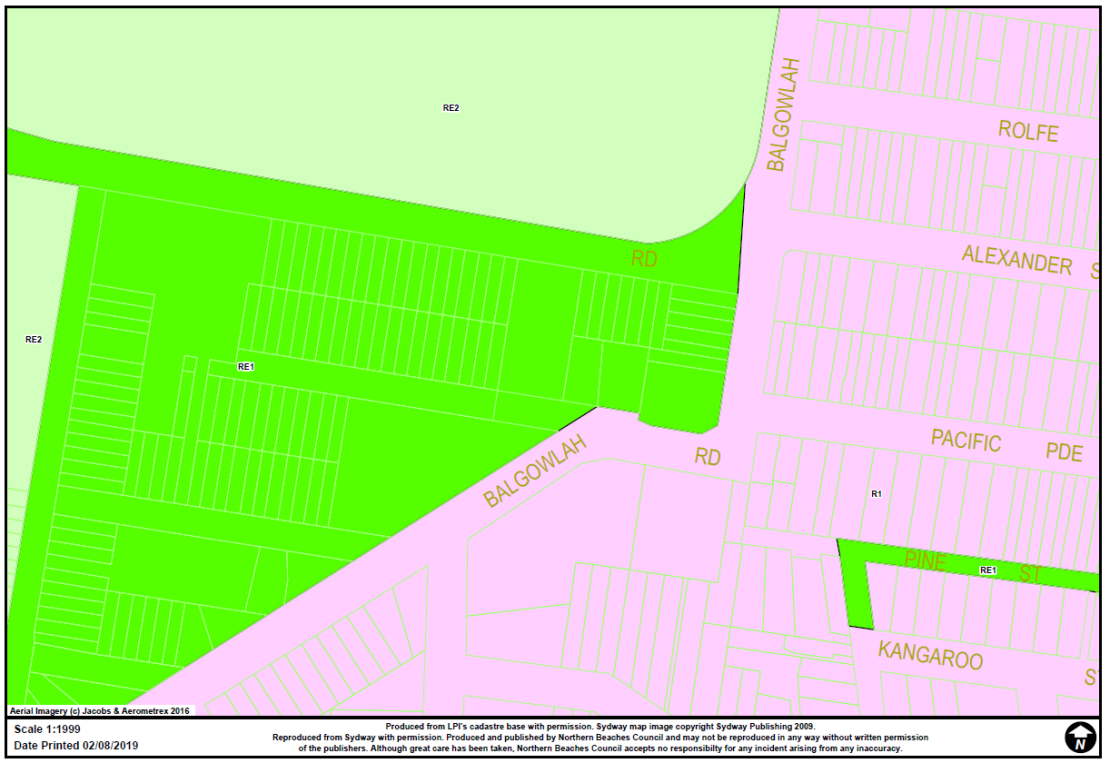

Figure 2: Extract of Zoning Map – Manly LEP 2013

The site is zoned RE1 - Public Recreation and the MABC, as a recreation centre (indoor) is a permitted use in the zoning. The installation of a heat pump system to heat the pool and domestic hot water at MABC is ancillary to that use and thus permitted with consent.

Clause 4.3 Height of buildings

As the site is zoned RE1 Public Recreation, there is no allocated height limit and acceptability is decided on merit. The proposal seeks to increase the maximum height of the roof over the go-gen plant room. At present, the maximum height of the building is 6.3 metres and the skillion roof will add 2.55m to this, bringing the total height to 8.85 metres over the middle of the building.

Given that the building is located within a large recreational precinct, with the MABC pool, LM Graham Reserve and Manly Golf Club as the only surrounding landuses, the increase in height will not be obtrusive in the locality.

Clause 5.21 Flood planning

The objectives of the flood planning clause are to ensure that buildings constructed in a flood zone are safe and do not impact negatively on the areas affected by flooding.

The building is located in a medium flood risk precinct with a 1% AEP of 3.16 AHD. The FFL of the building housing the new heat pump system is at 3.17 AHD, all electrical equipment or any plant that can be affected by flood water will be installed above Maximum Flood Planning Level (FPL) 3.66 AHD. The building is not being extended and will not impact flood storage in the locality, and asside from the proposed heat pump is used primarily for storage and for public amenities, so it is not occupied by people except on a casual, short term basis. As such it is considered that the proposal complies with the requirements of Clause 5.21.

8. MANLY DEVELOPMENT CONTROL PLAN

Council's Manly Development Control Plan provides a range of outcomes and controls which form the primary criteria control for development within the subject locality.

Part 3 – General Principles of Development

Section 3.4 Amenity (View, Overshadowing, Overlooking/Privacy, Noise)

The installation of the heat pump in the amenities building will not cause amenity issues to surrounding neighbours. There will be no view loss or privacy issues, as the building is not located close to residential properties. Any additional overshadowing will fall onto the edge of the playing field and is not anticipated to cause any loss of amenity to users of the field.

The issue of the potential for noise has been examined and a Noise and Vibration Impact Assessment and Report prepared which indicates that noise from the heat pump will be contained within the building and will not cause a nuisance or disturbance to residential properties surrounding the MABC centre. It is also intended to only run two of the four heat pumps at night to minimise the potential for noise concerns.

Section 3.5 Sustainability – (Greenhouse Energy Efficiency, Thermal Performance, and Water Sensitive Urban Design)

Manly DCP encourages ecologically sustainable development as a key objective. The proposal seeks to reduce energy consumption of fossil fuels, namely gas, by installing an energy efficient electric heat pump system, which will reduce Council's reliance on fossil fuels as an energy source, in addition to reducing the financial burden of gas on Council's budget.

With Council purchasing 100% renewable electricity through our PPA since January 2021, this switch from gas to 100% renewable electricity at MABC will save over 1,400 tonnes carbon emissions annually. This represents a significant 30% reduction in Council's emissions, with MABC accounting for ~90% of gas use, and provides a critical path to achieve our adopted net zero targets. The proposal would see energy bills reduced by an expected $554,000 each year, through the use of highly efficient water heating equipment and result in the site powered solely by 100% renewable electricity.

Section 3.6 Accessibility

The proposal is not for general public access and as such is not required to be accessible. Council has recently installed a unisex accessible WC in the section of the building that is not being altered.

Section 3.8 Waste Management

A Waste Management Plan detailing how demolition and construction waste will be managed and removed has been attached to this application.

Section 3.9 Mechanical Plant Equipment

The building does not present obviously as a mechanical plant location and is distant from residences. Operation of the proposed plant is predicted to comply as per the Noise and Vibration Impact Assessment, with the relevant criteria at all noise sensitive receivers. No additional noise controls are required.

Part 4 Development Controls and Development Types

Section 4.4 Other Development (all LEP zones)

4.4.1 Demolition - No demolition is proposed as part of this application.
4.4.2 Alterations and Additions – The application proposes only minor alterations to the fabric of the building.
4.4.3 Signage – No signage is proposed as part of this application.
4.4.4 Awnings – No awnings are proposed as part of this application.

9. MATTERS FOR CONSIDERATION UNDER SECTION 4.15 OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

The provisions of any environmental planning instrument

The proposal is subject to the provisions of the Manly Local Environmental Plan 2013 and the relevant supporting Council policies. It is considered that the provisions of this environmental planning instrument have been satisfactorily addressed within this report and that the proposal achieves compliance with its provisions.
There are no other environmental planning instruments applying to the site.

Any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority

There are no draft EPIs applicable to the site.

Any development control plan

The application has been prepared having regard to the requirements of the Manly DCP.

The proposal seeks to implement sustainability principles through the installation of a heat pump. This is in accordance with the provisions of the DCP.

Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4.

No matters of relevance are raised in regard to the proposed development.

Any matter prescribed by the regulations that apply to the land to which the development relates.

No matters of relevance are raised in regard to the proposed development.

Any coastal zone management plan (within the meaning of the Coastal Protection Act 1979).

No matters of relevance are raised in regard to the proposed development.

The likely impacts of that development, including environmental impacts on both the natural and built environments, and the social and economic impacts in the locality.

The installation of a heat pump system for the MABC will have negligible, if any negative impacts on the natural or built environment. There will be a positive environmental impact by switching the site to 100% renewable electricity and saving over 1,400 tonnes in carbon emissions each year. There will also be positive social and economic impacts as the expected reduction in energy costs at the pool will allow Council to save ratepayers money.

The suitability of the site for the development

The subject land is suitable for the installation of a heat pump.

Submissions made in accordance with this Act or the regulations

This is a matter for Council in the consideration of this proposal.

The Public Interest

The proposal will not impact upon the environment, the character of the locality or upon the amenity of adjoining properties and will moreover enable council to practice sustainability and save ratepayers money. It is therefore considered to be within the public interest.

10. CONCLUSION

The principal objective of this development is to provide for the installation of an energy efficient electric heat pump system for water pool and domestic heating at MABC, significantly reducing Council's emissions and operating costs. This aligns will sustainability goals and targets in Council's Community Strategic Plan 2018-2029 and Council's Environment & Climate Change Strategy and satisfies the stated objectives of Council's Development Controls.

As the proposed development will not have any significant impact on the environment, scenic quality of the area or the amenity of the adjoining properties, the issue of Development Consent is requested.