

# Morgan Road, Belrose

## Economic Impact Statement

PREPARED FOR Metropolitan Local Aboriginal Land Council (MLALC)

February 2023



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# Executive Summary

Macroplan has been commissioned by the Metropolitan Local Aboriginal Land Council (MLALC) to identify and assess all the potential economic return generated by the potential development of the subject land. This assessment will form part of a suite of technical documents that are being prepared for a Development Delivery Plan and a Planning Proposal.

The proponent seeks to develop the subject land for residential development encompassing about 450 new dwellings, an Aboriginal Cultural Centre and public space which will allow opportunities to provide community facilities. The planning approval can unlock the value in the subject land, which can create opportunities for funding MLALC's on-going operational responsibilities that meet the needs of the Aboriginal community.

Overall, the planning proposal will assist in providing new local employment opportunities and promoting industry diversification. As demand for detached housing continues to expand strong in immediate future, the planning approval (and the subsequent development) will also complement the Council's vision and strategies for Northern Beaches LGA.

In addition to delivering a superior housing & employment outcome for Belrose and Northern Beaches LGA, the planning approval will also generate a number of social and economic benefits, which are discussed in more detail in this report.

The key take-outs are summarised below:

## **Support Balanced Population Growth**

Council should be aiming for solid growth in its youth & workforce-aged population to counter a strong trend towards an aging population. Northern Beaches and Belrose should also be aiming to have a healthy rate of expansion in the number of young families, rather than becoming a place that is failing to provide for their residential needs. The lack of new supply of detached housing is a factor restricting the ability of the next generation of young families to settle in the Northern Beaches. In Belrose, the construction of an additional 450 detached houses would allow for a similar number of younger households – and young people - to have the opportunity to live in the Northern Beaches.

- Northern Beaches (LGA) population is projected to rise from 265,500 in 2016 to 285,600 in 2036, and 289,500 in 2041.
- A feature of the Northern Beaches and Belrose population outlook is that growth is expected to be heavily skewed towards older age cohorts. There is negligible growth expected in the under-20 age cohort, while the 20-54 age cohort is expected to contract. By contrast, the 65+ age cohorts will grow significantly. Between 2021 and 2041, those aged 65+ in the Frenchs Forest – Belrose SA2 (2016) will increase by 3,241 people at an average 2.44% per annum, with its share of the population rising from 19.3% to 27.5%.
- The current population projections are consistent with the Council's current planning structure for housing development i.e., the current population projections are based on what the Northern Beaches LGA can achieve based on current zoning, rather than what it should seek to deliver for the community. A change of zoning at the subject land could be imperative in avoiding a lack of access to appropriate and affordable housing in Belrose and Northern Beaches.

- The means to achieve a balanced outcome for community development lie with Council, through its housing strategy. To keep and attract young families, the ample provision of new housing – and specifically new detached houses, which will appeal to young families – must become a priority. There needs to be a greater rate of housing supply permitted at an aggregate level. There needs to be several development fronts being marketed at any given time, so that there is a competitive environment that limits developer pricing power. This will also result in a great increase in the workforce-aged population and improve employment and the economic growth of the Northern Beaches LGA and Belrose.

### **Housing Affordability**

In line with the projected population growth, the DPE projections have the demand for private dwellings requiring an additional 12,000 dwellings between 2020 and 2036. The Northern Beaches Draft Housing Strategy Paper compares this demand with the potential supply given current planning rules and finds a shortage of 1,200 by 2036, which we note would rise substantially to 6,400 by 2041. Within the aggregate dwelling story, potential supply of new detached dwellings is scarce and falls well short of projected demand. The Strategy Paper acknowledges the aggregate shortage requires changes to planning rules to accommodate that growth but does not address the specific shortage in detached dwellings. As indicated above, the addition of 450 detached dwellings at the subject land would at least partially address that shortfall.

- Since 2000 the median house price in the Northern Beaches LGA has risen significantly compared with the median for Greater Sydney. The Northern Beaches market has historically carried a premium over the broader Sydney market. The price premium associated with the area is a reflection of its desirable location with its eastern boundary a coastline of quality beaches and waterways and its western boundary a national park. In the 30-year period 1991-2022, the value of the 'Northern Beaches' premium has risen from \$230,000 (in 2021 dollars) in 1991 to \$1.42 million in 2022, a six-fold increase. The premium has risen sharply in the COVID 19 period from 2019-22.
- Deteriorating housing affordability can also be seen in the rental market. As of December 2020, the median rent for houses in Belrose was \$1,183 per week – more than 18% higher than the Northern Beaches median. Between December 2017 and June 2020, the median rent for houses increased by 4.2%. In the last 6 months, however, the median rent has significantly increased by 19.5%. This rate of rental escalation is expected to have a pronounced impact on household finance and test the ability of some households to remain within the locality (i.e., Belrose).

In terms of the Covid-19 pandemic and its potential impact, the broad conclusion is that, while Greater Sydney will be adversely impacted by Covid-19 for a number of years, Northern Beaches saw a surge in housing demand. The price premium in Belrose and the Northern Beaches LGA has increased significantly in the last five years and strengthened in 2022. This reflects the strength of demand.

It also indicates a degree of unmet demand for housing that is contributing to a deterioration in housing affordability. That is, if supply were more responsive to demand, we might have seen less of the shift in demand feeding into prices.

### **More Local Spending**

During construction, the potential subject land development will provide substantial employment. External studies have estimated that the average Australian spends approximately \$29.55 (in 2018 dollars) on going to work each day including expenditure on transport, food, grooming and clothing. In 2021 terms, that translates to about \$31.42 per each workday. Based upon the estimates of employment, this would mean that during the

construction period local employee spend would be about \$0.52 million to \$0.62 million each year over the 6-year period.

The impact will be more substantial during the operational phase, Retail spending reflects the type and age profile of households but is critically a function of household incomes. Macroplan envisages that future household income on the subject land will be higher than the mean for Sydney.

There is a sharp contrast between household incomes in unit dwellings versus detached dwellings, with incomes substantially lower for households living in units. Adjusting for the different mix of detached housing and allowing for a component of households with higher incomes, the mean household income (in 2016 dollars) for the subject land is estimated at \$145,000 per annum. In 2021 terms, that translates to about \$154,000 per annum.

Based on the number of households expected, and based an estimated that 26.6% of total retail spending by households in the 'Frenchs Forest-Belrose' SA2<sup>1</sup> will be retained in the area, this will effectively lead to additional retail spending of \$6.3 million per annum (in 2021 dollars) in spending at local businesses in the SA2 area. The substantial benefit to these local businesses will in turn lead to more local job opportunities.

### **Local Job Creation**

The proposed development will support local employment by increasing available employment floorspace, while maintaining local employment objectives and generating more Indigenous employment during the planning, construction, and operation stages. It will also generate additional jobs in existing local businesses.

- Over the 6 years of development, Macroplan estimates that the potential subject land development can generate 50 to 60 full-time equivalent jobs per annum directly in the construction industry and a further 80 to 90 full-time equivalent jobs per annum indirectly (for example, jobs in transport, manufacturing, fabrication, design etc).
- Further to this, once operational, the Aboriginal Cultural Centre will directly support 5 to 6 jobs and an additional 4 to 5 indirect jobs, for a total of about 10 jobs. In addition, the boost to local retail businesses is estimated to generate 60-70 direct jobs and 40-50 indirect jobs. All up, the net addition to local jobs is about 110-130 jobs.
- The planning approval (and the subsequent development) is further estimated to generate an industry value-added (IVA) close to \$25 to \$30 million per annum.

### **Better Stormwater Management**

The Northern Beaches community places a high value on the quality and health of its waterways. This reflects the presence of beaches, lagoons and waterways in the Northern Beaches' physical environment and the importance those waterways play for recreation and quality of life in the NB – the very qualities which draw people to the Northern Beaches.

- The new facility will involve an investment in the order of \$18 million. The proponent has indicated that the project on the subject land will implement the latest technology in water quality treatment using recycled bio-organics as part of the treatment train. Storm Consulting will collaborate with STAR Water Solution to model the water quality and provide water quality basins using recycled organics and minerals

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<sup>1</sup> Frenchs Forest – Belrose SA2 (please refer to the map in the appendices).

to replicate the natural environment. It will not only treat the stormwater which will be generated by the proposed new housing but also addresses the current inadequate position which has a substantial amount of contaminants entering the waterways in the area and ultimately flowing into the Narrabeen Lagoon.

- The Case Study of the Manly STAR system has indicated savings to the Northern Beaches Council of \$50,000 per annum on water cost for green land watering. It has also indicated the savings in terms of significantly reduced levels of contaminants (suspended solids, phosphorous, nitrogen). While the Study did not put a monetary value of that, clearly the Northern Beaches community puts a high value on these environmental improvements to the waterways.
- Further to this, the Council can levy a \$25 stormwater management charge<sup>2</sup> for residential and business development. The option to levy the charge was introduced in 2005 in recognition of the need for a more sustainable revenue stream for councils to fund stormwater management because of increasing impervious surfaces that lead to waterway pollution and flooding.

### **Better Bushfire Management**

The recent bushfires in eastern Australia have highlighted that – in a perfect storm of circumstances (end of long drought, etc) – the economic damage and the risk posed to human life by bushfires can be very high indeed. The proponent has indicated that reducing bushfire risk is a key consideration. Asset Protection Zones (APZs), fuel-reduced areas, will be contained wholly within the subject land, and incorporate fire trails, perimeter road verges, riparian buffers, and corridors. This will significantly improve the level of bush fire protection to existing and future properties. Importantly, it will also reduce risk to adjoining developments, improving bushfire management both locally and regionally, including several adjoining seniors housing estates.

In the case of the subject land and the surrounds (i.e., Garigal National Park), the total insured cost of bushfires for the locality would be in the order of \$22 million to \$24 million. Using methodology developed by Biddle (2020) and applying an estimated multiplier of 4 to 5<sup>3</sup>, the total economic cost of a bushfire would be around \$90 million to \$120 million. While not all risks can be mitigated, if the bushfire management improvements proposed can reduce the risk by 20-40%, the benefit to the community will be significant.

### **Boost to Northern Beaches Council Revenues**

At present, as the land is owned by an aboriginal land council, the land is exempt from paying rates to the Northern Beaches Council. If the land is redeveloped as proposed, the Northern Beaches Council will benefit significantly. Current Local Government arrangements in NSW also allow councils to increase their general income 'outside the rate peg' through the supplementary valuation process applied to sale of new greenfield housing lots. In addition, the land sold is valued at its actual sale price which would its rateable value carrying a premium of about 20% over the values assigned to comparable housing lots. On this basis, Macroplan expects a rateable land value of \$500-900 million that would generate revenue of the order of \$1.1 million per annum. At the margin the Council will be incurring some additional expenses in serving this new residential area, but this will be well short of the additional revenues generated, so that the Council will have additional free funds – of the order of \$600,000 per annum - available to either increase services to the broader Northern Beaches community or reduce rates applying to all residential properties – either way, other ratepayers will be the beneficiaries.

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<sup>2</sup> Northern Beaches Council

<sup>3</sup> Based on the experience of previous major fire, 2009 Victorian Black Saturday fires.

## **Additional State Government Revenues**

The development of the site will generate additional land tax (estimate \$1.7 million per annum), payroll tax (\$0.3-\$0.4 million) and GST revenues (\$0.15 - \$0.2 million). In aggregate, this will benefit the State Government revenues to the order of \$2.2 million per annum:

- The development of the Belrose site for residential use has the potential to lift land tax revenues for the State Government. At present, as the land is owned by an aboriginal land council, it is exempt from land tax. In the case of owner-occupied housing – which is likely to account for 80% of the residential lots - these properties would also be exempt from land tax. In the case of residential rental properties, land tax will be payable, subject to thresholds, at a rate of 1.6% of the value of the land<sup>4</sup>. Assuming the 2022 threshold of \$822,000 applied to all residential rental holdings, the amount of land tax payable would be of the order of \$1.7 million per annum<sup>5</sup>.
- The potential redevelopment of the subject land would provide more local employment opportunities for local residents. Based on the employment assessment is that there would be 110 to 130 persons employed, and based on average wage and salaries, this would generate payroll tax revenue of \$0.3 - \$0.4 million per annum.
- The employment factors which drive payroll tax revenues will also lead to increased spending which in turn will increase GST revenues. The estimate is that it will generate another \$0.15 million to \$0.2 million i.e., additional GST revenue for NSW.

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<sup>4</sup> Revenue NSW

<sup>5</sup> Assumption is 90 residential rental properties valued at \$2 million each and commercial property valued at \$4 million. Threshold of \$822,000 subtracted from residential properties but not the commercial property. The threshold applies to the total value of all land holdings by an individual taxpayer. If the threshold did not apply (that is, landowner already above threshold), land tax on a property with a value of \$2 million at 1.6% would be \$32,000. On 90 properties (20% of residential properties) that would generate \$2.7 million for the State Government. However, given the dominance of small landlords in the rental market, and the probability that rental properties will be less than 20% of residential properties, the estimate of about \$1.7 million (on the residential component) seems more realistic.

# Section 1: Introduction

The Metropolitan Local Aboriginal Land Council (MLALC) is seeking to pursue development of their Morgan Road Site (the subject land) in accordance with the principle of self-determination which underpins the NSW Aboriginal Land Rights Act 1983 (ALRA) by utilising its land asset to deliver tangible economic, social, and cultural benefits to the Aboriginal community. The subject land is located on Morgan Road, Belrose, has a land area of approximately 70 hectares, and is located within the Northern Beaches Local Government Area.

Macroplan has been commissioned by the MLALC (i.e., Proponent), to identify and assess all the potential economic returns that would be generated by the potential development of the subject land. This assessment will form part of a suite of technical documents that are being prepared for a preparation of a Development Delivery Plan and a Planning Proposal.

The repurposing of vacant land at the subject land with innovative and environmentally sensitive development can deliver greater overall economic returns for MLALC. In unlocking value in the land, it will create opportunities for funding MLALC's on-going operational responsibilities, including the MLALC Community Benefits Scheme, in accordance with clause 52A of the ALRA Act. This will generate for its members, community, and people the following benefits:

- Promotion of culture and heritage.
- Healing, wellbeing and improved health, educational, employment and justice outcomes.
- Income generation.
- Partnerships and collaborations with key government, non- government, philanthropic and business organisations in the MLALC area.
- Funding MLALC Health & Wellbeing facilities & programs.
- Providing social housing and potentially a homeownership scheme.
- Funeral assistance and programs.
- Sponsorships including youth scholarships - cultural, academic and sporting.
- Jobs, education and training for MLALC activities including cultural heritage.
- Cultural education and tourism and land management.
- Funding for MLALC culture and heritage sites, keeping places and programs.

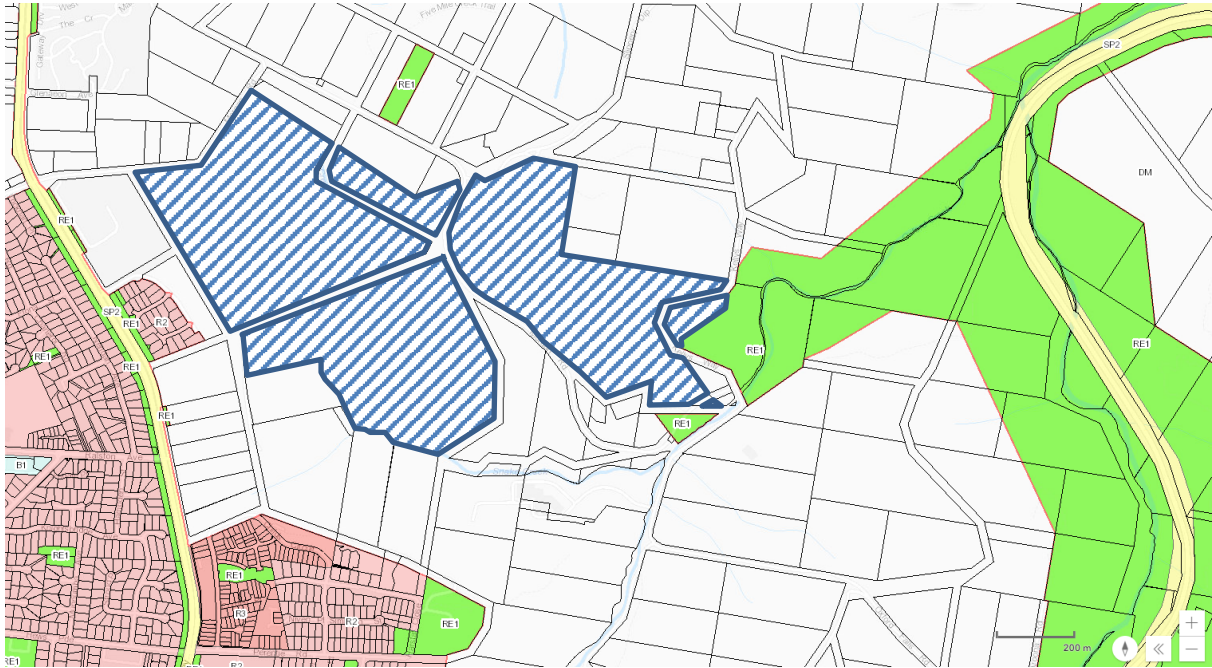
The report is structured as follows:

- **Section 2** presents a justification for the rezoning of the subject land to residential uses, which identifies and outlines the need for more housing supply and greater levels of housing diversity.
- **Section 3** examines the benefits of the planning approval including direct and indirect jobs which could be created.
- **Section 4** considers any other economic and community impacts that are achievable because of the planning approval.
- **Section 5** estimates the effect of the development in terms of its effects on taxation and duty revenues to the Local and State Government.
- **Section 6** contains Appendices & References.

## 1.1 Regional and Local Context

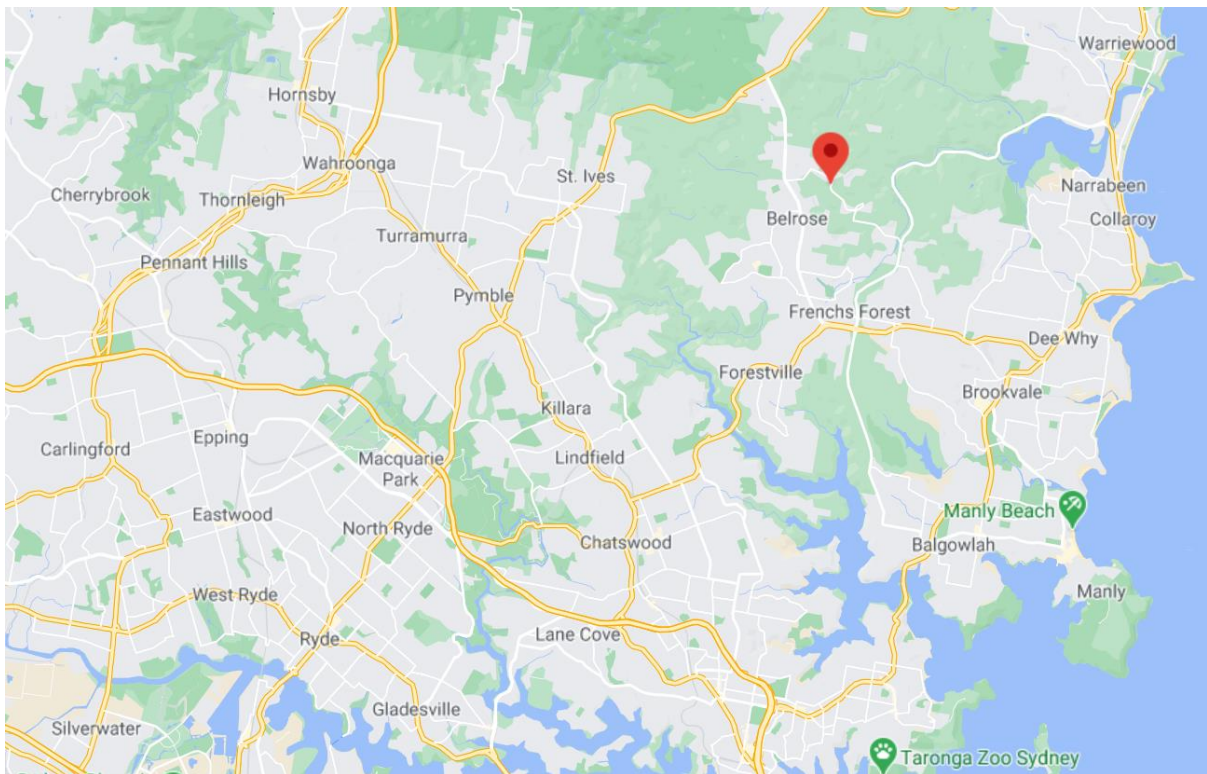
Figures 1 to 3 illustrate the land's location and general layout (see location below).

**Figure 1 Subject Land (Morgan Road, Belrose)**



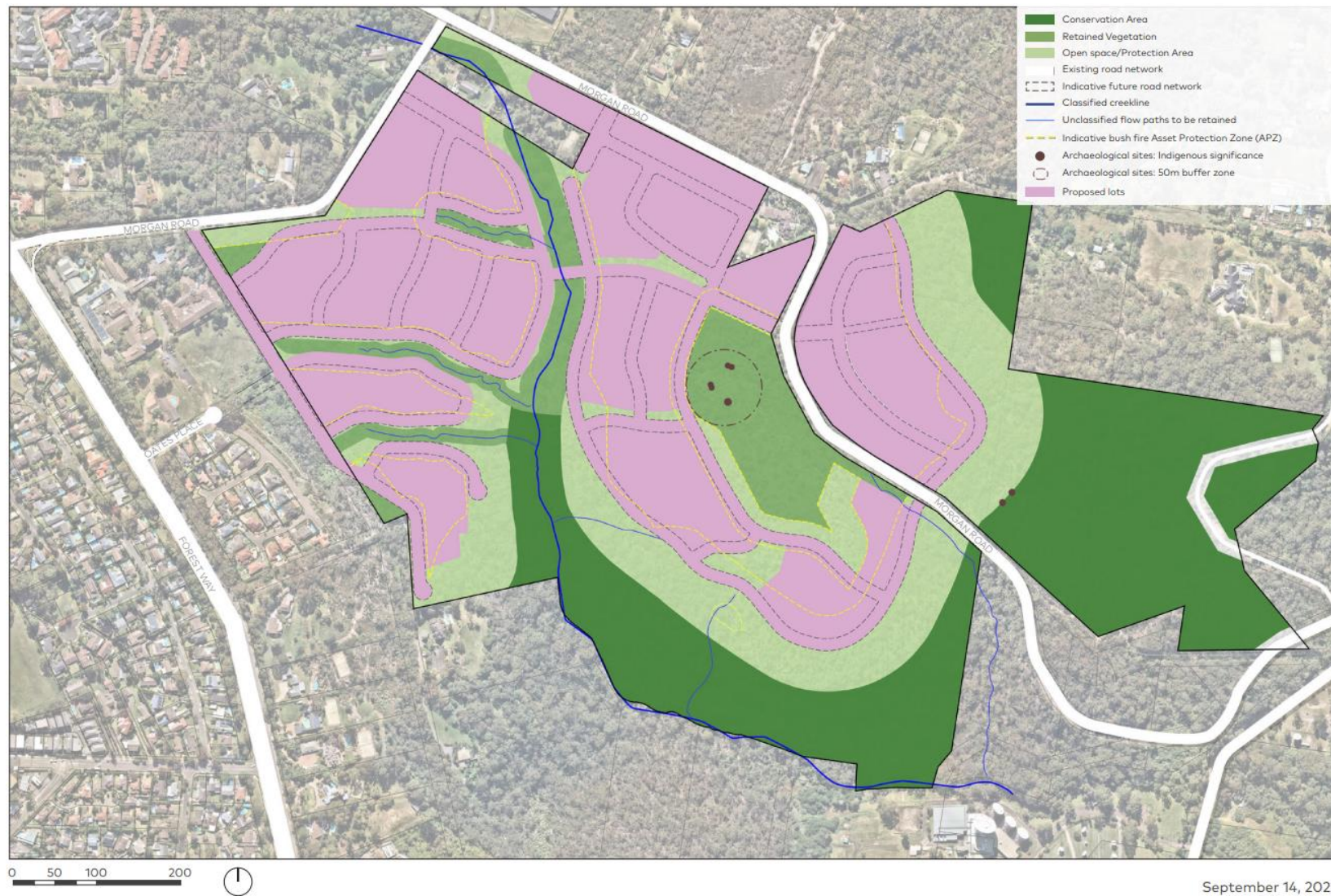
Source: DPE Planning Portal (ePlanning Spatial Viewer)

**Figure 2 Regional Context Map**



Source: Google Maps (location of the subject land marketed in red)

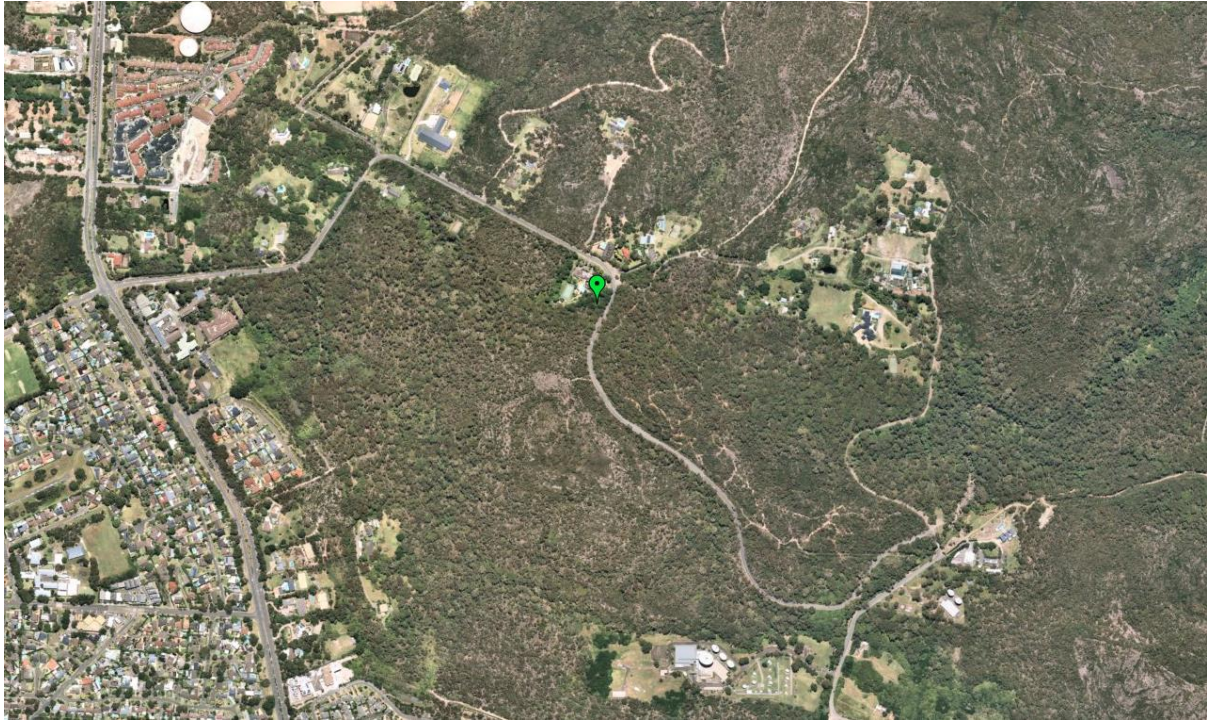
**Figure 3     Draft Structure Plan**



Source: MLALC & COX Architecture

The subject land is located at Morgan Road, Belrose in the Northern Beaches LGA, approximately 15 km north of Sydney's CBD and 6 km north east of Chatswood. There are a number of dwelling houses located near the subject land, but the area is undeveloped and retained as bushland. Vegetation on the land mainly comprises undeveloped bushland, along with moderate incursions of weeds and some exotic tree plantings adjacent to the internal driveway and some dwelling houses.

**Figure 4      Aerial photography (subject land)**



*Source: Nearmap*

Currently, there are a limited number of local services and amenities in Belrose. However, there is a wide range of retail offerings, health services and general amenities to service residential needs in the nearby suburbs such as Frenchs Forest and Brookvale. Morgan Road provides direct access to the subject land as it merges into Forest Way and Oxford Falls, which are also direct linkages to Frenchs Forest, making the hospital just a 7-minute drive away:

- Glenrose Village (3.2 km from the subject land);
- Forestway Shopping Centre (3.6 km from the subject land);
- Belrose Super Centre (2.5 km from the subject land);
- Forestville RSL (6.1 km from the subject land);
- Westfield Warringah (9.2 km from the subject land);
- Cromer Golf Club (4.3 km from the subject land); and
- Northern Beaches Hospital (4.2 km from the subject land).

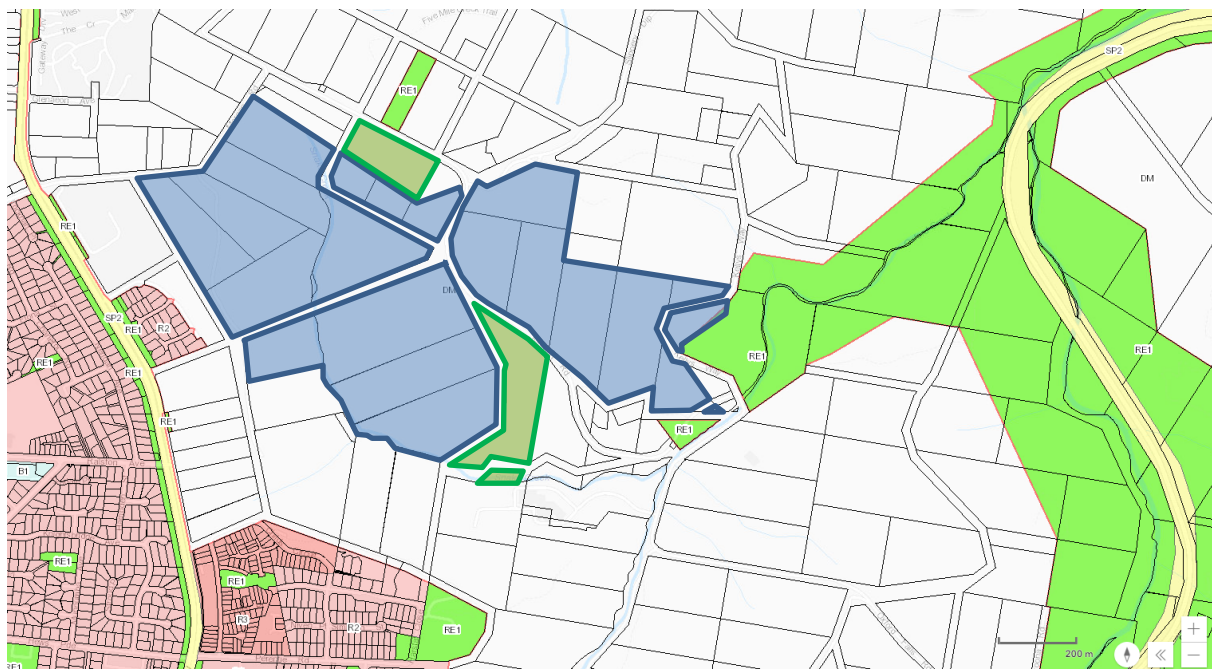
The site is also in proximity to 30 public and private schools which will further positively contribute to attracting those young families and creating the foundation for a successful community.

In addition, there are a number of aged care facilities proximate to the subject land, including Uniting Wesley Gardens, a disability services & support organisation, and Wesley Gardens Aged Care facility, both adjoining the subject land to the west. Glenaeon Retirement Village is situated north-east of the subject land and Belrose Country Club Retirement Village is situated south of the subject land.

## 1.2 Subject Land Context

The subject land comprises 19 separate allotments with a total land area of approximately 70 hectares.

**Figure 5 Subject Land (Morgan Road, Belrose)**



Source: DPE Planning Portal (ePlanning Spatial Viewer)

The key land holding proposed to be included in the AL SEPP and subsequent DDP includes Lots 90, 91, 92, 93, 176, 177, 178, 189, 190, 191, 196, 197, 944, 945, 946, 947, 948, 953 all in DP752038 & Lot 2 DP 1242330.

Future land, subject to land claim, has also been identified for inclusion in the project. This land comprises two additional parcels identified as Lots 89 and 2600 in DP 752038 (marked in green in Figure 5). MLALC does not own this land but has an interest in the determination of the Land Claims affecting Lots 89 and 2600 and proposes to close and purchase the unformed Crown roads under the Crown Lands process.

North of the subject land is Moon Rock, a State heritage listed item which was declared an Aboriginal Place in 2016. Moon Rock is located in high bushland with views to the ocean and has about 50 engravings depicting Aboriginal astronomical knowledge, lunar phases and Baiame the creator-spirit.

To the north and north east of the subject land are a number of large residential land holdings, which are partly cleared and contain a range of dwellings and outbuildings. The subject land abuts residential areas to the west.

The land has gently undulating topography. It is traversed by Snake Creek and then forms the south-western boundary, but the subject land itself does not coincide with any mapped watercourses. This portion of the subject land is adjacent to the large industrial site, Telstra's Oxford Falls satellite earth station, part of Telstra's global telecommunications network.

**Table 1 Lot registration details and land area**

Lot Title Information	Lot Size (ha)	Zoning	Ownership
944/-DP752038	3.2	DM (Deferred Matter)	MLALC
945/-DP752038	3.0	DM (Deferred Matter)	MLALC
946/-DP752038	3.0	DM (Deferred Matter)	MLALC
947/-DP752038	2.9	DM (Deferred Matter)	MLALC
948/-DP752038	4.1	DM (Deferred Matter)	MLALC
953/-DP752038	2.3	DM (Deferred Matter)	MLALC
93/-DP752038	4.3	DM (Deferred Matter)	MLALC
176/-DP752038	0.8	DM (Deferred Matter)	MLALC
177/-DP752038	0.6	DM (Deferred Matter)	MLALC
178/-DP752038	1.0	DM (Deferred Matter)	MLALC
92/-DP752038	6.9	DM (Deferred Matter)	MLALC
91/-DP752038	4.5	DM (Deferred Matter)	MLALC
90/-DP752038	4.4	DM (Deferred Matter)	MLALC
189/-DP752038	3.0	DM (Deferred Matter)	MLALC
190/-DP752038	3.0	DM (Deferred Matter)	MLALC
191/-DP752038	3.2	DM (Deferred Matter)	MLALC
196/-DP752038	3.6	DM (Deferred Matter)	MLALC
197/-DP752038	4.3	DM (Deferred Matter)	MLALC
2/-DP1242330	3.0	DM (Deferred Matter)	MLALC
2600/-DP752038	2.5	DM (Deferred Matter)	MLALC
89/-DP752038	3.9	DM (Deferred Matter)	MLALC

Source: DPE NSW & Macroplan GIS

The planning proposal is for the redevelopment of the subject land. It is proposed that the existing site will be cleared, and that the new residential development will be delivered in stages, containing primarily low-density residential development, as more affordable and quality housing is needed to meet demand currently unsatisfied by historically low inventory in Belrose and the Northern Beaches LGA generally.

The current masterplan identified the land as either:

- Suitable for residential development with the potential to yield about 450 dwellings through well considered and variously sized subdivision plans;
- New public space, including opportunities to provide community facilities;
- Environmentally sensitive land and riparian / habitat corridors to be preserved and protected; or
- Areas of Aboriginal cultural significance to be preserved and protected.

For this assessment, Macroplan will focus on the current key land holding as well as the additional parcels identified for a potential land claim.

### **1.3 General Development Description**

The purpose of this Planning Proposal is to implement the Development Delivery Plan for the subject site created under State Environmental Planning Policy (Planning Systems) 2021.

The objective of the Planning Proposal is to create a residential community embodying strong conservation principles to support the enhancement of the unique environmental and Aboriginal cultural heritage characteristics of the site.

The intended outcome of the Planning Proposal is to amend the applicable local planning controls to accommodate up to 450 new residential dwellings with a variety of scale and character reflective of the dominant dwelling type in the Belrose locality, as well as a new cultural community centre and protection of aboriginal heritage sites.

An indicative draft structure plan has been developed by COX Architecture that is reflective of the site's opportunities and constraints in the areas of flora and fauna biodiversity, bushfire management, transport planning, Aboriginal heritage and stormwater management. The Planning Proposal intends to ensure development outcomes align with traditional indigenous 'Caring for Country' practices and relevant 'Connecting with Country' and 'Designing with Country' principles and strategies.

### **1.4 Data and Information Sources**

Our research draws on a wide range of information sources including: various planning and strategic documents (Local, State and Federal), NSW Department of Planning, Industry and Environment Projections, Department of Jobs and Small Business data, NSW TPA Population & Employment Projections; Australian Bureau of Statistics Census data (2011 & 2016) and various latest statistics; and Macroplan's relevant experience throughout NSW and Australia, with particular reference to socio-economic profiles, industry trends, and recent property market trends in Belrose and Northern Beaches LGA generally.

### **1.5 Limitations**

The information in this report have been obtained from, and opinions herein are based on, sources believed to be reliable. Although great care has been taken to ensure accuracy and completeness in this report, Macroplan has not independently verified and does not accept responsibility for its completeness and accuracy of the factual information on which its opinions and assumptions are based. Further, as the report involves future forecasts, it can be affected by a number of unforeseen variables. It represents for the party to whom or which it is addressed the best estimates of Macroplan, but Macroplan can give no assurance that any forecasts will be achieved.

## Section 2: Sydney and Northern Beaches Property Markets

In this section we look at long term trends in prices in the Greater Sydney and Northern Beaches housing markets, and the factors which have driven those trends. Macroplan found that there is a lack of housing diversity and choice in Belrose and the Northern Beaches LGA. Inadequate residential developments mean that local residents who currently live and work in the area (or commute to nearby employment hubs) will be denied an opportunity to settle within their own communities and neighbourhoods.

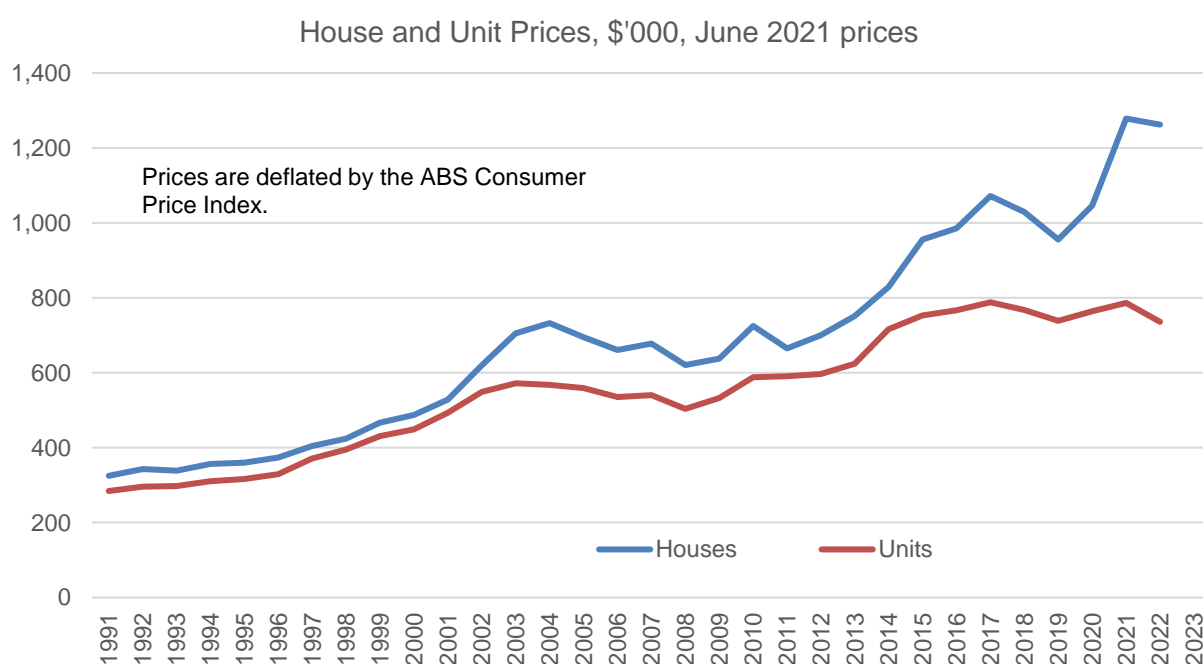
### 2.1 Long-term Price Trends

#### 2.1.1 Price Trends in the Sydney House and Unit Market

Since 1991 there has been a clear upward trend in both house and apartment prices. For Greater Sydney, the median price of detached houses has shown an average upward appreciation of 4.5% in real terms – that is, over and above general inflation which averaged 2.5% over the same period. Some of that upward appreciation reflects capital improvements (knockdown-rebuild and renovation) which have probably added about 1% per annum to the value of housing but even allowing for that, the capital gain component – which reflects the rise in land value - has been very significant.

The cost of constructing dwelling structures has risen but can only explain a small part of the rise in cost of housing. Over the period 1991-2022, costs in real terms have risen on average at 0.6% per annum, well short of explaining the rise in established house prices over the same period.

**Figure 6 Sydney House and Unit Prices, annual 1991-2022 (Real terms)**



Source: NSW Government (FACS) sales reports

In the case of the apartment market, the upward appreciation has been at a lesser rate – 3.1% per annum average growth in real terms over 1991-2022. This lower rate of appreciation can be explained in terms of the lesser component of land in the value of individual apartments and also the lesser amount of capital improvements made to the stock of existing apartments. Allowing for those factors, the upward trend is on a par with houses. Apartments benefit from their higher concentration in places where the value of land has risen faster – inner areas and close proximity to train stations – and is more responsive to the stimulus to land value from declining interest rates.

### 2.1.2 Market Factors, Policy and Prices

As the population of cities grow, and the incomes of households rise (increasing demand for space), the value of land rises as the cost of commuting from the outer to the centre (CBD) rises. As the value of land rises, there is a natural pressure for the land to be used more intensively. In cities such as Sydney with high concentrations of high-income jobs in their CBD, these pressures will be more pronounced. In addition, within cities in locations which offer high levels of natural amenity (e.g., beaches, national parks) there are added premiums. **The Northern Beaches is an example of an area within Sydney with a significant premium for its location.**

Where cities are constrained geographically – as Sydney is by the ocean (to its east) and national parks to its north, south and west, the upward pressure on land prices will also be higher. In addition, where cities are constrained by policy, the value of land also rises faster. **In the case of Sydney, policies which limit density (zoning of land to low density and impediments to rezoning for higher density) in the inner areas means that the land which is ‘selected’ for (allowed to be) developed contains a scarcity premium.**

It also means the unsatisfied demand pressures are pushed out to the middle and outer areas. At the same time, policies which constrain the outward expansion of the city (urban growth boundaries) serve to create a scarcity premium in fringe land prices which feeds through into the value of land in all areas. The Productivity Commission has highlighted the rigidity of the planning system in NSW as a problem and studies by the RBA have highlighted the impact of this on the cost of housing in Sydney.

**It is the combination of population and income growth, against a constrained supply, which largely explains the long-term rise in prices in the Sydney market.** Sydney is not unique. Globally, cities such as San Francisco (and most Californian cities) and Vancouver in Canada share a very similar combination of factors and have experienced similar long-term rises. In the US this contrasts with inland cities where supply is not constrained and growth has been lower, and where prices have shown little long-term movement. Studies of US cities have highlighted that cities such as San Francisco are more volatile than other markets, and Sydney is also a market which is subject to volatility.

Due to the time taken to construct housing, it is a market naturally and historically observed to be subject to cyclical swings. In the case of Sydney, when demand is strong, the significant time required for developers to obtain approvals means there is a long lead time before decisions to develop a site translates into supply. This makes the market prone to over-shooting. Therefore, allowing more greenfield developments could be a way to mitigate the shortage of affordable housing.

### 2.1.3 Interest Rates and House Prices

In the period since the 1989-91 recession there has been a structural decline in interest rates (see Figure 8 below). This has boosted asset prices generally. It has accentuated the rise in dwelling prices in Australian dwelling markets which have run well ahead of rent growth. Correspondingly, yields on residential property have declined to low levels. Over this period, the average yield declined from about 5.5% to below 4%. The decline was more extreme in the house market, principally because of the higher land content in the value of houses – higher yields are required on the structure vs the land component of dwelling properties.

Looking ahead, in 2022 the Reserve Bank of Australia has changed course sharply on interest rates. Since May it has lifted interest rates successively to (as of early September) to 2.25% and has indicated that it will likely lift them further. The market consensus is for the cash rate to rise towards about 3% in 2023. There is a fairly close relationship between moves in the cash rate and moves in the VHR mortgage rates, so a 3% cash rate would have the VHR back at levels of 2011. This rise in the cost of mortgages for borrowers feeds, other things equal, into the capacity to borrow which will be negative for prices.

The catalyst for this rise in interest rates has been a significant uptick in inflation. The causes (e.g., COVID19-related supply constraints) are not unique to Australia but the risk with an economy at full employment is that inflation will be allowed to settle above the RBA's inflation target of 2-3%, necessitating a sustained period of higher interest rates.

Can they return to recent very levels which were supportive of property prices? In answer to that question, it should be noted that in real terms (nominal rate less inflation rate), interest rates are still at historically low levels. Long term, a real cash rate of about 1% might be considered "normal" (implying a nominal rate of over 3% as normal) and this makes it likely that interest rates will not return to those levels. The market will probably need to adjust to living with marginally higher interest rates.

## 2.2 The Northern Beaches Housing Market

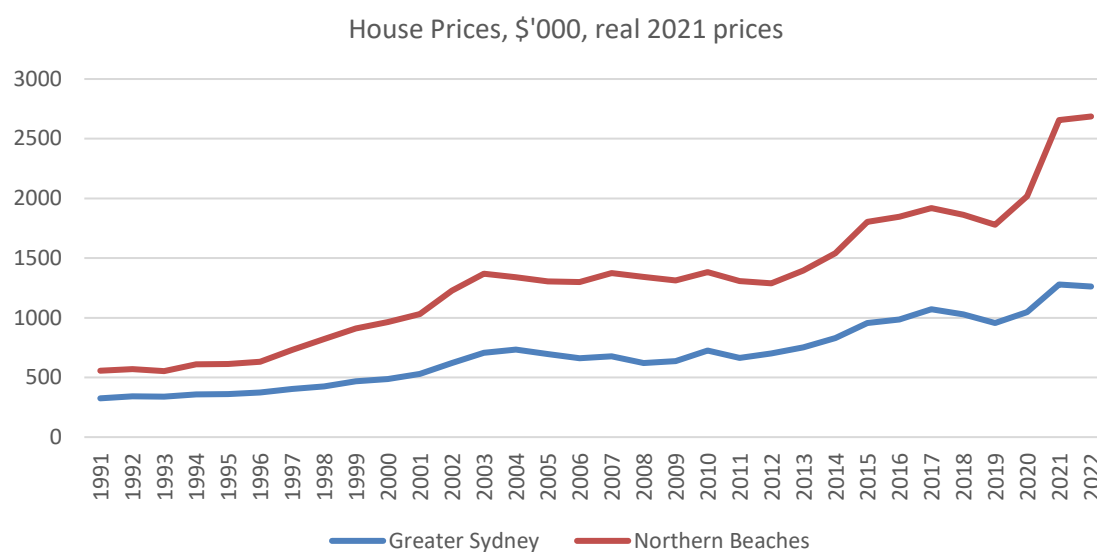
### 2.2.1 Northern Beaches LGA Residential Property Market

In June 2022, the median house price in the Northern Beaches LGA was recorded at \$2.85 million while units had a median price of \$1.2 million.

Between 2017 and 2019, Greater Sydney's median dwelling prices dropped significantly. This trend was mirrored in the price of dwellings in the Northern Beaches LGA. However, the decline in dwelling prices in the Northern Beaches was significantly less pronounced in that period and the lift in prices in 2020-22 has seen prices rise more strongly, to be well above their 2017 peak. Overall, the market has performed more strongly compared with the overall Sydney market.

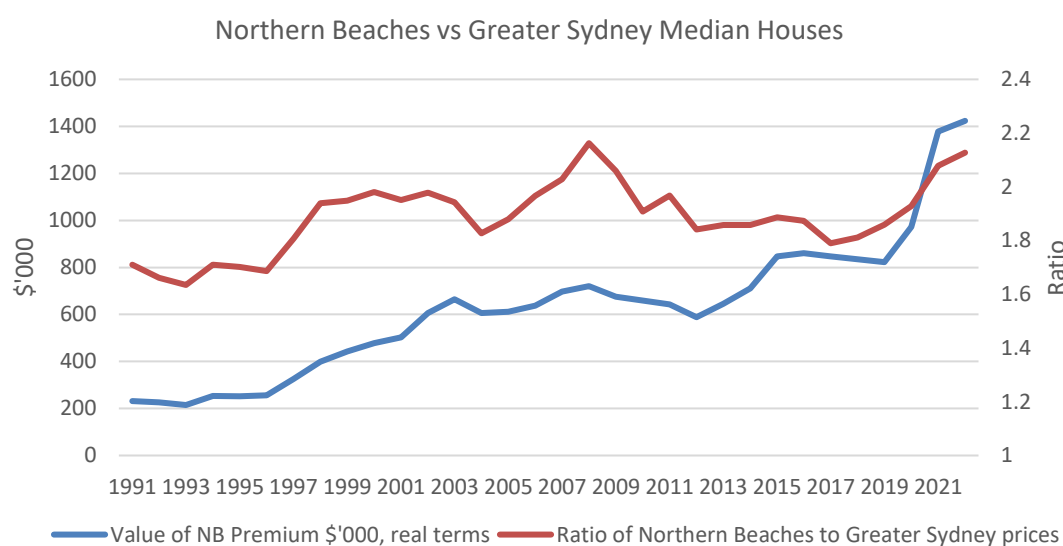
Taking a longer-term view, the median house price in the Northern Beaches LGA has risen significantly compared with the median for Greater Sydney. The Northern Beaches market has historically carried a premium over the broader Sydney market. The price premium associated with the area is a reflection of its desirable location with its eastern boundary a coastline of quality beaches and waterways and its western boundary a national park. In the 30-year period 1991-2022, the value of the 'Northern Beaches' premium has risen from \$230,000 (in 2021 dollars) in 1991 to \$1.42 million in 2022, a six-fold increase. The premium has risen sharply in the COVID 19 period from 2019-22. The rise in the premium has also been reflected in the rise in the ratio of 'Northern Beaches' prices to Greater Sydney prices which has risen towards a ratio of 2.1.

**Figure 7 Residential Median House Prices, 1991-2022 (\$'000 Real Terms 2021 dollars)**



Source: NSW FACS, Macroplan

**Figure 8 Northern Beaches House Prices vs Greater Sydney**

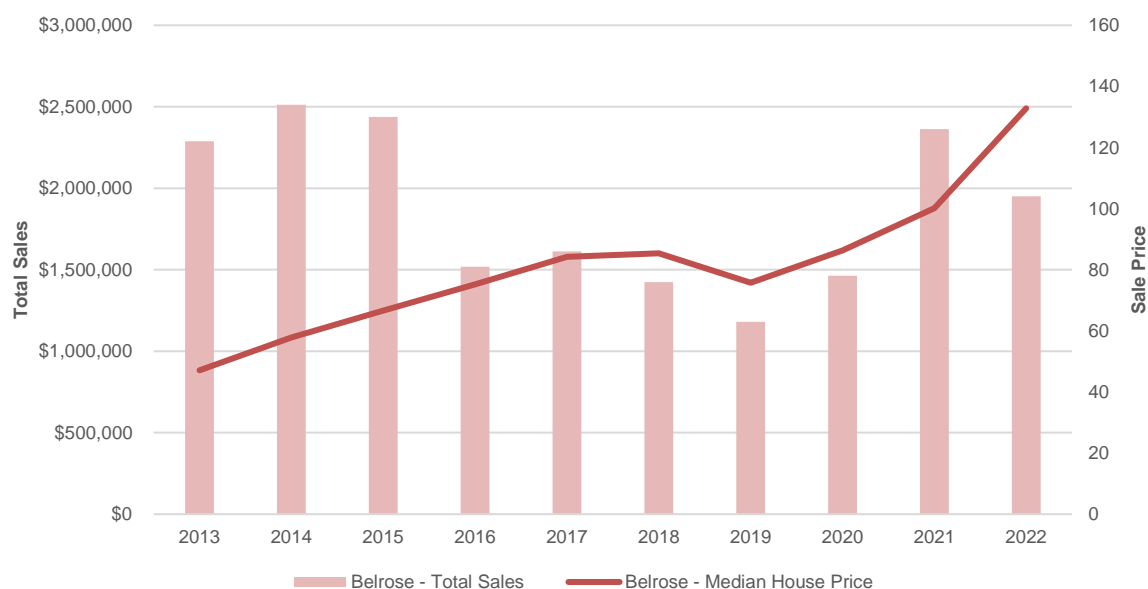


Source: NSW FACS, Macroplan

### 2.2.2 Belrose Property Market

In June 2022, the median house price in Belrose was \$2.49 million, 32.6% higher than in 2021. In line with Northern Beaches LGA, dwelling prices in the sub-market began trending upward in 2020.

**Figure 9 Belrose Housing Market, 2013-2022**



Source: RP Data, Macroplan

In June 2022, the median unit price in Belrose was \$0.55 million, 5.8% higher than in 2021. It is important to note unit sales are limited in Belrose, so market evidence is constrained.

### 2.3 Leasing Market

Deteriorating housing affordability can be assessed in terms of renters. Young families typically enter the housing market via the rental market, and it is the only tenure option for many lower income households.

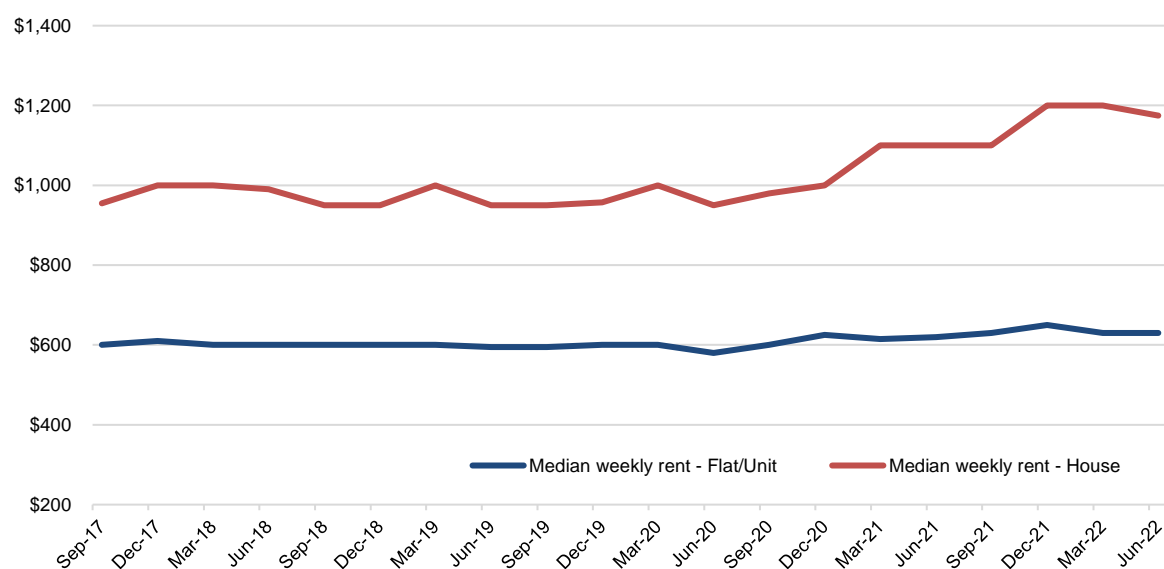
The NSW Department of Communities and Justice (formerly Family & Community Services - FACS) report rents across New South Wales at a postcode level and LGA level. Belrose is located in postcode 2085.

The Figure 13 (below) details rental movements in real terms in the Northern Beaches over the past 4 years. As seen in the figure below, rents in the LGA began falling in 2017. Unit prices have since remained relatively flat with the median rental value for a unit currently \$630 per week. The housing rental market has been slightly more volatile, since March 2019, but the broad trend has been sideways. However, the median rental value of a house in the LGA increased from was \$1,000 per week in December 2020 to \$1,175 per week in June 2022. While not rising in the same manner as prices, the steadiness of rents contrasts with the falling trend in rents across the broader Sydney market, evident before COVID, but particularly the sharps fall in the inner areas of Sydney. The fact that the declines have not caused 'Northern Beaches' rents to fall (but rise) more noticeably has reflected the strength of demand for housing in the Northern Beaches LGA.

As of June 2022, the median rent for houses in Belrose was \$1,350 per week – more than about 15% higher than the Northern Beaches median. Between June 2019 and June 2022, the median rent for houses increase by 35.7%. In the last 12 months, however, the median rent has significantly increased by 12.5%. This rate of rental escalation

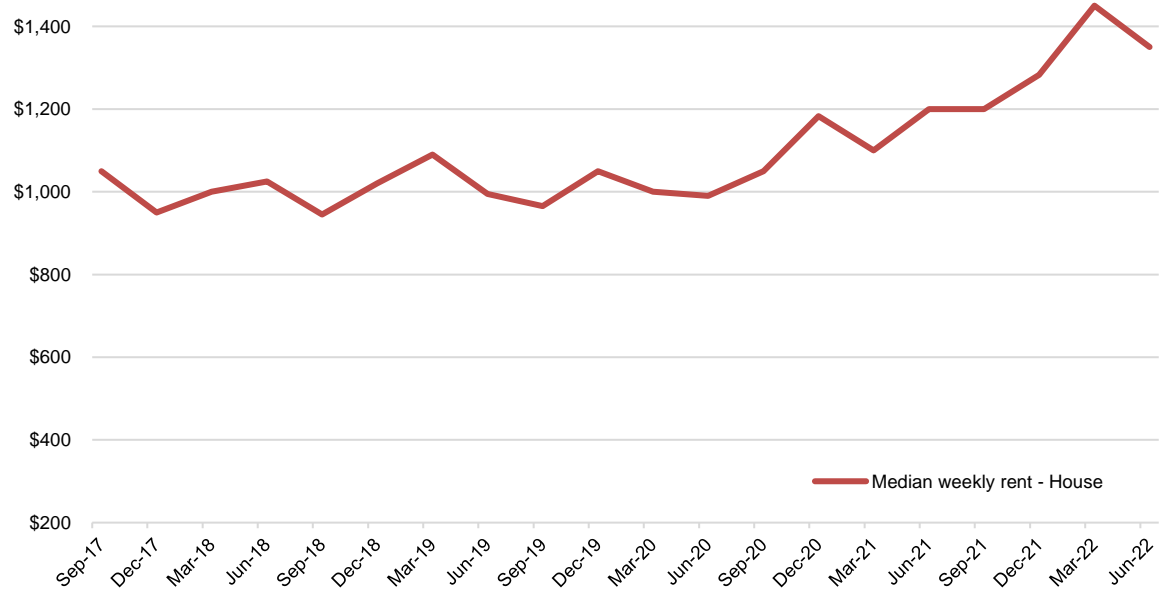
is expected to have a pronounced impact on household finances and test the ability of some households to remain within the locality (i.e., Belrose).

**Figure 10 Weekly Rent: Northern Beaches LGA**



Source: NSW Department of Communities and Justice

**Figure 11 Weekly Rent: Postcode 2085 (incl Belrose)**



Source: NSW Department of Communities and Justice

## 2.4 Post-COVID Housing Market

The COVID pandemic has had a major impact on net overseas migration (NOM) into Australia and, with Greater Sydney a major destination for new migrants – particularly international students - into Australia, the impact on growth in Greater Sydney has been substantial.

From a pre-COVID level of 240,000 in 2018/19, NOM into Australia dropped to about 190,000 in 2019/20 and in 2020/21, NOM was negative - there was a net outflow of 58,700 people. In 2021/22, NOM returned to positive territory at about 150,000 (June quarter 2022 estimate pending) but this was still well below pre-COVID levels. Given that NOM has accounted for about 60% of population growth in the past decade, this period of low NOM has had a significant short-term impact on population growth.

The Government's Centre for Population (CfP) (2021) projections – released in early December 2021 – had NOM returning to pre-COVID levels from about 2024/25 onwards. However, the October 2022 update (released with the October 2022 Budget) is expected to see that brought forward. The Government has made some marginal changes to the migration program which will be detailed in the October Budget, but it largely reflects the earlier-than-expected normalisation in population flows.

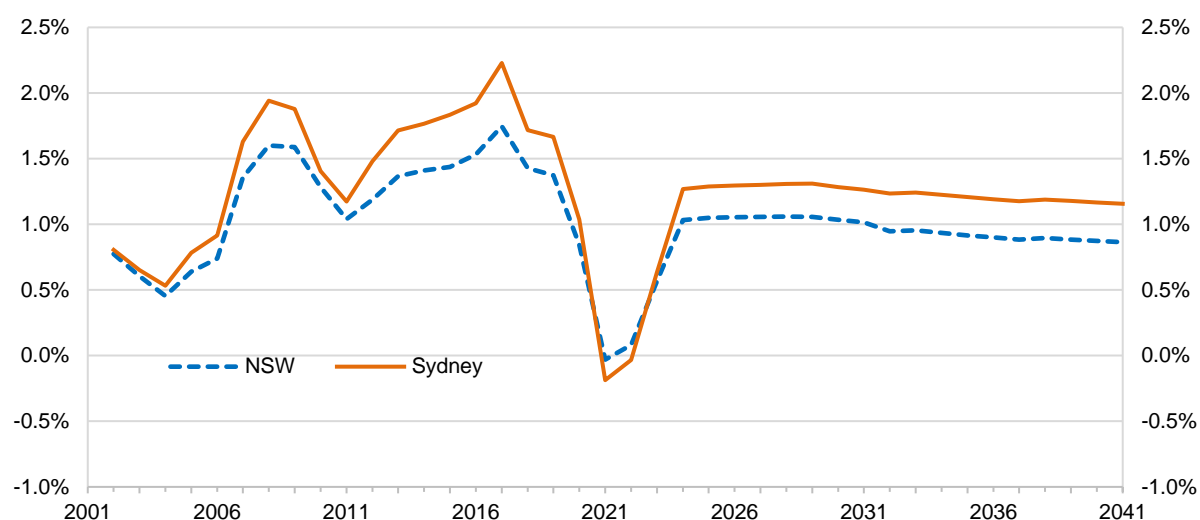
As the CfP has noted, there will be no catch-up of lost NOM as the position normalises. That is, it expects the growth rate to recover but that will be coming off a lower base. In numbers terms the amount of annual growth heading into the 2030s will very likely still be lower.

For Greater Sydney, the impact is relatively larger (Appendix A). The NSW Government published revised population projections for NSW and Greater Sydney (DPE 2022) in June 2022, which are broadly consistent with the CfP assessment. Greater Sydney has been more vulnerable to the decline in international students but then is more likely to benefit when these numbers bounce back when international travel normalises. In terms of growth rates, the position has recovered back to pre-COVID growth rates by 2024 or perhaps earlier.

In terms of demand for housing, other things equal, lower population growth translates typically to less demand for housing. However, COVID19 has at least in the short-term increased people's preference for space and preference for locations which offer higher levels of recreational opportunities. One factor here has been the switch to working from home (WFH). At the margin this has translated to smaller households but also to increased demand for dwellings in outer suburbs which offer larger houses and more space generally. So that, despite lower NOM itself reducing demand for housing, other factors have boosted demand and the housing market in 2022 has been particularly tight.

As the population moves on from COVID19, behaviour and preferences may be expected to some degree at least transition back towards pre-COVID norms. That will work against the positive boost from the return of NOM so that the short-term stimulus to the housing market will be more muted. Nonetheless, beyond the short term, the return of NOM to more normal levels will underpin the market and in particular underpin demand in locations such as the Northern Beaches where supply is necessarily constrained.

**Figure 12 NSW Population Growth Rate 2001-2020 Actual and Projected 2021-41**

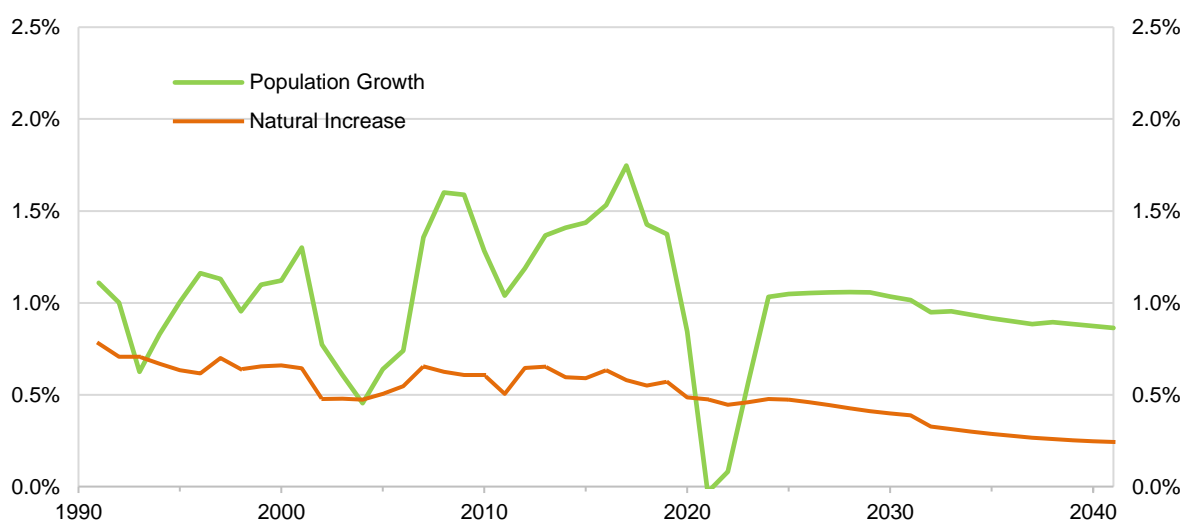


Source: ABS (for actual), Centre for Population for projections to 2031 and Macroplan 2032-41

## 2.5 Implications for Housing Demand Within Greater Sydney

In the short- to medium-term, the impact of COVID on NOM translates to a significant impact on growth in younger adult cohorts but a limited impact on older age cohorts. Directly, the inflow of international students – concentrated in the age cohorts 20-24 and 25-29 - was a significant factor driving inner city apartment demand. Skilled migration is heavily concentrated in the 20-34 age cohort. Family reunion will include a component of older people however, beyond the period when borders are effectively closed, this component of migration will be the least affected by COVID. Overall, the impact of COVID will see the little impact on the growth trajectory for the seniors age cohort (70+) over the decade or more. It will only be when the smaller younger age cohorts caused by COVID start to move into retirement that the longer-term impact on senior's demand will emerge. That will be beyond 2041.

**Figure 13 NSW Population Growth Rate 1990-2019 Actual and Projected 2020-41**



Source: ABS (for actual), Centre for Population for projections to 2031 and Macroplan 2032-41

The different impacts on the age cohorts have implications for demand by location and by housing type. The significant impact on the young age cohorts – in particular, international students – means small apartments in inner city areas have been bearing the brunt of the COVID-driven decline in NOM. COVID has also caused people to rethink the value of outer areas which have the downside of longer commutes but the upside of more space. Long commutes matter less when people can work from home, while the value of space rises. Pre-COVID there was a trend for retirees to move to inner urban areas, trading down to smaller dwellings in exchange for the proximity to inner city living. Retirees, as with all household groups, are now rethinking.

Households are the principal ingredient driving underlying demand for housing. While growth in demand from 'older age cohorts' is roughly unchanged in post-COVID scenario, with demand from younger cohorts lower, it will account for a higher share of housing demand in this period.

## 2.6 Implications for Housing Demand in the Northern Beaches

The age profile in the Northern Beaches LGA is older than for Greater Sydney as a whole. As of 2016, whereas 9.8% of the Greater Sydney population was aged 70+, 11.6% of the population in Northern Beaches was aged 70+ (see Table 2 below). It can also be observed that only 11.1% of the population is aged 20-29, compared with 16.7% for Greater Sydney as a whole. This very different demographic profile explains one reason why the Northern Beaches will likely be relatively less impacted by COVID. It has a low share of the 20-29 age cohort and this cohort in the NB being more local and much less driven by overseas migration, can be expected to be much more stable.

The older age cohorts, including established families and senior residents, by life cycle more settled and less prone to moving, are also a stabilising influence in the face of COVID.

In addition, as discussed above, the behavioural response to COVID has seen an increased preference for outer vs inner areas and for areas which offer proximity to the recreational amenities offered by open space and beaches. The Northern Beaches has most of the attributes in abundance and hence is strongly favoured by the changed preferences wrought by COVID. Some of these changes may prove short-lived or be diluted somewhat when the COVID threat passes but, particularly as COVID will likely be an over-shadowing influence for at least two years, some impacts are likely to be enduring. In addition, there are some non-COVID factors which have been driving demand in the area. **The new Northern Beaches hospital brings a higher level of medical care closer to the residents of the Northern Beaches – an important consideration in location choice for new residents and a consideration only emphasised by COVID.** And the recent and coming improvements to the transport connectivity of the Northern Beaches can only add to the attractions of living in the area and boosting demand.

## 2.7 Summary

The broad conclusion is that, while lower NOM has been adverse for some segments of the Greater Sydney market, the impact on housing demand in the Northern Beaches has been strongly positive. As highlighted in the earlier sections, the price premium in Belrose and the Northern Beaches LGA has increased significantly in the last five years and strengthened in the period 2020-22. This reflects the strength of demand.

It also indicates a degree of unmet demand for housing that is causing housing affordability to deteriorate. That is, if supply were more responsive to demand, we might have seen less of the shift in demand feeding into prices.

**Table 2      Greater Sydney and Northern Beaches Population Age Profiles (2016 Census)**

Northern Beaches LGA			Greater Sydney	
Age Group	No.	%	No.	%
0-19	67,343	25.4%	1,243,408	26.4%
20-29	29,458	11.1%	788,587	16.7%
30-54	95,807	36.1%	1,462,724	31.0%
55-69	42,090	15.9%	753,855	16.0%
70-84	23,774	9.0%	367,572	7.8%
85+	6,996	2.6%	95,925	2.0%
	<b>265,468</b>		<b>4,712,071</b>	

Source: ABS Census

## Section 3: Employment Generation

In this section of our report, we examined the spatial context of the subject land, and consider its employment dividend and its potential role in contributing to the employment future of the Northern Beaches LGA generally. The assessment considers the employment returns that are achievable as a result of potential planning approval compared to the current employment dividend potential (i.e., 'Do nothing' vs 'future development').

There are three elements to the impact of expansion of a particular industry:

- First, there is the direct employment, value-added (income), and output in that industry.
- Secondly, there is the indirect employment, value-added (income), and output of other industries supplying inputs into the industry.
- The third element is the induced spending impact. This comes from the economic ripples that result from added consumption generated by the added income spent by those employed directly and indirectly. For example, employees spend their incomes at local supermarkets, car dealerships and hotels and these local firms have workers of their own.

### 3.1 Development Phase

Based upon details provided by the proponent, the estimated project cost of the subsequent development (i.e., after PP & DA approvals) is expected to be approximately \$144 million, which comprises site works, construction, road upgrade and site remediation etc. Over the 6 years of development<sup>6</sup>, this development will generate 50 to 60 full-time equivalent jobs per annum directly in the construction industry and a further 80 to 90 full-time equivalent jobs per annum indirectly (for example, jobs in transport, manufacturing, fabrication, design etc).

### 3.2 Post-development On-site Employment

#### 3.2.1 Aboriginal Cultural Centre - Direct Employment

The planning proposal includes provision for an aboriginal cultural centre will result in additional on-going employment on site, as well as further jobs throughout the supply chain, including those in industries servicing the aboriginal cultural centre and public space, such as transport workers, cleaning, maintenance & repair and the likes.

The aboriginal cultural centre is estimated to generate in direct employment on-site of 5 to 6 persons if the potential development at the subject land were to proceed. In estimating the various employment benefits, relevant data and information from various sources is relied upon (e.g., Homes and Communities Agency Employment density guide 2015, the ABS, state and local government agencies), as well as 30 years of experience in preparing assessments of this nature.

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<sup>6</sup> Indicative, subject to change.

**Table 3 Estimated Employment Generation, Subject Land (i.e., Planning Approval)**

Land uses	Yield	Employment Density	Potential Employment Dividend
<b>Aboriginal Cultural Centre - direct</b>	400-500 sqm GFA <sup>7</sup>	70-90 sqm per employee	5 to 6
<b>Indirect jobs</b>			4 to 5
<b>Total</b>			9 to 11

Source: Macroplan

### 3.2.2 Aboriginal Cultural Centre - Indirect and Induced Employment

The following analyses of the 'Heritage, Creative and Performing Arts'<sup>8</sup> indicate the linkages with other sectors within the Northern Beaches LGA. Presently, the sector employs 473 direct jobs, on this measure total impact is 879 jobs, implying a ratio of 1.86 jobs for each direct job. Therefore, the total employment multiplier is 1.86 (i.e., 100 direct 'Heritage, Creative and Performing Arts' jobs at the future development will generate about 86 indirect and induced jobs outside the development).

Based on our multiplier assessment, with approval, 5 to 6 additional direct jobs at the subject land will generate additional 4 to 5 indirect and induced jobs outside the future development at the subject land. . In aggregate, it is expected to generate 9-11 jobs in total.

**Table 4 'Heritage, Creative and Performing Arts' Sector, Northern Beaches (without approval)**

	Direct	Indirect	Induced	Total Impact	Ratio Total to Direct
<b>Output (\$'m)</b>	62.1	32.1	29.2	123.4	1.98
<b>Value Add (\$'m)</b>	30.1	16.1	19.6	65.8	2.19
<b>Employment (jobs)</b>	473.0	114.2	291.6	878.8	1.86

Source: ABS, Macroplan

### 3.3 Post-development - Other Local Employment

As outlined in Section 4, it is estimated that the households in the development will generate \$6.3 million per annum (in 2021 dollars) in spending at local businesses in the Frenchs Forest – Belrose SA2 area, with the centres at Glenrose Village, Forestway Shopping Centre and Belrose Super Centre in particular benefiting from this. For some businesses, the impact will be sufficient to generate additional jobs which we estimate to be about 60-70 direct jobs and about 40-50 indirect jobs, for a total of 100-120 additional jobs.

When this is added to the employment generated by the Aboriginal Cultural Centre, the total ongoing employment impact is about 110-130 jobs.

If the development does not proceed, the subject land would not generate any employment opportunities for the people of Belrose and the Northern Beaches LGA.

<sup>7</sup> Indicated by MLALC (March 2021). When this report was being finalised, the masterplan was still being discussed in detail.

<sup>8</sup> ABS Input-output tables are published using a different classification to ANZSIC: input-output product categories (IOPC) and input-output product groups (IOPG). These two classification structures do not perfectly align, but the BCAR has attempted to do the best matching possible.

## Section 4: Other Key Benefits

In this section of the report, we consider other economic and community impacts that are achievable as a result of development.

### 4.1 **Balanced, self-contained communities**

This section addresses the rationale for the current zoning conditions and boundaries for residential development, which are founded on specific goals for population growth across the Northern Beaches LGA. Our analysis indicates that if the subject land is undeveloped and retained as bushland, then widespread economic and social problems will gradually become evident, due to structural decline in the local workforce in Belrose. This problem is complex but can be addressed in several ways – and this planning proposal is one method of advancing the supply and competitiveness of new housing, by allowing for suitable additions to the sites zoned for low density housing, which can encourage growth in the number of young families.

#### 4.1.1 **DPE Population Projections**

Government population projections are based on assumptions at a point in time (e.g., residential development, migration patterns, birth rates, etc.) and stated policy objectives. In line with that, Macroplan assumes that these projections were made on the basis of known major infrastructure developments at the time, and on the basis of a desired policy mix of different land uses. Assumptions about these two factors are embedded in the distribution of the projected population, dwelling and employment growth within the local government areas, for the 2016 to 2041 period.

The latest DPE population projections have the Frenchs Forest-Belrose SA2 population growing from 26,107 people in 2016, to 30,729 people in 2041, or by an average 0.65% per annum, marginally higher than what is expected in the Northern Beaches LGA (0.35% per annum).

On a closer look, the above projections show a pessimistic outcome for growth in the working age population, which will present challenges to creating a sustainable community. Between 2021 and 2041, our analysis points to weak growth in the working age population (i.e., aged 20-64), increasing by an average 0.31% per annum in the SA2 area. Further to this, slower growth is projected for the youth population (i.e., aged 0-19) in the coming decades (i.e., 0.1% per annum).

In line with trends across Australia and in the regions, the population profile of Frenchs Forest-Belrose SA2 has reflected a trend towards an ageing population and this trend is expected to continue, particularly 65+ age cohorts. Between 2021 and 2041, those aged 65+ in the SA2 area will increase by 3,241 people at an average 2.4% per annum, with its share of the population rising from 19.3% to 27.5%, which is on par with observed annual growth rate in the Northern Beaches LGA for this age cohort.

In contrast with the high growth for the 65+ age cohorts, it is noted that the SA2 area will experience weak growth in 0-19 and 20-64. This could be attributed to a number of factors including lack of housing supply and housing affordability. While some of the 65+ age cohort will downsize, a large portion will choose to remain in the family home (detached housing), so that options for the next generation of young families will be limited. Competition for the limited supply will put upward pressure on prices, as higher income households out-compete other households for this stock. Young family households – including those with strong family connections to the area - will be

squeezed out and move to more distant parts of outer Sydney or beyond. This will also transfer the pressure for new detached housing to those outer parts of Sydney.

**Table 5. Population Projections by Age, Belrose & Northern Beaches LGA**

	2016	2021	2026	2031	2036	2041	Total Change 2021-41	% p.a. growth 2021-41
<b>Northern Beaches LGA</b>								
0-19	67,343	67,392	64,927	61,916	60,106	59,764	-7,629	-0.60%
Share (%)	25.37%	24.59%	23.52%	22.08%	21.05%	20.64%		
20-64	154,694	158,350	154,712	153,891	153,311	151,444	-6,906	-0.22%
Share (%)	58.27%	57.79%	56.04%	54.87%	53.68%	52.31%		
65+	43,431	48,273	56,424	64,633	72,174	78,321	30,049	2.45%
Share (%)	16.36%	17.62%	20.44%	23.05%	25.27%	27.05%		
<b>Frenchs Forest - Belrose SA2</b>								
0-19	7,498	7,440	7,199	7,269	7,609	7,596	156	0.10%
Share (%)	28.72%	28.13%	26.99%	25.77%	25.07%	24.72%		
20-64	13,579	13,788	13,725	14,308	15,107	14,669	882	0.31%
Share (%)	52.01%	52.13%	51.45%	50.72%	49.77%	47.74%		
65+	5,030	5,223	5,754	6,634	7,639	8,463	3,241	2.44%
Share (%)	19.27%	19.75%	21.57%	23.52%	25.17%	27.54%		

Source: DPE

This means the residents in Belrose and Frenchs Forest will migrate outward to other LGAs which offer more amenity, improved connectivity and public transport servicing, employment, and education opportunities.

The DPE projections are consistent with the Council's current planning structure for housing development i.e., the current population projections are based on what the Northern Beaches LGA can achieve based on current zoning, rather than what it should seek to deliver for the community, to meet the needs of e.g., young families. A change of zoning at the subject land should be imperative if the objective is to provide access to appropriate and more affordable housing in Belrose and Northern Beaches.

The means to achieve a balanced outcome for community development lie with Council, through its housing strategy. To keep and attract young families, the ample provision of new housing – and specifically new detached houses, which will appeal to young families – must become a priority. There needs to be a greater rate of housing supply permitted at an aggregate level. There needs to be several development fronts being marketed at any given time, so that there is a competitive environment that limits developer pricing power. This will also result in a greater increase in the working age population and improve employment and the economic growth of the Northern Beaches LGA and Belrose (i.e. Frenchs Forest-Belrose SA2).

The Council should be aiming for solid growth in its youth and working age population, and that means accommodating the residential needs of young families. The lack of new supply of detached housing is a factor restricting the ability of the next generation of young families to settle in the Northern Beaches. In Belrose, the construction of an additional 450 detached houses would allow for a similar number of younger households – and young people - to have the opportunity to live in the Northern Beaches.

## 4.2 Local Expenditure

This section looks at the potential impact of the increase in the residential population which the planning approval (and the subsequent development) will generate. Based on the likely demographic profile of the resident population, and comparable areas, estimates of the income and spending capacity of future residents is assessed. Based on those profiles, estimates are presented of the likely amount of money expected to be injected into the local economy.

### 4.2.1 Number and Characteristics of Future Households

The potential expenditure impact of the subject land redevelopment is a function of the increase in households and the likely composition of those households. Table 6 (below) shows the ratios of persons per occupied dwelling (household), applied to the projected number of dwellings to estimate persons in the future subject land development.

**Table 6. Expected Dwelling Characteristics, Subject Land**

Dwelling	No. of Dwellings <sup>9</sup>	No. of Occupied dwellings #	Persons	Persons per dwelling
3 Bed houses	95	92	249	2.70
4 Bed houses	241	232	753	3.24
5 Bed houses	92	88	343	3.89
5+ Bed houses	22	18	84	4.75
<b>Total</b>	<b>450</b>	<b>430</b>	<b>1,428</b>	<b>3.32</b>

Source: Macroplan, Cox

*\*Note: assumes a 96% occupancy rate, consistent with long-term vacancy rate of about 3-4% for Sydney. This allows for households temporarily absent. .*

Compared to the profile for inner-city areas dominated by apartment/flat units, the age profile at the subject land would be distinctly different with a large component of new detached houses. The key features to note in Table 7 (below) are low shares of the younger adult age cohorts (20-29 and 30-39), and a high share of the established family cohorts (0-14 and 40-49) and older age cohorts (60+).

### 4.2.2 Household Incomes

Retail spending reflects the type and age profile of households but is critically a function of household incomes.

Table 8 shows that future household income on the subject land is substantially higher than the mean for Sydney. There is a sharp contrast between household incomes in unit dwellings versus detached dwellings, with incomes substantially lower for households living in units. For that reason, the 'Frenchs Forest-Belrose' SA2<sup>10</sup> provides a reasonable benchmark of the likely income profile.

<sup>9</sup> Indicative and subject to change.

<sup>10</sup> Frenchs Forest – Belrose SA2 (please refer to the map in the appendices).

**Table 7. Expected Population Mix, Subject Land**

Age Distribution	SA2 Area	Sydney Metro Area	Australia
0-14	21.8%	18.7%	18.7%
15-19	7.0%	6.0%	6.1%
20-29	8.1%	15.0%	13.8%
30-39	9.1%	15.5%	14.0%
40-49	16.9%	13.7%	13.5%
50-59	12.6%	12.2%	12.7%
60+	24.7%	18.9%	21.1%
<b>Average Age</b>	<b>42.0</b>	<b>37.5</b>	<b>38.6</b>

Source: Macroplan

Adjusting for the different mix of detached housing and allowing for a component of households with higher incomes, the mean household income (in 2021 dollars) for the subject land is estimated at \$154,000 per annum.

**Table 8. Expected Household Income (Benchmark)**

Separate House	Mean Household Income – 2021 Census
Frenchs Forest – Belrose SA2	\$135,252-\$163,384
Sydney Metro	\$108,004
Australia	\$90,792

Source: Macroplan, ABS Census

It should be noted that there is less variance in retail spending, than in household income. As household income rises, retail spending rises less than proportionately.

#### 4.2.3 Aggregate Retail Spending

Retail spending includes a number of categories. MarketInfo data<sup>11</sup>, which is set in Table 10 below, categorises retail as:

- Take-home food, liquor, and groceries (FLG) – goods typically sold in supermarkets and specialty fresh food stores.
- Food catering – cafes, take-away outlets, and restaurants.
- Apparel – male and female apparel purchased.
- Household goods - giftware, electrical, computers, furniture, and homewares.
- Leisure goods - newsagents, sporting goods, music, DVDs, games, and books.
- General Retail – pharmaceutical goods, cosmetics, toys, florists, and mobile phones.
- (Other) Retail Services – key cutting, shoe repairs, hair, and beauty.

<sup>11</sup> MarketInfo is developed by Market Data Systems (MDS) and utilises a detailed micro simulation model of household expenditure behaviour for all residents in Australia. The model takes into account information from a wide variety of sources including the regular ABS Household Expenditure Surveys, national accounts data, Census data and other information sources. The MarketInfo estimates for spending behaviour are widely used by a majority of retail and property consultants.

This measure includes some retail services. In addition, there are a range of other retail services which are provided by local businesses which have been included as additional categories in Table 10 (e.g., medical, dental and other health services; other professional services; and leisure services).

For comparative purposes, the retail spending data in the Table below is presented for Australia, the Sydney metro area, the Frenchs Forest-Belrose SA2<sup>12</sup>. In aggregate, retail spending in the SA2 area is higher than the Sydney metro and the Australian average. Higher spending reflects the different mix of households, with a larger household size. In terms of the mix of spending, the stand-out is the amount and share of spending accounted for by food catering, apparel, household goods etc. This reflects the high household incomes and the older age profile of the population.

**Table 9. Average Retail Spend by Area**

Categories	Frenchs Forest Belrose SA2		Sydney Metro		Australia	
	\$ per annum	% share	\$ per annum	% share	\$ per annum	% share
Total Food	27,623	54.6%	23,730	57.8%	21,259	57.4%
Total Non-food	22,980	45.4%	17,340	42.2%	15,790	42.6%
Total Retail	50,603	100%	41,071	100%	37,050	100%
<b><u>Retail Categories</u></b>						
Food, Liquor & Groceries (FLG)	20,591	40.7%	17,485	42.6%	16,598	44.8%
Food Catering	7,032	13.9%	6,249	15.2%	4,661	12.6%
Apparel	5,942	11.7%	4,466	10.9%	3,666	9.9%
Household Goods	9,404	18.6%	6,940	16.9%	6,565	17.7%
Leisure Goods	2,034	4.0%	1,698	4.1%	1,598	4.3%
Health & Gym	6,968	8.0%	4,749	7.2%	4,154	7.7%
Other Retail Services	1,583	3.1%	1,254	3.1%	1,104	3.0%

Source: MarketInfo, ABS Census and Macroplan

#### 4.2.4 Share of Spending in the Local Area

It is estimated that 26.6% of total retail spending by households in the Frenchs Forest-Belrose SA2<sup>13</sup> will be retained in the area. The SA2 has two shopping centres, Glenrose Village (in Belrose) and Forestway Shopping Centre, along with a small share of local businesses and retail shops. Both the shopping centres have major supermarkets, anchored by a Woolworths and ALDI. The absence of a Coles Supermarket reduces the FLG retention (i.e., % share) in the SA2 area, particularly considering the proximity to St Ives Shopping Village and the Coles anchored Forestville Shopping Centre.

Significant discretionary spending, such as in the apparel category, would be gravitated towards the nearby higher order shopping centres, such as the St Ives Shopping Village and Westfield Warringah. Further to this, the paucity

<sup>12</sup> Frenchs Forest – Belrose SA2 (please refer to the map in the appendices).

<sup>13</sup> Frenchs Forest – Belrose SA2 (please refer to the map in the appendices).

of options for food catering in these shopping centres will also cause a larger proportion of this retail category to be spent outside of the SA2.

Household Goods is much higher than would normally be expected for an SA2 of this nature, due to the presence of the Belrose Super Centre. This large format centre would service significant proportions of the broader Northern Beaches and Upper North Shore markets, and the large range and proximity would give a very high retention rate. This spills over into other categories that have a presence in the centre, notable leisure, also pushing them up to much higher levels than typical for an SA2 without a subregional or regional shopping centre.

Non-retail spending on health has a very high leakage, due to the absence of a specialist medical practitioners in Belrose. The majority of medical expenditure is on a handful of local GPs (note: spending on medications is considered to be general retail). Leisure & Gym spending, also a non-retail spending, has a good retention rate due to the variety of gyms in the area, mostly along Warringah Road.

**Table 10. Local Retail Expenditure Estimates, Frenchs Forest – Belrose SA2**

Retail Spending Per Annum	Per Household	% Local	Local Spend per HH	Local Spend
Food, Liquor & Groceries	\$20,591	37%	\$7,619	\$3,276,170
Food Catering	\$7,032	35%	\$2,461	\$1,058,230
Apparel	\$5,942	7.5%	\$446	\$191,780
Household Goods	\$9,404	20%	\$1,881	\$808,830
Leisure Goods	\$2,034	23%	\$468	\$201,240
Health & Gym	6,968	35%	\$618	\$265,740
Other Retail Services	\$1,583	40%	\$770	\$331,100
<b>Total Retail Spending</b>	<b>\$40,388</b>	<b>26.6%</b>	<b>\$14,263</b>	<b>\$6,133,090</b>

Source: MarketInfo, ABS Census and Macroplan

The current projected 26.6% share of total retail spending will lead to spending of \$6.3 million per annum (in 2021 dollars) in spending at local businesses in the Frenchs Forest – Belrose SA2 area.

### 4.3 Employee Expenditure

During construction and operation, the potential subject land development will provide both permanent and transient employment. External studies have estimated that the average Australian spends approximately \$29.55 (in 2018 dollars) on going to work each day including expenditure on transport, food, grooming and clothing<sup>14</sup>. In 2021 terms, that translates to about \$31.42.

Based upon the estimates of employment, this would mean that during the construction period local employee spend would be about \$0.52 million to \$0.62 million each year over the 6-year period and, when operational, persons employed at the subject land would spend between \$1.35 million and \$1.55 million each year in the local area.

<sup>14</sup> Note: As transport costs (such as Opal card payments for Bus and Metro) go to the state government and not the local economy, these have been withheld from local expenditure estimates.

#### **4.4 Employment Containment**

Employment containment refers to the proportion of working residents who are employed within their LGA to the total number of working residents. A high-level self-containment implies there are many jobs in an area which employ local people – evidence of a strong regional employment base. In 2016, Northern Beaches LGA achieved a healthy self-containment level of 52%<sup>15</sup>. We also note that a high proportion of people working in Belrose & Frenchs Forest<sup>16</sup> - however, including many in relatively low-paid jobs - travel to work from outside of the Northern Beaches LGA. To the extent that policy restricts supply of housing, the proportion commuting in will only rise in the future. Given that neighbouring LGAs (e.g., Ku-ring-gai) have similar affordability issues, the trend will be to longer distance commutes are likely. The cost of long-distance commutes is substantial both in transport costs and in terms of time-cost. To partially compensate, local businesses in the area will tend to have to pay higher wages or tolerate higher turnover – either way this imposes costs on businesses which are passed on to local consumers.

Further to this, the subject land is currently not utilised for either housing or employment but, remained abandoned and undeveloped. Our assessment (Section 3) is that the potential redevelopment of the subject land would provide more local employment opportunities for local residents, and as well as for indigenous people.

If the proposal is not supported, then this would see these potential job opportunities lost. There is an opportunity cost of doing nothing – effectively 65 to 76 FTE jobs directly, and about 44 to 55 jobs indirectly (including lost induced spending). All up the total job opportunities lost would be about 110 to 130 jobs. There could be some job opportunities in Belrose going forward, however, the likelihood is that most of the working residents will be forced to move somewhere else to find work. This means that Belrose will have a lower self-containment rate and will become less self-contained.

#### **4.5 Industry Value Added**

Industry Value Added (IVA) is the sum of income from labour (wages), land (rent) and capital (profit) generated by the production of economic goods and services. The IVA in this case demonstrates the monetary value the project will contribute to the local economy.

In its developed form, the aboriginal culture centre and the addition to retail activity in the local area, will employ about 110 to 130 FTE workers. This could generate an IVA of close to \$22 to \$27 million per annum<sup>17</sup>.

#### **4.6 Other benefits**

##### **4.6.1 Stormwater Management**

The Northern Beaches community places a high value on the quality and health of its waterways. This reflects the presence of beaches, lagoons and waterways in the Northern Beaches' physical environment and the importance those waterways play for recreation and quality of life in the Northern Beaches – the very qualities which draw people to the Northern Beaches.

Stormwater runoff is a significant problem because impermeable surfaces prevent natural infiltration and drainage. Stormwater degrades receiving environments (i.e., pollution and contamination issues), increases flood risk, and puts pressure on existing drainage infrastructure.

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<sup>15</sup> ABS Census 2016 (Note: These proportions exclude the Place of Work Not Applicable and Not Stated categories)

<sup>16</sup> Frenchs Forest – Belrose SA2 (please refer to the map in the appendices).

<sup>17</sup> Refer to methodology in Appendix – 6.2

The new facility will involve an investment in the order of \$18 million. The proponent has indicated that the project on the subject land will implement the latest technology in water quality treatment using recycled bio-organics as part of the treatment train. Storm Consulting will collaborate with STAR Water Solution to model the water quality and provide water quality basins using recycled organics and minerals to replicate the natural environment. It will not only treat the stormwater which will be generated by the proposed new housing but also addresses the current inadequate position which has a substantial amount of contaminants entering the waterways.

According to Storm Consulting's initial riparian assessment of the subject land's catchment area, it indicated that the upstream catchment of Snake Creek currently contributes a pollution load off Forest Way that requires management of both existing & future storm water loads. The catchment feeds into other downstream creeks and eventually the contaminants flow into the Narrabeen Lagoon, a major recreational and environment asset for the Northern Beaches.

The proponent has indicated that the project on the subject land will implement the latest technology in water quality treatment using recycled bio-organics as part of the treatment train. Storm Consulting will collaborate with STAR Water Solution to model the water quality and provide water quality basins using recycled organics and minerals to replicate the natural environment.

The Case Study (detailed below) of the Manly STAR system has indicated savings to the Northern Beaches Council of \$50,000 per annum on water cost for green land watering. It has also indicated the savings in terms of reduced levels of contaminants (suspended solids, phosphorous, nitrogen). While not putting a monetary value of that, clearly the Northern Beaches community puts a high value on these environmental improvements to the waterways.

#### **A. Stepping away from traditional Stormwater Management**

Conventionally, stormwater drainage has been designed to provide the fastest possible transport of stormwater run-off out of the catchment into receiving waters. This conventional system has focussed on impermeable surfaces used to transport the run-off to receiving waters as fast as possible to prevent localised flooding. However, the transport of water from impermeable surfaces also results in the transport of pollutants and the pollutants eventually reach the receiving waters as well resulting in pollution and contamination issues.

The pollution of receiving waterways from stormwater run-off has become a significant public issue particularly when recreational areas such as lakes and beaches receive these pollutants. Also, the general opinion of water as a resource has increased, resulting in changed opinions as to the value of stormwater in terms of reuse options.

Consequently, recent developments in stormwater management have focussed on retention of the water, pollutant removal and reuse. Recycled organic products have recently played a significant role in the development of these stormwater management options and applications.

#### **B. Stormwater Treatment Using Recycled Organics**

New concepts in stormwater management have been evolved that contrast with the traditional stormwater drainage mentality of fast transport of water to receiving waters. These new concepts combine infiltration, distributed storage and treatment as well as delayed transport of the stormwater run-off. The use of best management practice for stormwater installations is increasing to meet sustainable development objectives and to increase the quality of the environment and receiving waterways.

Stormwater applications incorporating recycled organics can be beneficial due to the filtration properties of the installations, which can result in cleaner water and reuse potential, and also due to the utilisation of recycled organics as a valuable resource as opposed to a waste material.

A further benefit of using recycled organics in stormwater installations is the ability of the media to degrade and/or immobilise the pollutants within the stormwater. This contrasts with traditional methods of stormwater treatment that simply involve removing gross pollutants or filtering the water through filtration devices such as sand filters. Stormwater installations incorporating recycled organics contain a biologically active media capable of degrading and immobilising pollutants from the water resulting in cleaner water and degraded, less toxic compounds.

- **Physical pollutants:** The removal of physical pollutants such as suspended solids, grease, and oils from polluted stormwater results in reduced turbidity. Particulate pollutants can be removed from stormwater using recycled organic products by a number of methods. Adsorption is the process whereby particulate pollutants attach to soil, for example clay or vegetation surfaces. Adequate contact time between the surface and pollutant must be provided in the design of the system, for example an infiltration basin, for this removal process to occur. Pollutants that can be removed via adsorption include heavy metals, phosphorus, and some hydrocarbons<sup>18</sup>.

**Chemical pollutants:** Chemical pollutants in stormwater can include excess nutrients such as nitrogen and phosphorus, heavy metals, and pesticides. Adsorption, as previously discussed, can result in the removal of chemical pollutants such as heavy metals and pesticides from stormwater<sup>19</sup>. Such pollutants become bound to the organic content of the recycled organic material and can be degraded by microorganisms present in the media. The filtering mechanisms of the media can also remove chemical pollutants that may be bound to particulate material.

- **Biological pollutants:** Biological pollutants that could potentially be present in stormwater include human and animal pathogens from sewage contamination or animal droppings. Pollutant uptake is a biological process that can occur in stormwater installations utilising recycled organics. Plants and microorganisms within the soil and media can be sustained via the uptake of nutrients from the soils or media and the filtered water. Woody plants can also retain these nutrients via storage in the plant itself over many seasons. Microbial activity within the soil aids in the removal of nitrogen and organic matter. Nitrifying and denitrifying bacteria remove nitrogen and aerobic bacteria are responsible for the decomposition of organic compounds (e.g., petroleum). Microbial processes require oxygen and can result in depleted oxygen levels if the installation area is not adequately aerated<sup>20</sup>.

Stormwater applications incorporating recycled organics are ultimately an improvement on traditional stormwater treatment installations. The proponent has indicated that the project will invest in the order of \$18 million in the latest technology in water quality treatment using recycled bio-organics as part of the treatment train.

Further to this, the Council can levy \$25 stormwater management charge<sup>21</sup> for residential and business development. The option to levy the charge was introduced in 2005 in recognition of the need for a more sustainable revenue stream for councils to fund stormwater management because of increasing impervious surfaces that lead to waterway pollution and flooding.

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<sup>18</sup> US EPA, 1999

<sup>19</sup> US EPA, 1999

<sup>20</sup> US EPA, 1999

<sup>21</sup> Northern Beaches Council

**Table 11**      **Adopted rating structure, 1 October 2020 to 30 June 2021**

Category	Sub-category	Ad Valorem	Minimum Rate
Stormwater Charge	Residential single dwelling	0.0029973	\$25.00 per property
	Business strata lots	0.000063250	\$5.00 per property
	Business – not strata		\$25.00 per sq.m

Source: Northern Beaches Council

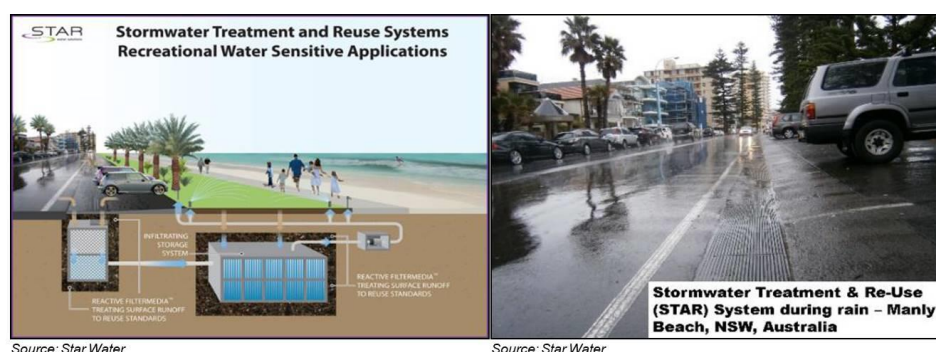
### C. Case Study: Manly stormwater and reuse project

The Manly Council Stormwater Treatment and Reuse (STAR) Project was designed to remove high-volume toxic contaminants and litter and nutrient rich and polluted stormwater currently being discharged directly into the coastal environment.

The catchment for the Manly stormwater treatment and reuse (STAR) project comprised 2.6 ha of road and carpark. The site is adjacent to Manly Beach.

The STAR Project applied integrated catchment management approaches based on capital works that incorporate source control measures and community education and engagement programs that were designed to serve as innovative best practice models for future implementation in Manly and elsewhere.

**Figure 14**      **Manly stormwater and reuse project**



The Manly STAR Project includes the use of stormwater litter traps that are fitted on drains to stop litter and sediments from roads flowing to the beach. Innovative porous paving installed on a nearby road also catches particulate matter. The highly polluted run-off from short term parking bays along Ocean Beach is filtered through pervious pavers that are built into the drain.

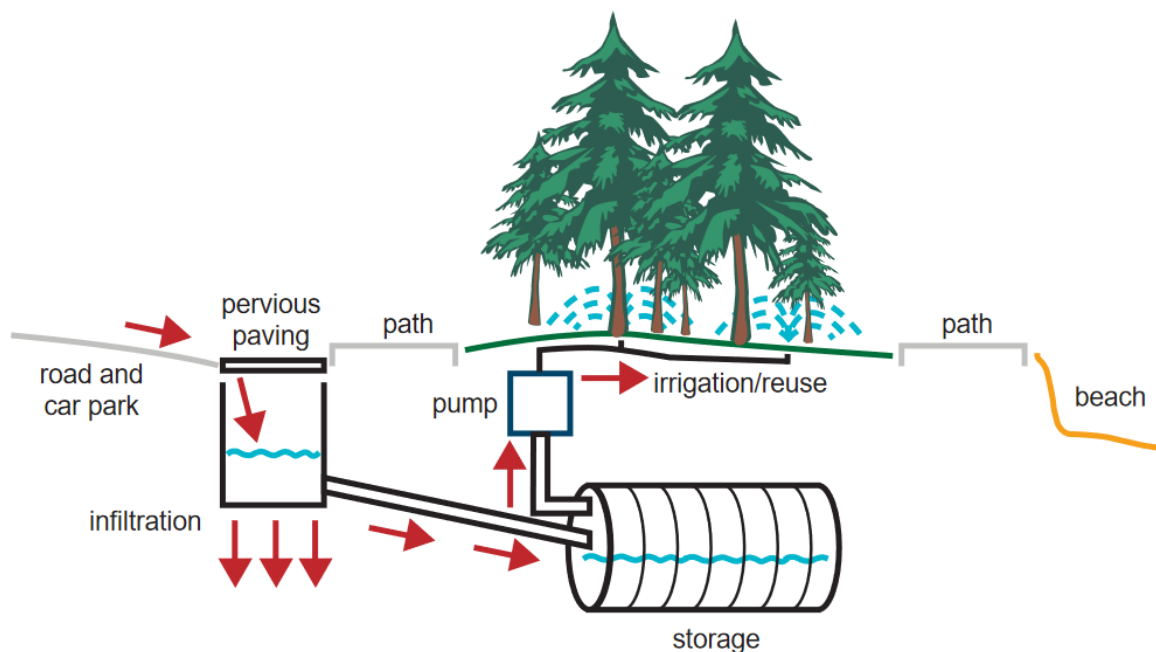
A 500-metre length of concrete dish drain on the eastern side of North Steyne was replaced with 'Atlantis Eco Pavers'. These permeable pavers receive run-off from the road surface and the adjacent car park. Stormwater infiltrates through the pavers into an amended soil media beneath the pavers. The treated stormwater is collected by a plastic channel at the base of the media and piped to a 390 kL geo-cell underground storage. Water levels in the tank are influenced by groundwater interactions.

Treated stormwater and supplementary groundwater is pumped from the storage and spray irrigated on approximately 4 ha of foreshore lawns and heritage-listed Norfolk Island pines. Mains water is available as a supplementary supply when water restrictions do not apply. Council water tankers can also fill from the storage tank for cleaning and watering.

### **Project Outcome**

- Manly STAR system saves the local council \$50,000 per annum on water cost for green land watering<sup>22</sup>.
- Estimated annual stormwater pollution loads reduced by 4,000kg for suspended solids, 6kg for total phosphorus and 50kg for total nitrogen<sup>23</sup>.

**Figure 15 Infiltration and treatment system, Manly stormwater, and reuse project**



Source: *Optimal Stormwater*

#### **4.6.2 Bushfire management**

The recent bushfires in eastern Australia have highlighted that – in a perfect storm of circumstances (end of long drought, etc) – the economic damage and the risk posed to human life by bushfires can be very high indeed. The proponent has indicated that reducing bushfire risk is a key consideration. Asset Protection Zones (APZs) (see below) will be contained wholly within the subject land, and incorporate fire trails, perimeter road verges, riparian buffers, and corridors. This will significantly improve the level of bush fire protection to adjoining developments, improving bushfire management both locally and regionally, including several adjoining seniors housing estates.

In the case of the subject land and the surrounds (i.e., Garigal National Park), the total insured cost of bushfires for the locality would be in the order of \$22 million to \$24 million. Using methodology developed by Biddle (2020) (detailed below) and applying an estimated multiplier of 4 to 5<sup>24</sup>, the total economic cost of a bushfire would be around \$80 million to \$120 million. While not all risks can be mitigated, if the bushfire management improvements proposed can reduce the risk by 20-40%, the benefit to the community will be significant.

<sup>22</sup> STAR Water Solutions (2019)

<sup>23</sup> Optimal Stormwater (2016)

<sup>24</sup> Based on the experience of previous major fire, 2009 Victorian Black Saturday fires.

## A. Black Summer (2019-20)

Australia is prone to frequent and severe bushfires (wildfires) that result in significant loss of human and animal life, mental and physical injury and illness, and substantial economic costs. The bushfires that occurred over the 2019/20 Australian spring and summer were unprecedented in scale both in Australia and arguably internationally.

It had a devastating impact on large parts of Australia, but particularly the east and south-east of the continent. As of March 2020, more than 11 million hectares (110,000 square kilometres) had been burnt<sup>25</sup>.

A study by Boer, Resco de Dios et al. (2020) also indicated that although the Australian continent is relatively fire prone, typically less than 2% of the forest biomass burns even in the most extreme fire seasons whereas the 2019/20 forest fires burnt 21%<sup>26</sup>. This is a globally unprecedented percentage of any continental forest biome burnt. According to the Australian Academy of Science, the country appears to have lost over a billion birds, mammals, and reptiles, with additional loss of life of insects, amphibians and fish<sup>27</sup>.

The human costs of the 2019/20 fires are large with 34 people having lost their lives. Survey data reveals that 'the vast majority of Australians (78.6%) were impacted either directly, through their family/friends, or through the physical effects of smoke' and that 'around 2.9 million adult Australians had their property damaged, their property threatened, or had to be evacuated'<sup>28</sup>. More than half of the adult Australian population reported some form of anxiety or worry due to the fires.

While the economic costs of the 2019/20 bush fires is still emerging, the insurance costs alone, as of mid-January, was \$1.4 billion (\$2019)<sup>29</sup>. Based on the experience of previous major fires, the total economic costs will be a multiple of the insurance costs. For example, the insurance costs of the 2009 Victorian Black Saturday fires were also \$1.4 billion (in \$2019) whereas the total economic costs are estimated to be \$7.4 billion (\$2019). The costs of the 2019/20 fires are likely to therefore be at least as large, and potentially many times larger than the costs of previous fires.

## B. Estimating the Costs of Bushfires

While there have been several studies that attempt to quantify the costs of bushfires, only occurrences that have significant economic cost have been the subject of the detailed study required to estimate their cost.

Despite the efforts to construct a standardised estimate of bushfire costs, estimating the costs of bushfires remains a challenge. For instance, difference in cost estimates stem from the differences in methodology, which costs are included and whether some included components are treated as a loss or a benefit<sup>30</sup>. Further to this, estimates of many of the individual components of the economic costs of fires is often difficult because, as mentioned above, bushfire data is usually available only for the largest and most catastrophic fires.

A recent study by Biddle (2020) estimates the economic costs of bushfires and the potential reduction in these costs from investments in early fire reduction<sup>31</sup>. As part of the study, the researchers estimated the predicted insured cost for different points on the distribution of fire size.

**Table 12. Predicted distribution of insured costs, across observed distribution of fire size**

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<sup>25</sup> <https://www.bbc.com/news/world-australia-50951043>

<sup>26</sup> Boer, Resco de Dios et al. (2020)

<sup>27</sup> <https://www.science.org.au/news-and-events/news-and-media-releases/australian-bushfires-why-theyare-unprecedented>

<sup>28</sup> Biddle, Edwards et al. 2020

<sup>29</sup> N Biddle 2020 (ANU Centre for Social Research and Methods)

<sup>30</sup> Ladds, Keating et al. 2017

<sup>31</sup> N Biddle 2020 (ANU Centre for Social Research and Methods)

Percentile of the fire size distribution	Fire size (ha)	Predicted insured cost (\$2019)
1%	150	\$21,960,900
5%	650	\$22,061,254
10%	3,000	\$22,532,873
25%	11,050	\$24,147,864
50%	62,575	\$34,464,554
75%	145,500	\$50,994,782
90%	753,314	\$169,385,175
95%	1,200,000	\$253,282,154
99%	9,890,000	\$1,361,420,526

Source: N Biddle 2020 & ICA Database

\*Note: population density is assumed and fixed at the median size of 2.09 person per hectare

Biddle's estimation was done by using only available data from the Insurance Council of Australia (ICA) on the cost of fires, which only includes disasters where the insured costs (i.e., insurance payouts) exceed \$10 million. It should also be noted that Insurance costs are usually an underestimate of the total economic costs of natural disasters as they do not include uninsured property or infrastructure, and very little of the intangible costs or indirect costs.

In the case of the subject land and the surrounds (i.e., Garigal National Park), the total insured cost of bushfires for the locality would be in the order of \$22 million to \$24 million. Using Biddle's methodology and applying an estimated multiplier of 4 to 5<sup>32</sup>, the total economic cost of a bushfire would be around \$90 million to \$120 million.

### C. Bushfire Occurrence

Most bushfires result from human activities. Long-term records maintained by DSE for public land (DSE 2011) are a useful reference, which indicate that 74% result from human activities including arson (25%), agricultural burns (16%) and campfires (10%), while 26% are caused by lightning.

This century has seen a significant increase in bushfires, with major events occurring following protracted drought in 2003 (Alpine fires), 2006-7 (Great Divide fires), 2009 (Black Saturday fires) and 2019-20 (Black Summer). Severe bushfire events are expected to increase under climate change. The number of days of 'Very High' or 'Extreme' fire danger conditions are projected to increase by up to 20% by 2020 and up to 60% by 2050<sup>33</sup>.

### D. Bushfire Behaviour

Bushfire behaviour can be described by the spread and intensity of the fire. Fire spread occurs primarily through flame contact, the spread of burning embers and radiant heat.

The key factors that influence bushfire behaviour are fuel, topography and weather. The relative degree to which these factors will determine fire behaviour and its impact will vary from site to site. Under milder conditions, fire will spread more slowly and at a lower intensity and may take some time to develop to its peak rate of spread and intensity.

<sup>32</sup> Based on the experience of previous major fire, 2009 Victorian Black Saturday fires.

<sup>33</sup> Hennessy et al, 2005

Research carried out by Gould et al (2007) indicates that forest fires do not reach their peak rate of spread and intensity until the head of the fire is at least 100 metres wide at low wind speeds and up to 450 metres wide in higher wind speeds). Under protracted drought, and extreme fire weather, such as experienced during February 2009, all vegetation can burn. The peak rate of spread in forest fires under these conditions may be achieved within minutes. For example, the 'build-up phase' for the February 2009 Bunyip fire was recorded as taking only 8 to 10 minutes<sup>34</sup>. Intense fires in forests and woodlands are characterised by crown fires and spotting (where embers are carried ahead of the fire and ignite to form new fires). Intense grass fires burn quickly and may spot over short distances. The likelihood of a fire starting and its rate of spread and intensity will depend upon the presence of an ignition source, and the fuel, topography and weather.

#### **E. Asset Protection Zone**

APZ is a fuel reduced area surrounding a built asset or structure. This can include any residential building or major building such as farm and machinery sheds, or industrial, commercial or heritage buildings. An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows suppression of fire;
- an area from which backburning may be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and homeowners to defend their property.

In recent years developments in bushland areas have increased the risk of bush fires harming people and their homes and property. However, developers can significantly reduce the impact and the occurrence of bush fires by identifying and minimising bush fire hazards, and the creation and maintenance of an APZ can reduce the level of hazard to existing and future properties.

According to the NSW Rural Fire Service (NSW RFS), the subject land is within the Bush Fire Prone Land (BFPL) that has been identified by local council which can support a bush fire or is subject to bush fire attack.

Travers Bushfire & Ecology were commissioned by the proponents to undertake a detailed assessment of the potential impacts of bushfire on the Site based on the RFS NSW Planning for Bushfire Protection Act 2018. The report recommended the provision of an Asset Protection Zones (APZ) around the perimeter of the subject land together with perimeter roads and fire trails to provide multiple points of access and escape.

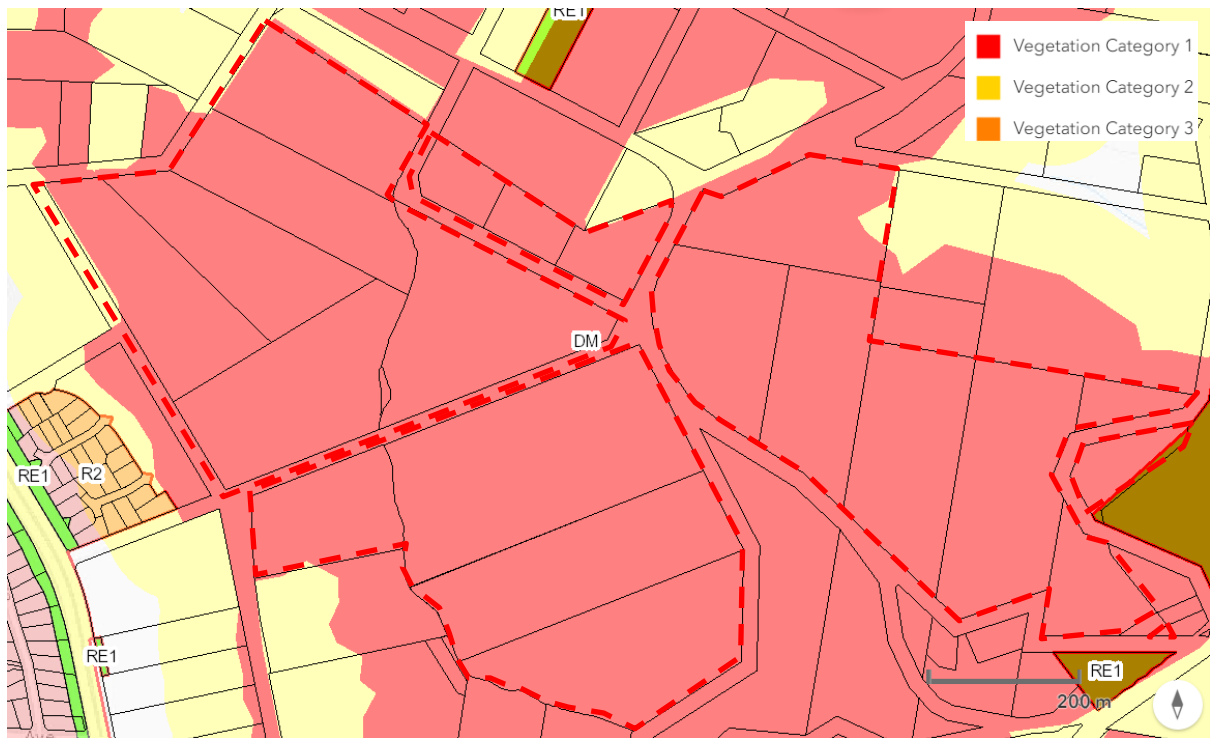
In addition to providing the required level of bushfire protection to the subject land, it is envisaged that the implementation of the new APZ's and fire trails will significantly improve the level of bush fire protection to adjoining developments, improving bushfire management both locally and regionally, including several adjoining seniors housing estates.

According to the current plan (Figure 21), APZs will be contained wholly within the subject land, and incorporate fire trails, perimeter road verges, riparian buffers and corridors.

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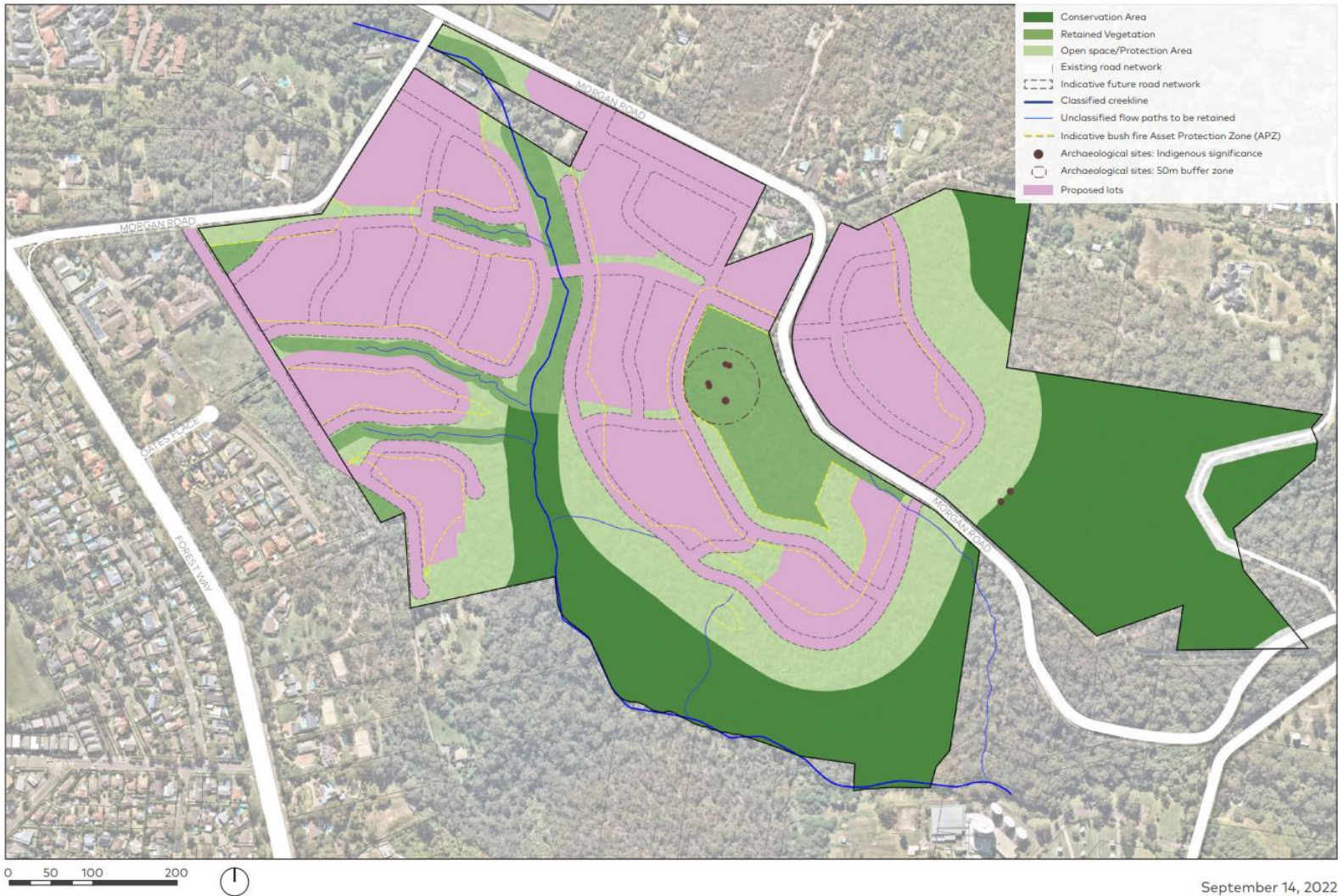
<sup>34</sup> Gellie et al, undated

**Figure 16 Bushfire Prone Land, Subject Land**



Source: DPE Planning Portal (ePlanning Spatial Viewer)

**Figure 17 Bushfire Prone Land, Subject Land**



Source: MLALC & COX Architecture

## Section 5: Additional Government Revenues

In this section of the report, Macroplan has estimated the effect of the potential residential development in terms of its effects on taxation and duty revenues to the Local and State Government, including Stamp duty, Land tax, Payroll tax and State Government GST revenue.

### 5.1 Benefit to Northern Beaches Council

The development of the Belrose site for residential and commercial uses has the potential to lift the revenues of the Northern Beaches Council, to the benefit of existing ratepayers.

At present, the land is zoned rural and has a (conservative) value of about \$12.5 million<sup>35</sup>. However, under the Aboriginal Land Rights Act 1983, vacant land owned by Local Area Land councils (LALCs) and not used for residential or commercial purposes may be exempt from paying rates and charges. This exemption includes land used for a commercial purpose such as a cultural centre or museum. That is, if the land is not developed for residential/commercial uses as proposed, the Northern Beaches Council will not receive any monies for rates and charges, while it will likely incur some marginal costs on roads and other infrastructure.

On the other hand, if the land is redeveloped as proposed, the Northern Beaches Council will benefit significantly. To understand how the Council will benefit, some background on the rate peg system is required. Each year, NSW Independent Pricing and Regulatory Tribunal (IPART) determines the maximum percentage by which a council may increase its general income in the coming year, known as the rate peg. This rate peg is tied to changes in costs of Councils, measured by the Local Government Cost Index (LGCI) which is calculated by IPART. IPART uses the change in the LGCI in the preceding financial year to calculate the peg for the next (after current) financial year. For example, growth in the LGCI in the four quarters to June 2020 (2019/20) was used when setting the rate peg for 2021-22. This change in the LGCI in 2019/20 was 2.0%.

Importantly, however, the current Local Government (LG) arrangements in NSW also allow councils to increase their general income 'outside the rate peg' through the supplementary valuation process.<sup>3</sup> This involves a new value being assigned to a property due to changes being made to the property. This will include land rezoning of property as will be the case in Belrose and the new value attached the lots in the subject land – which will reflect their sale price. When vacant land is sold, the sale price tends to be significantly higher than the valuations set for the unimproved value of land with established residential housing. So the valuations on the residential sites will be higher than nearby and comparable lots.

The ad valorem rates which the Northern Beaches Council charges are set out in Table 13. The relevant rate for residential properties in Belrose is 15.4091 cents per \$100 in 2020/21. That is, for each \$100,000 of land value, that is a liability of \$154. For commercial properties, it is 0.42366 cents per \$100, or \$424 per \$100,000.

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<sup>35</sup> Valuer General NSW unimproved land values for Property Numbers 927490 (\$8,870,000) and 3774696 (\$3,710,000) for 30 June 2021. This is unchanged from 2020 valuation. Given movement in house prices, market almost certainly significantly higher.

Based on recorded land sales in 2020<sup>36</sup>, but allowing conservatively for a price uplift of 33% from 2020 – 2022<sup>37</sup>, a price range of \$1.33-2 million per lot would be indicative but is probably conservative. We would also note that these prices compare with NSW Valuer-General valuations for the residential lots in the vicinity of the subject land of the order \$900,000-\$1.1 million<sup>38</sup> which were unchanged in 2021 despite the general upward movement in market prices. These valuations for the unimproved value of land typically have a conservative bias – that is, a discount of 20-25% to actual prices for lots is not unexpected. As discussed above, the valuations applied to any land sold in the subject land would be aligned to the sale prices, that is, they would carry no discount. Looked at another way, on a like for like basis, the valuations on the properties in the subject land would carry a premium.

Applying that to 450 residential lots, gives rateable land value of between \$500-900 million. In terms of Council revenue, that would generate revenue of the order of \$0.75-\$1.4m per annum<sup>39</sup>. At the margin the Council will be incurring some additional expenses in serving this new residential area, but this will be well short of the additional revenues generated, so that the Council will have additional free funds – of the order of \$600,000 per annum - available to either increase services to the broader Northern Beaches community or reduce rates applying to all residential properties – either way, other ratepayers will be the beneficiaries.

In addition, with an increased number of properties using the waste service, economies of scale can only benefit existing users, albeit modestly.

**Table 13**                      **Adopted rating structure, 1 October 2020 to 30 June 2021**

Category	Sub-category	Ad Valorem	Minimum Rate
Residential	Warringah	0.154091	\$967.95
Business	Warringah	0.423666	\$1,260.31
Waste Service	Standard	-	\$446.00 <sup>40</sup> per property

*Source: Northern Beaches Council*

As discussed above (Section 3) the planning proposal can increase local employment opportunities. Importantly, by extending the array of complementary and proximate services to its business, workforce, and existing and future residents, Belrose will be able to retain and improve its current commercial and trade functions, which also means increased certainty for long-term jobs which is also be a positive factor for all the workers and local businesses.

<sup>36</sup> Macroplan sourced RP Data land sales across Ku ring gai and Northern Beaches LGAs.

<sup>37</sup> Based on NSW FACs data, Northern Beaches house prices rose 33% from 2020-2022, so land values will have risen by at least 33%.

<sup>38</sup> Unimproved values for June 2020 for the detached houses in the Lyndhurst Estate between Forest Way and the subject land.

Unimproved values for June 2020 for the detached houses east along Forest Way and on the north side Forest Way are in the range \$800-900,000. These lots are marginally smaller than the lots in the Lyndhurst Estate.

<sup>39</sup> Revenue range of \$750,000 to \$1.4 million.

<sup>40</sup> COVID-19 Support – Under the Local Government Act, Council will offer for 2020-2021 a subsidy to ratepayers equivalent to 50% subsidy of the increase (half the \$41 increase) and pay \$425.50 for their standard service.

## 5.2 State Government Revenues

The development of the site will generate additional land tax (estimate \$1.7 million per annum), payroll tax (\$0.3- \$0.4 million) and GST revenues (\$0.15 - \$0.2 million). In aggregate, this will benefit the State Government revenues to the order of \$2.2 million per annum.

### 5.2.1 Land Tax

The development of the Belrose site for residential use has the potential to lift land tax revenues for the State Government. At present, as the land is owned by an aboriginal land council, it is exempt from land tax. In the case of owner-occupied housing – which is likely to account for about 80% of the residential lots - these properties would also be exempt from land tax. In the case of residential rental properties, land tax will be payable, subject to thresholds, at a rate of 1.6% of the value of the land<sup>41</sup>. Assuming the 2022 threshold of \$822,000 applied to all residential rental and commercial holdings, the amount of land tax payable would be of the order of \$1.7 million per annum<sup>42</sup>.

### 5.2.2 Payroll Tax

Presently, the subject land is not utilised for either housing or employment but, remains abandoned and undeveloped.

The potential redevelopment of the subject land would provide more local employment opportunities for local residents, and as well as for indigenous people. Based on our employment assessment, there would be 110 to 130 persons directly indirectly employed. Based on average wage and salaries, this would generate payroll tax revenue of between \$0.3 - \$0.4 million per annum.

### 5.2.3 GST revenue

The employment factors which drive payroll tax revenues will also lead to increased spending which in turn will increase GST revenues. Based on the projected direct and indirect employment at Belrose, we estimate that it will generate another \$0.15 - \$0.2 million in additional GST revenue. While that revenue is collected by the Commonwealth Government and for a large State like NSW a portion is redistributed to smaller States, a high proportion will flow back to the NSW Government.

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<sup>41</sup> Revenue NSW

<sup>42</sup> Assumption is 90 residential rental properties valued at \$2 million each and commercial property valued at \$4 million. Threshold of \$822,000 subtracted from residential properties but not the commercial property. The threshold applies to the total value of all land holdings by an individual taxpayer. If the threshold did not apply (that is, landowner already above threshold), land tax on a property with a value of \$2 million at 1.6% would be \$32,000. On 90 properties (20% of residential properties) that would generate \$2.7 million for the State Government. However, given the dominance of small landlords in the rental market, and the probability that rental properties will be less than 20% of residential properties, the estimate of about \$1.7 million (on the residential component) seems more realistic.

## Section 6: Appendices

### 6.1 Greater Sydney Growth Projections

		2016	2021	2026	2031	2036	2041	2046	2051
DPE 2019 (projection 2021)	As of June	5,024,923	5,610,584	6,127,776	6,609,340	7,079,220	7,534,955	7,973,870	8,363,805
DPE 2022 (actual 2021)	As of June	5,024,923	5,259,764	5,434,103	5,763,172	6,097,427	6,433,497	6,755,171	7,059,154
	Difference		-350,820	-693,673	-846,168	-981,793	-1,101,458	-1,218,699	-1,304,651

Department of Planning and Environment (DPE) 2019 projections were made pre-COVID. DPE 2022 projections were released in June 2022. These projections broadly align with projections by the Commonwealth Government Centre for Population (CfP) projections for Greater Sydney to 2031. DPE projections for NSW to 2051 have been used by Macroplan to generate estimates for 2041-51.

		2011-16	2016-21	2021-26	2026-31	2031-36	2036-41	2041-46	2046-51
DPE 2019	Period Growth	352,788	585,661	517,192	481,564	469,880	455,735	438,915	389,935
DPE 2022 (actual 2016-21)	Period Growth		234,841	174,339	329,069	334,255	336,069	321,675	303,983
Difference	Period Difference	0	-350,820	-342,853	-152,495	-135,625	-119,666	-117,240	-85,952

Department of Planning and Environment (DPE) 2019 projections were made pre-COVID. DPE 2022 projections were released in June 2022. These projections broadly align with projections by the Commonwealth Government Centre for Population (CfP) projections for Greater Sydney to 2031. DPE projections for NSW to 2051 have been used by Macroplan to generate estimates for 2041-51.

## 6.2 IVA Calculation Methodology

The Australian Bureau of Statistics (ABS) constructs estimates of Industry Value Added (IVA) and Gross Regional Product (GRP) for each of the States, but not at a regional or Local Government Area (LGA) level. There is insufficient data at the regional or LGA level for the ABS to assert a degree of confidence around IVA/GRP estimates, suggesting that estimates of IVA/GRP at the LGA or suburb level need to be treated with some caution.

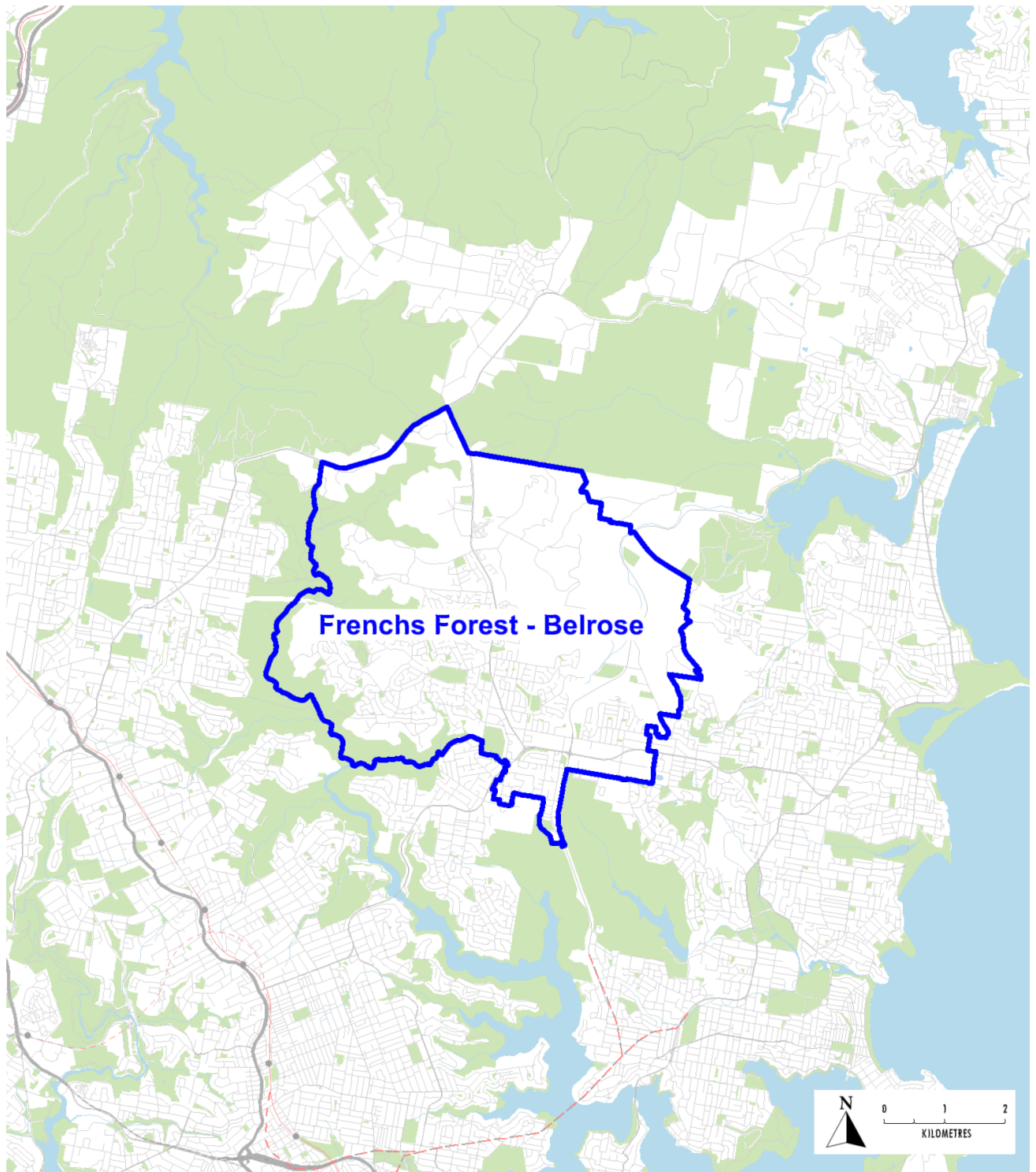
With that qualification, the Office of the Chief Economist of Department of Industry, Innovation and Science (OCE) has published provisional estimates of regional GRP for 2014/15. The methodology used by the OCE is set out in broad terms in its 2016 Report. It uses partial data, relative employee compensation (vs Labour Value Added and Capital Value Added for State industries) in most instances, to determine ratios and a region's share of State IVA. The methodology is reasonable and defensible but (as the OCE would agree) the results need to be treated with caution.

This report has adopted the OCE methodology, to generate 'estimates' of output by regions in Australia, in this case cultural centre and retail activity. Taking the estimates of floorspace by industry, we use standard measures of space per worker to derive a potential workforce if the floorspace were fully utilised.

Total factor income measures the total income generated by the production of economic goods and services. In the case of labour this means income from wages, while income from land is rents and income from business is profits. Total factor income by industry looks at the total income generated by an industry. To calculate the Industry Value Added (IVA) by industry, the total factor income per worker by industry for NSW is applied to the number of workers per industry to generate an estimate of total factor income for each industry. Total factor income incorporates income generated from capital (profit) – the methodology incorporates the assumption of the NSW capital/labour ratio for each industry. The aggregate of income (wages) and capital (profit) from each industry is an estimate of industry value added.

The estimates of IVA generate an estimate of gross regional product (GRP) for this small area, i.e., the potential greenfield development at Belrose, a monetary measure of the market value of all final goods and services produced within the locality.

**Figure 18** Frenchs Forest – Belrose SA2 (2016)<sup>43</sup>



Source: ABS

<sup>43</sup> In 2021, the ABS published new SA2 areas. Frenchs Forest – Belrose SA2 (2016) comprises of Belrose SA2 (2021) & Frenchs Forest – Oxford Falls (2021).

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