

STATE OF THE ENVIRONMENT REPORT

2017 - 2021

OUR KU-RING-GAI 2038



NOVEMBER 2021

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Simplified Chinese

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Traditional Chinese

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Korean

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Persian

آیا به کمک نیاز دارید؟

این مدرک حاوی اطلاعات مهمی است. اگر آنها را نمی فهمید، خواهش می کنیم به خدمات ترجمه نوشتاری و گفتاری

(Translating and Interpreting Service)

به شماره ۱۳۱ ۴۵۰ تلفن کنید و از آن

سرویس بخواهید از جانب شما با

شهرداری کورینگای (Ku-ring-gai Council)

در ساعات کاری، دوشنبه تا جمعه از ساعت

۸:۳۰ صبح تا ساعت ۵:۰۰ بعد از ظهر با

شماره تلفن ۰۲ ۹۴۲۴ ۰۰۰۰ تماس بگیرید.

Japanese

ご質問がありますか？

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These languages were chosen as they are the most widely spoken by Ku-ring-gai residents indicated by ABS Census data 2011 and 2016.

ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

Council acknowledges the Guringai people as the Traditional Owners of the land of which the Ku-ring-gai local government area is a part, and pays its respects to their Elders, past and present.

Need assistance with hearing or speaking?

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About this report

Council's Annual Report, in the year in which an ordinary election of councillors is held, must also include a State of the Environment (SOE) Report for the previous four years.

The SOE Report describes the state of the environment in the local government area and includes progress on the implementation of long term objectives for the environment established by the Community Strategic Plan 2038. These long term objectives articulate environmental issues that are of concern to the Ku-ring-gai community and indicate where Council may influence their management.

The report also provides progress on environmental planning priorities contained in Ku-ring-gai's Local Strategic Planning Statement, which came into effect in March 2020.

Ku-ring-gai Council's State of the Environment Report 2017–2021 has been prepared in accordance with Section 428A of the *Local Government Act 1993* and the Office of Local Government's Integrated Planning and Reporting Guidelines.

Previous reports

Council's previous State of the Environment Report 2013–2017 was prepared by Council. The earlier 2009–2012 report was prepared as part of a regional report for the Northern Sydney Regional Organisation of Councils (NSROC) which included Hunter's Hill, Hornsby Shire, Ku-ring-gai, Lane Cove, North Sydney, City of Ryde and Willoughby City Councils.

Preparation of a regional report for the 2017–2021 period was not practical for NSROC Councils due to the uncertainty associated with the COVID-19 pandemic, and changes to the Integrated Planning and Reporting requirements, which affect all member councils. As a result of those changes standalone SOE reports will no longer be a statutory requirement for Councils and all environmental reporting will occur through progress reports for the Community Strategic Plan as well as implementation reports for Council's Local Strategic Planning Statement, adopted by Council in March 2020. A copy of previous State of the Environment Reports can be found on Council's website at www.krg.nsw.gov.au/SOE

Preparation of the next Community Strategic Plan

Information on the progress of long term objectives and performance targets that contribute to a range of outcomes for the Ku-ring-gai local government area was included in Council's End of Term Report 2017–2021. The End of Term Report was presented to Council in November 2021 and will inform preparation of Council's next Community Strategic Plan. The State of the Environment Report 2017–2021 will also inform preparation of Council's next Community Strategic Plan, to be adopted in June 2022. These are key accountability requirements for councils under the *Local Government Act 1993* and the Office of Local Government's Integrated Planning and Reporting Guidelines.

About Ku-ring-gai

Ku-ring-gai is an established local government area (LGA), 85 square kilometres in size, located 16 kilometres north of the centre of Sydney CBD. Our name 'Ku-ring-gai' is a derivation of the name of the Guringai people, the traditional Aboriginal owners of the land of which the Ku-ring-gai local government area is a part.

OUR LANDSCAPE

The area's unique natural landscape is due to its elevated position in Sydney's north, high rainfall, alluvial soils, deep gullies, 177kms of waterways and creeks and three major water sub-catchments feeding into Sydney Harbour and the Hawkesbury River Estuary.

The area adjoins three National Parks (Ku-ring-gai Chase, Garigal and Lane Cove) and contains significant urban forests and tracts of local bushland as well as a visually significant tree canopy across both natural and urban areas. These landscape features give the area distinctive natural beauty and differentiates Ku-ring-gai from other parts of Sydney.

OUR UNIQUE BIODIVERSITY

Known as the 'Green Heart' of Sydney, Ku-ring-gai contains a diverse natural habitat regarded as the last remaining areas of biodiversity significance in the Sydney metropolitan area. This includes:

- 119 bushland reserves covering 1,150 hectares.
- Nationally significant ecological communities including remnant Blue Gum High Forest and Sydney Turpentine Ironbark Forest. Four of Ku-ring-gai's ecological communities are endangered and two are critically endangered.
- Over 800 recorded native plant species (including 18 threatened species) and over 690 species of native animals (including more than 10 threatened species).
- Two bio-banking sites totalling over 100 hectares of parks and reserves.

OUR CONNECTED URBAN VILLAGES

Historically, Ku-ring-gai's urban areas developed as a series of villages along the main ridgelines, each with their own identity, and always bounded by or close to large tracts of natural bushland, creek systems and national parks. While subdivision and residential development have connected the villages into larger suburbs over time, their distinct characteristics still largely remain intact. Today Ku-ring-gai includes 17 suburbs, most with neighbourhood centres and 7 larger local centres (Roseville, Lindfield, Gordon, Pymble, St Ives, Wahroonga, and Turramurra). Each suburb has its own unique character reflecting the local natural bushland, heritage conservation areas or more recent post war development.

The physical appearance of Ku-ring-gai, the connectedness of green leafy areas encompassing both public and private lands and the physical location of urban areas within a well-defined geographic boundary, have been critical contributory factors to a sense of place.



Ku-ring-gai within the Sydney metropolitan area

OUR CULTURAL HISTORY AND DIVERSITY

Ku-ring-gai has a strong legacy of heritage fabric including items and places of historical, social and architectural value. Both European and Aboriginal heritage is respected and provides a sense of living history and a physical link to the work and way of life of earlier generations.

Aboriginal heritage

The Guringai people were the original inhabitants of the land now encompassed by the Ku-ring-gai LGA. They preserved the area's natural diversity through the use of sustainable practices. They have left behind many traces of their habitation including middens, petroglyphs (rock drawings or carvings) and remains of shelters. Up to 650 Aboriginal heritage sites may have existed within the Ku-ring-gai LGA. While 106 recorded sites exist in the LGA, over double that number are believed to remain.

Our bushland legacy

Early European settlers also recognised the significance of the natural bushland, its important place in communities and its health benefits for a growing Sydney. They advocated strongly for the retention of bushland reserves, set aside land for the reserves, parklands and recreation areas that Ku-ring-gai is renowned for today and planted trees to replace those removed from earlier timber logging industries.

European heritage

Ku-ring-gai is the birthplace of the National Trust of Australia (NSW) and has traditionally valued its significant built heritage with over 994 heritage items and 46 heritage conservation areas within a well-defined compact urban area. In addition, over 4,124 properties are within Ku-ring-gai's Heritage Conservation Areas, or approximately 10% of all properties.

Our community diversity

Many residents who have made Ku-ring-gai their home, were born or have recent ancestry in over 100 overseas countries. This is a clear indication of the cultural history and diversity of our present community. (ABS, Census, 2016)

OUR STRONG RESIDENT PARTICIPATION AND ADVOCACY

The village nature of our suburbs created close knit and self-sufficient communities with a strong connection to the area. Over time this has evolved into strong resident participation in local organisations, cultural pursuits, sport and leisure activities, volunteering and events as well as a willingness to advocate for and preserve the area's unique natural and historical assets.

OUR DIVERSE LOCAL ECONOMY

Ku-ring-gai has a diverse and vibrant local economy comprising:

- Seven local centres providing mixed food, retail and professional services
- A business park accommodating commercial and service activities
- A large education sector focused on early learning, primary and high schools
- A large medical and health care sector including two hospitals
- A highly educated workforce mostly in professional, scientific and technical service industries
- A thriving small and medium size business sector.

Measuring progress

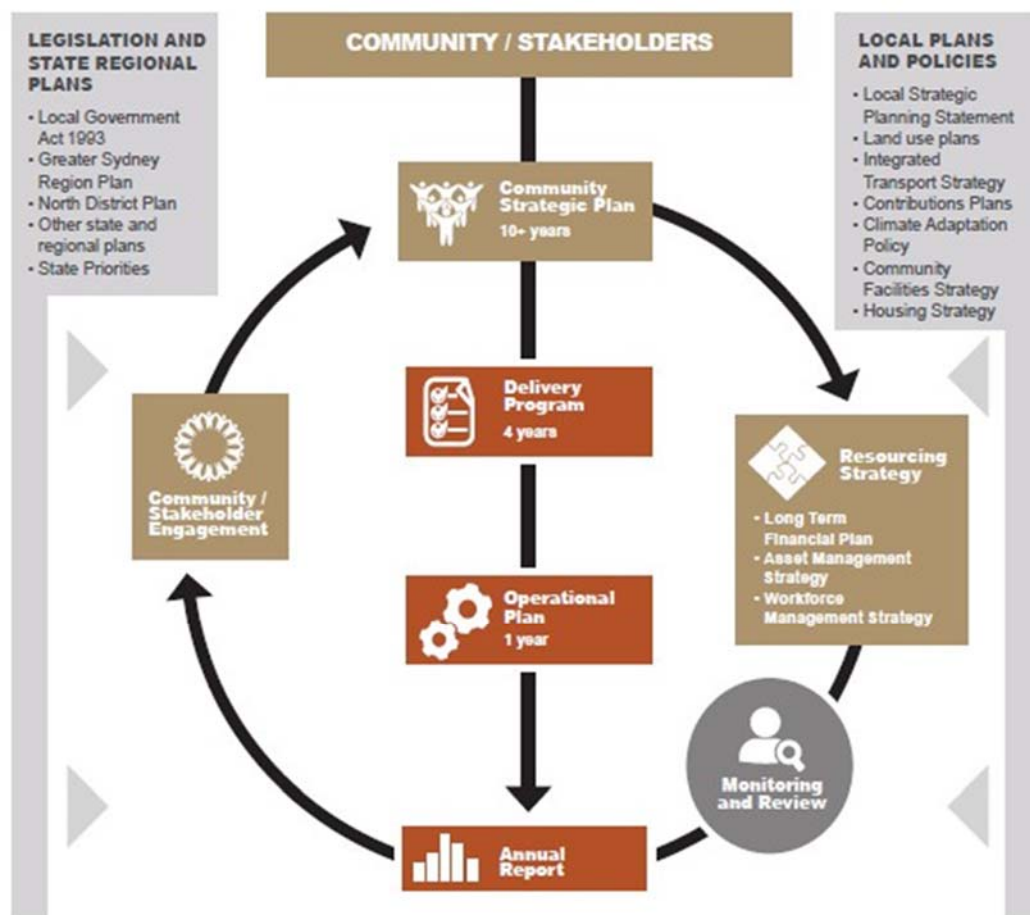
Integrated Planning and Reporting framework

The NSW government requires local councils to deliver their community's vision and objectives through long, medium and short-term plans, known as the Integrated Planning and Reporting Framework. This promotes best practice strategic planning across NSW councils to ensure a more sustainable local government sector.

The Integrated Planning and Reporting Framework requires Council to report regularly on its progress towards achievement of the community's long term objectives through progress reports on Council's four year Delivery Program and one year Operational Plans.

The diagram below illustrates the hierarchy of plans within the framework and their relationship to state and regional planning.

The Annual Report, in the year of an ordinary election, includes an End of Term Report and State of the Environment Report.



Integrated Planning and Reporting Framework

Source: Adapted from NSW Office of Local Government – Integrated Planning and Reporting Framework. (www.olg.nsw.gov.au)

Ku-ring-gai's Community Strategic Plan

The Community Strategic Plan sits at the top of Council's strategic planning framework and provides long-term direction for the organisation to align its delivery of services, programs and projects. It integrates with other Council plans and policies and acts as a guide for other stakeholders (organisations, government agencies, business and individuals) in planning and delivering services for our area.

The plan also responds to state, metropolitan and regional plans and priorities relevant to Ku-ring-gai.

The State of the Environment Report (SOE), prepared in the year of an ordinary election of council, forms part of Council's annual report in that year. The SOE provides information on Council's progress in implementing long term objectives that contribute to the achievement of environmental outcomes for Ku-ring-gai. These long term objectives can be found across strategic themes in the Community Strategic Plan.

How progress is measured

1. Community Strategic Plan

Progress towards achievement of long term objectives that contribute to environmental outcomes within the Community Strategic Plan has been assessed and measured by:

- The progress of the relevant long term objectives that contribute to environmental outcomes
- Identified trends for performance indicators set for the long term objectives
- The completion of relevant Term Achievements, contained in Council's Delivery Program, which detailed how far the long term objectives would be progressed during Council's four year term.
- Information on achievements and challenges.

2. Local Strategic Planning Statement

The Ku-ring-gai Local Strategic Planning Statement (LSPS), which came into effect in March 2020, provides a locally relevant response to the NSW Government's regional North District Plan and the Greater Sydney Region Plan – A Metropolis of Three Cities on land use related matters.

The LSPS achieves this by identifying specific priority actions that will be implemented through Ku-ring-gai's Integrated Planning and Reporting Framework, including Council's four-year Delivery Program and annual Operational Plans and budgets. These priority actions include a number of locally specific environmental matters which have been identified as priorities for the future planning of the Ku-ring-gai area.

To supplement progress reporting on the long term objectives in the Community Strategic Plan the SOE Report includes environmental information from Council's adopted Local Strategic Planning Statement. This includes:

- A description of those local priority areas within the LSPS that contribute to environmental outcomes
- Identification of priority actions that will be implemented over the short, medium or longer term to address the priority environmental areas in the LSPS.
- Information on achievements and challenges.

Consultation and engagement

Council's role is to lead, facilitate and educate, with community consultation and engagement is the cornerstone of our strategy and policy development on environmental matters. It determines the information and events we offer to the community and enables us to create a community empowered with knowledge, learning and information that can benefit the environment for future generations.

Ku-ring-gai residents and businesses are an active and responsive community and have been engaged in a range of consultation projects on environmental related matters over the last four years. As a result of that community engagement Council has delivered environmental, cultural and social benefits that directly respond to the community's expectations and priorities, including:

- Protection of bushland and local biodiversity
- Reduction in the urban impacts of stormwater on riparian areas
- Reduction in potable water use
- Reduction in waste to landfill
- Provision of cycle ways and recreational facilities in natural areas
- Control of dumping and encroachment into bushland
- Establishing a net zero emissions target
- Reduction in energy use and greenhouse gas emissions
- Sustainable business engagement
- Increased community connection and well-being.



Community bush and bird walk, Blackbutt Creek Track, Gordon

Community Strategic Plan

Performance summary

Community's long term objectives – overview

Long term objectives that contribute to environmental outcomes for Ku-ring-gai were assessed for the period across relevant themes in the Community Strategic Plan. Results indicated that satisfactory progress was made for 14 Long Term Objectives which were assessed as being on track, with one exception identified as being behind schedule within Theme 3: Places, Spaces and Infrastructure. This exception is as follows:

P4.1: Our centres offer a broad range of shops and services and contain lively urban village spaces and places where people can live, work, shop, meet and spend leisure time.

Reasons for the long term objective being behind schedule are provided on page 17 of this report.

Performance indicators – trend analysis

An assessment of performance indicators that contribute to environmental outcomes for Ku-ring-gai was also undertaken for the 2017–2021 period across relevant themes in the Community Strategic Plan. Results indicated that of the 25 performance indicators, 18 were achieved, 6 were not achieved and one had no results due to data not being available.

Achievements

Council delivered highly successful outcomes from environmental and sustainability programs and initiatives across the key areas of biodiversity, energy, water, sustainable transport, community recreation and community engagement and environmental education during the four year period.

Further details of environmental achievements are provided on pages 28-34 and 35-47.

Challenges

There were a number of challenges that impacted on the progress of some environmental programs and initiatives over the period. Further details of issues and challenges and Council's responses are provided on pages 28-34 and 35-47.

Performance by theme







The following provides progress results for long term objectives, performance indicators and term achievements by theme within the Community Strategic Plan and Delivery Program.

Theme 2: Natural environment

Results for Council's Long Term Objectives, Performance Indicators and Term Achievements for the period, under this theme, are listed below. Commentary has been included to explain delayed progress, indicators not met or further details on progress made during the period.

















Term achievements, which are contained within Council's four year Delivery Program, have been included because they contribute to the progress of long term objectives.








The contribution of each Long Term Objective towards the Quadruple Bottom Line¹ is indicated with icons next to each Issue.



Issue: Appreciating Ku-ring-gai's unique natural environment 	Progress
Long Term Objective: A community empowered with knowledge, learning and information that benefits the environment.	
Performance Indicator: Number of residents involved in community environmental programs per year. Comments: There was an increasing trend over the time period with the exception of 2020/21, which was severely affected by COVID-19 health restrictions on programs requiring face to face contact.	
Performance Indicator: Number of residents at an individual or household level who carried out actions to benefit the environment as a result of participation in Council programs per year. Comments: There was an increasing trend over the time period despite the negative impacts of COVID-19 health restrictions on programs requiring face-to-face contact. An increase in sustainability rebates due to residents spending more time at home during restrictions has been a highlight of the program.	
Term Achievement: Increased community understanding of the value of the natural environment and local environmental issues and impacts.	
Term Achievement: Increased community action that benefits the natural environment.	

¹ The Community Strategic Plan must demonstrate that it adequately addresses social, environmental, economic and civic leadership considerations, where 'civic leadership' includes how Council will engage with the community and how community members might become involved in delivering some of the plan's objectives. This approach ensures the Community Strategic Plan takes a holistic balanced view, rather than favouring one particular aspect of an area and addresses the social justice and sustainability principles. The contribution that each long term objective makes to QBL is indicated by one or more icons under each Issue.

² Data collection methods were amended following the baseline year of 2016/17 which has led to a reduced baseline figure assumption and altered results throughout the period. These will be revised as part of the preparation of the next Community Strategic Plan.





Issue: Natural Areas  	Progress
Long Term Objective: Our bushland is rich with native flora and fauna.	
Performance Indicator: Resident satisfaction with the protection of natural areas and bushland. Comments: Results show a very high level of satisfaction and overall increasing trend over the time period.	✓
Term Achievement: The condition of bushland and the conservation of native flora and fauna have improved.	
Term Achievement: Ecological protection and understanding is integrated into land use planning.	
Issue: Natural Waterways  	Progress
Long Term Objective: Our natural waterways and riparian areas are enhanced and protected.	
Performance Indicator: Resident satisfaction with the condition of waterways and creeks. Comments: Results show a high level of satisfaction and overall increasing trend over the time period.	✓
Term Achievement: The condition of natural waterways and riparian areas have improved.	
Term Achievement: Utilisation of water harvesting and reuse has increased at Council owned facilities.	
Issue: Climate Change   	Progress
Long Term Objective: A community addressing and responding to the impacts of climate change and extreme weather events.	
Performance Indicator: Number of residents involved in climate change adaptation activities per year. Comments: There has been steady growth in the number of residents involved in climate change adaptation activities over the time period. This is due to Council's Net Zero Communities program, the highly successful launch of the Climate Wise Communities website in 2018/19, increased community attendances during the 2019/20 bushfire season and improved engagement through the SIMTable (an interactive fire modelling resource).	✓
Term Achievement: The community is effectively informed and engaged on climate change impacts and responses.	
Term Achievement: Council's vulnerability to climate change is reduced.	

Issue: Sustainable Resource Management 	Progress
Long Term Objective: A community progressively reducing its consumption of resources and leading in recycling and reuse.	
Performance Indicator: Resident satisfaction with Council initiatives to reduce energy use. Comments: Results show a very high level of satisfaction and overall increasing trend over the time period.	
Performance Indicator: Resident satisfaction with Council initiatives to reduce water use.	
Performance Indicator: Percentage of household waste diverted from landfill. Comments: There has been a variable trend over the time period. Factors affecting the result included the NSW Environmental Protection Authority (EPA) ceasing removal of organics from waste contents in late 2018 due to quality standards, which impacted diversionary figures by about 3,000 tonnes. In addition, more waste was generated from households during 2019/20 due to public health order restrictions on movement and gathering and residents working from home. In 2020/21, Council exceeded the baseline as a result of improved practices. Council's new waste contract, commencing in September 2021, includes additional and enhanced waste recovery processes and will further improve Council's waste diversion result. This will inform preparation of the next Community Strategic Plan.	
Performance Indicator: Kilograms of waste generated per resident. Comments: There has been a variable downward trend below the baseline over the time period with the exception of 2019/20. Factors affecting the results included increased waste generation from households working from home and restrictions on movements due to COVID-19 public health orders and reduced waste generation from raised community awareness and education. These factors will inform preparation of the next Community Strategic Plan.	
Performance Indicator: Resident satisfaction with Council initiatives to reduce waste and improve recycling. Comments: There has been a high level of satisfaction over the time period with a variable trend. Factors likely affecting the result include a high level of community awareness and expectations from waste recycling and reduction initiatives. Council's new Waste Strategy, involving extensive community engagement, includes new and enhanced waste management initiatives. Research and trials into other initiatives, such as organics recycling, are underway for the Northern Sydney region. These factors will inform preparation of the next Community Strategic Plan.	

Term Achievement: The community is effectively engaged in improved waste reduction, reuse and recycling.	
Term Achievement: The community is effectively engaged in energy and water conservation and efficiency programs.	

Legend:



	Progressing to schedule		Placed on hold by Council resolution
	Behind schedule	✓	Achieved
	Significantly behind schedule	✗	Not Achieved

Theme 3: Places, spaces and infrastructure










Results for Council's Long Term Objectives, Performance Indicators and Term Achievements for the period, under this theme, are listed below. Commentary has been included to explain delayed progress, indicators not met or further details on progress made during the period.

Term achievements, which are contained within Council's four year Delivery Program, have been included because they contribute to the progress of long term objectives.






The contribution of each Long Term Objective towards the Quadruple Bottom Line³ is indicated with icons next to each Issue.

Issue: Preserving the unique visual character of Ku-ring-gai  	Progress
Long Term Objective: Ku-ring-gai's unique visual character and identity is maintained.	
Performance Indicator: Level of importance of Ku-ring-gai's unique visual character and identity to the community.	✓
Term Achievement: Strategies, plans and processes are in place to protect and enhance Ku-ring-gai's unique visual and landscape character.	
Term Achievement: Place making programs are being implemented for selected neighbourhood centres.	
Issue: Managing Urban Change  	Progress
Long Term Objective: A robust planning framework is in place to deliver quality design outcomes and maintain the identity and character of Ku-ring-gai.	
Performance Indicator: Resident satisfaction with access to information about planning, regulation and local development activity.	✘
Comments: While results show a relatively high level of satisfaction, there was a small downward trend. Further review of factors contributing to the results will inform preparation of the next Community Strategic Plan.	
Term Achievement: Land use strategies, plans and processes are in place to effectively manage the impact of new development.	
Issue: Quality Urban Design and Development  	Progress
Long Term Objective: The built environment delivers attractive, interactive and sustainable living and working environments.	
Performance Indicator: Resident satisfaction with the visual quality of design in the Ku-ring-gai area.	✓
Term Achievement: A high standard of design quality and building environmental performance is achieved in new and existing development.	
Term Achievement: Community confidence has continued in our assessment, regulatory and environmental processes.	

³ The Community Strategic Plan must demonstrate that it adequately addresses social, environmental, economic and civic leadership considerations, where 'civic leadership' includes how Council will engage with the community and how community members might become involved in delivering some of the plan's objectives. This approach ensures the Community Strategic Plan takes a holistic balanced view, rather than favouring one particular aspect of an area and addresses the social justice and sustainability principles. The contribution that each long term objective makes to QBL is indicated by one or more icons under each Issue.

Issue: Revitalisation of our centres   	Progress
<p>Long Term Objective: Our centres offer a broad range of shops and services and contain lively urban village spaces and places where people can live, work, shop, meet and spend leisure time.</p> <p>Comments: Term achievements contributing to this long term objective require long lead times to enable complex design work, land use planning and development to be completed. While some projects were delayed during the reporting period they are expected to be satisfactorily progressed or completed by the end of the 2018-2022 Delivery Program. Achievements over the period include preparation of Public Domain Plans and Technical Manuals for local centres, development approval obtained for the Lindfield Village Living project, construction substantially progressed for the new Lindfield Village Green project including short stay and commuter parking and continued implementation of Council's adopted Open Space Acquisition Strategy.</p>	
<p>Performance Indicator: Resident satisfaction with the vitality of our local centres.</p> <p>Comments: Results show a relatively high variable level of satisfaction over the time period. Further review of factors contributing to the results will inform preparation of the next Community Strategic Plan.</p>	
<p>Term Achievement: Plans to revitalise local centres are being progressively implemented and achieve quality design and sustainability outcomes in collaboration with key agencies, landholders and the community.</p> <p>Comments: This term achievement was substantially completed with delays experienced with contributory tasks relating to the finalisation of a Creative Arts Facility Strategy and finalisation of strategies and plans for Gordon, Lindfield and Turramurra local centres and surrounds. Work will continue during 2021-2022 to progress this term achievement with tasks included in Council's Operational Plan 2021-2022.</p>	
<p>Term Achievement: Commence construction of Lindfield Village Green.</p>	
<p>Term Achievement: Secure a development partner for Lindfield Village Hub.</p> <p>Comments: This term achievement continued to be progressed during the reporting period. At the Ordinary Meeting of Council in December 2020 (C.3, Min 244) Council noted that no viable offer had been received, and it was resolved to continue negotiations with any possible providers, while undertaking a review of Council's project assumptions and objectives. The review was completed and was presented to the Major Projects Advisory Committee (MPAC) in June 2021 for consideration. Negotiations are continuing with prospective developers and a task to continue work on this project is included in Council's Operational Plan 2021-2022.</p>	
<p>Term Achievement: Secure a development partner for Turramurra Community Hub.</p> <p>Comments: This term achievement was placed on hold by Council resolution on 19 May 2020 (GB.2, Min 96) due to the NSW Government announcing in 2018 that all NSW Councils were required to review their Local Environmental Plans (LEP) to give effect to the new Regional and District Plans. It was considered that the outcomes of this review for Ku-ring-gai could impact the built form, feasibility and business planning assumptions for the Hub. Further to this, a Notice of Motion was considered at the Ordinary Meeting of Council held 18 May 2021 where Council unanimously resolved to recommence planning for the project (NM.3, Min 93). Work on this project has now recommenced with a task included in Council's Operational Plan 2021-2022.</p>	

⁴ In 2021, the source question was changed to 'revitalisation/beautification of your closest biggest retail centre'.

Issue: Heritage that is protected and responsibly managed   	Progress
Long Term Objective: Ku-ring-gai's heritage is protected, promoted and responsibly managed.	
Performance Indicator: Resident satisfaction with protection of heritage buildings and conservation areas. Comments: Results show a high level of satisfaction and overall increasing trend over the time period.	✓
Term Achievement: Strategies, plans and processes are in place to effectively protect and preserve Ku-ring-gai's heritage assets.	

Legend:



SOCIAL







CIVIC LEADERSHIP



ECONOMIC



ENVIRONMENTAL









	Progressing to schedule		Placed on hold by Council resolution
	Behind schedule	✓	Achieved
	Significantly behind schedule	✘	Not Achieved

Theme 4: Access, traffic and transport

Results for Council's Long Term Objectives, Performance Indicators and Term Achievements for the period, under this theme, are listed below. Commentary has been included to explain delayed progress, indicators not met or further details on progress made during the period.





Term achievements, which are contained within Council's four year Delivery Program, have been included because they contribute to the progress of long term objectives.

The contribution of each Long Term Objective towards the Quadruple Bottom Line⁵ is indicated with icons next to each Issue.

Issue: Integrated and Accessible Transport 	Progress
Long Term Objective: A range of integrated transport choices are available to enable effective movement to, from and around Ku-ring-gai.	
Performance Indicator: Percentage of residents who travel to work by methods other than car (public transport, walk, cycle). Comments: Since 2016, data sources have been limited to the ABS Census, with the latest Census having just been held in August 2021. Public health restrictions and changed working arrangements during much of this period will have likely had a significant impact on this data. ABS Census data, when available, will inform the preparation of the next Community Strategic Plan.	No trend result ⁶
Performance Indicator: Percentage of residents satisfied with their ability to move in and around Ku-ring-gai.	✓
Term Achievement: Connections are provided to public transport that are accessible to all age groups and match the travel needs of the community.	
Term Achievement: A network of safe and convenient links to local centres, major land uses and recreation opportunities is being progressively implemented.	
Term Achievement: Advocate to relevant government agencies and private companies for integrated public transport facilities and service improvements that meet community needs.	
Term Achievement: The community is informed, educated and encouraged to use alternative forms of transport.	
Issue: Local Road Network 	Progress
Long Term Objective: The local road network is managed to achieve a safe and effective local road network.	
Performance Indicator: Number of road traffic crashes per year.	✓

⁵ The Community Strategic Plan must demonstrate that it adequately addresses social, environmental, economic and civic leadership considerations, where 'civic leadership' includes how Council will engage with the community and how community members might become involved in delivering some of the plan's objectives. This approach ensures the Community Strategic Plan takes a holistic balanced view, rather than favouring one particular aspect of an area and addresses the social justice and sustainability principles. The contribution that each long-term objective makes to QBL is indicated by one or more icons under each Issue.

⁶ Due to the unavailability of data this indicator will not be included in the overall performance statistics in the report.

<p>Performance Indicator: Resident satisfaction with the availability of car parking in local centres.</p> <p>Comments: In 2021, this question was separated to research more specific areas including commuter parking and short stay parking. There was a high level of satisfaction with local short stay parking in 2021 and lower satisfaction with commuter parking availability. Further review of factors contributing to the results is required to inform future planning and preparation of the next Community Strategic Plan.</p>	✓ ⁷
<p>Performance Indicator: Resident satisfaction with access to cycleways, footpaths and walking tracks.</p>	✓
<p>Term Achievement: Safety and efficiency of the local road and parking network are improved and traffic congestion is reduced.</p> <p>Comments: This term achievement was substantially completed however, limited progress was made on the implementation plan for paid parking and 10 year Traffic and Transport Plan. The paid parking plan is continuing to be developed by Council by seeking consultant expertise and experience from neighbouring councils. The implementation of the 10 year Traffic and Transport Plan was also slightly impacted due to a project being delayed at the detailed design and documentation phase. Tasks to progress both projects are included in Council's Operational Plan 2021-2022.</p>	
<p>Issue: Regional Transport Network    </p>	Progress
<p>Long Term Objective: An accessible public transport and regional road network that meets the diverse and changing needs of the community.</p>	
<p>Performance Indicator: Vehicle travel speed on arterial roads within designated speed limits.</p> <p>Comments: Available data shows a decreasing trend. No data is available for 2020 or 2021 due to a reporting time lag from other government sources. Public health restrictions and changed working arrangements during 2020/21 will have likely had a significant impact on this data. Further monitoring of data is required as it becomes available.</p>	✘
<p>Performance Indicator: Resident satisfaction with access to public transport.</p>	✓
<p>Term Achievement: A strategic access, traffic and transport plan is being implemented for the Northern Sydney Region.</p>	
<p>Term Achievement: Council engages with the State Government to upgrade regional roads and reduce congestion in the local road network.</p>	

Legend:



	Progressing to schedule		Placed on hold by Council resolution
	Behind schedule	✓	Achieved
	Significantly behind schedule	✘	Not Achieved











⁷ Availability of commuter parking in Ku-ring-gai. (In 2021, the original question was separated into more specific areas). Availability of short stay parking in your closest biggest retail centre. (In 2021, the original question was separated into more specific areas).

Theme 6: Leadership and governance

Results for Council's Long Term Objectives, Performance Indicators and Term Achievements for the period, under this theme, are listed below. Commentary has been included to explain delayed progress, indicators not met or further details on progress made during the period.







Term achievements, which are contained within Council's four year Delivery Program, have been included because they contribute to the progress of long term objectives.

The contribution of each Long Term Objective towards the Quadruple Bottom Line⁸ is indicated with icons next to each Issue.

Issue: Leadership    	Progress
Long Term Objective: A shared long term vision for Ku-ring-gai underpins strategic collaboration, policy development and community engagement.	
Performance Indicator: Resident satisfaction with opportunities to participate in matters impacting on the Ku-ring-gai community. Comments: There has been a stable trend over the time period. Further review of factors contributing to the results will inform preparation of the next Community Strategic Plan.	 ⁹
Performance Indicator: Resident satisfaction with Council's advocacy on matters impacting on Ku-ring-gai. Comments: There has been a relatively high level of satisfaction and stable trend over the time period. Further review of factors contributing to the results will inform preparation of the next Community Strategic Plan.	
Term Achievement: The priorities of our community are reflected in the Ku-ring-gai Community Strategic Plan and inform Council's policy development, decision-making and program delivery.	
Term Achievement: Council leads the community by advocating, influencing and participating in policy development to the benefit of the local area.	
Term Achievement: Partnerships are established with government agencies, regional and local organisations and community groups and are working to achieve Ku-ring-gai's community outcomes.	





⁸ The Community Strategic Plan must demonstrate that it adequately addresses social, environmental, economic and civic leadership considerations, where 'civic leadership' includes how Council will engage with the community and how community members might become involved in delivering some of the plan's objectives. This approach ensures the Community Strategic Plan takes a holistic balanced view, rather than favouring one particular aspect of an area and addresses the social justice and sustainability principles. The contribution that each long-term objective makes to QBL is indicated by one or more icons under each Issue.

⁹ In 2017, resident satisfaction was measured using the source question 'Opportunities to participate in Council decision making'.

Issue: Good Governance and Management 	Progress
Long Term Objective: The organisation is recognised and distinguished by its ethical decision-making, efficient management, innovation and quality customer service.	
Performance Indicator: Overall community satisfaction with Council performance.	✓
Comments: There has been a high and increasing level of satisfaction over the time period.	
Term Achievement: Integrated risk management, compliance and internal control systems are in place to identify, assess, monitor and manage risks throughout the organisation.	
Term Achievement: Council's Governance framework is developed to ensure probity and transparency.	
Term Achievement: Sustainability is integrated into Council's business framework.	
Term Achievement: Council services and programs are provided on the basis of equity, community priorities, and best value for money within available resources.	

Legend:



	Progressing to schedule		Placed on hold by Council resolution
	Behind schedule	✓	Achieved
	Significantly behind schedule	✗	Not Achieved

Community research

In April 2021 Council commissioned independent representative research into the community's priorities and satisfaction in relation to a range of Council's external services and facilities as well as community priorities for the Ku-ring-gai local government area and responses to statements regarding the Ku-ring-gai local government area.

Results related to the local environmental outcomes included:

- 60% of residents believe that the natural environment and open spaces are the biggest strength of the area
- 88% of residents believe it is important/very important for Council to maintain Ku-ring-gai's unique visual character and identity
- 98% of residents rated their quality of life as good, very good or excellent
- Protection of the natural environment is one of the top 5 highest priority issues identified by residents over the next 10 years
- Residents rated the following services as having higher importance and higher levels of satisfaction, meaning these services are important and address clear community needs:
 - Protection of natural areas and bushland
 - Condition of waterways and creeks
 - Waste and recycling initiatives
 - Control of litter and rubbish dumping
- Compared to the previous research conducted in 2019, resident levels of importance and satisfaction for the following services delivering environmental outcomes generally increased, including some 'environmental' services that are delivered by the Environmental Levy.

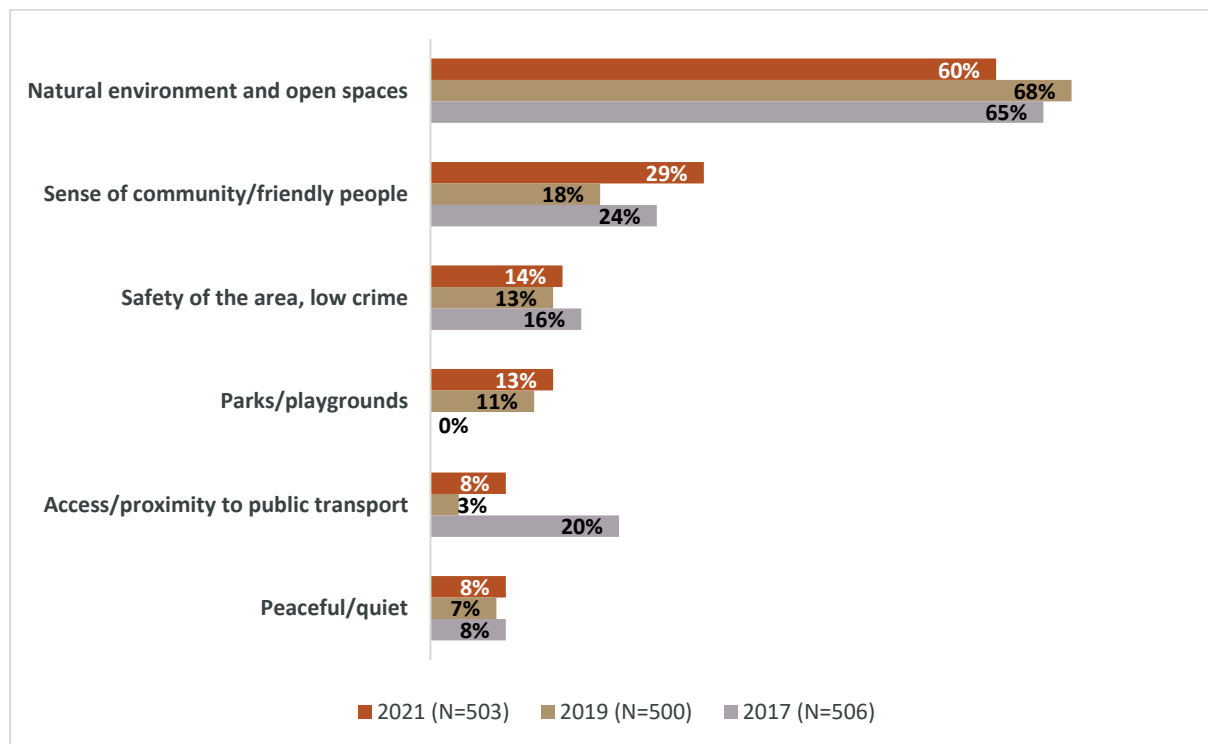
Comparison of services with environmental outcomes 2019 - 2021

Service	Importance		Satisfaction	
	2021	2019	2021	2019
Protection of natural areas and bushland	4.55	4.49	4.01	3.88
Condition of waterways and creeks	4.44	4.33	3.73	3.63
Initiatives to reduce energy use	4.15	4.07	3.24	3.11
Initiatives to reduce water use	4.14	4.05	3.51	3.29
Initiatives to reduce waste and improve recycling	4.43	4.38	3.50	3.36
Control of litter and rubbish dumping	4.59	4.60	3.93	3.89
Access to cycleways, footpaths, walking tracks	3.96	3.98	3.35	3.25

The following graphs illustrate results from the 2021 community research relating to environmental related services and priorities for Ku-ring-gai residents.

Strengths of the Ku-ring-gai LGA

Residents believe that the natural environment and open spaces are the biggest strengths of the local area. Other popular strengths included clean area, educational facilities, good facilities/infrastructure, good location/convenience and low density population/housing/development as shown below.

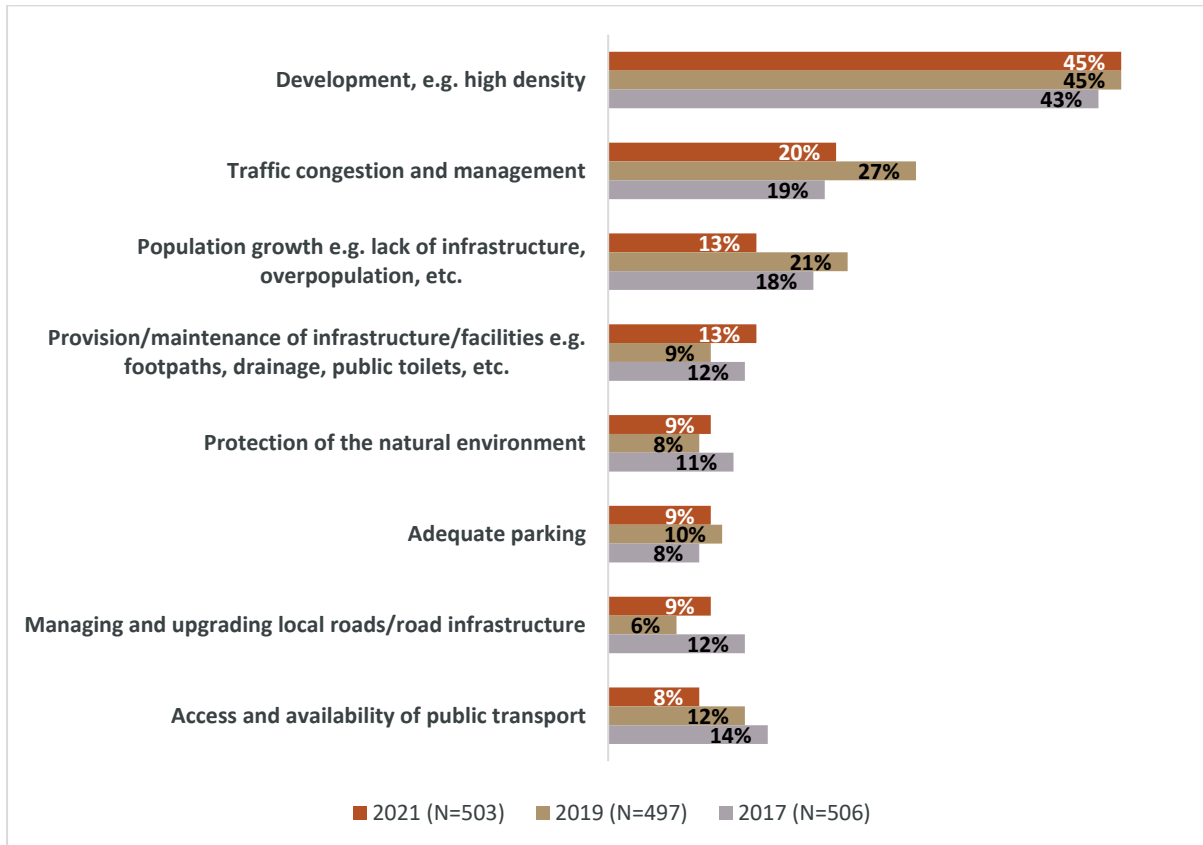


Resident's key strengths of Ku-ring-gai

Note: Only responses $\geq 8\%$ in 2021 are shown.

Highest priority issues within the Ku-ring-gai LGA

Residents believe that managing development is the highest priority issue within the area over the next 10 years. Residents are also concerned about the flow-on effects of development and protection of the natural environment as shown below.

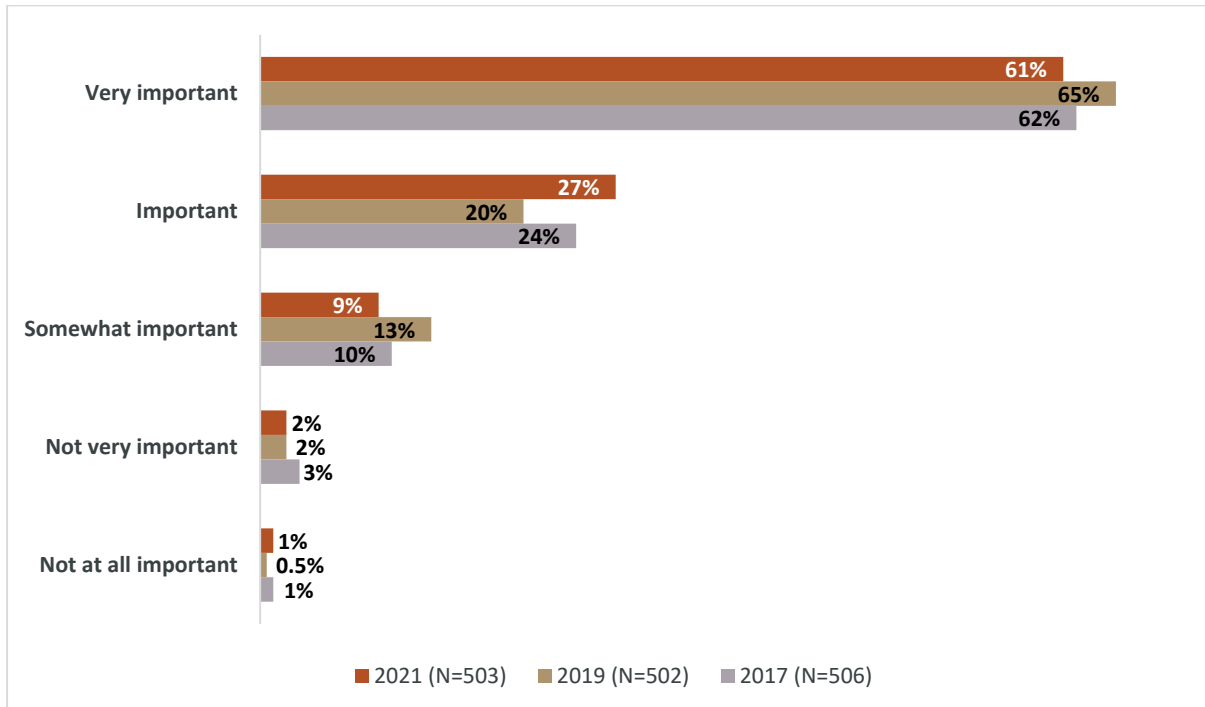


Resident's highest priority issues within Ku-ring-gai in the next 10 years

Note: Only responses $\geq 8\%$ in 2021 are shown.

Importance of maintaining Ku-ring-gai's unique visual character and identity

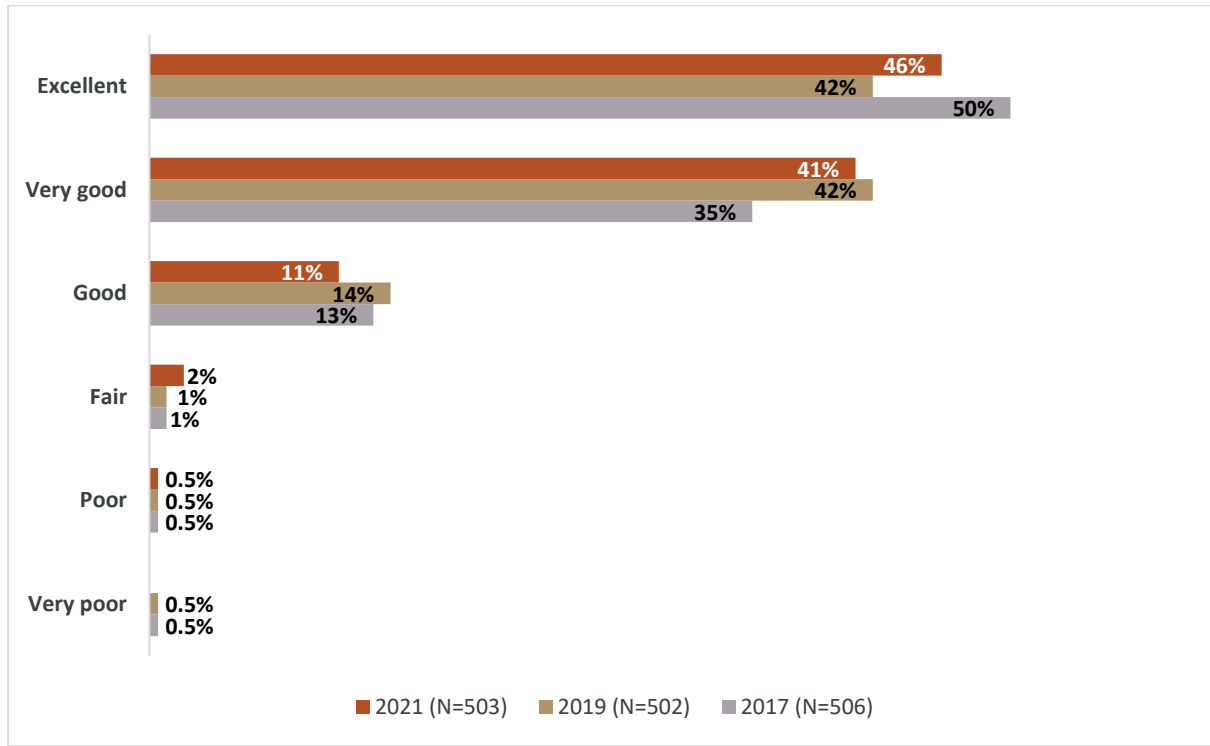
In 2021, 88% of residents believe it is important/very important for Council to maintain its unique visual character and identity as shown below. A high level of importance has remained throughout the time period.



Resident's level of importance of maintaining Ku-ring-gai's unique visual character and identity

Quality of life of residents in Ku-ring-gai

Quality of life in the Ku-ring-gai area is high, with the majority (98%) of residents rating their quality of life as good, very good or excellent in 2021. This high result has remained constant throughout the time period as shown below.



Resident's quality of life in Ku-ring-gai

More information regarding this research and findings are available in Council's End of Term Report 2017–2021 on pages 27-31 and 136-143.

Copies of research reports for 2017, 2019 and 2021 are available on Council's website at www.krg.nsw.gov.au//Community-feedback-report

Achievements and challenges

The following sections provide an overview of key achievements and challenges in progressing long term objectives in the Community Strategic Plan that contribute to environmental outcomes during 2017–2021.

Environmental levy program

Council's Environmental Levy funds around \$3 million worth of environmental works and programs every year that would not otherwise be possible within Council's ordinary budget. In 2018/19, Council was successful in its application to IPART for the permanent continuation of the Environmental Levy, commencing on 1 July 2019.

Through the program Council delivers works and programs across the key areas of biodiversity, bush fire, energy, water and catchments, sustainable transport, recreation in natural areas, sustainable living and environmental education.

A multi-disciplinary team, funded by the Environmental Levy, fulfil a range of essential service functions for Council, ensuring best practice environmental management, continual environmental monitoring and robust reporting.

Since its inception in 2005, the Environmental Levy has successfully leveraged over \$13 million of State and Federal Government grants.

Environmental programs and initiatives

- **Community programs and incentives**

Council's broad range of community programs and incentives continued to engage the Ku-ring-gai community on environmental and sustainability issues, particularly through the use of social media and electronic platforms. At June 2021, Council's Loving Living Ku-ring-gai Facebook page had 5,061 followers and in the previous six months posts on this page registered a total of 147,371 impressions in the feeds of its followers and were engaged with (shared, clicked, commented) 6,821 times. The Loving Living Ku-ring-gai Twitter account has increased to 689 followers. The Envirotube channel on YouTube now has 3,310 subscribers and the videos on the channel have registered 716,926 views. Council's newly created sustainability webinar library on Council's website has also attracted 861 views and the Environment and Sustainability pages on Council's website have remained consistently well-visited with 35,531 unique page views.

- **Energy and water conservation programs**

Council's Energy Smart program continued to be highly subscribed during the reporting period indicating the desire within the community to take action that reduces energy and water use at a household level.

This is also shown through the high level of engagement from the community in Council's newly launched Net Zero Communities Program which seeks to scale up and accelerate the transition to a net zero future.

The community were engaged through webinars and individual Greenstyle visits were conducted to support households make positive changes for energy and water conservation.

The natural environment and sustainability

Over successive community strategic plans Council and the community have developed and adopted a comprehensive series of environmental policies and controls to protect Ku-ring-gai's natural environment, manage the impacts of development and regulate against damage from illegal activities. These policies and their implementation remain industry best practice.

Concurrent with this work, Council also plays a lead advocacy role in responding to proposed government changes to environmental legislation and controls. Staff continue to monitor and analyse the ongoing changes to environmental protection legislation and controls and their implications for Ku-ring-gai.

Legislative changes

A number of legislative changes came into effect during the reporting period and were integrated into Council's environmental management program. These were:

- Biodiversity Conservation Act
- State Environmental Planning Policy (Vegetation in Non-Rural Areas)
- Amendments to the Local Land Services Act
- The Crown Land Management Act.

Bushland protection

The implementation of priority management actions from Council's Biodiversity Policy, Water Sensitive City Policy, Dumping and Encroachment in Bushland Policy, Fauna Management Policy and Bushland Reserves Plan of Management facilitated improvements in the condition of bushland and the conservation of native flora and fauna. A draft Natural Areas Plan of Management has been sent to Crown Lands for endorsement prior to going to public exhibition.

Natural waterways

The implementation of priority management actions from Council's Water Sensitive City Policy facilitated improvements to the condition of natural waterways and riparian areas in Ku-ring-gai. A complete audit of Council's Gross Pollutant Traps was conducted across the LGA and each asset has been fully integrated into Council's asset management system and used to inform a new maintenance and cleaning contract.

These improvements will lead to improved maintenance of infrastructure ensuring they function at optimal capacity. Internal workshops for the development of the Water Sensitive Cities Strategy were completed and the final report will be completed by the end of 2021.

Renewing Ku-ring-gai's tree canopy

- **Urban forest policy and strategy**

During 2019/20, Council adopted an Urban Forest Policy to provide a set of guiding principles for the sustainable management of Ku-ring-gai's Urban Forest. The policy replaces three earlier policies. To complement the Strategy, a monitoring program commenced with the collection of aerial imagery in March 2020. The aerial imagery is high resolution canopy mapping data and analysis to inform the urban forest monitoring program.

The data will assist Council to develop the Urban Monitoring Program and Strategy for urban forest management into the future.

- **Tree planting program**

Council received a \$57,000 grant from the 5 Million Trees for Greater Sydney program to help boost the city's diminishing tree canopy and aid tree planting in various suburbs across Ku-ring-gai. The program aims to protect and grow Sydney's tree canopy, which is being progressively lost through a combination of factors including urbanisation, drought conditions and existing street trees coming to the end of their natural life.

New Ku-ring-gai Flying-Fox Reserve Plan

A Ku-ring-gai Flying-Fox Reserve (KFFR) 10 Year Site Management and Roosting Habitat Plan was developed, to guide Grey-Headed Flying-Fox habitat restoration efforts within the KFFR and to ensure the continuing protection and preservation of the threatened vegetation community and fauna species, in particular the flying-fox colony. This is a long term management plan that guides flying-fox conservation and habitat restoration efforts in the reserve, with a particular focus on habitat restoration works in areas away from residential properties.

Climate change policy and action plan

Council adopted a revised Climate Change Policy and Towards Net Zero Emissions - 2030 Action Plan in 2020.

The Climate Change Policy 2020 commits Council to continue the progress made to date in reducing Council's energy consumption and GHG emissions while the Towards Zero Emissions - 2030 Action Plan provides the pathway for this to be achieved.

- **Launch of climate wise communities digital platform**

Climate Wise Communities (CWC) is a community engagement program delivering hands-on help for residents to plan for bush fire, storms, floods and heatwaves. Council expanded its program with the launch of the Climate Wise Communities digital platform in 2017/18, to complement the program's face to face workshops. The Ready Check online tool enables residents to assess their vulnerability and take action to strengthen their personal, property and neighbourhood resilience to extreme weather events.

- **3D modelling for bush fire preparation**

Ku-ring-gai is the first council in Australia to acquire a Simtable, which gives visually accurate 3D projections of how bush fires start and spread calculated on wind speed, terrain and temperature among other factors.

The American-made Simtable was purchased by Council through an Increasing Resilience to Climate Change grant from Local Government NSW (LGNSW) and the NSW Department of Environment, Energy and Science and has been utilised by Council as part of its Get Ready Ku-ring-gai campaign which aims to educate people about how bush fires can start and spread – and how quickly.

The Simtable proved a highly successful tool for use in local government, particularly in terms of community engagement. LGNSW selected the project as a showcase to other councils and includes a video that Council is now able to use to promote the Simtable and the Climate Wise Communities (CWC) workshops to the Ku-ring-gai community. Results of the project show that the number of workshop participants writing bush fire survival plans using the CWC website has increased from an estimated 20% to over 60%, indicating the value of combining Council's new demonstration Simtable with CWC during bush fire workshops.

Resilience NSW engaged Council in 2020/21 to assist other communities badly impacted by recent fires and floods by assisting these communities to develop Community Resilience Plans to enable them better manage future extreme weather events.

Waste and recycling management

- **New waste strategy and contract**

A new waste strategy was exhibited and adopted in April 2020. This followed earlier consultation with a cross section of residents to assist in determining how waste services can best be delivered in Ku-ring-gai in the future. Key factors addressed included services to meet the demands of increasing multi-unit residential living, more extreme weather conditions, the need for increased bush fire preparation and changing population demographics. Uncertainty over the future of kerbside waste recycling was also considered due to the significantly reduced overseas markets for recycling.

Implementation of the Waste Strategy commenced in September 2021 alongside a new waste contract. Additional recycling services and increased recovery of green waste has been included. Community waste education has continued for both the new services and existing recycling messages.

- **New waste processing initiative**

During the reporting period waste processing commenced at Woodlawn eco-precinct at Tarago, NSW, resulting in a further 3,000 tonnes of waste destined for landfill sorted to remove organics for compost and used for mine site rehabilitation. Woodlawn eco-precinct showcases innovative ideas on sustainability including a bioreactor; aquaculture, agriculture and horticulture areas; a mechanical and biological treatment facility and a windfarm.

- **Container recycling**

Council supported the NSW Government's Return and Earn container recycling scheme. Under the scheme consumers can return eligible containers to collection points and receive a 10c payment for each container deposited. The Ku-ring-gai LGA has both over-the-counter collection points and planned container recycling facilities.

Emergency risk management

- **Floodplain risk management**

Council continued to manage risk with the development of documents that identify and assess a range of potential flood management options and provide recommended future management actions. This included:

- The Blackbutt Creek Floodplain Risk Management Study and Plan was completed and adopted by Council in 2017/18. They represent the second stage of the flood risk management process for the Blackbutt Creek catchment and build on the results of the 2014 Blackbutt Creek Flood Study.
- The Lovers Jump Creek Floodplain Risk Management Study and Plan was completed and adopted by Council in 2018/19.
- Middle Harbour-Southern Catchments flood study commenced following a successful grant funding application by Council in 2019/20.

- **Bush fire management**

Ku-ring-gai's planning for areas of high bush fire evacuation risk was approved by the NSW Department of Planning & Environment during 2017/18. Thirteen areas considered to be of high bush fire evacuation risk are now covered by planning controls in the Ku-ring-gai Local Environmental Plan (LEP) 2015, including large areas of North and South Turramurra, Killara, Wahroonga and St Ives. These areas were identified during the preparation of Council's 2015 LEP, but were deferred from being included in the plan because of their risk profile and the need for further consultation with residents and other stakeholders such as the Rural Fire Service and NSW Police.

Council was successful in receiving funding through the NSW Rural Fire Service Bushfire Risk Mitigation and Resilience - Fire Access Fire Trail (FAFT) funding program of \$1.3 million to upgrade the strategic Grosvenor – Gwydir fire trail network (6.5km). Works commenced in May 2021 with an expected completion date of November 2021. The fire trail provides a strategic advantage in mitigating the impacts of bush fires on the residential developments in North Wahroonga and North Turramurra.

Corporate sustainability

- **Greenhouse gas emissions**

Council has reduced its own Greenhouse Gas (GHG) emissions by 40% relative to the 2000 baseline. The reduction was achieved through a number of measures including the procurement of 30% of Council's renewable energy from the Moree Solar Farm; continuing implementation of energy efficiency measures for Council buildings; energy efficiency improvements to street lighting; Council facilities powered down during COVID-19 shutdowns and measures to reduce emissions from Council's vehicle fleet.

- **New electric vehicle fleet**

Council introduced three electric vehicles to its fleet in 2019/20. The electric vehicles have replaced petrol driven vehicles as part of a long-term plan that could see the majority of Council's fleet powered by electricity sourced from renewable energy.

- **Launch of Net Zero Communities program**

This umbrella program, launched in 2021, encourages and supports the progress towards net zero 2040 for Council operations and the community, and has assisted the integration of sustainability principles across Council's departments.

Successful community consultation was undertaken for the launch of the program. This incorporated an in-person community workshop, an online community workshop, and focus group workshops for Culturally and Linguistically Diverse communities, strata/independent living communities, school leaders and local businesses.

The community consultation was completed by 600 residents. Council also enrolled in the PEERS 3 electricity tender and provided input to Southern Sydney Regional Organisation of Councils on Council's energy procurement objectives, including the aim of sourcing 100% renewable energy.

The program has commenced with 411 members of the community subscribing.

- **Sustainability is integrated into Council's business framework**

Council's Corporate Sustainability Action Plan (CSAP) continued to be progressed during the period with business units across the organisation being engaged in sustainability actions. Council's Single-Use Plastic Policy and Sustainable Event Management Policy has been integrated across Council, although some momentum was lost due to Covid-19 restrictions. Council Environment and Sustainability staff continued to work on strategies and plans that advance sustainability and environmental management whilst also working to improve and enhance the programs run by Council which engage community members on sustainability matters.

Council Response to natural disasters and COVID-19

Council staff played a vital role in responding quickly to the challenges presented by the natural disasters and COVID-19 pandemic. This included:

- activating emergency management plans in conjunction with emergency service agencies
- coordinating frontline emergency works for damage to Council lands, facilities and roads
- working with volunteers and community organisations to assist local residents and businesses
- accessing recovery funding initially for storm damage, followed by COVID-19
- assisting residents without power by offering free recharging and computer use at libraries, free hot showers at St Ives Showground and electrical and wood fire BBQs at parks and playgrounds
- providing additional free green-waste collection for storm affected residents
- accessing funding to help meet the clean-up effort on public land and repair damage to community facilities and infrastructure under the Disaster Recovery Funding Arrangement.
- keeping the Ku-ring-gai community well informed about changes to service delivery, assistance available and where further information could be found
- activating Council's own Crisis Management Team
- implementing public health and planning orders
- ensuring that essential services were maintained and vital community services were continued to assist community wellbeing
- ensuring the safety and wellbeing of the community, businesses and staff, and
- implementing Federal and NSW government public health orders and legislative changes to assist this.

Local Character Background Study

A Local Character Background Study was publicly exhibited in March to April 2021. Following consideration of submissions, a final Study was adopted by Council on 15 June 2021. The Local Character Background Study will inform future projects such as the Urban Forest Strategy and the Green Grid Strategy.



Bannockburn Oval, Pymble, community planting day 2020

Local Strategic Planning Statement

One of the roles of the Local Strategic Planning Statement (LSPS) is to draw together, in one document, the priorities and actions for future land use planning from Council's existing land use plans and policies, and to present an overall land use vision for Ku-ring-gai.

Council's Community Strategic Plan – Our Ku-ring-gai 2038, remains the overarching policy document for Ku-ring-gai, to be utilised as the basis for Council's decisions, resource allocation and activity over the next 10–20 years. The LSPS, which contains the next level of detail for land use planning in Ku-ring-gai, will both inform, and be informed, by the Community Strategic Plan.

Environmental priority areas

The LSPS identifies a number of locally specific environmental matters which have been identified as priorities for the future land use planning of the Ku-ring-gai area.

The local environmental priority areas are:

- Open Space Network
- Bushland and Biodiversity
- Urban Forest
- Green Grid
- Water Sensitive City
- Energy and Greenhouse Gas Emissions
- Climate Resilience and Adaptation to the Impacts of Urban and Natural Hazards
- Waste.

For each local environmental priority area the LSPS identifies proposed short, medium and longer term actions that will address identified issues and needs.

Priority areas and actions

Priority – Open space network

K27: Ensuring the provision of sufficient open space to meet the need of a growing and changing community

Description

The Ku-ring-gai local government area has 3,356 hectares of open space, including the following:

- 1,747 hectares of bushland within three local national parks
- 1,151 hectares of natural areas
- 98 hectares of parks and gardens
- 116 hectares of sportsgrounds
- 68 hectares of Council owned golf courses; and
- 176 hectares of drainage reserve.

Council response

Significant progress has been made since 2010 in terms of creating new parks with Council just over halfway through the delivery program set out in the Ku-ring-gai Contributions Plan 2010.

Over the medium term Council is planning to review its current position, including changes that have taken place in relation to population growth, acquisitions and policy settings and prepare a revised Open Space Strategy. That strategy will provide the overarching framework and strategic direction for public open space planning in Ku-ring-gai for the next 15-20 years.

The Strategy will include consideration of the forecast population change and provide the strategic basis for amendments to Council's development contribution plans to fund ongoing land acquisition and upgrades to existing open space areas. Supporting the Strategy will be technical research, definitions, analysis and recommendations including consideration of standards for provision of open space; assessment of the quantity and distribution of open space; and key drivers for open space planning in the future. Detailed analysis of areas and precincts with identified gaps in open space provision will also be undertaken to identify potential locations for new parks. The Strategy will also integrate planning for future open space and recreation needs with Council's existing state government policies and council policies including the Open Space Acquisition Strategy, Recreation in Natural Areas Strategy, Playground Strategy, and Ku-ring-gai Bicycle Plan among others.

Proposed LSPS Actions

- Prepare a revised Open Space Strategy that will provide the overarching framework and strategic direction for public open space planning in Ku-ring-gai for the next 15-20 years. This strategy will be integrated with sport and recreation needs studies (refer K17 - K20 of the LSPS) (medium term).
- Undertake detailed analysis of areas and precincts with identified gaps in open space provision for potential locations for new parks (short term).
- Integrate the new Open Space Strategy with current state government and council policies (medium term).
- Increase proportion of homes in urban areas within 10min walk of quality green, open and public open space by 10% within 10 years (long term).

Achievements

Work has progressed on an analysis of areas and precincts with identified gaps in open space provision.

Priorities – Bushland and biodiversity

K28: Improving the condition of Ku-ring-gai's bushland and protecting native terrestrial and aquatic flora and fauna and their habitats

K29: Enhancing the biodiversity values and ecosystem function services of Ku-ring-gai's natural assets

Description

The Ku-ring-gai Local Government Area (LGA) contains significant bushland and a unique combination of soils, topography, vegetation and fauna habitats which support high biodiversity. The unique vegetation provides critical habitat for many species with highly restricted distributions. Many threatened plants, mammals, birds, reptiles, amphibians and invertebrates have been recorded within the LGA and the adjoining national parks. A number of significant vegetation associations are also present in the area, including many that are commensurate with threat-listed ecological communities under the *NSW Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*. Ku-ring-gai also contains a nationally significant camp of Grey-Headed Flying-Fox.

Council response

The biodiversity value of Ku-ring-gai includes both biotic and abiotic components, ecological communities, seedbanks and soils, animals, plants, their habitat and interactions on both private and public land. To prevent a decline in biodiversity, Council will continue to strengthen its local planning controls and seek strategic alignment with NSW government initiatives and guidelines. Management of bushland will be guided by the Natural Areas Plan of Management currently in draft stage, which will replace the Bushland Plan of Management.

Additionally, specific site management plans guide the conservation management in complex or significant sites throughout the LGA. Council seek to ensure no net loss is achieved within the LGA via strengthening planning documents and operating under the mitigation hierarchy of avoid, minimise and mitigate, with residual impacts offset in accordance with the NSW Biodiversity Assessment Methodology or the Ku-ring-gai Biodiversity Offsetting Code of Practice (for Council works).

A large component of biodiversity management will be addressed through the Urban Forest Policy and Strategy and the improvement to Ku-ring-gai's Green Grid network, which are addressed in the Urban Forest (Planning Priorities K30 and K31), Green Grid (Planning Priorities K32, K33 and K34) and Water Sensitive City (Planning Priorities K35, K36 and K37).

Proposed LSPS Actions

- Develop and implement the Natural Areas Plan of Management (short term).
- Review and implement the Biodiversity Policy (short-medium term).
- Review and implement the Fauna Management Policy (short-medium term).
- Undertake further investigation and implementation of biodiversity corridor improvements including Urban Forest replenishment, habitat creation and fauna road crossing priority projects (short-medium term).
- Review biodiversity provisions within Council's LEP and DCP to address legislative changes and consider controls relating to no net loss of significant vegetation or habitat (short term).
- Review Greenweb mapping (within Council's DCP) and lands identified as 'Biodiversity' on the Terrestrial Biodiversity Map (within the LEP), to reflect changes to legislation, land use, vegetation and results of biodiversity corridors and fauna road crossing investigations (short term).

Achievements

- Our new Natural Areas Plan of Management has been completed and is awaiting final government approval. The Plan identifies and recognises the significant biodiversity values of our natural areas and identifies the key issues affecting these lands and sets out how the land is to be used, managed, and maintained for the long term.
- Adoption of our new Bushfire Management Policy
- Bush restoration activities are undertaken in 38 priority bushland reserves, covering over 60 hectares each year
- 2 new BioBanking sites totalling over 214 Ha have been created including Sheldon Forest, Rofe Park, Comenarra Creek Reserve, Clive Evatt Reserve, Blackbutt Park, Sir David Martin Reserve and The Glade Reserve
- 915 environmental volunteers dedicating 23,998 volunteer hours per year to activities that benefit the environment
- 105 dumping and encroachment issues resolved, and 36 bushland reserves proactively monitored (36.3 linear kilometres)
- Over 2,400 trees planted annually at National Tree Day by 120 volunteers
- The completion of 8 kilometres of major fire trail upgrades
- Greater understanding of flora and fauna species distribution and abundance to inform environmental and development assessments through fauna monitoring program:
- Grey-headed Flying Fox counts, noise monitoring and extent mapping are conducted monthly and provide a long-term indication of the population trends in the Kur-ring-gai Flying-fox Reserve. Additionally, count data is also used to inform the National Flying-fox Monitoring Program
- Eastern Pygmy Possum monitoring, in collaboration with community volunteers, where 38 nest boxes are monitored quarterly, providing data on abundance and distribution
- Microbats monitoring, where 62 sites around the Ku-ring-gai LGA are surveyed for microbats, providing insights into abundance, assemblage and distribution.
- Large reserve based fauna surveys. The most recent was a fauna survey in Sheldon Forest and Rofe Park, which will contribute to the development of a monitoring program to better understand the impacts to fauna associated with fire.
- Mapping has been improved following the acquisition of canopy mapping in 2019. This will be further refined through the Urban Forest Strategy currently being developed.
- The local controls include the objective of no-net-loss. LEP and DCP controls are regularly refined to better allow for the effective management of biodiversity objectives.
- The Biodiversity Policy has been reviewed and gone through Public Exhibition. Final changes will be made and presented to Council for adoption in the first quarter of 2022.
- Fauna Management Policy (2021) adopted.

Challenges

- Knowledge gaps related to site specific and species specific distribution, abundance, conservation requirements.
- Constantly changing legislative environment and ongoing urban development
- Unknown impacts associated with climate change.

Priorities – Urban forest

K30: Improving the quality and diversity of Ku-ring-gai's urban forest

K31: Increasing, managing and protecting Ku-ring-gai's urban tree canopy

Description

Ku-ring-gai's urban forest comprises of all trees, other vegetation and the soil and water that support these. It includes the network of vegetation within both public and private ownership, encompassing the spectrum of vegetation growing within:

- natural soils that exist independent of human involvement
- altered soils, including gardens, bioretention basins, raingardens; and
- engineered structures such as tree cells/vaults, vertical and roof top gardens.

Like many cities around the world, Ku-ring-gai recognises our urban forest as a significant asset that is a fundamental part of a liveable, economically and ecologically sound community. Unlike traditional infrastructure such as roads and stormwater systems, a well-managed urban forest accrues value and provides a greater variety of benefits including:

- increased public and private amenity
- contribution to areas current and desired future character
- enabling reduction of energy consumption
- increased land and property values
- increased social and health wellbeing
- recreational opportunities
- provision of shade and reduction of Urban Heat Island Effects
- reduced air pollution
- carbon sequestration
- provision and support of biodiversity; and
- increased ground water infiltration (improving drought tolerance and reducing storm water runoff).

Council response

To support Ku-ring-gai's transition to urban forest management, Council is developing an Urban Forest Policy and Strategy. Through these documents Council seeks to:

- improve the quality and diversity of Ku-ring-gai's urban forest; and
- increase, manage and protect Ku-ring-gai's urban tree canopy (as supported by the Greater Sydney Region Plan (Objective 30) and North District Plan (Planning Priority N19)).

Proposed LSPS Actions

- Implement the Urban Forest Replenishment Program (ongoing).
- Develop and commence implementation of an Urban Forest Policy and develop an Urban Forest Strategy, which set canopy coverage targets for the LGA (short term).
- Investigate creation and implementation of an Urban Forest Monitoring Program (short term).
- Investigate the review of landscape and street tree planting strategies and guidelines. Including Council's current Street Tree Master Plan to inform species selection and composition (medium term).

- Investigate the creation and maintenance of a public land and street tree inventory to improve Council programs and identify new opportunities (medium term).
- Investigate and refine LEP and DCP controls to support Council to meet its Canopy and Urban Forest targets set within the Urban Forest Strategy, including canopy protection, planting and deep soil requirements, and provision of shade (short term).
- Review DCP Tree and Vegetation Preservation provisions and associated Council guidelines to align with State Environmental Planning Policy - Vegetation in Non-Rural Areas, 2017 (short term).
- Investigate options for increasing pervious surfaces within sites and green infrastructure (roofs, walls and WSUD) to be included within built infrastructure (including buildings), and guidelines and LEP and DCP provisions (medium term).
- Support enhancements to the Urban Forest (including canopy cover) through public domain planting (ongoing).
- Collaborate with other agencies to build and strengthen partnerships (ongoing).
- Advocate for Basix to be updated and strengthened to incorporate green infrastructure (ongoing).
- Support priority actions in the Biodiversity Policy (ongoing).

Achievements

- Canopy mapping was acquired in 2019 and establishes the baseline for the Urban Forest Strategy
- A new Urban Forest Policy was adopted in 2019
- A new Urban Forest Strategy was commenced.

Challenges

- It will be important for Council to ensure that future urban forest management address limitations imposed by the LGA's existing canopy cover, bush fire prone nature and future planned development
- Ongoing development and pressures on the urban forest related to increased population
- Potential impacts of climate change on the urban forest.

Priorities – Green grid

K32: Protecting and improving Green Grid connections

K33: Providing a network of walking and cycling links for leisure and recreation

K34: Improving connections with natural areas including river and creek corridors, bushland reserves and National Parks

Description

Ku-ring-gai's liveability and sustainability rely on maintaining, managing and planning for green infrastructure. Green infrastructure is the network of green spaces and water systems within both public and private ownership, that deliver multiple environmental, economic and social values and benefits to urban communities. It extends beyond physical vegetative structures (such as the urban forest) and includes natural and semi-natural systems as well as the management and integration of various components of urban environments Greener Places (the draft green infrastructure policy by Government Architect New South Wales 2017) and the Greater Sydney Region Plan and North District Plan highlight the importance of planning for, protecting, creating and maintaining green infrastructure within Greater Sydney. This planning framework has sought to protect and improve Sydney's network of water related systems (our Hydrological Grid), biodiversity and urban forest (our Ecological Grid) and passive and active recreation and transport (our Recreational Grid).

Council response

To inform assessment, prioritisation and implementation of these Sydney Green Grid and Local Green Grid connections, Council will investigate the creation of a Green Grid Strategy. This Strategy will consider bikeways, pedestrian facilities, walking tracks, fire trails and footpath network improvements having regard for the access, transport, health and recreational needs of the community. The Strategy will include an analysis of opportunities, constraints and required actions, regarding implementation of the Sydney Green Grid, including a number of specific projects identified in the Sydney Green Grid and LSPS.

These Green Grid connections have sought to address connectivity shortcomings, identified within the Ku-ring-gai Biodiversity and Riparian Lands Study.

Proposed LSPS Actions

- Investigate and deliver the Sydney Green Grid and Ku-ring-gai Local Green Grid, including collaboration with other agencies, councils and private landholders (medium term).
- Investigate the creation of a Green Grid Strategy that:
 - Refines Sydney Green Grid and Ku-ring-gai Local Green Grid opportunities, constraints and required actions.
 - Identifies walking and cycling routes from connecting Local Centres with nearby parks and natural areas, walking track connections from the St Ives Precinct with existing national park walking trails, including improved biodiversity connections and green infrastructure (medium term).
- Update the Ku-ring-gai Bicycle Plan to include outcomes from the Green Grid Strategy (medium term).

Achievements

- Much of the work related to the Green Grid will be supported by the urban forest and canopy mapping projects.

Challenges

- Refine the Sydney Green Grid and Ku-ring-gai Local Green Grid opportunities, constraints and required actions.
- Identify walking and cycling routes from connecting local centres with nearby parks and natural areas.
- Update and integration of the Ku-ring-gai Bicycle Plan to include outcomes from the Green Grid Strategy.

Priorities – Water sensitive city

K35: Protecting and improving the health of waterways and riparian areas

K36: Enhancing the liveability of Ku-ring-gai's urban environment through integrated water infrastructure and landscaping solutions

K37: Enabling water resource recovery through the capture, storage and reuse of water; alternative water supplies; and increased water efficiency

Description

Ku-ring-gai Council is located to the north of Sydney's CBD and is best known for its natural beauty and urban villages dominated by green leafy streets with large residential blocks. Environmental values and water management are important to the community, and Council has a history of prioritising and investing in environmental issues and water sensitive urban design assets to protect high quality waterways.

A water sensitive city is one that takes an integrated approach to urban water management. In practice, this requires a holistic view of both the challenges and solutions related to urban water. It is a city that understands the complex and inter-related nature of the urban water cycle and seeks to deliver a more sustainable, liveable and prosperous city through smarter water management¹⁰.

Council response

Interventions will focus on water sensitive approaches to strategic land use planning and urban design:

- the restoration of ecosystems
- the use of alternative water sources for effective irrigation of public open spaces to support public amenity and urban cooling and improvements in the resilience of local infrastructure
- connecting people to local waterways and the celebration of cultural heritage as it relates to water
- the engagement of Aboriginal leaders in the planning, design and implementation of actions designed to activate waterways and their surrounds
- an increase in green infrastructure on public and private land
- planning and developing high performing net zero energy, water and waste buildings; and,
- the retainment of water in the landscape through permeable surfaces and an irrigated tree canopy.

¹⁰ CRC Water Sensitive Cities, 2021. What is a water sensitive city? Accessed at <https://watersensitivecities.org.au/what-is-a-water-sensitive-city/>

Proposed LSPS Actions

- Develop and implement a Water Sensitive City Strategy (short term).
- Utilise the Water Sensitive City Strategy to inform future LEP and DCP controls (short term).
- Prepare design guidelines for best practice urban water management (medium term).
- Participate in regional and national urban water management collaborations and research opportunities to inform future LEP/DCP controls and guidelines (ongoing).
- Review Riparian Lands Mapping to inform improvements to LEP/DCP riparian controls (short term).

Achievements

- In June 2021 Council adopted a Water Sensitive Cities Strategy that will guide Council and the community to improve water management for the benefit of the environment, public amenity, and a changing climate.
- The strategy will build greater knowledge and ownership in the community about the role of water in a modern water sensitive city. It will also support new projects and best practice design, management, and maintenance of infrastructure.
- 5,683 tonnes of rubbish have been diverted from our waterways (by our Water Sensitive Urban Design (WSUD) devices, Gross Pollutant Traps (GPTs) and street sweeping).
- \$51,800 in community rebates for 80 rainwater tanks with 369,000L of capacity.
- 356,142kL of water has been reused or recycled (from our stormwater harvesting, leachate reuse and sewer mining systems).
- On average 91% of our total irrigation demand (across our reuse and recycling sites) is being met by reused or recycled water.
- Constructed nine biofilter gardens and one stormwater quality improvement devices.
- Completed five creek restoration projects.

Challenges

- A 'water sensitive city' is an idealised end state and is not 100% achievable, as by its very nature a water sensitive city should always be trying to deliver better outcomes for the environment and its citizens.

Priority – Energy and greenhouse gas emissions

K38: Reducing greenhouse gas emissions by Council and the Ku-ring-gai community to achieve net zero emissions by 2045 or earlier

Description

Climate change ranks amongst the most pressing issues facing our world and the way we live and addressing climate change is a top management priority for Council. It requires action and innovation from community, business and all levels of government. The warming of our climate system is unequivocal and since the 1950s many of the observed changes are unprecedented. Anthropogenic greenhouse gas (GHG) emissions are rising and are the dominant cause of warming, particularly from the burning of fossil fuels such as coal, oil and gas, for energy use. The impacts of climate change are accompanied by far-ranging economic, environmental and social costs that will increase over time with higher levels of warming. The rate of increase in GHG emissions is proportionate to the rate of increase in the risk of climate related impacts; the higher the concentration of GHGs in the atmosphere the greater the likelihood and magnitude of impact. Council has a responsibility to the Ku-ring-gai community to undertake activities that:

- effectively reduce the degree of climate change that occurs (through mitigation); and
- reduce the vulnerability, and increase the resilience, of the built and natural environment, the community and the economy to the risks of climate change (through adaptation).

Council response

A report by Kinesis prepared for the Greater Sydney Commission, provides technical evidence on how land use, transport and infrastructure planning can help reduce greenhouse gas emissions to support the NSW Government's aspirational long-term objective of achieving net-zero emissions by 2050. The study highlights the impact of future housing distribution on Greater Sydney's greenhouse gas emissions and demonstrates the importance of place-based emission saving interventions in enabling Greater Sydney to support the NSW Government's aspirational long-term objective of achieving net zero emissions by 2050.

Ku-ring-gai Council has set more ambitious targets which were adopted through the Climate Change Policy 2020. These targets are:

- Net zero emissions by 2040, or earlier, and a 50% reduction, by 2030.
- Achieve 100% renewable energy by 2030, whilst pursuing efforts to reach this target by 2025.
- 100% reduction in fleet emissions by 2040.

In addition, Council established a goal to support the Ku-ring-gai community reach net zero emissions by 2040, or earlier.

Proposed LSPS Actions

- Develop and implement Council's revised Climate Change Policy and Towards Net Zero Emissions Plan 2020-2030 (short term).
- Revise Council's 2030 GHG emissions reduction target and net zero emissions reduction target (short term).
- Develop community greenhouse gas reduction targets and design interventions that enable a continued reduction in community energy use and greenhouse gas emissions in line with these targets (short term).
- Seek to include new clauses in the LEP to reinforce the DCP requirements for green non-residential, mixed-use and large scale residential flat buildings, and to support the use of sustainable materials, finishes and landscape features across all high density built forms (short term).
- Seek to include and incentivise Design Excellence Mechanisms in the LEP and DCP to deliver sustainable dwellings, mixed use and non-residential buildings (short term).
- Facilitate the uptake of electric vehicles, car sharing, carpooling and cycling through provisions in the LEP/DCP and Public Domain Plan (short term).
- Integrate sustainability measures, incorporating minimum performance standards, into Council's asset management program (ongoing).
- Continue to review Council's and the community's greenhouse gas emission reduction targets and trajectories, emissions budget and climate change mitigation activities based on the latest climate science and modelling (ongoing).

Achievements

- Achieved 40% lower Council greenhouse gas emissions than the 2000 baseline.
- Launched Ku-ring-gai's Net Zero Communities program to accelerate progress towards net zero by 2040 or earlier.

Challenges

Local government, including Ku-ring-gai Council, will have an important advocacy role to play if Ku-ring-gai is to meet its GHG emission reduction targets, as many of the interventions on the pathway to net zero emissions are influenced by other levels of government. For example, higher BASIX targets and progressive improvements to the emissions intensity of the electricity grid beyond the existing Renewable Energy Target can play a significant role in delivering low emissions electricity to Greater Sydney and Ku-ring-gai.

Priorities – Climate resilience and adaptation to the impacts of urban and natural hazards

K39: Reducing the vulnerability, and increasing resilience, to the impacts of climate change on Council, the community and the natural and built environment

K40: Increasing urban tree canopy and water in the landscape to mitigate the urban heat island effect and create greener, cooler places

K43: Mitigating the impacts of urban and natural hazards

Description

Recent climate-related extremes, such as heat waves, droughts, floods and bush fire, reveal that some ecosystems and many human systems are significantly exposed and vulnerable to current climate variability. The impacts of such events include altered ecosystems and terrestrial and freshwater species risk, disrupted food production and critical services, including power and water supply, damage to infrastructure and settlements and escalating costs of disaster recovery, and negative mental health and human wellbeing consequences, including morbidity and mortality. The impact of rapidly warming conditions on biodiversity is a common problem for land managers across the world. Conserving biodiversity is critical for the health and wellbeing of a community, with carbon storage, forage production, enhanced water supply and quality, pollinator support and outdoor recreation as just a few of the ecosystem services that may be impacted with a decline in biodiversity.

Council response

Council will continue to implement and review the Climate Change Adaptation Strategy. Further interventions to address climate change resilience and to maintain and improve Ku-ring-gai's liveability are incorporated within Urban Forest Planning Priorities K30 and K31, Green Grid Planning Priorities K32, K33 and K34, Water Sensitive City Planning Priorities K35, K36, and K37 and Energy and Greenhouse Gas Emissions Planning Priority K38.

Proposed LSPS Actions

- Review and implement a revised Climate Change Adaptation Strategy (medium term).
- Integrate climate resilience measures, incorporating minimum performance standards, into Council's asset management program (ongoing).
- Complete flood studies and flood risk management plans for all catchments within the LGA (ongoing).
- Investigate, and where appropriate implement, priority management actions identified within flood risk management studies (ongoing).
- Include flood mapping and flood planning controls in the LEP and DCP (short term).
- Investigate the inclusions of urban heat provisions in LEP and DCP (short term).
- Investigate design guidelines for best practice urban heat management (including appropriate materials and surface treatments and urban cooling mechanisms (medium term).

- Collaborate with other agencies to build and strengthen partnerships and advocate for BASIX to be updated and strengthened to incorporate urban heat and green infrastructure (ongoing).
- Update the Ku-ring-gai Bush Fire Prone Land Mapping - reviewed every five years from 2017 (ongoing).
- Review LEP and DCP planning controls related to bush fire and bush fire evacuation risk. To ensure alignment with current bush fire planning, continued best practice and feedback from consultation with the NSW Rural Fire Service (medium term).
- Avoid locating new development in areas exposed to natural and urban hazards and consider options to limit the intensification of development in existing urban areas most exposed to hazards' (ongoing).

Achievements

- Assisted 1,931 residents prepare for more extreme weather events through the Climate Wise Communities program, partnering with the SES, Red Cross, Police, Rural Fire Service and Department of Health.
- Completed the Lovers Jump Creek – Final Floodplain Risk Management Study and Plan
- Progressed the Middle Harbour Northern Catchments Flood Study and the Middle Harbour Southern Catchments Flood Study.
- Commenced the Lane Cove Northern Catchment Flood Study.

Challenges

- Climate change leading to increased intensity and frequency of weather events including bushfire and flooding.
- Vulnerable and CALD populations.

Priorities – Waste

K41: Reducing the generation of waste

K42: Managing waste outcomes that are safe, efficient, cost effective, maximise recycling, and that contribute to the built form and liveability of the community

Description

The North District Plan acknowledges the diminishing capacity for land filling in Greater Sydney. It identifies planning priorities, objectives and actions, focused on managing waste efficiently, highlighting the need for innovative solutions to reduce the volume of waste and reduce waste transport requirements, as well as protecting and identifying new locations for waste recycling and management. The need to reduce waste and minimise the amount of waste sent to landfill have taken on even greater importance as state and federal governments address the future of recycling in Australia, given the reduction in recycling materials that can be exported. There are no landfills or resource recovery facilities within the Ku-ring-gai area to manage waste and recycling locally. Ku-ring-gai currently sends the majority of its waste to Woodlawn Bioreactor Landfill, with kerbside greenwaste being sent to an organics processing facility.

Waste management in multi-unit developments is a major issue for Ku-ring-gai due to a range of waste-related problems that are more prevalent than in single dwellings. Recycling streams tend to be more highly contaminated than those in single dwellings. Council has also experienced issues with dumped waste and the size of bulky waste collections outside large unit blocks. Increases in the number of multi-unit developments will amplify these problems.

Council response

Similar to other environmental and sustainability priorities, the management of waste will require Council, residents and business working together to develop practical and sustainable responses to the issue. Council's Community Strategic Plan places a focus on improved waste reduction, reuse and recycling. Council also has two waste performance indicators in its Revised Delivery Program 2018-2022. These are:

- Kilograms of waste generated per resident.
- Percentage of household waste diverted from landfill.

Council has developed a Waste Management Strategy to guide future waste services and outcomes. The Waste Management Strategy is driven by the NSW Waste Avoidance and Resource Recovery Strategy 2014–2021, the Waste Management Hierarchy, Northern Sydney Regional Organisation of Councils' (NSROC) Regional Waste Strategy and Council's community's vision.

Proposed LSPS Actions

- Finalise and commence implementation of the Ku-ring-gai Council Waste Management Strategy (short term).
- Review the DCP waste management controls for multi-unit residential buildings to facilitate the reduction of the amount of waste going to landfill and to maximise re-use and recycling (short term).
- Investigate the inclusion of a Waste and Recycling clause within the Ku-ring-gai Local Environmental Plan (short term).

Challenges

- Core waste management services.
- Litter and illegal dumping management.
- Recovery of additional materials.
- Integrating expanding recovery options, the NSW container deposit scheme, soft plastics, food and organics, e-waste and metals.

Achievements

- 273 worm farms and 580 compost bins distributed, diverting 86 tonnes of waste from land fill.
- Development of a new Waste Management Strategy for Ku-ring-gai.

Appendices

1. Related policies, strategies and plans

Policy/ Action Plan	Adopted Date	Purpose
Biodiversity Policy	10/08/2016	A management framework for the protection and conservation of the Ku-ring-gai Local Government Area's biodiversity assets and values, in accordance with international, national and state agreements, legislation, policies and programs.
Bushfire Management Policy	1/07/2020	To guide the effective and sustainable management of bushfire risk within the Ku-ring-gai LGA.
Bushland Dumping and Encroachment Policy	21/10/2020	This Policy provides the management framework for Council to address dumping and encroachments on Council-managed bushland reserves in the Ku-ring-gai Local Government Area (LGA).
Climate Change Policy	29/07/2020	To reduce Council's greenhouse gas emissions to levels consistent with the international goal of limiting global heating to 1.5° C above pre-industrial levels, with no overshoot.
Community Engagement Policy	18/08/2021	Aims to encourage participation in engagement and help support meaningful conversations with our community and stakeholders.
Contaminated Land Policy	15/06/2016	This policy provides the framework for the integration of contaminated land management into the planning and development process, consistent with relevant key NSW legislation, policies and guidelines.
Covert Electronic Surveillance for Illegal Dumping Policy	30/10/2018	The purpose of this Policy is to ensure Council may legally conduct electronic surveillance operations using remote cameras for covert investigative surveillance across its local government area.
Fauna Management Policy	10/08/2016	To provide a framework for Council to manage native and invasive species within the Ku-ring-gai Local Government Area (LGA).
Flood Prone Land Policy	16/03/2021	Outlines the framework for the identification of properties subject to flooding on Planning Certificates under the provisions of Section 10.7 of the <i>Environmental Planning and Assessment Act 1979</i> , to enable appropriate consideration to be made during development activities.
Management of Community and Recreation Land and Facilities Policy	27/06/2018	Sets the requirements and expectations for use and management of community and recreation facilities, infrastructure and land owned by, or under the care, control and management of, Ku-ring-gai Council.
Planning Agreement Policy	20/11/2019	Provides an overview of the legislative requirements for negotiating planning agreements and the procedures which Council intends to follow in the negotiation of a planning agreement.
Single-use Plastic Policy	20/11/2019	To phase out single-use plastics in the Ku-ring-gai Local Government Area (LGA) through the elimination or reduction of single-use plastics in Council operations and in events run by Council and held on Council land, in Council facilities and in Council venues; advocating for legislative and policy change; and supporting responsible practices by the community and local businesses.

Policy/ Action Plan	Adopted Date	Purpose
Social Impact Assessment Policy	24/06/2015	to ensure that social impacts are effectively assessed as part of Council decision-making. It will support Council to deliver a social environment that is fair for all sectors of society and meets the needs of the present without compromising the ability of future generations to meet their needs.
Sustainable Event Management Policy	20/11/2019	This policy provides a framework for the integration of sustainability principles and practices into the planning, management, delivery and evaluation of events held in the Ku-ring-gai Local Government Area (LGA).
Towards Zero Emissions 2030 Action Plan	28/07/2020	Supports Council's Climate Change Policy in providing a mitigation response that describes how Council intends to meet its reduction targets.
Urban Forest Policy	19/02/2020	Provides guiding principles that establish a high-level framework for the management of Ku-ring-gai's Urban Forest.
Water Sensitive Cities Policy	10/08/2016	To adopt and implement the management principles of a Water Sensitive City by responding to the issues of water conservation and water security, flooding risks, degradation of urban waterways and rising temperatures in a way that enhances the liveability of Ku-ring-gai.
Weed Management Policy	25/07/2018	Establishes a framework for the management of weeds that will achieve the greatest outcomes in terms of preventing weeds from establishing, eradicating new weeds and minimising the impact of weeds where established.
Strategy	Adopted	Purpose
Community Facilities Strategy	December 2018	Provides a framework for an integrated, strategic approach to the planning and provision of community facilities; and proposes a network of facilities that collectively meet the needs of the Ku-ring-gai community into the future.
Green Grid Strategy (under preparation)	Planned for 2021/2022 financial year	The premise of Ku-ring-gai's Green Grid Strategy is to deliver Green Grid infrastructure utilising various mechanisms such as capital works funding, grants, and development contributions.
Heritage Strategy	August 2021	The purpose of this strategy is for Council to measure, plan and report on heritage management in Ku-ring-gai. It is an important role of local government to identify, manage and protect heritage places as required by legislation, and district and local strategic plans.
Integrated Transport Strategy	July 2011	Covers key issues in relation to all forms of public transport, walking, cycling, roads, traffic and parking.
Ku-ring-gai Community Strategic Plan 2038	June 2018	Reflects the vision and aspirations of the Ku-ring-gai community through long term objectives that address environmental, social, economic and civic leadership issues. It is informed by key local plans and policies and responds to government policy.
Ku-ring-gai Local Environmental Plan	April 2015	Outlines the development standards of Ku-ring-gai.
Ku-ring-gai Local Strategic Planning Statement	March 2020	Draws together the priorities and actions for future land use planning from Council's existing land use plans and policies, and to present an overall land use vision for Ku-ring-gai.
Recreation in Natural Areas Strategy	March 2020	Manage recreation in natural areas to ensure the protection of environmental, social and cultural values.

Strategy	Adopted	Purpose
Resourcing Strategy	June 2018	Details how the strategic aspirations of Ku-ring-gai can be achieved in terms of time, money, people, and assets and is designed to be a living document to reflect changing financial and asset information.
Urban Forest Strategy (under preparation)	Planned for 2021/2022 financial year	Outlines how Council manages and can improve our urban forest for current and future generations.
District Park Landscape Master Plans	November 2005	Landscape masterplans guide improvements and use, while acknowledging existing natural and cultural heritage of a particular site. Masterplans are prepared with community consultation from the initial design through to the completed plan. The plan is then adopted by Council to implement when funding becomes available. Typically masterplans identify priorities for improvements over a 10 to 15 year period.
Local Character Background Study	June 2021	The Study constitutes a valuable baseline and is intended to provide the basis for further research into local character in the future. It can be used as a reference source to guide similar and aligned studies in the future.
Water Sensitive City Strategy (under preparation)	Planned for 2021/2022 financial year	Developed to support the Water Policy by providing further details of management actions, targets, funding and monitoring and evaluation requirements.
Plan of Management (PoM)	Date Created	Purpose

***A review of all Council Plans of Management is currently being undertaken
The list below includes both current Plans of Management as well as replacement proposed or existing draft Plans of Management (as adopted by Council - Ordinary Meeting of Council 15/06/2021 GB17)***

Bicentennial Park Plan of Management	September 2011	To ensure Bicentennial Park will continue to be a multi-purpose sport, recreation conservation and leisure facility providing a wide range of activities for local and regional visitors in a designed parkland setting incorporating significant remnant forest vegetation.
Ku-ring-gai Bushland Reserves Plan of Management	November 2013	This provides a framework for Council's bushland reserves consistent with the principles of Ecological Sustainable Development. Adherence to these principles will ensure the ongoing viability of the bushlands' natural and cultural assets whilst providing recreational and educational opportunities.
Plan of Management Canoon Road Recreation Area	August 2017	Addresses issues both within and beyond the Recreation Area boundary and seeks to identify strategies that will provide effective solutions to the full range of issues including active and passive recreation, access, movement and parking.
Echo Point Park Plan of Management	June 2004	Provides clear management guidelines for protecting and interpreting the Park's natural and cultural heritage values. Furthermore, it recognises the Park's opportunities and constraints and caters for special needs as far as possible
Ku-ring-gai Flying-fox Reserve Plan of Management	June 2021	To meet the needs of a range of stakeholders whilst ensuring flying-fox conservation, welfare and protection.
Natural Areas Plan of Management (currently in draft form and intended to replace the Bushland Reserves Plan of Management)	Planned for 2021/2022 financial year	The purpose of this Plan is to describe the natural area reserve attributes and values, to provide a management framework and set performance targets for Council's reserves for a four-year period.

Plan of Management (PoM)	Date Created	Purpose
Plan of Management North Turrumurra Recreation Area	February 2009	Guides the management of the North Turrumurra Recreation Area over the next 15 years. It incorporates the core values of the community and regular users which are reflected in the vision and role for the land.
Generic Parks Plan of Management (currently in draft form and intended to replace the 2005 Parks Plan of Management)	Planned for 2021/2022 financial year	This document is a generic plan of management for Parks in Ku-ring-gai and outlines objectives for improving recreational, cultural, social and educational uses. It is also supported by site specific plans of management
Generic Plan of Management Parks	September 2005	This document is a generic plan of management for Parks in Ku-ring-gai and outlines objectives for improving recreational, cultural, social and educational uses. It is also supported by site specific plans of management.
St Ives Showground and Precinct Lands (SISPL) (currently in draft form and intended to replace the 2015 St Ives Showground and Precinct Lands Plan of Management)	Planned for 2021/2022 financial year	This update has been developed following extensive community consultation and considers the changes to the environment, legislation, and stakeholder consultation.
Swain Gardens Plan of Management	September 1996	To ensure Swain Gardens is developed in a way which best serves its user group while recognising and preserving the identified heritage values of the Reserve.
The Firs Estate Cottage (within Roseville Park) Plan of Management	November 2013	To preserve the heritage significance of the Firs Estate Cottage and to provide a facility that meets the needs of the community and contributes to the character and heritage of the locality, while providing maximal opportunity to manage and use the facility.

2. Glossary and Acronyms

Aboriginal Heritage Office (AHO)	Ku-ring-gai Council is a member of the Aboriginal Heritage Office, which preserves and protects more than 1,000 Aboriginal heritage sites across Sydney's North Shore. Other councils involved are Lane Cove, North Sydney, Northern Beaches, Strathfield and Willoughby. The office is located in Freshwater.
ABS	Australian Bureau of Statistics.
Advocacy	Proactively communicating to support for a recommendation of a cause or policy.
APZ	Asset Protection Zone.
Asset management	Managing the ongoing maintenance of existing Council assets and development of new assets, to ensure they meet the community's needs and expectations now and into the future.
Best practice	A best practice is a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark.
Better Business Partnership (BBP)	BBP is a program designed to improve the sustainability of businesses located on Sydney's North Shore. Small to medium sized businesses can join the program for free to save money on energy, water and waste costs. The program is funded by Ku-ring-gai, North Sydney and Willoughby City councils. For information visit: www.betterbusinesspartnership.com.au
Biodiversity	The variety of all living things including plants, animals and microorganisms, their genes and the ecosystems of which they are a part.
Catchment	Area of land that drains rainfall into a river or lake.
CBD	Central business district.
CEEC	Cultural and Environmental Education Centre.
Community engagement	Refers to Council's consultative practices that enable communities and individuals to participate in the development of Ku-ring-gai and build community capacity. It supports and informs all Council's decision-making processes.
Community Strategic Plan (CSP)	The Ku-ring-gai Community Strategic Plan – Our Ku-ring-gai 2038 (adopted June 2018) identifies the community's main priorities and aspirations for the future and sets out clear strategic directions to achieve them over the long-term. While Council has the main role in progressing the plan on behalf of the community other partners such as government agencies, external organisations and community groups also play an important role in delivering the long term objectives of the plan.
Councillors	Elected representatives, who set strategic direction for the organisation, monitor organisational performance, liaise with stakeholders and ensure operational compliance.
COVID-19 pandemic	Coronavirus disease (COVID-19) is a highly contagious virus that was first confirmed in Australia in January 2020.
CRC	Cooperative Research Centre.
Crown land	Land managed by Council that is owned by State Government.
CSIRO	Commonwealth Scientific and Industrial Research Organisation.
CWC	Climate Wise Communities.
Delivery Program (DP)	The Delivery Program outlines what Council intends to do towards achieving the Community Strategic Plan's long term objectives and priorities during the four-year term of the elected Council. This includes identifying who is responsible for achieving objectives in the Community Strategic Plan. Some will be the responsibility of Council, some will be other levels of government and some will be community groups or individuals.

Demographic statistics including ERP	Demographic statistics in this report are taken from both the Australian Bureau of Statistics Census and National Institute of Economic and Industry Research for Ku-ring-gai and Greater Sydney. The statistics can be readily accessed through Council's website. ERP refers to the estimated resident population and is updated annually by the Australian Bureau of Statistics. The Census count is not the official population of an area. To provide a more accurate population figure which is updated more frequently than every five years, the Australian Bureau of Statistics also produces 'Estimated Resident Population' (ERP) numbers.
Development control plan (DCP)	Provides policy statements and more detail beyond the provisions contained in a Local Environmental Plan and serves to further guide development decisions across the local government area.
DPIE	Department of Planning, Industry and Environment.
Environmental Levy	Council's Environmental Levy funds approximately \$3 million worth of environmental works, projects and programs annually in biodiversity, bush fire, energy, water and catchments, sustainable transport, recreation in natural areas, sustainable living and environmental education. The Environmental Levy was made permanent on 1 July 2019.
GHG	Greenhouse Gas.
Governance	Governance comprises the traditions, institutions and processes that determine how power is exercised, how citizens are given a voice, and how decisions are made on issues of public concern.
Greater Sydney Commission	The Commission's role is to coordinate and align planning that will shape the future of Greater Sydney.
Guringai people	Refers to origination in a particular region or country, native to the area. The original inhabitants of the Ku-ring-gai area were the Guringai people. For thousands of years before the arrival of European settlers, the Guringai people lived in the area from Newcastle down to Sydney, mostly along the foreshores of the harbour. The Guringai people developed a rich and complex culture, including distinctive language, customs, spirituality and law, the heart of which was their connection to the land.
Heritage	Refers to the extensive aboriginal, natural, social and built history of the Ku-ring-gai area. It consists of those places and objects, including houses, public and commercial buildings, parks and monuments, that we as a community have inherited from the past and want to hand on to future generations. In a planning context, heritage refers to things in our built and natural environment that we want to preserve for future generations to enjoy.
HVAC	Heating, ventilation and air conditioning.
Independent Pricing and Regulatory Tribunal of NSW (IPART)	The tribunal sets the local government rate peg and assesses applications for special rate variations and council contributions plans.
Infrastructure	Roads, buildings, bridges, pavements, cycleways and other constructions.
Integrated planning and reporting (IP&R)	In 2009, the NSW Office of Local Government introduced the Integrated Planning and Reporting Framework. The framework introduced a hierarchy of plans which require: <ul style="list-style-type: none"> • long-term strategic planning with the community • long-term resourcing strategies for assets, finances and the workforce • four-year programs aligned to a council's term, detailing key actions, projects and resourcing • one-year plans of actions, projects and budget, and • a quarterly, biannual and annual performance reporting schedule.
KBA	Ku-ring-gai Bushcare Association.
KLEP	Ku-ring-gai Local Environmental Plan.
LGA	Local Government Area.

Local environmental plan (LEP)	An environmental planning instrument that contains legally binding provisions relating to development.
Long term objective (LTO)	Describes the desired future state or outcome for each issue. 'Long Term' implies that it is beyond a Council's term and in some instances beyond a second term as well. It recognises that it may take some time to achieve the objective.
LSPS	The Local Strategic Planning Statement came into effect in March 2020 and outlines Ku-ring-gai's economic, social and environmental land use needs for the next 20 years.
Loving Living Ku-ring-gai program	The Loving Living Ku-ring-gai Program is delivered by environmental experts and includes a range of community events, volunteering, rebates and engagement opportunities. The program empowers residents with the knowledge, learning and information to benefit the environment for future generations.
National Institute of Economic and Industry Research Pty Ltd (NIEIR)	National Institute of Economic and Industry Research Pty Ltd, is a private economic research and consulting group. It provides data on economic and social indicators for local government areas.
Net Zero Communities	Council's program to support local households, businesses, schools and community groups accelerate their adoption zero emissions solutions for energy, transport and waste – such as renewable energy/rooftop solar, electric vehicles, organic waste and materials recycling.
Northern Sydney Regional Organisation of Councils (NSROC)	Comprising the Councils of Hornsby, Hunter's Hill, Ku-ring-gai, Lane Cove, Mosman, North Sydney, City of Ryde and Willoughby.
NPWS	National Parks and Wildlife Service.
Office of Local Government (OLG)	The Office of Local Government is responsible for local government across NSW. The Office has a policy, legislative, investigative and program focus in matters ranging from local government finance, infrastructure, governance, performance, reporting, collaboration and community engagement. The Office strives to work collaboratively with the local government sector and is the key adviser to the NSW Government on local government matters.
Operational Plan (OP)	An annual plan that provides details of projects and activities for one year of the Delivery Program with a detailed annual budget.
Partnering/collaboration	A structured approach to working together with other parties to achieve a mutually beneficial outcome.
Performance indicator (PI)	A measure that assists in the assessment of overall performance towards the community's term achievements and long term objectives and also tell us whether we are heading in the right direction.
Performance reporting	The performance of Council against the delivery of the activities is measured through various mechanisms. Performance indicators represent a measure of the standard or outcome of an organisation's services or activities. Annual reporting of indicators are designed to encapsulate the performance and outcomes of Council. Quarterly reporting on the Operation Plan, bi-annual on the Delivery Program and quarterly budget reporting provides data on the financial position of Council in terms of its income and expenditure as well as the status of its adopted capital works program.
Plan of management (PoM)	A document which regulates the use and management of community land.
PPE	Personal Protective Equipment.
Principal activity	Key areas in which Council sets objectives, delivers tasks, projects, programs and services and utilises performance indicators in order to measure performance.
Projected population	Our current population of 127,603 (2020 ABS, ERP) was expected to reach over 151,800 by 2041 (2019, NSW Department Planning, Industry and Environment. The 2019 projections remain the government's common planning assumptions until they are updated in 2022). Due to the impacts of the COVID-19 pandemic there has been a rapid shift in some of the

	components of population change (migration, births and deaths) – particularly migration – which may mean that previous population projections no longer reflect our new demographic reality.
Quadruple bottom line (QBL)	The framework for measuring and reporting on the achievement of long term objectives in the Community Strategic Plan against governance, economic, social and environmental parameters.
REF	Review of Environmental Factors.
Resourcing Strategy	<p>The Resourcing Strategy details how the strategic aspirations of Ku-ring-gai can be achieved in terms of time, money, people and assets. The Resourcing Strategy spans ten years. Its component parts include:</p> <ul style="list-style-type: none"> • Long Term Financial Plan (LTFP) • Asset Management Strategy (AMS) • Workforce Management Strategy (WMS) <p>The Resourcing Strategy is the link between the long-term Community Strategic Plan and the medium-term Delivery Plan. It is prepared every four years following each Council election. It is developed concurrently with the other plans in the IP&R framework. The Resourcing Strategy is designed to be a living document to reflect changing financial and asset information. Initiatives within the Resourcing Strategy will be reviewed annually to ensure relevance in the changing environment and to incorporate any community feedback.</p>
RFS	Rural Fire Service.
SimTable	An innovative 3D simulation tool used in consultation sessions to show residents how bush fires can start and spread in their neighbourhood as well as other 3extreme weather events.
SRV	Special rate variation.
Stakeholder	Any individual or group having a particular interest in a project or action.
Sustainability	Sensitive use of natural resources without harming the ecological balance of the region.
Sustainable development	Development designed to meet the present needs whilst also taking into account future costs. These include environmental costs and the depletion of natural resources.
Term achievement (TA)	The four-year result that Council nominates as the achievement to be reached within its term. It also describes how far Council will progress each long term objective during its term.
TfNSW	Transport for NSW.
Theme	<p>A topic heading that groups issues, long term objectives and term achievements together. The six themes in the Community Strategic Plan are; 1: Community, people and culture; 2: Natural environment; 3: Places, spaces and infrastructure; 4: Access, traffic and transport; 5: Local economy and employment; 6: Leadership and governance.</p> <p>Together the six themes, containing issues, objectives and term achievements, represent a comprehensive view of Ku-ring-gai's future directions.</p>
Values (corporate)	Underlying attitudes that influence decisions and actions to maximise an organisation's performance.
Vision	Statement of direction that articulates the aspirations of the community and serves as a guide to all those who contribute to it. In 2008, the Ku-ring-gai community, with the help of Council, developed a vision and set of values to guide future community planning and directions for Ku-ring-gai, as part of the development of its first 20-year Community Strategic Plan. The original vision and values, as stated above, were retained in our third Community Strategic Plan Our Community – Our Ku-ring-gai 2038.
Ward	Ku-ring-gai covers the area from Roseville cinemas in the south to Wahroonga Park in the north and from St Ives Showground in the east to Lane Cove National Park in the west. This area is broken up into five wards, each represented by two councillors. Ward maps are available is here https://www.krg.nsw.gov.au/Council/Elected-Council/Wards



*Wildflower Garden, St Ives.
Photographer: Alex Mayes.*



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