
Community and Stakeholder Engagement Report

Public Exhibition of Draft Protect. Create. Live – Environment and Climate Change Strategy 2040 (Stage 2 of 3)

November 2019

Trim Ref: 2019/616258

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1. Summary

Project Title	Insert here
Impact Level	Level 1 – High, Northern Beaches
Stage(s)	2 of 3 stages
Report Period	April 2018 to November 2019
Version	1.0
Status	Final
Related Projects	<ul style="list-style-type: none"> • Towards 2040 LSPS • MOVE Transport Strategy • Shape 2028 CSP • Draft Urban Tree Canopy Plan 2019

This report outlines the community and stakeholder engagement conducted as part of the *Draft Protect. Create. Live – Environment and Climate Change Strategy 2040* (the Strategy) project. The public exhibition period documented is from 27 September 2019 to 10 November 2019.

The reports content reflects the insights of over 430 participating community members and stakeholders, including local business, local environmental groups and the general public.

All direct quotes in this report are from excerpts of engagement records and the individuals provided permission.

Note: Community and stakeholder views contained in this report do not necessarily reflect the views of the Northern Beaches Council or indicate a commitment to a particular course of action.

1.1. Engagement Approach

A documented engagement methodology is outlined in the *Draft Protect. Create. Live – Environment and Climate Change Strategy 2040* Engagement Strategy ([2017/276086](#)).

The engagement process gave consistent and accessible information across activities. Results provide responses across a spectrum of demographics, expertise, experience and understanding of our local government area.

1.2. Key Outcomes

1.2.1. Community Sentiment

The overall sentiment from the community provided in submissions and during face to face engagement was in support of the strategy. Of the 346 contributions made during public exhibition 299 were favour of the overall approach of the Strategy and/or the actions it will deliver into the future.

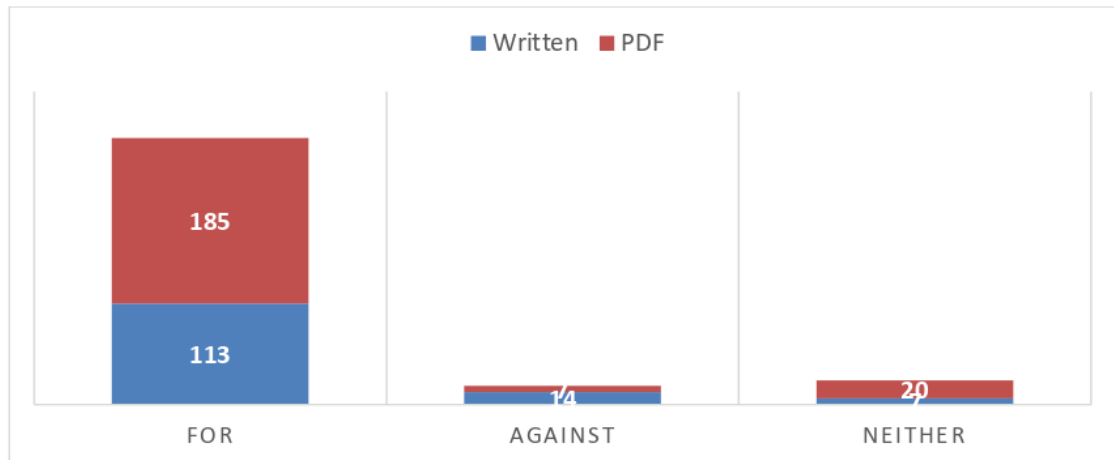


Figure 1. Showing the number of submissions which supported, were against the Strategy, or neither.

1.2.2. Key Themes

The key themes people expressed support for were:

- Bushland protection and wildlife corridors
- Action on climate change/climate change emergency
- Aboriginal heritage
- Waste and single use plastics
- Population growth
- Air quality and other urban hazards
- Greener neighbourhoods
- Public transport and active travel infrastructure

The majority of submissions included action level ideas or considerations, which support the direction of the Strategy.

1.2.3. Participation Snapshot

In total, over 430 people were engaged during the consultation period. Online submission respondents had the option to indicate their relationships to the Northern Beaches i.e. via postcode, age group and gender identity.

No demographic data was captured for respondents who contributed ideas through the interactive pdf on the Your Say project page.

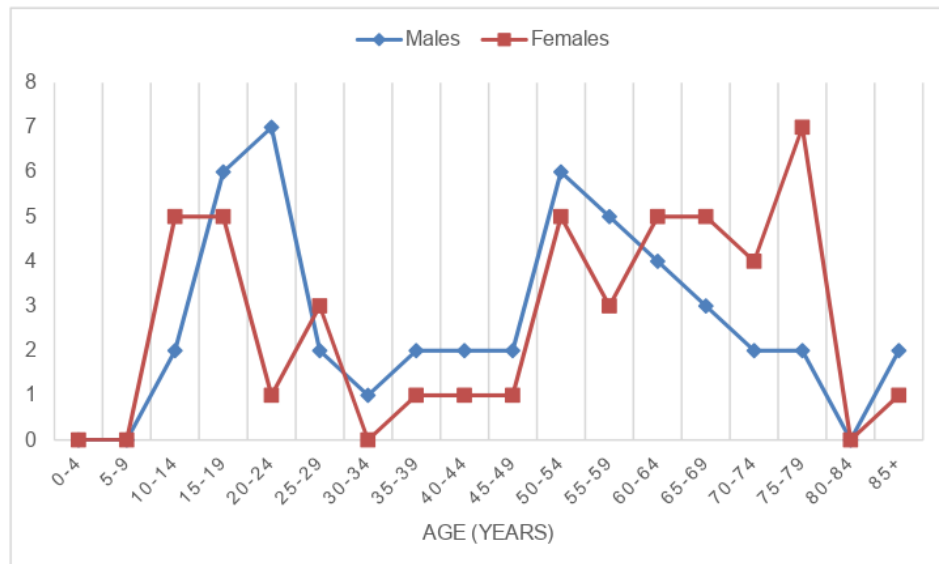


Figure 2: Engagement respondents age and gender profile (Source: Your Say project page comments form submissions only)

The Your Say page comments form data showed that the majority of respondents were Northern Beaches residents (98%).

There were over 30 respondents from the 25 or under age bracket, which is considered a good response from this age bracket, and the majority were between 45-80 years old.

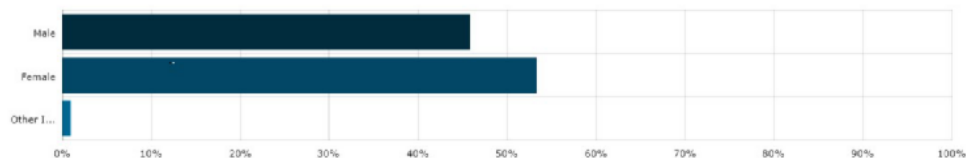


Figure 3. Gender of respondents who made comments via the form on the Your Say project page.

Overall, gender was evenly distributed, with slightly more females than males involved.

1.2.4. Acknowledgements

Thank you to the Northern Beaches community members and stakeholders across the local government area who shared their time, expertise, views and anecdotes.

We recognise this is one of many engagements that Northern Beaches community members and stakeholders have participated in. We also acknowledge the support of staff throughout the engagement period.

2. Background

This report outlines the community and stakeholder engagement conducted as part of public exhibition for the draft Protect. Create. Live – Northern Beaches Environment and Climate Change Strategy, public exhibition stage. The intention of the engagement is to reach across the Northern Beaches Community to determine the level of support, or otherwise, of the Strategy.

3. Engagement Purpose and Objectives

Engagement:

- ensures decision making considers community sentiment and feedback
- increases community awareness about the project and its impact(s)
- creates social license to operate
- facilitates a connection and integration between people and organisations
- generates innovative ideas and action
- creates a community of interested stakeholders for the protection of the environment and action on climate change on the Northern Beaches.

4. Engagement Methodology

Community and stakeholder engagement for the public exhibition for the draft Protect. Create. Live – Northern Beaches Environment and Climate Change Strategy 2040, Stage 2 was conducted over a six-week period, from 27 September to 10 November 2019. The closing date was originally scheduled to be the 27 October 2019, however it was extending during exhibition to be in line with the concurrent exhibition dates for the Local Strategic Planning Statement to ensure there was no confusion between the project timelines. Public exhibition engagement consisted of a series of activities (see below) that provided opportunities and platforms for community and stakeholders to participate.

This report represents what Council has heard as accurately, comprehensively and transparently as possible by using consistent quantitative and qualitative analysis techniques.

The project's impact level 1 Community and Stakeholder Engagement Plan was devised on a 3 stage approach:

- Stage 1:
 - Identify approach and understand gaps. Ensure objectives are regionally aligned
 - Identify gaps, barriers and impacts to successful implementation from internal and external stakeholders
 - Support for the project to derive content and work towards successful implementation of the final strategy.

- Stage 2:
 - Publicly exhibit and obtain community feedback on the draft Protect. Create. Live – Northern Beaches Environment and Climate Change Strategy
 - Construct an engaging narrative to reflect to the broader community the context and importance of the strategy including evidence of a balanced, considered, practical approach to the development of the draft strategy.
- Stage 3:
 - To notify all relevant stakeholders that the strategy is published, and to gain support for successful implementation
 - Encourage participation into relevant working groups and networks to support delivery of actions and achievement of targets.

Table 1. Summary of the key activities for Stage 2 and results:

Engagement Activity	Overview
Online Platform	A total of 2,130 visits to the projects online consultation page.
Face-to-Face (Drop-in / Pop Up / Information Session / Stakeholder Interview etc.)	12 face-to-face sessions (drop-ins, workshops, market days, events) held across the area, across the 5 different wards, allowing face-to-face discussions with over 250 community members. 600 promotional seed cards were distributed as part of this process.
Social Media	7 posts published on Facebook and LinkedIn over the six weeks. Key analytics include over 45,000 interactions, with 33 comments, and 415 shares.
Submissions from emails, online forms and interactive PDF.	346 contributions were received. 134 of these were email and online form submissions. 212 comments were entered into the interactive PDF by 49 different people.
Traditional Media	7 ads were published during the engagement period in the local newspaper.
EDMs (Electronic Direct Mail)	7 EDMs sent to a total of 2,260 stakeholders and 3 Council Community Engagement Newsletters sent to 22 000 people during the consultation period.



Figure 4. Contributions from the community on the Strategy.

4.1. Online Platform

Your Say Northern Beaches used a project landing-page to conduct online engagement. It provided a portal for users to visit, find information to support their engagement and offer feedback. The provision of information is an important factor in building community capacity to participate in the engagement and make informed contributions.

There were 4,755 views of the page from 2,146 visitors. Over 30% of visitors lasted more than 1 minute on the site.

4.2. Interactive Documentation

The draft Strategy was available on the project-landing page as an interactive document. This meant that the community could add comments into the document, which could be viewed by others. 49 people chose to make 212 comments this way.

4.3. Forms

A feedback form was used as an engagement tool. The form design provided participants with an opportunity to communicate their comments.

134 submissions were made through this form and via direct email.

4.4. Social Media

Engagement used platforms including Facebook and LinkedIn which had over 45,000 interactions during the consultation period. Seven open and targeted posts supported project awareness and delivered key messages and calls to action to specific demographic groups.

4.5. Print Media

Use of 7 ads and 1 media release to the Manly Daily, Pittwater Life and Peninsula Living provided large distribution scope to raise project awareness and community interest.

4.6. Electronic Direct Mail (EDMs)

The project was included in 3 Northern Beaches Community Engagement Newsletters during the consultation period. With a distribution list of over 22,000, this activity increased awareness and drove traffic to the project landing-page, essential documentation and engagement tools. Council sent 7 EDMs to a total of 2,260 stakeholders.

4.7. Face-to-Face

Face-to-face session design offered Northern Beaches residents, workers, students and visitors another opportunity to provide feedback on the Strategy. iPads were used to play the promotional video and direct people to where they could find the online feedback form. Six hundred promotional seed cards were provided to people at these events.

Table 2. Face-to-Face sessions

Activity	Location	Date	Attendance (directly discussed with x people)
Bike Week	Avalon	28 September 2019	15
Spider and Snake Display x 2	Narrabeen	28 September 2019	60
Bushcare Group	Newport	29 September 2019	6
LSPS Drop-In	Mona Vale	16 October 2019	15
Rat Park Markets – Tree Giveaway	Narrabeen	18 October 2019	27
Manly Vale Organic Markets	Manly Vale	19 October 2019	15
LSPS Drop-In	Narrabeen	19 October 2019	10
LSPS Drop-In	Forestville	22 October 2019	21
LSPS Drop-In	Dee Why	23 October 2019	10
LSPS Drop-In	Manly	24 October 2019	20

Avalon Car Boot Sale	Avalon	26 October 2019	30
Bushcare Workshop	Narrabeen	27 October 2019	23

4.8. Engaging with Hard to Reach Communities

Lack of access to information or activities is a key barrier in engaging our 'hard to reach' communities. This projects approach took engagement to the people, rather than expecting people to come to us.

Working closely with Council liaisons for these groups i.e. young people, provided the opportunity to engage with key community members and utilise their networks to share information, and increase project exposure and awareness. Of the 134 written submissions received 30 were from people aged under 25.

5. Data Limitations

In total, over 430 people engaged during the consultation period. While this is not a statistically representative sample of the overall Northern Beaches community, every effort was made to gather feedback from across a broad spectrum of our community, and ensure as balanced a sample as possible across the demographic range.

The themes drawn from these responses provide Council with an emerging picture of community sentiment on the project. By cross-referencing these themes with demographic information, for example age group, postcode and gender, a clearer picture is formed of who in our community may be impacted by the project.

Note: This analysis does not include any 'late' feedback received after the advertised closing date for consultation.

6. Demographic Snapshot of Respondents

Demographic data collected from respondents provides a picture of who has engaged with Council on the draft Protect. Create Live. – Environment and Climate Change Strategy, and assists in providing deeper context behind emerging themes.

However, it is important to understand the demographic information in this context and not assume that responses conclusively represent the views of any particular demographic group.

Respondents who submitted via the comments form on the Your Say project page had the option to indicate their relationship to the Northern Beaches, including postcode, age group and gender identity. No demographic data was captured from respondents who contributed ideas directly via email or via the interactive pdf. The following demographics therefore are only representing the online submissions from the Your Say project page comments field.

The following graphs provide demographic snapshots of respondents who provided their feedback.

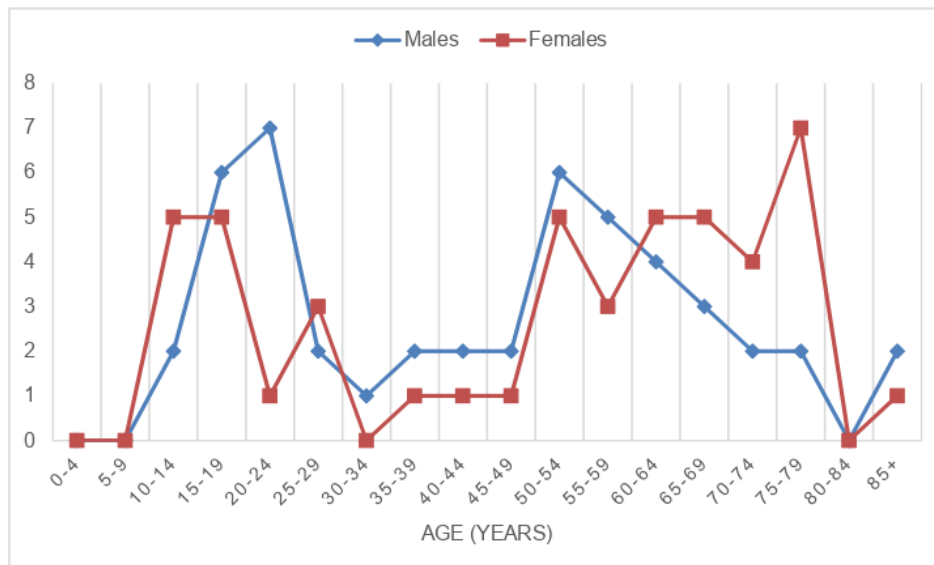


Figure 5: Engagement respondents age and gender profile (Source: Your Say project page comments form submissions only)

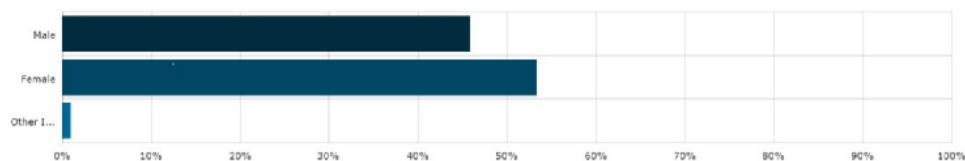


Figure 6. Gender of respondents who made comments via the form on the Your Say project page.

The Your Say page comments form data showed that the majority of respondents were Northern Beaches residents (98%).

There were over 30 respondents from the 25 or under age bracket, which is considered a good response from this age bracket, and the majority were between 45-80 years old.

7. Engagement Results

7.1. Emergent Themes

Analysis of consultation responses has indicated several emerging feedback themes, including:

- Bushland protection and wildlife corridors
- Action on climate change/climate change emergency
- Aboriginal heritage
- Waste and single use plastics
- Population growth

- Air quality and other urban hazards
- Greener neighbourhoods
- Public transport and active travel infrastructure.

7.2. Community Sentiment

Overall community sentiment towards the project, expressed in submissions and during face to face engagement, is in support of the strategy.

Of the 346 contributions made during the public exhibition, 298 were in favour of the overall approach of the Strategy and/or the actions it will deliver into the future.

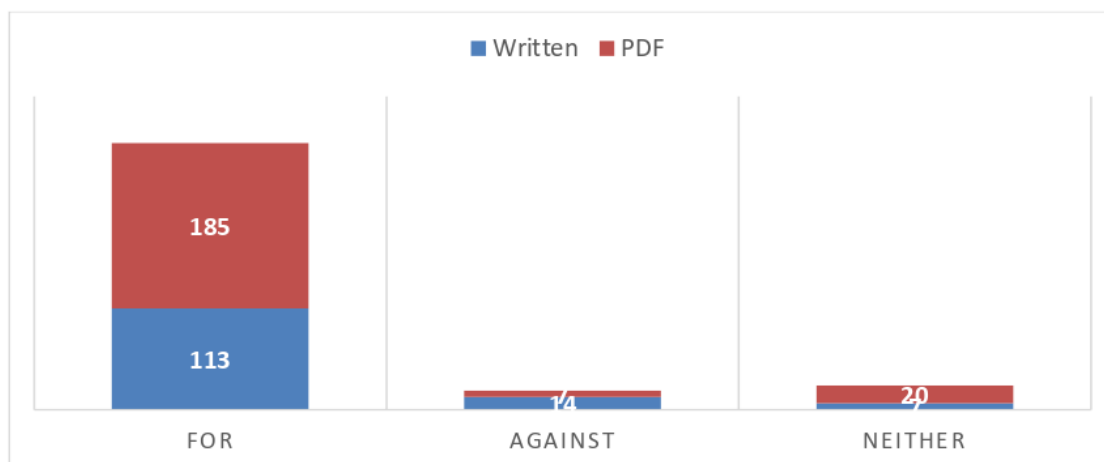


Figure 7. Showing the number of submissions which were for, against the Strategy, or neither.

7.3. Questions and Responses

Summary of community feedback received during the engagement period and Council's responses is provided in Table 1.

Table 3. Community feedback received – key trends

Issue Title	Key consideration in submission	Council response
PROTECT		
Bushland	Strong support for the protection of bushland and for local offsetting.	<p>The aspiration and commitments in Theme 1: Bushland support protecting the area of our bushland as well as improving its condition. The aspiration supports local offsetting.</p> <p>No change to the Strategy required, detailed actions will be considered in the development of the action plans and where relevant considered in current programs and works</p>

Issue Title	Key consideration in submission	Council response
Wildlife Corridors	Reiterating that connecting bushland with wildlife corridors, including through private property, is vital. This benefits biodiversity in supporting abundance and diversity in animal and plant populations.	<p>Wildlife corridors and connectivity are addressed in Theme 1: Bushland and Theme 4: Biodiversity with a commitment for "Improving the connectivity of wildlife corridors". Strategies in these two themes include addressing land-use planning, on ground works and education, engagement and collaboration.</p> <p>To improve understanding of where the action to improve and protect wildlife corridors appears, "including wildlife corridors" will be added as follows:</p> <ul style="list-style-type: none"> • Theme 1: Bushland, first "We will" dot point "Work to protect existing bushland, including wildlife corridors, and enhance..." • Theme 1: Bushland second "We will..." dot point "Protect our bushland, including wildlife corridors, and its associated biodiversity..." • Theme 4: Biodiversity, first "We will..." dot point "Prioritise high value conservation sites, including wildlife corridors, and implement on-ground works, such as bush regeneration...." <p>Theme 4: Biodiversity, second "We will..." dot point "Prepare and implement a strategic approach to biodiversity land management, including identification and protection of wildlife corridors, and use this to inform our strategic land use planning and development controls"</p>

Issue Title	Key consideration in submission	Council response
Tree Cover	<p>Strong support for the retention of trees and tree canopy, including old growth trees and only planting locally native plant species.</p> <p>Some submissions were requesting a percentage increase to be added to the commitment for urban tree canopy.</p>	<p>Protecting urban trees is captured in the Strategy in Theme 6: Green Neighbourhoods, including with the commitment on pg. 31 of "Increasing the existing urban tree canopy to expand the local green grid".</p> <p>The draft Urban Tree Canopy Plan addresses the need to protect mature and existing trees.</p> <p>Council recently received additional tree canopy data and is currently reviewing it. Once this information has been assessed we will consider adding a percentage to the commitment under Theme 6: Green Neighbourhoods for "Increasing the existing urban tree canopy to expand the local green grid" during the first review of the Strategy.</p> <p>No current change proposed to the Strategy. Council will continue to work to finalise then implement the draft Urban Tree Canopy Plan 2019 to facilitate action.</p>
Air Quality and other Pollution	<p>Requests to add in additional information for air quality, noise pollution etc., including specifically those from wood fire heaters. Also requesting to include UV as an issue, noting that addressing shade also addressed urban heat, health and social benefits.</p>	<p>References in the draft Strategy are to be improved and expanded to various urban hazards, including air, noise, light, water, UV and soil.</p> <p>Amendments are as follows:</p> <ul style="list-style-type: none"> • Include "air, noise, light, water and soil pollution and UV" into the second paragraph on pg. 27. • Add in "We will reduce air, noise, light, water and soil pollution and reduce exposure to UV" on para. 2 on pg. 28. • Add in a new "We will" to "Undertake proactive inspections, education programs and environmental auditing to minimise air, noise, water, light and soil pollution and reduce exposure to UV. This includes implementing the NSW Woodsmoke Reduction Program." • Insert description of urban hazards into Theme 8 as "Our community will continue to be exposed to urban

Issue Title	Key consideration in submission	Council response
		<p>hazards from past and present development activities, such as air, noise, light, water and soil pollution and UV exposure. The hazards are heavily influenced by land use, with major road corridors linked to noise and air pollution, industrial areas posing risk of stormwater contamination and residential areas contributing to woodsmoke pollution, especially in winter. These hazards are discussed previously in Theme 2: Waterways and Catchments and Theme 5: Sustainable Built Environment."</p> <p>See also the amendment discussed below in the Beaches Link Tunnel and Frenchs Forest topic relating to the Beaches Link Tunnel.</p>
Circular Economy	Seeking improved references for supporting a circular economy.	<p>The strategy does address emissions from consumption, primarily in Theme 7: Sustainable Living.</p> <p>Further amendments will be made to include supporting a circular economy as follows:</p> <ul style="list-style-type: none"> • Add in to Theme 7: Sustainable Living, paragraph 4 "As a community we need to support a strong circular economy and where possible buy and source products locally". • Add in a definition for a circular economy to the glossary as "A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life". • Amend Council Operations "We Will..." statement to say "Monitor our waste generation and minimise waste, maximise recycling, reduce waste to landfill and support a circular economy."

Issue Title	Key consideration in submission	Council response
Beaches Link Tunnel and Frenchs Forest Precinct	Submissions expressed generally not wanting more bushland lost to either the Frenchs Forest Precinct or the Beaches Link Tunnel. Further, the submissions do not support more cars in the Northern Beaches.	<ul style="list-style-type: none"> Frenchs Forest Precinct is being developed along its own planning process. This has included precinct specific studies. Council's endorsed position on the Beaches Link Tunnel is to support the project subject to public transport and the resolution of design matters and associated impacts (Local Strategic Planning Statement, A19.7). This Strategy is being updated to better address air quality issues and a specific reference to the tunnel is proposed in Theme 5: Sustainable Built Environment. Further, Northern Beaches Move Transport Strategy, referenced in this strategy, includes transitioning our community to lower emissions vehicle, increasing public and active transport and reducing private car use. For projects like this into the future there are various goals, commitments and strategies which relate to protection of the environment and building sustainably, which include the aspirations for "No net loss of bushland" and "Net zero emissions in our community by 2030". <p>Amend Theme 5: Sustainable Built Environment "We will..." dot point 4 into the following two items:</p> <ul style="list-style-type: none"> "Encourage state and federal governments to rapidly drive down emissions and water use and avoid pollution through actions such as better building standards for residential and non-residential buildings and relevant infrastructure e.g. increasing BASIX and implementing standards for non-residential development. Partner with all levels of government to deliver best practice infrastructure e.g. the Beaches Link Tunnel and the rapid public transport expansion and associated infrastructure."

Issue Title	Key consideration in submission	Council response
Single Use Plastics	Support for reducing single use plastics and keeping single use plastics, and other litter, out of our waterways in the first place as well as strategies for removing them once they make their way in.	<p>Single use plastics are referenced primarily in Theme 2: Waterways and Catchments, Theme 3: Coast and Theme 7: Sustainable Living. In these themes there are commitments relating specifically to the reduction of single use plastics. There are accompanying strategies for how to meet these commitments which include education, engagement, collaboration, innovation, partnerships and removal works.</p> <p>Council will continue ongoing implementation of current programs to reduce single use plastics</p> <p>Amend the commitments for Themes 2 and 3 to make it clearer that this includes control actions at the point of origin as well as removal.</p> <ul style="list-style-type: none"> • Amend the commitment in Theme 2: Waterways and Catchments to "Actively working to keep single use plastics and other litter out of our network". • Amend the commitment in Theme 3: Coast to "Actively working to keep single use plastics and other litter off our coast". <p>Update the "We will..." in Theme 7: Sustainable Living on pg. 35 to read "Minimise the use of single use plastics and disposable items by promoting use of reusable items."</p>
Dogs	<p>Submissions stated that the impact of dogs on native wildlife was not considered in a similar way to other threats including the need to keep dogs on leashes.</p> <p>Some submissions also addressed the issues of dogs on beaches, both for and against.</p>	<p>It is proposed to amend the relevant reference to cover feral and domestic animals, therefore including dogs.</p> <p>Amend Theme 4: Biodiversity, paragraph 5, to "To protect our biodiversity we need to consider and protect each different scale, from the worms that process nutrients in our estuaries, to reducing the impact of feral and domestic animals on our native wildlife".</p>

Issue Title	Key consideration in submission	Council response
CREATE		
Local Food Production	<p>Seeking greater reference to local food production and sales in the Strategy. The primary focus was to reduce food miles and in the case of community gardens, promote social connection and green infrastructure.</p> <p>Submissions also requested that education was needed in the community on how to buy without packaging etc.</p>	<p>Expand references in Theme 7: Sustainable Living to specifically mention sourcing and buying locally, which includes through local food hubs/forests/production/markets and. It is further acknowledged in its contribution to green infrastructure and the green grid in the definition on Theme 6: Green Neighbourhoods (pg. 30).</p> <p>Council will consider actions on how to support this in the development of the action plans.</p> <p>Add in to Theme 7: Sustainable Living, paragraph 4 "As a community we need to support a strong circular economy and where possible buy and source products locally" (Note: this is also listed under the Circular Economy issue).</p> <p>Amend Theme 7: Sustainable Living, "We will..." first dot point to "Motivate, inspire, support and encourage our community to reduce resource consumption and emissions production. We will promote making choices to reduce waste production, energy and water use by buying and sourcing products locally. We will do this through engagement, education and incentives..."</p>
Greener Neighbourhoods	Support for green infrastructure, in particular vertical and roof gardens.	<p>Theme 6: Green Neighbourhoods discusses improving our local green infrastructure. This does include vertical and roof gardens and reference to these will be made clearer.</p> <p>Update Theme 6: Green Neighbourhoods, second dot point under "We will..." on pg. 31 to "Support, encourage and enable green infrastructure development, including vertical and roof gardens, through our planning instruments and regulations."</p>

Issue Title	Key consideration in submission	Council response
LIVE		
Emissions from other Sources	Ensure reducing emissions from sources other than energy use and waste production are discussed. This includes emissions associated with consumption and purchasing of items such as clothes, building materials, diet, food etc. are being discussed and the community educated to reduce these emissions.	<p>Discussion on emissions from consumption and other resource use is currently included in the strategy. The infographic on pg. 29 will be renamed to Environmental Footprint and a definition will be added on pg. 44.</p> <p>Amend the Strategy to include a definition on pg. 44 of Environmental Footprint as follows: "The effect that a person, company, activity etc. has on the environment, for example the amount of natural resources they use and the amount of harmful gasses they produce".</p> <p>Label the infographic on pg. 29 "Environmental Footprint".</p> <p>Update the Strategy as described in the topic Local Food Production above to include references to buying local.</p>
Definition of Live	Potential to expand the Live statement on pg. 5 to include reference to natural hazards and being prepared for current impacts.	<p>Expand the introduction to the Live section to reflect that it refers to addressing current and future impacts of natural hazards as well as climate change.</p> <p>Amend the Live definition on pg. 5 to "We will live sustainably every day to reduce our waste generation and resource use, and so we are prepared for current and future impacts of natural hazards and climate change".</p>
Supporting Innovation	Embrace innovation to tackle the challenges faced. This includes through partnerships and collaboration on projects and initiatives.	<p>Supporting innovation is represented throughout the document in most Themes, and could be improved in Theme 8.</p> <p>Update Theme 8 "We will.." dot point 3 to "Continually incorporate best available climate change and natural hazard knowledge and practices, including considering innovative solutions, into our strategic land use planning, development controls, construction and operations."</p>

Issue Title	Key consideration in submission	Council response
Coastal Protection	Submissions discussed that Council needs to have a planned approach to managing coastal erosion. This includes considering planned retreat and also included support both for and against building seawalls.	<p>Commitments in Theme 8: Adaptation and Resilience include "...actively managing risks from bushfires, coastal erosion and inundation..." and "Public infrastructure designed, constructed and maintained to address climate change". Theme 3 is proposed to be expanded to include protecting people and property from coastal processes.</p> <p>More detail on how we go about this, including through development and implementation of Coastal Zone Management Plans and Coastal Management Programs which we will continue to develop and implement, and will be considered in the action plans.</p> <p>Amend the Theme 3: Coast, "We will..." dot point 3 to "Improve the condition of our coastal and marine environment using regeneration and habitat enhancement techniques, and minimise the impacts of coastal processes on people and property."</p>
Waste	Support for waste reduction, including composting and queries regarding a residential food/organic waste bin. This included a strong focus on the need for education and engagement to achieve change.	<p>Waste reduction for the community is included in commitments in Theme 7: Sustainable Living which aim to reduce waste to landfill and the amount of waste generated per person. There are a number of relevant "We will..." items in this theme which address education, supporting innovation and service delivery.</p> <p>The concept of the circular economy has also been addressed (see previous discussion) and amendments proposed to include this in the Strategy.</p> <p>With regard to a residential organic waste collection service, this service is currently provided by post collection sorting of the red bins and future innovations and improvements to this process are captured in Theme 7.</p> <p>No change is proposed to the Strategy. Council will continue to deliver community waste education programs, implement the new waste service and seek opportunities for innovation.</p>

Issue Title	Key consideration in submission	Council response
COUNCIL OPERATIONS		
More ambitious Council commitments	Considering Council has greater control over its own operations, than the greater community, the commitments for Councils Operations should be more ambitious.	<p>The current commitments were developed following detailed modelling for Council operations. The commitments consider the scale of shift needed to achieve net zero emissions across Council and the complexity of infrastructure upgrades, low emission heavy vehicle opportunities, existing contracts etc. it is deemed that achieving the proposed commitments will be ambitious.</p> <p>Council's water reduction target was developed considering water efficiency upgrades already completed, impacts of varying weather conditions over time on irrigation demands and large scale reductions being heavily reliant on significant infrastructure changes. Council's commitment was selected to be more ambitious than the community's and we will continue to seek opportunities to reduce our water use by 10%. No amendments are proposed.</p> <p>No change proposed to the Strategy.</p> <p>Continue to seek opportunities to reduce our emissions and water use, including energy efficiency upgrades, the expansion of solar across Council assets and water saving projects.</p>

Issue Title	Key consideration in submission	Council response
GENERAL		
Support	<p>The significant majority of submissions were in support of the strategy. Support was expressed for one or more of the following:</p> <ul style="list-style-type: none"> Protection of the Environment The whole Protect. Create. Live. - Environment and Climate Change Strategy 2040 (the strategy) Climate Change Action Climate Change Declaration <p>Submissions were considered to be in support of the strategy if they included a direct comment of support as well as if they directly addressed what the strategy is aiming to achieve. For example, a submission that discussed needing better bicycle path networks was taken as in support as this aligns with items included in the strategy and overall what it is aiming to achieve.</p>	<p>The strong support for the strategy, climate change action and the Climate Change Emergency is acknowledged.</p> <p>Pg. 10, 1st paragraph under Climate Change will be amended to read, "Council declared a climate emergency in August 2019 noting that we must take the opportunity to work collaboratively with the community and key stakeholders to accelerate action. We need to significantly reduce carbon emissions to minimise future risks and address long term predicted effects of climate change, including impacts from sea level rise..."</p>
Do not support	<p>Some submissions did not support Council with one or more of the following:</p> <ul style="list-style-type: none"> Action on climate change. Supporting renewable energy. Prioritising other actions over collection of waste, maintenance of roads and collection of rates. <p>Submissions were focused on the following main areas including:</p> <ul style="list-style-type: none"> Non-acceptance that human induced climate change was occurring It is not as bad as it is being made out. This is not an issue for local government to deal with. 	<p>Council's Shape 2028 Community Strategic Plan, developed with extensive community consultation, includes Community Outcomes for Environmental Protection and Environmental Sustainability. These both include the need to address protecting our environment and addressing climate change. Further, Council's adopted position acknowledges that we are in a state of climate emergency that requires immediate action.</p> <p>Various legislation relevant to Council stipulates Council is to protect our environment for example through ecologically sustainable development principles and by considering impacts on future generations in decisions made today.</p> <p>Amend the Strategy to include at the start of pg. 8 under Our Strategic Line of Sight "Various legislation requires Council to take action to protect our environment and consider the impacts on future</p>

Issue Title	Key consideration in submission	Council response
		generations in the decisions we make today. Further..."
Action Level Comments	The majority of comments received proposed actions for Council to consider implementing as part of the Strategy. Comments varied from specific location comments, such as trees in a certain park, to general actions like supporting composting in schools and community gardens etc.	<p>Each suggestion was considered to ensure that the concept of the action being proposed was sufficiently represented in the Strategy. All action level comments are being recorded and will be incorporated when developing the relevant action plans. The strategy discussed the action plans in both the "Our Plans" section (pg. 9) and the Implementing the strategy section (pg42).</p> <p>Comments relating to work being undertaken currently will be forwarded to the relevant department for consideration.</p> <p>No change is proposed to the Strategy. Where work is already being done we will continue doing this, for other actions they will be considered in development of the action plans.</p>
Education, Engagement and Collaboration	Reiterating how important education, engagement and collaboration is going to be to achieve the goals in the strategy. This included the importance of the environment centres as conduits for delivering the education, engagement and collaboration and the importance of working with established community groups.	<p>The Strategy which has a strong focus on education, engagement and collaboration, being introduced on page 14 under Council's ability to influence. As well as paragraphs about Education and Engagement and Collaboration there is a statement that reads "It will take mobilising our entire community to achieve the goals, commitments and aspirations in this plan. Collaboration, engagement and education has been incorporated throughout the themes to ensure the natural environment is protected, valued and enjoyed by our community, and the community is motivated, inspired and supported to live more sustainably".</p> <p>No change is proposed to the Strategy. Council will continue to partner with various local community groups and key stakeholders to leverage their knowledge, expertise and local connections.</p>

Issue Title	Key consideration in submission	Council response
Population Growth - Infrastructure	Unsupportive of population growth due to concerns that infrastructure is currently inadequate. These submissions focused on the need to improve public transport and active travel infrastructure.	<p>The strategy discusses population growth on pg. 12 under Challenges and Opportunities. It includes "We need to manage any growth so it occurs in the right locations and is supported by sustainable infrastructure." and "To address this challenge, we need to: ...* provide suitable supporting infrastructure." The challenge of our transport network is also discussed.</p> <p>This Strategy references the Move - Northern Beaches Transport Strategy in Theme5: Sustainable Built Environment and Theme 7: Sustainable Living.</p> <p>This issue is also addressed in the Local Strategic Planning Statement (LSPS) in Priority 9 and Priority 19. These include promoting the regional public transport network which will promote north-south and east-west connections enhancing connections to strategic and metropolitan centres to improve access to jobs and services. The public transport connections identified in Priority 19 not only guide planning decisions about future growth, but they also respond to existing settlement patterns and will enhance public transport for existing residents.</p> <p>The LSPS includes a number of actions for the preparation of studies that will address both existing and projected needs. These studies include housing, employment, social infrastructure, green infrastructure and transport. They also include an LGA-wide land use infrastructure implementation plan which will set out a plan for funding and timing for delivery of new infrastructure.</p> <p>No change is proposed to the Strategy, noting that Council will continue to deliver infrastructure improvements, for example improved shared path networks, and advocate to other level of government to do the same, for example through the expansion of the rapid transport network.</p>

Issue Title	Key consideration in submission	Council response
Population Growth - Environmental Implications	Unsupportive of population growth due to the fact this, and associated development, will make it hard to reach the goals, aspirations and commitments in the strategy.	<p>The pressure of population growth is addressed on pg. 12 under Challenges and Opportunities. It notes that "We know that development can put significant pressure on our environment. This includes the impacts that come from increasing consumption and an expanding urban footprint." and continues to say we need to address this challenge through "ensuring housing is suitable and sustainable; provide suitable supporting infrastructure; and protect the natural environment."</p> <p>Population growth, and associated development, is a key driver for the Create section of the Strategy which acknowledges that "Development is a constant pressure of urban living. We have the opportunity to use our land use planning instruments and controls to design and build our neighbourhoods well so they fit within our natural environment, rather than damage and destroy it, and reduce resource use."</p> <p>Further the challenge is noted in Theme 7: Sustainable Living as "The amount we use and consume is set to rise as the Northern Beaches populations grows...". Actions which impact this are discussed as larger households with more people, owning and driving petrol or diesel cars, taking long flights and eating meat." The strategies in Theme 5 and 7 list ways in which we will engage with the community around reducing consumption and emissions, how we will use land use planning controls to reduce resource use, work in partnership for innovative solutions and advocate other levels of government for influential change.</p> <p>With consideration for reducing resource consumption references supporting a circular economy have been improved as described in the "Circular economy" topic previously.</p> <p>No other changes to the Strategy are proposed.</p>

Issue Title	Key consideration in submission	Council response
Aboriginal Heritage	Requesting additional references to the Aboriginal Heritage of the Northern Beaches. This included acknowledging their strong connection to the past as well as protecting sites into the future.	<p>Council staff worked with the Aboriginal Heritage Office (AHO) to prepare appropriate updates to the strategy. It was recommended that changes recognise the long standing relationship Aboriginal people have with the land.</p> <p>Amend the Strategy to address the impacts on aboriginal sites from climate change and natural hazards and strategies to protect these. Guidance for this came from the recent Coastal Erosion of Aboriginal Heritage (AHO, 2019) report.</p> <p>The following existing two statements are relevant to Aboriginal heritage:</p> <ul style="list-style-type: none"> pg19, Theme 1: Bushland. "Consider scenic and cultural landscapes and heritage in strategic land-use planning, development controls and when undertaking works". pg39, Theme 8: Adaptation and Resilience. "Collect good quality, meaningful data and leverage local knowledge to support and enable decisions". <p>Insert the following quote from the AHO on pg. 6 in place of the current Strategy Time Line: "In planning for the future, we acknowledge the deep knowledge and resilience of Aboriginal people who have already responded to dramatic climate change and sea level fluctuations, not once but many times. The rock art, shell middens and rock engravings are reminders that people have long sought to look after this country sustainably.</p> <p>In looking to the future, we acknowledge that the First Australians have set us a challenge - to develop strategies to ensure that we can pass on the environmental wealth of this land to future generations far beyond those closest to us. We look now to 2040 and sow the seeds for much more." AHO 2019.</p> <p>Amend the second paragraph under the Climate Change heading on pg. 10 to: "Climate change is affecting biodiversity and water quality as ecosystems response to</p>

Issue Title	Key consideration in submission	Council response
		<p>increased temperatures. Severe storms and rising sea levels have potential to erode Aboriginal heritage sites. We may see changes to insurance premiums and maintenance and repair costs, while heatwaves will impact public health."</p> <p>Add in additional discussion on Aboriginal Heritage sites to Theme 8: Adaptation and Resilience, paragraph 1 on pg. 38: "We will also see impacts on the diversity of our plants and animals (IPBES, 2019). Our local Aboriginal heritage sites will be exposed to more severe erosion (AHO, 2019)".</p> <p>Add in an additional "We will..." strategy to Theme 8: Adaptation and Resilience: "Continue to monitor and record Aboriginal and European heritage sites, salvage sites, undertake conservation works where appropriate, and deliver education and training programs".</p> <p>Insert a reference for the AHO report: "Aboriginal Heritage Office (2019) Coastal Erosion of Aboriginal Heritage, North Sydney 2019".</p>
Youth Engagement	In the early stages of the public engagement we received a number of submissions requesting that Council engage with local youth.	<p>In response to the early submission stating that they wanted more youth engagement we did the following:</p> <ul style="list-style-type: none"> • Posted to KALOF social media page for comments. • Sent emails to local 'green' teachers encouraging them to promote making submissions to their students. • Discussed the engagement to the Youth Advisory Committee at their meeting, including a follow up reminder email • Continued posts on other social media platforms. <p>In addition, members of the Green Team, which is a youth-run, volunteer-based environment initiative, attended a community run workshop to prepare comments and submissions.</p> <p>The promotion of the draft Strategy was expanded during the consultation period with consideration for youth. The final submission numbers showed that at least 30 of the</p>

Issue Title	Key consideration in submission	Council response
		written submissions came from people aged 25 and under.

8. Conclusions

Feedback collected through the engagement process identified a number of recurring themes as well as novel ideas and perspectives

The results of the engagement process indicated that the community support the draft Protect. Create. Live – Environment and Climate Change Strategy 2040.

9. Next Steps

- It is recommended that the updated draft Protect. Create. Live – Environment and Climate Change Strategy 2040 be reported to Council to consider adopting the Strategy.
- If the Strategy is adopted the staff commence development of the action plans referred to in the Strategy
- Council undertake regular reporting on the progress towards to goals, aspirations and commitments in the Strategy
- Ongoing promotion of the Strategy (Stage 3 of engagement) in the community is undertaken.

Appendices

1. Engagement Content

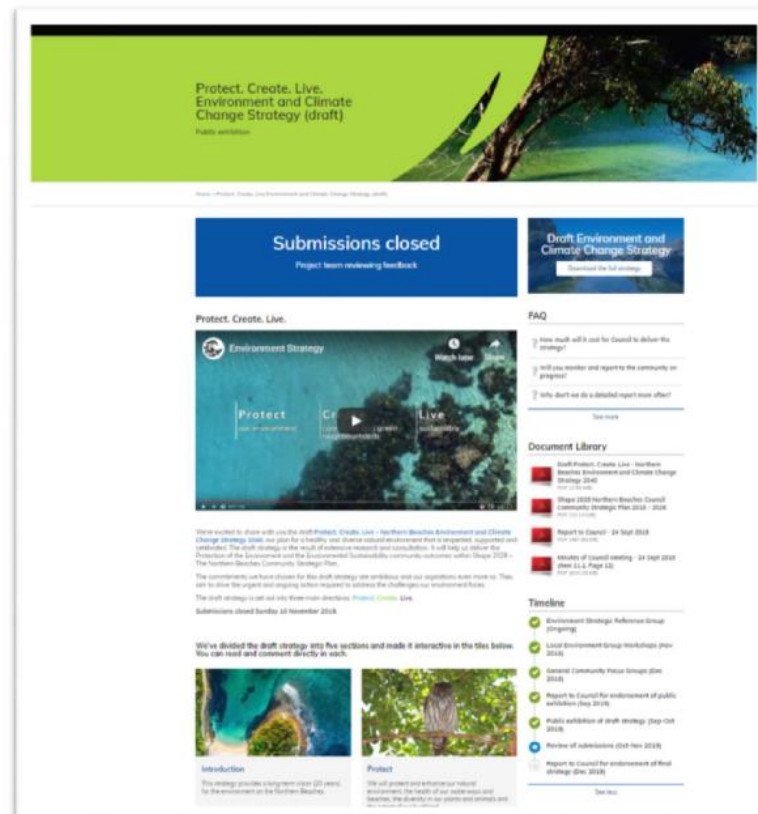


Figure 1. Project page (following exhibition close)



Figure 2. Promotional cards, with seeds embedded

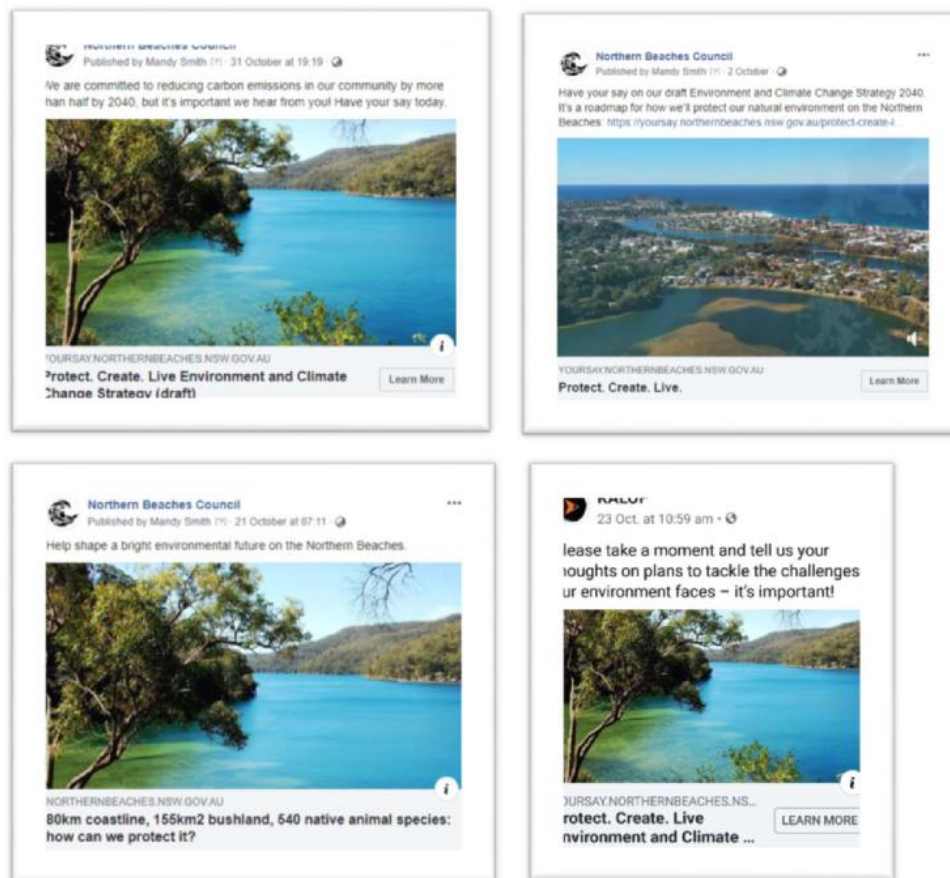


Figure 3. Facebook posts

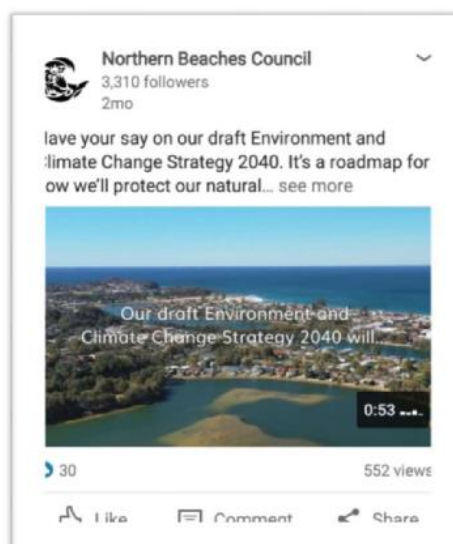


Figure 4. LinkedIn post



Figure 5. Engagement stall at Rat Park Markets

Have your say
The following projects are open for comment:

Northern Beaches (Manly) Parking Permit Scheme Framework (draft) - exhibition extended Submissions now close: Sun 13 Oct	Northern Beaches Community Participation Plan - Place Making and Development Assessment (draft) Submissions close: Sun 27 Oct	Community Safety Plan Survey closes: Sun 3 Nov
2019/20 Fees and Charges amendments - Environmental Compliance Submissions close: Sun 27 Oct	Protect. Create. Live - Northern Beaches Environment and Climate Change Strategy 2040 (draft) Submissions close: Sun 27 Oct	Towards 2040 - draft Local Strategic Planning Statement Submissions close: Sun 10 Nov
Community Service Awards Policy (draft) Submissions close: Sun 27 Oct	Road reserve lease - Wilga St and Powderworks Rd, Elnora Heights Submissions close: Sun 27 Oct	
Diplomatic Ties and Civic Relationships Policy (draft) Submissions close: Sun 27 Oct		



Figure 6. Manly Daily newspaper article



Figure 7. Example of comments on the interactive PDF



2. Full Summary of Community and Stakeholder Responses

2.1 Letter and Email Submissions

Comment	Page	File
shut up	1	CREATE - Environment and Climate Change
Does this include State Parks? How are you including Manly Warringah War Memorial State Park? Are there any others in the Northern Beaches?	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
Please consider building Frenchs Forest High School on another site that is "brown". Please do not build on Aquatic Reserve and remove lots of trees for an Asset Protection Zone and other buildings - as per Manly Vale Public School.		
Please use your advocacy with State Government properly and not "sell the farm" - we can't get this land back and it WILL pollute the precious catchment.	1	CREATE - Environment and Climate Change Strategy 2040.PDF
What does "promising" mean here?	1	LIVE - Environment and Climate Change Strategy 2040.PDF
Is there a better word to show more commitment? Promising to who?		CREATE - Environment and Climate Change Strategy 2040.PDF
After "lower energy and water use", add "and reduce air pollution from wood heaters and open fireplaces"	3	CREATE - Environment and Climate Change Strategy 2040.PDF
After "building sustainably", add: "and reducing air pollution by not installing wood heaters or open fireplaces"	4	CREATE - Environment and Climate Change Strategy 2040.PDF
This comment is totally anthropocentric! Please edit it to acknowledge how dependent we humans are on the environment in which we live, not the other way around. The land on which we gather and live is not a resource for us to use and abuse, but for us to respect, nurture and conserve!	2	INTRO - Environment and Climate Change Strategy 2040.PDF
Please add the impact of climate change on the species other than humans who are the ones who have and are causing the loss of the natural world on the northern beaches.	5	INTRO - Environment and Climate Change Strategy 2040.PDF
Please move from an anthropocentric attitude to our coastal environment. We are the most recent inhabitants who have had the most destructive impact. Please mention the rights of the other species whom we share this beautiful part of earth with to exist.	6	PROTECT - Environment and Climate Change Strategy 2040.PDF
Again this is a totally anthropocentric document - all about human use and abuse! Keep this up and there will be nothing left of OUR environment!	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
Education is key to the delivery of community aspirations and this is where greater support of the programs provided by the Environment Centres would be beneficial. All schools should be involved in programs that link students to their local ecosystems and the ECs should be the link.	7	INTRO - Environment and Climate Change Strategy 2040.PDF
Agreed but I would like to see an Community Education Plan. Engaging students in the plans for the future and building their voice toward the importance of sustainable design and planning will assist in the long run. Additionally, these students will be the new families, parents of 2040.	12	INTRO - Environment and Climate Change Strategy 2040.PDF

Education Plan?			INTRO - Environment and Climate Change Strategy 2040.PDF
Draw all of the Environment Centre programs into a single path of learning that could be taught in all Northern Beaches schools. Make our students educated custodians of our local ecosystem	8		INTRO - Environment and Climate Change Strategy 2040.PDF
Based on general ABS data this would see approx. 7020 NEW/ADDITIONAL school age students coming into the area. Are there plans for more schools? Upgrades? To account for this? I understand that Narrabeen is on the cards but this will only account for maybe 500 students in that area.	12		INTRO - Environment and Climate Change Strategy 2040.PDF
Advocacy, Education, Leading by example, Engagement and collaboration - all of these can be modeled through the Environment Centres and their programs when engaging with school students.	13		INTRO - Environment and Climate Change Strategy 2040.PDF
I believe the role of the Environmental Centres cannot be underestimated in achieving a number of the reoccurring 'we will...' statements for each theme. Please see below: - Capture baseline data - effective school programs could engage students in citizen science programs to collect this on an ongoing basis from a broad series of locations - Actively engage in partnerships - the CEC could link through schools to parents and committees to build strong networks of support and altruism - Motivate, inspire, educate and support - this is the key role that the CEC plays and should be supported to play to a greater extent			
What about supporting solar panels on schools? These are large spaces (roofs) and these could be used to offset the electricity used in schools - which is increasing as they shift toward digital learning	8		PROTECT - Environment and Climate Change Strategy 2040.PDF
2020 - correction	2		CREATE - Environment and Climate Change Strategy 2040.PDF
The CEC are supporting schools with Bush Regen. plans and works on school sites. This would be great across all schools in the NB.	4		CREATE - Environment and Climate Change Strategy 2040.PDF
Again education but placing the schools as a site where this is done well and done by the students	5		CREATE - Environment and Climate Change Strategy 2040.PDF
I think we should be addressing packaging of things that don't need to be packaged in plastic such as fruits and veg which could very easily be moved to biodegradable paper bags and such. There has been much success overseas with natural packaging being used such as banana leaf to reduce unnecessary plastic waste which is only used once. Another suggestion is to encourage the use of recyclable coffee cups for take away coffee as there is a large cafe demand in the northern beaches. these two suggestions should be enforced if possible on the large corporation such as coles, woolworths or starbucks for it to have any meaningful effect			
increasing marine sanctuaried area could ensure this and promote greater biodiversity	3		PROTECT - Environment and Climate Change Strategy 2040.PDF
	3		PROTECT - Environment and Climate Change Strategy 2040.PDF

with the amount of trees being cut down every year this will not be enough to suffice. moss is far superior and takes up less room. Vertical gardens such as the ones in manly vale and barangaroo are far superior, create a carbon sink, increase mood of the population around them and are more space efficient. Please check out this article on a bench that can absorb the same amount of carbon dioxide as 275 trees in as little as 1% of the space. https://www.forbes.com/sites/trevornace/2018/03/20/this-city-bench-absorbs-more-air-pollution-than-a-grove-of-trees/#5df2e9d26b8d	5	CREATE - Environment and Climate Change Strategy 2040.PDF
Why aren't we using recycled rain water for toilets and other such things already. Australia is one of the MOST water poor countries in the world. In our current situation of drought this should be one of our top priorities and we need to lead by example.	4	LIVE - Environment and Climate Change Strategy 2040.PDF
I hope that all these plans are put into act ASAP because without the encouragement from small local governments it is unlikely we will be able to encourage the higher levels of government to do anything. I think another way to show support for climate action is to increase awareness of initiatives and strikes though the high governments (ie Somo and the Australian Liberal Party) do not approve as they do not seem to have this immensely important issue for everyone's future at the top of their priority list.	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
The biggest waste issues in schools are Food waste and Single Use plastics, how can the council support schools to best divert this waste to recycling/ composting streams to reduce carbon emissions? Schools can be great influencers of best practice approaches to water conservation. What incentives assistance will be given to schools to assist them in greater water conservation practices and education?	9	INTRO - Environment and Climate Change Strategy 2040.PDF

<p>hey there,</p> <p>I think as part of the "live" section of this plan, some of the MOST important aspects to be bringing up and highlighting would be local food production and supporting current businesses and organisations currently involved in this vision. Giving people SOLUTIONS and implementable strategies, That which people can do within their own lives that will have the largest net effect on our environment & our response to climate change as a local & global community.</p> <p>I see a very strong need to address the personal changes and strategies people can make in their own lives & homes in order to combat climate change & align with the vision you have stated here in your draft strategic plan.</p> <p>I think we should be talking about & promoting community based networks & businesses that encourage LOCAL engagement and community circular economy. These are the EMBODIED strategies people need to KNOW ABOUT in their own lives. Such as:</p> <ul style="list-style-type: none"> - Knowing WHERE and HOW to buy food produce from local food co-operatives that we have on the northern beaches. Or how to buy foods waste free & in bulk. This in turn will help create the demand and generate more business economy for local food growers. These food coops support local food growers, reduce food miles, keep the local economy growing, reduce carbon emissions and are waste free. they also feed people fantastic quality organic produce! - Encouraging people to shop for produce at local food markets (narrabeen on a friday & pittwater on a sunday) and question market holders where there food is coming from & aiming to source it as local as possible. - Promoting Permaculture northern beaches community group among others who are already working strong towards the same vision, & have the contacts and the connections within the local community already. Work alongside the institutions like waterways, manly environment center etc, there is power in the many! -- encouraging people to get involved in urban food growing. we need to bring food production back to cities! <p>Permaculture northern beaches isn't just community gardens or workshops on food growing. Permaculture is a regenerative culture with a acute community orientated focus on supporting & networking on all things</p> <p>This is fantastic I like this plan</p>		<p>LIVE - Environment and Climate Change 3 Strategy 2040.PDF</p>
		<p>9 INTRO - Environment and Climate Change</p>

<p>Hey there, I think a very important part of the mitigation & adaption strategies have not been addressed here. The strategies that will in the long term have the largest & fastest impact to reduce green house gas emissions & combat climate change. That which people can do within their own lives that will have the largest net effect on our environment & our response to climate change as a local & global community. Here I see they are mostly addressing direct environmental strategies, those which people will be witnessing in their local community and external environment. However, I see a very strong need to address the personal changes and strategies people can make in their own lives & homes in order to combat climate change & align with the vision you have stated here in your draft strategic plan. I think we should be talking about & promoting community based networks & businesses that encourage LOCAL engagement and community circular economy. These are the EMBODIED strategies people need to KNOW ABOUT in their own lives. Such as: - Knowing WHERE and HOW to buy food produce from local food co-operatives that we have on the northern beaches. Or how to buy foods waste free & in bulk. This in turn will help create the demand and generate more business economy for local food growers. These food coops support local food growers, reduce food miles, carbon emissions and are waste free. they also feed people fantastic quality organic produce! - Encouraging people to shop for produce at local food markets (narrabeen on a friday & pittwater on a sunday) and buying organic produce from local food growers - community engagement through knowledge sharing, swapping, recycling, energy saving, and lifestyle changes, it a bank of people who are already making these minor and larger lifestyle changes to help visions like these which you are proposing. Fantastic visions that are so important in this time in history! Im really excited to support this draft and refine the delivery. - Talking about how people can get involved, what they can do to help, where people can go to get involved in workshops, events, discussion panels, engage in a network of information & knowledge sharing where we can come together to help individuals change their patterns of living that are damaging our environment. - waste management! Examples such as community composting strategies, plastic reduction regulations/suggestions. recycling strategies within our local community, swapping & rescuing usable items people throw out to council clean up. -</p>		<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p> <p>14</p>	
<p>After seeing the clearing of bushland to protect the expanded Manly Vale School, I dread the further bushland that will be razed to protect the new Forest High School - if it is relocated.</p>		<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p> <p>3</p>	
<p>Was staggered when we viewed our apartment completed in 2015 and there was NO consideration of BASIX - nothing ! We could have had solar panels to at least power common property and small water storage devices in the 8 gardens + common property to water the gardens. :(</p>		<p>CREATE - Environment and Climate Change Strategy 2040.PDF</p> <p>1</p>	
<p>Totally agree but if possible insist on greater sustainability during the construction phase</p>		<p>CREATE - Environment and Climate Change Strategy 2040.PDF</p> <p>3</p>	

As previously stated we need greater storage of rainwater for use on gardens and of course for use with tillets - recycling of bath / shower/ washing (laundry) water to be reused in properties - again install these facilities at construction phase not retrofitted.	3	LIVE - Environment and Climate Change Strategy 2040.PDF
The Warriewood STP periodically has bypass events that result in stormwater and partially treated effluent being discharged into the ocean from the Warriewood headland outfall. I think the strategy should address this issue, particularly given the increasing likelihood of these events as population in the catchment increases. At the very least I think there should be an objective to ensure all discharges are treated to tertiary level.	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
I think that Council ought to have an explicit policy to encourage long term retreat of built structures from areas that will be affected by rising sea level. I also think that beach nourishment should be formally investigated as a means of maintaining beach amenity - particularly when that amenity has been diminished by coastal modifications such as the Collaroy-Narrabeen seawall.	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
To everybody who worked so hard to pull this complex project together - thank you.	3	INTRO - Environment and Climate Change Strategy 2040.PDF
In light of Council's recent declaration of a Climate Emergency, I think the final version of this plan should incorporate explicit acknowledgment of this historic decision in the preamble. More importantly, the policy's plans and strategic ambitions should align with the great urgency of our perilous situation.	5	INTRO - Environment and Climate Change Strategy 2040.PDF
Given that all the world governmental climate agencies and 97% plus of all climate scientists recognise that human generated CO2 _is_ the cause of warming, I think we can safely disregard the views of someone who apparently has no publications or citations in the climate literature.	8	INTRO - Environment and Climate Change Strategy 2040.PDF
If Council is honest about pursuing a policy to reduce this alleged harmful CO2 emissions why are they still using air conditioning in their buildings and motor vehicles ?	1	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
There is no evidence of any kind that man's CO2 has caused ANY of the warming since the Little Ice Age.		
I have spoken to IPCC's key figure Dr Trenberth. He claimed the key evidence was sea levels. He ran for cover when I pointed out sea levels have been rising at a DECREASING rate for 20,000 years!		
In Sydney, sea levels have been rising without ANY acceleration, at a rate of 6.5 centimetres per CENTURY ... insignificant!	8	INTRO - Environment and Climate Change Strategy 2040.PDF

It's time to change to much smaller houses, even "tiny houses" if possible to stop encroaching on wildlife habitat.	1	PROTECT - Environment and Climate Change Strategy 2040.PDF
Provide legislation and incentives to businesses in the local area to reduce the reliance on single use plastics. Then we can work on prevention at the start of the chain, rather than removal once it has occurred.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
How exactly is this going to occur? What legislation will be put in place to ensure this happens? How will it be monitored and SMART goals set to ensure its success over the years? Will this be for new builds only or will you assist in improving current designs?	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
We are losing so much bushland in the expansion of Mona Vale Road. Will areas remain protected when proposed developments at Ingleside go ahead? Will the council aim to add more areas of protection? Why are more developments being allowed/proposed when we have destroyed so much of our native bushland on the Beaches already?	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Students who I teach would like to suggest more of the artwork that was done on the footpaths to promote the drinking water fountains. They said the cartoon sea life promoting using these instead of plastics stuck in their mind and they would like to see more of them. They said more drinking fountains would be great as well, especially near the actual beach to use in summer. However also that it would be great to find a way to recycle and reuse the water that runs off!	8	PROTECT - Environment and Climate Change Strategy 2040.PDF
Could there be more development of rooftops gardens and bushland regeneration on rooftops (eg northern Beaches Hospital would have been a great space to create this). Can council lead the way with this so households and developments can follow?	9	PROTECT - Environment and Climate Change Strategy 2040.PDF
1 in 5 is an average and doesn't stress the point that in some areas of the LGA it is 0/5 and others 5/5	2	PROTECT - Environment and Climate Change Strategy 2040.PDF
What is the current situation with the Warriewood/Igleside development ? There is a lot of bushland currently there.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
agreed	4	PROTECT - Environment and Climate Change Strategy 2040.PDF
The strategy should not limit itself to runoff impact , it should also include waste water runoff. A number of places are using onsite disposal sewage systems. Around Pittwater many of those systems, even with best efforts, are not fitted to the soils and environment characteristics of the area. They contribute significant amount of contaminants in the bay and are a risk to public health. Council should include the support of a resolution through Syney Water or other service providers for those areas.	5	PROTECT - Environment and Climate Change Strategy 2040.PDF

<p>You are indicating 4 years to prepare a climate change plan. Yet you are forcing owners of properties on Narrabeen/Collaroy beach to prepare plans, submit DAs and construct whatever defence they consider suits them now. The way you are doing this is by offering some funding which is threatened to expire/runout if the owners do not act rapidly. This is totally insane. You will end up with inconsistent, unmaintainable infrastructure which will not match your 'plan'. Am I missing something?</p>	<p>9</p>	<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p>
<p>Is this a steady gradient or an accelerating process. We are not interested in the past except where it guides our future. This statistic does not help.</p>	<p>13</p>	<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p>
<p>This paragraph is a mix of entirely unrelated topics and should be rethought. Eg. The use of drones for mapping is totally unrelated to to driverless cars.</p>	<p>7</p>	<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p>
<p>in our bushland sometimes habitat is being provided by non native species. Aggressive clearing by land care of non native species can reduce habitat and shelter, it needs to be done in small mosaics with native species planted out and established before clearing out large areas of non natives.</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>There are very few specific wildlife corridors linking reserves. We need to recognise that backyards provide habitat and refuge. They are informal wildlife corridors that allow animals to move about. If we want to retain wildlife NBC needs to encourage, educate, promote and support backyard wildlife refuges.</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>Bushland is vital habit for breeding and roosting sites for the Powerful Owl, however our bushland alone doesnt seem to be able to support them, as they also hunt in suburban reserves, backyards and golf courses because this is where they can find prey.</p>	<p>2</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>It's possible to manage bush fire threat without burning, as recently demonstrated in palmgrove. Too frequent buring can have a negative effect on breeding sites</p>	<p>2</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>yes, a priority, a massive amount of trees have been taken out in the last few years in Avalon and Clareville, also Palms which provide habitat for ringtails and bats ,</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>When you allow recreational access to a reserve and allow dogs on leash, many dog owners will let their dog off the leash and let them run ahead to hunt through the bush. If they don't attack native species, they still cause a significant disturbance, I have seen owls abandon favourite roost trees when dogs are let off leash.</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>

<p>I believe that tree clearing has contributed to a decline in the volume of native wildlife species. In the Clareville area alone there have been a significant number of large trees taken out of backyards in the last few years. Palms are also being heavily cleared, palms provide food and habitat for bats and ringtails – the owls favourite prey.</p> <p>Backyards are critical areas for prey species. If Native wildlife is to continue surviving in our suburbs NBC needs to recognise backyards as important wildlife refuges, there isn't enough bushland alone to support our owls.</p> <p>I would like to see an active campaign with education and council assistance to encourage and enable local residents to help local wildlife by establishing their own backyard refuges.</p>		
<p>We need more signage and an active campaign to get people to slow down and think about the native wildlife. The speed limit on Hudson Parade is 35km/h but most of the traffic is at 60km/h or more. There have been 2 powerful owls that I know of killed by cars in Clareville alone. We still have ancient signs warning of koala crossings but there is nothing to warn motorists about bandicoots or owls.</p> <p>Backyards act as informal wildlife corridors and roads intersect these corridors. I'd like to see new signs erected to bring attention to the local wildlife that exists at present and a campaign started to educate people to drive responsibly, particularly in the dawn and dusk hours.</p>		
<p>Water levels at Fort Denison have not altered since recording began. That is an official recording station for water levels. Please keep to the actual facts.</p>		
<p>Re: reducing waste</p> <p>I would refer to the absolute waste of money replacing bins that did not need replacing. The dumping of bins that were still being used and would be for many years was disgraceful and then you gave the contract to the same contractors. I understand the only business case that worked was over 10 years , not 12 years.</p> <p>Disgraceful waste of rate payers money.</p>		
<p>Electric vehicles would be great if we had cheap power which we do not. In the long term they may be practical but at this stage , you really have to be kidding. They take too long to recharge and the recharging stations will take time and money to do which again is more expense to the community facing increased charges in everything at present.</p>		

<p>Please let us not forget Council's main work should be to collect garbage and fix roads. We have State and Federal Governments to direct policy. It is not under Council's 'job description' to go way beyond that boundary. My understanding is that the country in the last Federal election in May 2019 voted to reject Labour's 50% renewable policy?</p> <p>I would also think there would not be anyone on the Northern Beaches who does not appreciate our extraordinary natural environment, without further education. We all are living here because it is the best place in the world.</p> <p>With regard to accessing further grants my understanding was that there was supposed to be a very large surplus of funds delivered by the combining of the Councils. So there should be plenty of funds available, if you did not spend them recklessly on unnecessary bins and there should not be a need to raise rates for the local community?</p>		INTRO - Environment and Climate Change Strategy 2040.PDF 2
<p>Priority planting given to plants propagated at Council's nurseries and endemic to local areas. No more planting of exotics, especially the type that Bushcare volunteers remove from their sites as weeds, e.g. gazania. More street planting of local species. Educate the community of the value of our local environment, its diversity, importance and promotion of pride and responsibility to care for our unique biodiverse and threatened environment</p>		PROTECT - Environment and Climate Change Strategy 2040.PDF 9
<p>In what ways will the council be preventing unlawful actions, such as illegal discharges, by implementing enforcement and compliance activities to protect waterways from pollution and destruction, that is different to what they were already doing?</p>		PROTECT - Environment and Climate Change Strategy 2040.PDF 3
<p>There should be support and information available regarding options for installing solar panels on (existing) apartment buildings as well as stand alone houses</p>		CREATE - Environment and Climate Change Strategy 2040.PDF 3
<p>This is very loosely defined, there should be more clearly defined goals upfront.</p>		INTRO - Environment and Climate Change Strategy 2040.PDF 5
<p>Does this include a organic / food waste bin/option for residential properties?</p>		LIVE - Environment and Climate Change Strategy 2040.PDF 7
<p>The Council should ensure that any and all of its own vehicles are zero emissions in the next 2-3 years - ideally together with other councils who have also declared a climate emergency - to encourage more models to Australia, a second hand market and more charging infrastructure. Look to ACT Govt who are doing this.</p>		INTRO - Environment and Climate Change Strategy 2040.PDF 9
<p>The council should advocate for and support the transition to zero emissions buses with the State Govt of NSW</p>		INTRO - Environment and Climate Change Strategy 2040.PDF 11

The Council could consider if a community battery is appropriate, see the PowerBank community battery storage project in WA	3	CREATE - Environment and Climate Change Strategy 2040.PDF
this legal "speak" is absolute poo and is a publicity stunt to win approval for the current council leaders. i will be surprised if any of these strategies are put into place by the time they are due to be completed.	1	PROTECT - Environment and Climate Change Strategy 2040.PDF
Ensure that council associated superannuation companies do not invest in fossil fuels?	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
ensure procurement policies encourage that downstream businesses, suppliers, consultancies etc have similar targets and commitments and behaviours	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
Overall a great document and commitment, renewable energy targets should be more ambitious.	4	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
These targets are not 'ambitious'. They have already been met in 2019.	8	INTRO - Environment and Climate Change Strategy 2040.PDF
and providing a mix of low- income, shared ownership, not for profit/council owned and private dwellings of different sizes and types (look at Nightingale Housing in Victoria for a great example of carbon zero housing strategy)	12	INTRO - Environment and Climate Change Strategy 2040.PDF
needs to include improving/retrofitting existing buildings to upgrade sustainable elements, capture and make more efficient use of water, increase energy efficiency, thermal comfort, manage waste etc and retrofit/upgrading existing built environment	15	INTRO - Environment and Climate Change Strategy 2040.PDF
Also build 'inclusive' environments encouraging best practice 'accessibility' for the elderly, parents with prams, young kids, and people with a mobility issue.	1	CREATE - Environment and Climate Change Strategy 2040.PDF
Particular thought needs to be given to units and multiple dwellings- consider encouragement of green roofs, recycled water, clothes drying options, communal gardens and better integrated waste management - including composting/worm farms/grey water treatment for washing machines/toilets and showers	2	CREATE - Environment and Climate Change Strategy 2040.PDF
Until it is collected separately from garbage, the community will never be educated on food waste. Kids grow up thinking that food waste goes in the bin, they don't learn how to compost, they don't see the separation at the facility. Until purchases without soft plastics are totally unavoidable (mainly food products), is there an opportunity to start collecting soft plastics for Redcycle? The majority of people won't go to the effort of taking a bag of soft plastics to a collection point. Need to increase scope and availability of bottle return schemes. Need to encourage businesses to be responsible for the waste materials they create, cradle to grave	3	LIVE - Environment and Climate Change Strategy 2040.PDF

will need re-education of driver attitudes which in turn requires enforcement of 1.5 metre rule in addition to better cycle infrastructure continual improvement of footpaths including where none exist (eg Newport/Bilgola/Clareville)	2	LIVE - Environment and Climate Change Strategy 2040.PDF
Where does this figure come from?	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
Adding more trees is an incredible simple solution to combatting heat.	3	LIVE - Environment and Climate Change
Why is NBC insisting on art works at our beautiful scenic and cultural headlands? Surely our landscapes are stunning enough and certainly do not require sculptures etc.	9	PROTECT - Environment and Climate Change Strategy 2040.PDF
How will this be undertaken? Landscape architects seem to be promoting Mediterranean and European plants with one token Australian indigenous plant	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Why then is NBC still planting exotics in beach side garden plots and roundabouts?	7	PROTECT - Environment and Climate
Exotic problem plants such as asparagus fern, lantana, crofton and cassia are running rampant on NBC land and road reserves.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Why can't Council get all it's electricity from renewable sources e.g all 'green power' or offset the percentage required to reduce carbon emissions now.	4	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
Great strong aspirations and targets.	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
Council should be role modelling leaders here and all their buildings should be fitted with solar panels. Show the way.	3	CREATE - Environment and Climate Change Strategy 2040.PDF
Plant more trees on nature strips. Don't wait for the resident to request.	5	CREATE - Environment and Climate Change
The NB is incompressibly reliant on cars and the notion that buses can provide adequate public transport on already clogged roads with ridiculously narrow lanes beggars belief. We desperately need light rail and/or train lines. Also, dedicated bike infrastructure (Copenhagen lanes and bike paths) should be a no-brainer in this beautiful climate and with these surrounds. Lower carbon footprint and healthier for commuters. Why would we not be investing in this?	3	CREATE - Environment and Climate Change Strategy 2040.PDF
we say that we are going to slow down on clearing bush land yet we are clearing it faster than ever and future developments will not help for example Ingleside	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Would like to see council include Aboriginal words in the acknowledgement of country. If we are to acknowledge the original custodians of these lands we should at least be using some of their language. We will all be the richer for this.	2	INTRO - Environment and Climate Change Strategy 2040.PDF
Would like to see a definition of "built sustainably" in terms of how council is defining this.	5	INTRO - Environment and Climate Change
include a date as to when these surveys were contacted or include information as to where this data has been collected from. For both Fauna and Flora.	6	INTRO - Environment and Climate Change Strategy 2040.PDF

This image clearly shows just how "loved to death" some of our popular locations are. (erosion on side of paths) We need to ensure that regular maintenance takes place to ensure that degradation does not take hold and it becomes an expensive exercise to remedy .	7	INTRO - Environment and Climate Change Strategy 2040.PDF
I wonder if in a strategic council document, International targets for climate action have been included before. The fact that we are looking at the global picture is so important. We are living in challenging times Council could educate Golf Courses (which make up a lot of green open space on the Northern Beaches) the importance of including habitat to improve bio diversity on their lands. As mentioned by a previous commentator these are often homes for threatened species in an urban context.	8	INTRO - Environment and Climate Change Strategy 2040.PDF
	2	PROTECT - Environment and Climate Change Strategy 2040.PDF
promoting bio diversity should be part of the urban sustainability agenda.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Should also include data on our insect populations.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Should be an overlap with bushland and urban environments. Continuing the local native landscape into the urban environment.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
Could council develop a water catchment management team that scientifically manages the Warriewood Wetlands and its tributaries. Large areas of the wetlands are overgrown with weeds and the water quality is questionable. We are very fortunate to have the wetlands.	4	PROTECT - Environment and Climate Change Strategy 2040.PDF
Does the NBC have any aquifers? If we do, do they require replenishing?	5	PROTECT - Environment and Climate Change Strategy 2040.PDF
Ensuring that sculptural features are not placed in prominent headland positions. And if they are not up to the communities expectations they are voted on to be removed.	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
Would like to see more storm water swale's incorporated into streetscapes. Adelaide does this very well. Also stormwater harvesting for use on playing fields, school fields.	4	PROTECT - Environment and Climate Change Strategy 2040.PDF
This photo clearly shows that Mona Vale Surf Club is IN the dune system. We should not be building surf clubs in the dynamic zone knowing what we know now, about dune systems.	5	CREATE - Environment and Climate Change Strategy 2040.PDF
The cost of initial upkeep must be budgeted for the long term survival of the planted tree.	5	CREATE - Environment and Climate Change Strategy 2040.PDF
There should be no reduction in the number of parks and pocket parks in the NBC.	5	CREATE - Environment and Climate Change Strategy 2040.PDF
Each bushland reserve needs to have its own plan of management which sets goals for bushland management. For instance if the vegetation type is sclerophyll woodland, then the bush regeneration should be to restore it to that type, which should include a suitable fire regime and other control of mesic vegetation - an increasing problem in urban bushland because of fire exclusion.	1	PROTECT - Environment and Climate Change Strategy 2040.PDF
One way to improve connectivity is through native gardens on private land. Where DA conditions include planting native species on private land, this has to be enforced at the time and over several years.	5	PROTECT - Environment and Climate Change Strategy 2040.PDF

<p>Dont rely on the Council website to raise awareness of bushland and its needs. You need to go out into the community and sell and demonstrate what you want to achieve. eg pop-up stalls in shopping centres about bush regeneration, or undesirable plant information. (why not use the word : doubleyou ee d?)This would also help people manage undesirable plants on their own land. Bushland areas where bushcare happens need signage to let passerby know what is happening and how they can help. Cheap signs are good enough as vandals are active and the signs can be easily replaced.</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>Consider improving habitat for small birds such as thornbills, wrens etc. on private land. The too common Noisy Miners are a native honeyeater but should be seen as a threatening process in the urban landscape, encouraged by the structure and species in urban gardens. They attack birds smaller than themselves in defending territories. Please encourage landowners to plant dense vegetation in part of the garden , and encourage groups of landowners to do this to provide corridors hopefully connecting to bushland reserves. In Warriewood and part of Ingleside Bell Miners have settled in the past few years and as they are strongly territorial may affect small birds, and may cause eucalypt dieback. Please monitor this situation.</p>	<p>3</p>	<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p>
<p>Thank you for all you are doing to make our community more sustainable. I live in a rented property and so have little control over the implementation of renewables i.e solar and water tanks. Encouraging owners of investment properties to invest in renewables can only be a good thing. I would also like the council to encourage all residents, especially those with high water use.i.e those with large gardens and or swimming pools to find alternative water sources- why is our drinking water going into the gardens and swimming pools? I find this unacceptable. Gardens are great but surely rain water or grey water would be a better way to supply water to plants and lawn. Further to this point, I would like council to revise the processes for the approval of swimming pools until an alternative source of water is made available. Increasing the BASIX requirements is a good start but I would also like to see houses retro-fitted with water tanks and other means of reducing energy and water use. thank you best regards Matt</p>	<p>2</p>	<p>LIVE - Environment and Climate Change Strategy 2040.PDF</p>
<p>This sounds a bit like we've got tickets on ourselves. It's not "what makes us special" but "where we live special".</p>	<p>3</p>	<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p>
<p>A bit clumsy - how about: "This strategy will guide our community to act now to tackle the challenges we face by protecting our extraordinary natural environment, creating a better built environment and ensuring a sustainable future (or brighter future)".</p>	<p>3</p>	<p>INTRO - Environment and Climate Change Strategy 2040.PDF</p>

<p>The Northern Beaches between Narrabeen Lagoon and Palm Beach has extremely limited access - limited via Pittwater Rd, Mona Vale Road and Wakehurst Parkway. Without large amounts of environmental degradation to bushland as is happening on Mona Vale Road now - killing endangered flora and fauna - and destruction of Aboriginal sites, it would not be possible to widen roads further or provide alternative access. It would therefore be extremely unsustainable to increase numbers of dwellings significantly in that area, making travel even more slow.</p> <p>Northern Beaches Council should be advocating to the state and federal governments on behalf of residents for lower population targets.</p>	<p>INTRO - Environment and Climate Change 6 Strategy 2040.PDF</p>
<p>National targets are too low to meet IPCC guidelines so reference to them is not useful. Maybe would be better to cite the IPCC guidelines - or those of organisations such as 350.org that recommend zero carbon emissions by 2030.</p>	<p>INTRO - Environment and Climate Change 8 Strategy 2040.PDF</p>
<p>The strategy should include the need to identify what infrastructure, homes and businesses are already at risk or will be at future risk from climate change. These at risk sites should be made public for the sake of transparency and to ensure Council, individuals and businesses are aware of any risks to property that they are considering buying or are responsible for.</p> <p>Such an audit would also identify infrastructure the Council is responsible for and critical state infrastructure (such as Pittwater Road) that will need to be moved, redesigned or rebuilt as the sea level rises.</p>	<p>INTRO - Environment and Climate Change 12 Strategy 2040.PDF</p>
<p>Invasive species - would be useful to specify plants (eg weeds such as prickly pear) and domestic and feral animals (such as cats, dogs and foxes).</p> <p>Our fauna in particular is under threat from cars. eg has helped make the koala extinct in this area and bird such as the powerful owl that hunt on the ground are still at risk. (So measures such as lower speed limits in residential areas could help protect these creatures).</p>	<p>PROTECT - Environment and Climate 1 Change Strategy 2040.PDF</p>
<p>Private gardens surrounding people's homes and roadside trees also provide essential habitat for threatened species. The tree canopy in the northern end of the peninsula extends into residents' gardens and when trees are cut down it destroys the homes of birds and marsupials. It also places them at risk from cars and predators, such as cats and dogs, when they can no longer move from branch to branch in the canopy and are forced to the ground in search food or a new home.</p> <p>The environment strategy therefore should introduce a more effective way of protecting these trees in private gardens - especially in the light of the state govt's 10/50 clearing laws.</p>	<p>PROTECT - Environment and Climate 2 Change Strategy 2040.PDF</p>

<p>No net loss of bushland will not protect our tree canopy and bio-diversity. Many trees that provide homes for wildlife take 150 years to grow and develop the hollows suitable for habitation. Planting 5,000 trees now will not provide homes for fauna and flora displaced by development - and they will die.</p> <p>The strategy should therefore provide for: protection of all bushland - including trees - on Crown land such as reserves; an audit of trees across the council area - including on roadsides, in parks, gardens around private homes and businesses.</p>			PROTECT - Environment and Climate Change Strategy 2040.PDF
	3		3
Encourage pet owners to keep cats and dogs inside at night to protect wildlife.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Encourage planting of native plants that are indigenous to our area to provide habitat for local species and prevent spread of plants that are classified as weeds. Educate public on this.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Provide public education about the role of residents' gardens in limiting run-off by absorbing water - achieved through garden design and practices.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Minimising and reducing the amount of concrete infrastructure such as footpaths on public and (private land) will help the land to absorb water and reduce run off. eg Footpaths in residential areas should be limited to main thoroughfares; development of hard surface playing courts should not occur next to waterways and preferably be done on land that has already been built on - rather than green space.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Develop plans for upgrading our sewerage treatment plants at Warriewood and North Head - and advocate with the state govt for it - to ensure that sewage entering the ocean at Turrimetta headland and Manly is as clean as possible.			PROTECT - Environment and Climate Change Strategy 2040.PDF
This should apply to development of any new dog parks.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Seawalls in particular should be avoided due to their impact on the overall shape of the coastline and destruction of associated beaches.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Any defensive structures should be designed and built by the council - and not developed in a haphazard way by residents.			PROTECT - Environment and Climate Change Strategy 2040.PDF
The apparent need for a seawall indicates a greater need for assessment of the sustainability of land use in that area - including houses and roads - such as Pittwater Road at Collaroy.			PROTECT - Environment and Climate Change Strategy 2040.PDF
Typo - "having"			PROTECT - Environment and Climate Change Strategy 2040.PDF

This can include controlled burns in reserves as well, in which many small marsupials and birds die - yet these are important to protect residents and their homes - that have been built right up to and sometimes surrounded by bushland. Would be great to see some investigation by council into the best way to balance these competing needs - and new homes and development should not occur in places in these sort of locations.	PROTECT - Environment and Climate Change Strategy 2040.PDF	8
Also need to protect old trees providing habitat in the gardens of homes and business.	PROTECT - Environment and Climate Change Strategy 2040.PDF	8
It is important to develop universal housing standards - ie that meet the needs of a range of people including those who are young, old and disabled - so that individuals and families can stay in their homes throughout their lives if they choose. It's particularly important for people who are elderly or with disabilities because of the shortage of appropriate housing for them.	CREATE - Environment and Climate Change Strategy 2040.PDF	2
We should cease all development on bushland if we want to retain biodiversity - and particularly the endangered species living on the Northern Beaches. Biodiversity is supported by wildlife corridors but destroying habitat reduces the capacity of the environment to support the same number of indigenous plants and animals. New housing should be redeveloped on previous sites and the number of new homes that the Northern Beaches can support while retaining bushland established. We have already lost a major forest and wildlife corridor at the site of the Northern Beaches Hospital and this should not be repeated on any scale.	CREATE - Environment and Climate Change Strategy 2040.PDF	4
We also need to preserve public green spaces such as golf courses and bowling greens. Numbers at the clubs that maintain these have dropped in recent years and the council should be ensuring this land is secured as open space for the community, in the event that clubs close down. At present access to these spaces has been limited to club members but if they could be transformed into wonderful public parks - with open play, picnic and relaxation areas, revegetated areas with bush walks, cycle paths etc. This environmental strategy could foreshadow plans for these green spaces - which would become even more important with increased housing density.	CREATE - Environment and Climate Change Strategy 2040.PDF	4
The first point here should be: "We are committed to preserving the old growth trees of our urban canopy." They provide the greatest shade, reduce urban temperatures and provide homes for native wildlife.	CREATE - Environment and Climate Change Strategy 2040.PDF	5
Also need to identify and purchase (or ask the state govt to purchase), and/or block development on land that is particularly environmentally sensitive or critical habitat supporting threatened species.	CREATE - Environment and Climate Change Strategy 2040.PDF	5
Species selected should be indigenous to the Northern Beaches - not just complement the natural environment - because those are the ones that will provide food and shelter to local wildlife.	CREATE - Environment and Climate Change Strategy 2040.PDF	5

<p>The council should not be promising corporate goals because it is not a corporation. Northern Beaches Council represents our community - and so the statement would be more appropriate if it read: "We are promising our own community goals, commitments ..."</p> <p>It sounds a bit dictatorial saying that people must switch off their heaters and wear more jumpers.</p> <p>Would be a bit gentler - and introduce the idea of energy efficiency which is also important to reducing carbon emissions - to say: We can make our homes more energy efficient so that we don't need to run our heaters so often - and when we do, they are powered by renewable energy.</p>	<p>LIVE - Environment and Climate Change 1 Strategy 2040.PDF</p>
<p>This could include community composting - especially in areas with lots of flats</p> <p>I haven't read the Move Strategy but it's important to support new renewable technology like electric cars by providing charging stations and advocating for electric buses to state government.</p> <p>Council could also advocate for a return of trams between Manly and Narrabeen - and perhaps further north to Mona Vale.</p> <p>And council run/sponsor small local electric buses for trips between suburbs or circuits - eg Newport, Bilgola Plateau, Avalon - or on demand to/from shopping centres to/from homes.</p>	<p>LIVE - Environment and Climate Change 2 Strategy 2040.PDF</p> <p>LIVE - Environment and Climate Change 3 LIVE - Environment and Climate Change</p>
<p>"Aspire" doesn't seem strong enough here. To aspire is to hope or have an ambition to do something. But this is something the council must actively pursue.</p> <p>This section does not have a clear strategy for managing climate change - or coastal retreat - which for a coastal council will be one its most important functions in coming years.</p> <p>The strategy should include plans to develop a program identifying infrastructure, homes and businesses that are at significant risk from sea level rise - including major storms. This information should be made public for the sake of transparency and to inform current and potential buyers of properties of the risks.</p> <p>The strategy should also develop plans for infrastructure (such as roads eg parts of Pittwater Rd) that needs to be moved or replaced, and decided which land is defensible and what will be abandoned. It is important that this is done with plenty of notice to allow time for the council, families and businesses to make appropriate plans for their property - and so that the council (ie residents) do not later incur the costs of risks taken by residents living or running businesses on land that will be flooded or eroded.</p>	<p>LIVE - Environment and Climate Change 3 Strategy 2040.PDF</p> <p>LIVE - Environment and Climate Change 7 Strategy 2040.PDF</p>
	<p>LIVE - Environment and Climate Change 7 Strategy 2040.PDF</p>

Some of the best data in the world has already been collected for Collaroy beach - one of the Northern Beaches' most at risk from sea level rise (http://ci.wrl.unsw.edu.au/current-projects/narrabeen-collaroy-beach/). So decisions about its future - and other areas for which data already exists - should be expedited. These decisions will not be easy for anyone and the more notice the community has the better.		LIVE - Environment and Climate Change Strategy 2040.PDF
Oops - sorry I missed this point earlier - so my first comment on this page relates to this. Identifying properties is important but transparency and informing the community is critical - to allow everyone to plan and avoid the council having to cover the costs of amelioration - or being sued for not sharing the information with residents and businesses.		LIVE - Environment and Climate Change Strategy 2040.PDF
Would it be possible to reduce this further if grey water use for gardens, toilets and some washing was encouraged - and planting of native gardens requiring less watering?		COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
This should be the top of this list! Infrastructure and jobs (money and more people) is something we should not be striving for. There should be a cap on home much development is allowed, therefore not allowing for the population to grow as dramatically as it has been predicted. We are the one's responsible for the destruction of the environment!		INTRO - Environment and Climate Change Strategy 2040.PDF
Precious bushland was lost for Manly Vale Public School. I used to go there to see white boronia in the Spring. I have never seen it anywhere else, but now it has been bulldozed. I dread the loss of yet more bushland (also in the catchment area for Manly Dam) for the construction of a relocated Frenchs Forest High School and for other "developments".		PROTECT - Environment and Climate Change Strategy 2040.PDF

<p>Dear Northern Beaches Council,</p> <p>I am a Northern Beaches resident of nearly 50 years.</p> <p>I have read through the Environment and Climate Change Strategy 2040 (hereafter ECCS2040).</p> <p>It is now well recognised that population growth, which is the driver of development, is clearly linked to biodiversity decline (as acknowledged on page 24 of the report, see also the 7 references below).</p> <p>The ECCS2040 states that by 2040, population on the Northern Beaches will increase by 39,000, from the current population of 268,849. This is a substantial increase of 14.5%.</p> <p>By comparison, Mosman council's growth from 2019 to 2036 is expected to be 3.9% (https://forecast.id.com.au/mosman), and less than 5% by 2040.</p> <p>In order to reduce the risks of biodiversity decline on the Northern Beaches, I request that you negotiate with State Governments to reduce the level of population growth to similar levels forecasted for our neighbouring councils, such as Mosman (i.e. less than 5% by 2040).</p> <p>Finally, I see that you "aspire to achieve no net loss of bushland" on page 19. This is good, but it is hard to see how this can be done unless you have a ban on clearing of any further bushland. A ban on any clearing of current bushland whatsoever would be an excellent start towards maintaining the biodiversity levels we currently enjoy. Such a ban does not mean development cannot occur. It just needs to occur on sites that have already been disturbed.</p> <p>Thank you for your consideration.</p> <p>References</p> <p>1. https://www.biologicaldiversity.org/programs/population_and_sustainability/extinction/</p> <p>Include a stronger focus on climate action e.g. by including the reference to the climate emergency and a clear commitment to an ambitious target e.g. 100% renewable powered council and community by 2030.</p> <p>A great example is Jacinta Arden's recent climate change bill</p>		INTRO - Environment and Climate Change 6 Strategy 2040.PDF
		INTRO - Environment and Climate Change 3 Strategy 2040.PDF

Overall a great document that makes me proud to live on the Northern Beaches and to be represented by a progressive council that is showing real leadership. The climate change aspect might need some strengthening and it would be great to point out the link between climate action and the economic future of Australia in general and the NB in particular. \ The transition to the clean economy is the greatest economic opportunity since the industrial revolution. Include a 'zero emission council [and community]'		INTRO - Environment and Climate Change Strategy 2040.PDF	5
The community aspect under council operation and community engagement is missing. It is easy to reduce council emissions to net zero and ideally those already should be net zero, but the community emissions are hard to reduce.		INTRO - Environment and Climate Change Strategy 2040.PDF	5
Include an additional infographic that covers the 'nasties' - tonnes of plastic entering water ways, tonnes of CO2e emissions of council and the community, tonnes CO2e emissions per person on the NB per year (last year ideally), energy consumption data, loss of natural habitat per year etc. You could also add the positive measures e.g. kWh or MWh or renewable energy produced per year (most recent available), kW/ MW installed solar PV of council/community, etc.		INTRO - Environment and Climate Change Strategy 2040.PDF	6
Great differentiation between Commitments and Aspirations		INTRO - Environment and Climate Change Strategy 2040.PDF	6
It would be great to see a reference to scientific bodies and clarify that the targets are based on empirical evidence and scientific modeling and are no to be politicised. A clear commitment to base all strategic targets on what the science tells us and not on politics or opinion polls would be great.		INTRO - Environment and Climate Change Strategy 2040.PDF	8
Clean Energy for Eternity would be interested in being involved in the climate action planning		INTRO - Environment and Climate Change Strategy 2040.PDF	9
This has a strong focus on adaptation and it would be good to increase the focus on mitigation and not only refer to 'reduce the risk', but include 'significantly reduce CO2e emissions to net zero by 2030 in line with the IPCC recommendations, increase the uptake of renewable energy to 100% renewables powered by 2030'		INTRO - Environment and Climate Change Strategy 2040.PDF	10
Add 'coastal erosion' to the graphic		INTRO - Environment and Climate Change Strategy 2040.PDF	11
Add 'flooding' Or similar		INTRO - Environment and Climate Change Strategy 2040.PDF	11
Great		INTRO - Environment and Climate Change Strategy 2040.PDF	12

<p>Council can achieve net zero carbon emissions from electricity (82% of its emissions) by entering a PowerPurchase Agreement (PPA) with a renewable energy provider, e.g. a solar plant. Ideally that renewable energy provider would be community owned. A recent case is City of Sydney entering a PPA with Repower Shoalhaven' solar plant. This will help power CoS with 100% renewable energy owned by community members.</p> <p>As the local NB community energy organisation (run by volunteers and Not-for-profit as an organisation) we from Clearsky Solar Investments would be interested in empowering our local NB community and council to benefit environmentally and economically from the production of clean energy. We could work with council to develop a community owned solar project to cover 100% of council's energy use.</p> <p>This could even be extended towards providing energy to the local community.</p> <p>2045 is too late based on the IPCC report and our commitment to aim to keep under 1.5 degree warming. We need to see that changed to 2030 at the latest, ideally council could become net zero emissions from electricity by 2020 - see the PPA comment.</p> <p>Council can significantly reduce its emissions from transport by shifting all vehicles to electric vehicles and dramatically reducing the size of its fleet, increasing the use of electric bikes, active and public transport options.</p> <p>Under the protection of our natural habitat and bush land we need to urgently add the protection of the wildlife refuge at Dee Why lagoon.</p> <p>We need the 'wildlife refuge' protection to become legally binding and in perpetuity. There has been a similar push by other wildlife refuge and the legal protection needs to be strengthened. Council needs to engage with the state government on this issue.</p> <p>We need to ensure that there will be no further incursion into the area and that ridiculous ideas like the path on top of the lagoon and bridge across the lagoon opening will never be put forward again and stopped.</p>	<p>2</p> <p>COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF</p> <p>2</p> <p>COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF</p> <p>2</p> <p>COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF</p>	<p>2</p> <p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p> <p>3</p>
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<p>We need to have the coastal committee reinstated as we will see increase erosions and more severe weather events. Sadly, council has already sacrificed the beach at Collaroy, which now disappears at high tide. When the tide is high then it is not possible any more to walk - as we did in the past - from Collaroy to Narrabeen. The public amenity - our beach - has been sacrificed for private gain, the building of residences where they should not have been built. Sea walls are being built that lead to the loss of the beach with water lapping at the sea walls, instead of sand dunes. The community engagement on sea level rise and coastal protection was generally in the past limited to the owners of sea front properties, mostly those that have been built in the erosion zone. But the discussion if private property shall take a precedent over public property, the beach, our ultimate Australian icon, needs to be broader and involve all the community that is a stakeholder in the beach itself.</p> <p>The coastal committee used to be a way to ensure that coastal matters involve key stakeholder groups, but it is not operating any more. It also used to be linked to the city coastal council group and the coastal conference.</p> <p>Therefore:</p> <p>(A) reinstate the coastal committee</p> <p>(B) start a broader consultation on sea level rise and coastal protection and involve all the key stakeholders that use the beach</p> <p>(C) educate the community on the expected sea level rise</p> <p>(D) stop any building work in the erosion zone immediately and remove financial support to people who despite all warnings decided to build on sand in the erosion zone; the community should not have to underwrite the risk taken by some few for personal gain in property value</p>		<p>PROTECT - Environment and Climate Change Strategy 2040.PDF</p> <p>3</p>
<p>A positive step towards reducing our community's carbon emissions could be the creation of a community-owned renewable energy producer and retailer. It could be either based on a community energy organisation or a PPP (Public Private Partnership) between council and the community and a retailer, that owns various energy producing assets and retails the electricity generated at a competitive price to the local community. This could be similar to the McKellar County Council, which used to be managed by the local councils and provide gas and electricity to the Northern Beaches. Despite Mike Baird having sold off our grid, we can do it again and this time do it with renewable energy.</p> <p>This could link also into Michael's dream of 60 000 solar households by combining those into a virtual power plant. The latter can be firm by batteries located at Cromer depot (with battery storage monetised by council).</p>		<p>LIVE - Environment and Climate Change Strategy 2040.PDF</p> <p>3</p>

Include the solar ambassador program - ENOVA has run a similar program already successfully in their area. A collectible impact study that I did for ARENA showed that the most efficient way to reduce community emissions was a solar bulk buy providing competitively priced solar systems to the local community. The biggest obstacle to solar uptake is that people find it too complicated and daunting to decide on the system and installer. A bulk-buy or solar ambassador program could overcome this.		LIVE - Environment and Climate Change Strategy 2040.PDF	3
A local Virtual Power Plant could significantly reduce emissions from electricity		LIVE - Environment and Climate Change Strategy 2040.PDF	4
Promote the good car company - Nissan Leaf at about 20 k!		LIVE - Environment and Climate Change Strategy 2040.PDF	4
And the leaf can act as a battery!			
There are many gaps in our wildlife corridors that are currently grassed that need to be returned to bushland to maintain connections eg around Cromer Park and areas where previous areas of bush have been neglected and are now almost grass eg between Huston Pde & Pitt Road North Curl Curl and around Surf Rd Park. Council strips should be planted with native grasses, wildflowers and small shrubs where possible - or with veggies. Leaving bushland should be a condition of development and large areas of cleared understorey avoided. eg the grass wasteland in front of the Northern Beaches hospital is a tragic waste of space and loss of biodiversity.		PROTECT - Environment and Climate Change Strategy 2040.PDF	9
Would be great if Council could encourage more innovative architecture to include vertical gardens. It should be a condition across new developments. (eg mainly vale Blaine parking area looks great - why is the Brookvale one a concrete jungle??)		PROTECT - Environment and Climate Change Strategy 2040.PDF	1
The Big Issue is the houses that have already been built. Homeowners need support to help them make their homes more sustainable so we use less energy. Could Council set up a consultancy service to attend peoples' homes and give advice on solar panels, water tanks and upgrading windows to double glazing? Beyond Council, the NSW government needs to offer some sort of financial assistance to enable homeowners to install water tanks and solar panels and double glazing, like the current subsidising of upgrading your downlights from halogen to LED.		CREATE - Environment and Climate Change Strategy 2040.PDF	3
Council could recycle a lot of materials from Kimbriki tip to make the new footpaths that are being created around the NB at the moment, rather than using new materials such as concrete.		CREATE - Environment and Climate Change Strategy 2040.PDF	3
I hope electric vehicles won't just replace the vehicles people are currently driving. The real issue is that we need to get more cars off the road. The B-bus line and Opal parking stations have made a huge contribution to that, making it easier and more pleasant to access the city. The recent Keoride initiative should be applauded and I hope it will be made permanent. We need more community style transportation like Keoride, and a safer road environment to enable people to use bikes and electric bikes as forms of transport.		INTRO - Environment and Climate Change Strategy 2040.PDF	14

A good place to start is in schools with education programs on reducing waste by not using disposable items in canteens. Incentives could be offered to schools to set up proper recycling bins, school gardens and composting bins.	3	PROTECT - Environment and Climate Change Strategy 2040.PDF
There is too much waste going into landfill and a lot of it has to do with people having no alternative but to throw everything out on the street. Every day I see mounds of useful household items sitting on the street waiting for council pickup. Many could be re-homed. A lot of charities these days are extremely picky about what they will accept, which is understandable. A lot of people just don't know what to do with items they no longer need and may have no alternative but to throw them out. I know Kimbriki has an outlet where they sell household items, but we need more outlets and more creative solutions. I would like to see council do more with all this "stuff". In the 1960 "flower power" days there was a shop called The Free Shop operating in San Francisco. It held items that were available for free, such as clothing, small household items etc. If Council had an outlets or space around the NB maybe it could operate one of these shops. People would have somewhere to drop off their stuff and people would have somewhere to go to find things they could re-use instead of buying them. We are told to keep buying to keep the economy turning, but there has to be a better way. There is a wonderful organisation in Marrickville and Parramatta called The Bower. It's time for a Bower on the the Northern Beaches. They also run on the road reuse and repair centres in other areas and run creative workshops for children in the school holidays: bower.org.au	2	LIVE - Environment and Climate Change Strategy 2040.PDF
Legislate against single use plastics asap; otherwise you are fighting a losing battle. Put effort into prevention rather than cure at this point in time.	5	PROTECT - Environment and Climate Change Strategy 2040.PDF
You might have 5 aquatic reserves, but only one has any real protection and that's the State renowned Cabbage Tree Bay Aquatic Reserve (CTBAR) waters around Shelly Beach and Fairy Bower. We need more aquatic reserves with more protection. Fairlight could easily become the next CTBAR by 2040 if we started now. Sea grass meadows are also a great carbon sink. Sea Grass Friendly moorings should be compulsory throughout the beaches. If you can afford a boat, you can afford a SGF mooring.	7	PROTECT - Environment and Climate Change Strategy 2040.PDF
With all DA approvals going through Council you should be able to mandate roof top solar as part of any DA - even backyard swimming pools. We also need a legislative solution for strata. Strata Management companies need to be forced to provide owners and residents an 'opt-in' to roof top solar.	3	CREATE - Environment and Climate Change Strategy 2040.PDF
Look at Brookvale on a Google earth map and the roof top real estate of hundreds of small businesses. I'm sure they'd love to save on their power bills if someone would show them the way. Council can facilitate that. Next week :) (Low hanging fruit)	2	CREATE - Environment and Climate Change Strategy 2040.PDF

Case in point. Our new pedestrian bridge at the Mall. Concrete (carbon producing), metal and glass. Where was the partnership with innovation and creative design? You need to start thinking differently. This is no longer business as usual. You probably had the usual commercial competition to build a pedestrian footbridge. Where was the creative competition to deliver on these ambitious goals of a new kind of built environment?	3	CREATE - Environment and Climate Change Strategy 2040.PDF
Agreed. Let's still to the facts. According to the official data on this page: https://www.pmsl.org/data/obtaining/stations/65.php . They are clearly rising.	2	CREATE - Environment and Climate Change Strategy 2040.PDF
I'm impressed by the cohesion of this strategy and the effort that's obviously gone into its creation. Both Council and Mayor should be congratulated on creating a roadmap for Warringah. I'm not sure how many other councils would have such a well thought through response to the climate emergency. I feel privileged to live and work in Warringah.	4	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF
If you want to minimise the effects of climate change I believe that we could reduce our amounts of waste being put into land fill. If we work together as a community to put our waste in the corrected bins we could compress the plastic and make it into roads. I've seen this on the internet and thought this was an excellent idea. plastic takes a long time to decompose and it will help improve the Quality of our roads. Im unsure of what the cost would be but I think it should be taken into consideration.	4	CREATE - Environment and Climate Change Strategy 2040.PDF
Pg 12 Could we use stronger words than "think about" here? We need to do more than think about, we need to take action.	12	INTRO - Environment and Climate Change Strategy 2040.PDF
The issue of population is not totally out of Council's control. There are many incentives currently in place for people to have children now – subsidised child care centres, free parking, playgrounds etc. However, very little encouragement or incentives for people who choose to protect our environment by having none. This is a difficult area and can be quite divisive, but if Council is serious about protecting our environment, then this issue would ideally be addressed in part in an environment strategy.	12	INTRO - Environment and Climate Change Strategy 2040.PDF
Population growth is the main issue that will affect all strategies, including this one. As stated, in 20 years, it is expected another 39 000 people will be living in the Northern Beaches and overseas migration is a key contributor. Even if the fertility rate in Australia is 1.8, fertility rates are higher in some of the places migrants are coming from, e.g. India (2.2) , Phillipines (2.6), Iraq (3.8), which will potentially result in even higher population growth than expected. Even if per capita consumption and emissions decrease, this will be negated by population growth.	12	INTRO - Environment and Climate Change Strategy 2040.PDF

Council definitely has a role to play in advocating for lower population targets. There is a limited capacity for the Northern Beaches to accommodate more residents without significantly changing the whole ethos of the area. People come here for the space and access to natural areas, however overpopulating the area will impinge on the natural environment and bushland, the very aspects that make this area so special and attractive.	15	INTRO - Environment and Climate Change Strategy 2040.PDF
Consideration of air quality and noise pollution could be included in these aspirations. These issues will become more prevalent with more people moving to the Northern Beaches and more high density dwellings.	3	CREATE - Environment and Climate Change Strategy 2040.PDF
The following terms are used within the document: carbon budget /carbon footprint/environmental footprint/urban/spacial footprint and ecofootprint. These seem to be used interchangeably and might cause some confusion. Maybe there could be a definition in the glossary for environmental footprint? What we actually want is for people to reduce their entire ecological footprint (not just their carbon footprint).	2	CREATE - Environment and Climate Change Strategy 2040.PDF
"Our built structures typically remain in the environment for a long time and account for approximately one quarter of our carbon emissions" however 2 paragraphs down, it says "Electricity and transport together are responsible for 85% of our community's carbon emissions on the Northern Beaches." So this may cause a bit of confusion, because the first statement is talking about embodied energy in built structures, and the next is about emissions from electricity use in the home and transport? It seems that the focus of the emissions reduction is electricity and transport as these are easiest to measure, however by not including the embodied emissions of goods like cars, houses, furniture, clothes etc.. are we missing the majority of the carbon footprint?	1	CREATE - Environment and Climate Change Strategy 2040.PDF
It is so great to see an image of the eco footprint! Maybe instead of calling it a carbon budget (as this is the only time this term is used and it is not defined in the glossary) call it the environmental footprint?	2	CREATE - Environment and Climate Change Strategy 2040.PDF
Excellent addition to discuss bigger picture carbon emissions from flights and diet composition.	2	LIVE - Environment and Climate Change Strategy 2040.PDF
Yes reducing single use plastic is important, however this is more an action that could be included in the action plans. If included in the strategy, it should be broader - rather than just single use plastic, it should really be all waste - construction waste, food waste etc..	3	LIVE - Environment and Climate Change Strategy 2040.PDF

Great to see food consumption is mentioned here, however this could really be its own section/included in the commitments as agriculture/forestry is the 2nd biggest contributor to greenhouse gas emissions after electricity and heat production (IPCC report, 2014) https://www.ipcc.ch/report/ar5/wg3/ . It would be great to focus on food consumption as food choices are made every day and can arguably make a bigger difference than putting solar panels on a roof. Particularly as we are expecting more and more people to live in units where electricity use per capita is inherently smaller, food consumption then becomes a bigger portion of the ecological footprint.	3	LIVE - Environment and Climate Change Strategy 2040.PDF
We need to think big - yes reducing plastic, switching to electric vehicles, composting, etc. is important, however, the biggest impacts a person can have on climate change are: choosing to be child free, having no car and reducing plane trips. Australians have the 11th biggest ecological footprint in the world; Council has an opportunity to influence this on a local level.	3	LIVE - Environment and Climate Change Strategy 2040.PDF
The addition of pie charts is excellent. Great images like this can really help people visualise theoretical concepts.	4	LIVE - Environment and Climate Change Strategy 2040.PDF
Maybe this could be paraphrased to include all humans;those elements of the physical environment, harmful to humans and caused by forces extraneous to them.	7	LIVE - Environment and Climate Change Strategy 2040.PDF
Climate change is present. We do not need to prepare, we need to reckon with it now. I suggest altering this language to 'combat climate change'	5	INTRO - Environment and Climate Change Strategy 2040.PDF
I believe Council can lead the way with electricity generation with solar panel installations on top of all car parking areas, not only will they generate power, but provide shade, and if coupled with free charging stations for electric vehicles it provides further incentive to go electric, and as not many people know, the battery capacity in cars can be reused when connected to the grid in peak times to alleviate power shortfalls. The council should also pressure Government to remove the luxury tax on electric vehicles making them more affordable.	2	CREATE - Environment and Climate Change Strategy 2040.PDF
Will Council step up to protect Manly Dam's bushland and creeks from tunnel road-widening and the relocation of Frenchs Forest High School, or will they be sacrificed for "infrastructure imperatives"?	6	INTRO - Environment and Climate Change Strategy 2040.PDF

<p>generally a more sustainable way of going to be the best when working with complex systems in society. A general blanket solution that addresses single use plastic, diverting organic waste from land fill, lowering carbon emissions, creating more green infrastructure and local employment etc, is to designate areas for local food production. Food that travels less distance to point of consumption, and that is produced in a small scale-high intensive way is a big winner (less emissions, less need for packaging during transportation, less time under refrigeration, fresher food).</p> <p>Green waste can be collected and recycled locally, then reused as compost in these local food growing systems.</p> <p>Local urban farms and other urban food projects, can be profitable business ventures that supports local employment. These places can also become educational hubs that show 'real life' food production in an urban context, there for aligning with this drafts plan to educate citizens on this topic of growing food at home.</p> <p>Please see the link to a success example of just one form of a local food system that ALSO aligns with this drafts idea for improved 'green infrastructure.' By weaving in food production, organic waste recycling and community education to this plans green infrastructure concept, we can achieve many goals simultaneously and in a holistic manner. (https://www.disclose.tv/atlanta-turns-7-acres-of-vacant-land-into-the-largest-free-food-forest-in-the-country-368282?fbclid=IwAR2OSP929ZIn5eXxNJUL39AYZA8ji3SvFY5mwiC3GR6ipgGaBt_Lvhd_XFY)</p> <p>As a food grower myself, access to land that is appropriate for food production AND that is also appropriately zoned for primary production is difficult. Council could definitely be effective in this issue.</p> <p>Monetary aid for new, establishing, urban farms would greatly increase the viability and success on urban food projects such and small scale, intensive market gardens on public or leased private land. The hardest years in market garden are the first two, during its establishment.</p> <p>There are many ways to bring organic, regenerative food production back into our local areas. I work as a Regenerative agriculture methods help to sequester CO2 into the soil while simultaneously producing food for people. Another bonus local, urban farming (assuming the practices align with regenerative agriculture principles)</p>		LIVE - Environment and Climate Change Strategy 2040.PDF 3
		LIVE - Environment and Climate Change Strategy 2040.PDF 3

Simple, safe and cost effective grey water diversion for irrigation is an appropriate solution. I see this is already mentioned. Education for residence is key for this strategy to work. Free council supported consultancy could be a solution. Weekend educational workshops that specifically target grey water reuse would be good to see.	2	LIVE - Environment and Climate Change Strategy 2040.PDF
Supporting Permaculture Norther Beaches would be a great start, as they already have pathways to deliver education to the community, with experienced educators.	3	LIVE - Environment and Climate Change Strategy 2040.PDF
This is a great goal. I fully support this.	3	LIVE - Environment and Climate Change
This would be a great incentive for people looking to build a house to live in for a long time however people who are moving around for any number of reasons would prefer to rent or buy a cheaper house as it would be far cheaper pay for the energy rather than the solar panels early on in this projects lifespan.	2	CREATE - Environment and Climate Change Strategy 2040.PDF
I totally support this important goal.	2	COUNCIL OPERATIONS - Environment and Climate Change Strategy 2040.PDF

Submission
<p>I am 12 and I want to make a change to northern beaches and save our environment. I reckon council should be cleaning the water and keeping an eye out and what is happening in our alter and other places that are filled with nature.</p> <p>I want council to do more</p>
<p>Don't make plastic cups anymore get reusable cups to stop them being chucked on the ground. Help out environment so it stops burning bad fuels and going into the air. Keep the greenery around the pace or we won't have enough oxygen and die. Knock sense into Scott Morrison - help us do more. He wasted a billion dollars on a football stadium that could have gone on helping our environment.</p> <p>Don't build anymore in our area, we wanna keep it natural and healthy.</p> <p>Stop smoking in public places because it puts bad chemicals into their air because it will give me cancer and I'm too young to smoke.</p> <p>Get electric cars. Is there such thing as an engine that doesn't use fuel for. Boats because that would be good for our water.</p> <p>My friend went to a climate strike the other day and I think council should let us have one here on the beaches.dont burn fossil fuels because it's bad.</p>
<p>I am an aboriginal girl living in Mona vale. I think it is our responsibility to protect our environment t and save our land. Don't chop down anymore trees and help regenerate our bush land. Plant more Australian indigenous plants and encourage our culture along the beachesthrough the environment . Don't let my culture disappear from here.</p> <p>Try and keep our alters clean and not have any plastics. Put more garbage bins around so we can put waste where it belongs.</p> <p>Protect out native animals and help us learn more about them so we can connect to our environment.</p> <p>Micro plastics a e bad and in my opinion even if you have a tiny bit of plastic, and you don't think it matters but it's bad. Council shouldn't have any plastic things at their stalls. Use reusable cups, I like the seeded cards because they aren't plastic and they are fun.</p> <p>I think council should go to our schools and tell us about this strategy so we can share out feedback with you and you can hear from kids who have to live here longer than you.</p> <p>Please listen to us and do more to protect our environment</p>
<p>I think we should completely stop using fossil fuels it's bad for the atmospher and use desalination plants and we're running out of fresh water.</p> <p>Council can start now not in 2040.</p> <p>Reuse water in construction and households. Stop having long showers and no baths.</p> <p>I think we should protect t our green space and we should have a law to protect green space. Put my socially connective infrastructure like benches in parks.</p> <p>I am 14 and I fell like council doesn't really care about the environment because they might not be around by them and we will have to live with their decisions and they take their decision making lightly.</p>

My friends and I feel that council doesn't listen to us or think we are informed enough to make decisions or have a voice. You should speak to us why don't you?
Take greater responsibility in regard to increasing dwellings and population. a: Ensure all new dwellings are self sustaining with water catchment, solar collectors and batteries for hot water and power. b: Construct the infrastructure for any increase in population prior to dwelling approvals.
Reduce / minimise single used plastics, maintain land, only cut down trees if you need to. Try promote being more sustainable. If your constructing
Proud of the Northern Beaches Council and taking this essential step into bettering our environment! I work in sustainability on the Northern Beaches and also work with kids doing a 8 week program to help better educate the younger generations on what they can do to help. Would be happy to work with the council to further action this plan and bring about more awareness. Thankyou! Regards [REDACTED]
Yes I do believe it reflects the values held by our community. As we have such a beautiful environment on the Northern Beaches, this was definitely due and the goals you have put in place and necessary and relevant [REDACTED]
3rd October 2019 Andrew Pigott Northern Beaches Council Executive Manager Strategic and Place Planning Dear Sir, Northern Beaches Local Strategic Planning Statement Thank you for this opportunity to comment on the Draft Strategic Planning Statement; Towards 2040. As this Plan will set the planning controls over the next 20 years it is important to ensure that the Plan is achievable. We are encouraged to see that the "Landscape "is the top priority in this Plan. In the Key elements of the Plan it states in part, "New planning controls for improved environmental outcomes". The examples given in this section do not include the protection of ecosystems and biodiversity throughout the natural bushland areas. These areas contain threatened species, habitat, wildlife corridors and in some area's extensive aboriginal sites. We consider that the Strategic Planning Statement should include the following: The LEP should include consideration of tree protection heights/dimensions and requirements for development applications to consider and implement the Urban Bushland Strategy. In an urban setting, bushland is a fragile and a finite resource that must be preserved and protected. Vegetation, particularly mature trees, can contribute significantly to an area's character. In particular they have exceptional value visually, culturally, economically and intrinsically. Northern Beaches LGA has a leafy character, established through the interconnection of many canopy trees distributed across road reserves, parks, bushland areas and private property. The quality of the vegetation has an enormous impact on the quality of life of all those who live

or work in the Northern Beaches. The obvious aspects of aesthetics, oxygen production and pollution reduction are supported by many other more subtle functions, such as traffic calming, privacy, reduced energy consumption, recreation, habitat and shade along with soil stabilisation.

New development provides opportunities to reinforce this leafy character and embellish the Northern Beaches strong "sense of place" by planting appropriate trees as part of a development. It is the responsibility of the developer to provide appropriate landscaping to achieve these objectives.

Council should also enforce a strong policy regarding the unlawful damage to or removal of existing trees within the LGA, whether they are located on public or private land.

Maintain the visual, social and environmental amenity of the area through the preservation of trees and other vegetation.

Maintain and increase the totality of trees and vegetation across the Northern Beaches area by embracing the principles of Urban Forest Management, green (habitat) corridors, riparian zones and Continuous Cover Arboriculture.

Ensure the planting of adequate numbers of appropriate trees in association with new development in the Northern Beaches area.

Promote the value of and the need for the protection of trees and vegetation, to the community, developers and Council staff and encourage the reporting of tree vandalism and removal.

Protect existing trees and vegetation during construction of development.

Minimise the risk of injury to people or damage to property from trees and vegetation.

Recognise the financial value of trees and vegetation.

A major part of the Draft Plan concentrates on the provision of considerable more population and the associated additional infrastructure.

This will result in the provision of zonings for increased residential density. Although higher density residential increases antisocial behaviour, this can be partly offset by ensuring the natural bushland areas are protected without having ad hoc planning and diminishing and degrading the sense of place.

In previous planning reviews to meet population targets provided by the State Government in the previous Warringah Council area, the Council was able to achieve the targets within existing urban areas.

For the Northern Beaches Council area, we certainly request that the non urban areas in the previous Warringah Council area, be retained, particularly all the existing bushland areas.

In regard to the provision of a range of housing types it is essential to consider the quality of life in conjunction with the local character and amenity. To achieve this, it is essential that a goal of the Strategic Plan should include a Statement that will protect the residential densities for the various zonings in the LEP.

Residents need to be confident that when they buy into an area, the character of the area will remain as defined in the LEP.

This is not the current situation where SEPPs, codes and spot zoning can degrade the low density areas.

Quality of life is an essential ingredient of planning documents.

Northern Beaches LGA are facing many problems: high vehicle miles of travel, insufficient level of services, diminished air quality, degraded sense of place, segregation in land use and other non urban feature problems. It is obvious that these problems negatively affect the human quality of life. Quality of life is considered one of the most important dimensions for sustaining any urban development.

The desire to improve the quality of life must protect the Character of the neighbourhood and should be an important focus of attention for planners.

In addition to environmental planning controls, it is essential to have sufficient resources to ensure that bushland areas are not cleared. This bushland clearing has been gradually occurring over the last 20 years and is still continuing without very little control.

Those with authority in this area have a real opportunity to preserve the natural environment under their stewardship.

The infrastructure required for the population target, will be substantial with most of the facilities to be funded and provided by the State Government.

It will be important to obtain commitments from the State Government prior to completing the new LEP.

We would appreciate Council addressing these issues prior to finalising the Draft Local Planning Statement.



I think that the draft strategy truly reflects the values of the majority of our community and especially the net carbon neutral by 2030 target that reflects the Climate Emergency motion that the council recently adopted. The Council have shown bold leadership in setting this target that aligns with community values - most surveys show that over 60% of people want bold action on climate change and a rapid transition to renewable energy and on the Northern Beaches we want to be in the vanguard of change. This aligns also with the science - if mankind does not radically decarbonise all aspects of our lifestyles by 2030, then a hot-house earth future of 4-6DegC of warming will become unstoppable and the survival of our species (and most others) very doubtful. We HAVE to succeed for our children and grandchildren - extinction is not inevitable.

I have read your climate strategy report:

1. Your report is mostly fluff and guff. A lot of words, no actual plans.
2. Here are a couple of practical suggestions:
 - (a) Plans for an array of 1,000 cubic metre storm water/silt detention basins to the coastal, Pittwater and lagoon waterway fringes,
 - (b) Plans for properly maintained gravel fire-fighting trails through our bush land suitable for fire fighting vehicles,
 - (c) Maintenance plans for our parks and reserves to include manpower rosters for detritus clearing rubbish clearing, high pressure water spraying of toilets, bar-b-q's and park furniture
 - (d) Yearly plans for dredging and recycling of dredged (sand/soil) to Narrabeen and Dee Why lagoons to mitigate the spread of mosquitoes, deadly algae and sand-flies.
 - (e) Standard engineered guidelines for the installation of wave walls barriers to coastal properties

Great work on the submission. My addition would be that there needs more workforce working with local business/organisations, industry and schools/early child hood centres to help them reduce, reuse, recycle and educate. I think at least public schools should have access to free recycling pickups as they are not for profit and this is an area to reduce waste. All business and organisations needs strict eco targets to meet and be made accountable for meeting them. Keep up the good work! I am so proud NBC called a climate emergency and is rapidly taking action.

Please allow for Environmental upgrade agreements.

<https://www.environment.nsw.gov.au/business/upgrade-agreements.htm>

As one of the largest councils in Sydney, Northern Beaches really need to join the City of Sydney, Parramatta and North Sydney Councils in facilitating these. It is a valuable channel for commercial property owners to upgrade the sustainability of their buildings. Extremely cost effective.

I agree with councils environmental objectives. But I don't agree with council and state government planning laws to allow the development of boarding houses. This cuts directly across the environmental objectives where existing R2 housing blocks are over crowded taking with it available green space, adding congestion, increases pollution and damages existing and sensitive environmental footprint.

Thank you for your informative missive however while I strongly support your feelings about protecting our native wildlife and bushland you completely lost me when you published your unproven assertions about a climate emergency.

There is irrefutable proof that the information you state indicated that CO2 is a dangerous gas is

<p>ignoring the fact that this alleged dangerous gas is an essential ingredient for the growth of all forms of plant life.</p> <p>In fact, the 2 countries emitting the most CO₂, India and China, are leading the world in reforestation because of this concentration of CO₂. Further more data taken over a significant period clearly shows that the worlds weather is in a cooling phase, not a heating phase.</p> <p>I might suggest that the authors of this policy learn the difference between climate and weather.</p> <p>I would also suggest that the majority of educated residents in the NBC region would dispute councils allegations that the world is experiencing a " Climate Emergency", Councils actions on this matter is more like council is pandering to the misinformation being spread by people more interested in garnering votes from the misguided then actually pursuing policies being based on actual scientific facts.</p> <p>I would also suggest that based on actual recorded data that there has been negligible, if any, rises in the sea levels since data collection started in Sydney Harbour.</p>
<p>I would like you to note that I object strongly to my Council rates being spent on renewable energy and and other schemes purely directed at saving the world from climate change.</p> <ol style="list-style-type: none"> 1. This is not the job of local Councils. Our Federal and State Governments are doing a bad enough job. 2. Australia contributes less than 2% of the so called global warming gasses so anything we do makes an undetectable difference to global warming. 3. Subsidising renewable energy pushes up our power prices, forcing our industries to become uncompetitive and unable to compete with overseas industries who are operating with cheap power produced by burning Australian coal.
<p>I have read with great interest your draft strategy, it is unfortunate that 3. 1/2. Years have elapsed since the major storm on June 5 2016 occurred. Since that time nothing has been done to save the beach except the construction of a revetment Seawall in front of the car park at Collaroy, by NBC ,which is very good . The balance of the Beach has been eroded in greater and greater quantities to the extent that large portions of the beach are now a "Wet Beach" only . The section between Weatherill and Stuart (110 meters) is completely blocked to the public at high tide, even at low tide ,part is unaccesable . While we may be spending 100, s of thousands of \$,s on new 20 year plans we should pay more attention to what is around us now that needs fixing or repair.</p>
<p>I would like to see more inducements to ratepayers (perhaps through rates relief/discounts) to (i) instal rainwater tanks and tanks to store grey water from showers/sinks for use in the garden, and (ii) in addition to the State/Federal initial subsidy, subsidies to instal solar panels and battery storage</p> <p>Otherwise, the overall strategy is very well structured and presented</p>
<p>Agree with everything and would like to see food waste taken away each week plus more council bins in local areas to recycle plastic.</p>
<p>solar panels and wind are useless when there is no wind and sun and therefore little use for families who need constant flow. costly ad ineffective</p> <p>with 39000 more people coming land will have to be cleared which goes against your policy especially with the extra burden of more garbage and higher sewage use..does not help</p> <p>Simply changing a few light globes means nothing</p> <p>Emissions free by 2050 is fictional</p> <p>electric cars what are you going to do about the discarded batteries and the extra emissions needed to charge which leaves a carbon foot print</p> <p>Your draft dreams but no mention of "concrete fixes " just spin doctoring</p> <p>Please look at queenscliff lagoon that you guys were go yo do something..nothing done</p> <p>To me the is just another election spin to and an excuse to raise rates</p> <p>much a do about nothing</p>
<p>Excuse my ignorance but could you please advice which humankind activity has induced a change in the climate leading to this Emergency Climate Change decleration recently voted for by our councillors and which action you are proposing that has been proven to be effective in changing this alleged humankind climate change which is now considered an emergency.</p>

Thank you,

I suggest that the council should get their climate change facts right and listen to Tony Heller, stop wasting our money and no one can ever change the climate ever.

<https://youtu.be/bOHRYY3yAGE>

I think you are kidding yourselves if you believe carbon dioxide is causing climate change. There is no SCIENTIFIC PROOF of such claim. Computer modelling is not a scientific basis. Any minor increase in CO2 has resulted in a greening of the planet. Climate change activists used to say that there was global warming, when that was unsubstantiated, their terminology became climate change. Please consider, the climate change industry is a complete con, you cannot make steel from wind or solar power.

Facts are in our own area that people can go and check that the Pacific Islands are increasing in area, NOT decreasing. The Great Barrier Reef is in very good health and NOT declining due to bleaching.

By all means curb pollution of all types including such statements based on false analysis. In that regard look at the appalling record of the BOM statistics. Why is there no audit of the BUREAU OF METEOROLOGY and their fudging of temperature records? Check it out!!!

It would be wonderful if someone could invent a way so that water wasted from hot water tap while we are waiting for the water to get hot could not be wasted but saved to go back into the system or at least stored to be used later.

Has anyone ever thought of this? If not time to think about it. Would have amazing implications for water saving if this waste could be sorted....especially takes a long time for my hot water tap to release hot water. not sure if it's because I am in a unit block or if it would be less waste for a home...can we get the plumbing brains on to this? create a competition for inventors

Idea owner...don't expect or want any recompense if this problem is solved..that belongs to the inventor. I hope it's not an idle dream.

I don't think it is ok to destroy any more bushland for any of it

I note that (as always in these type of document) there is a photo of a cyclist. I am a cyclist commuter (ebike) between Dee Why to my work in Lindfield. Despite travelling 2km further to avoid the traffic on Warringah Rd, my trip is typically quicker by ebike. On rainy days when the traffic is very bad, ebiking has been 30 minutes faster than driving. Ebike commuting could be a very significant contribution to well-being an alleviating congestion - but it requires that proper bicycle lanes are established along the North-South and East-West corridors. Critically, these need to not be interrupted by side roads (need to give way at every side road makes bicycle commuting unattractive). A joined-up bicycle network will revolutionise the urban livability of the Northern Beaches.

For the protection of bushland, I would like to see the strategy matched to a tactical approach of ensuring that human impact in areas of sensitive environment are managed through strategies that do not exclude people from nature but encourage them to minimise damage through clearly marked walkways and rest areas that are both attractive but also resilient to human impact. Council has already done this with things like the walkways around Narrabeen lake or through Warriewood wetlands which encourage people into the area but also make it easier to stick to the walkways and thus minimise the impact while facilitating enjoyment. Likewise the playground and picnic facilities should be set up as they have been at Billarong Reserve. Trying to keep people out will not work, so give them nice places to walk and sit, and they'll do that.

Plant trees where possible. Singapore is a good example. Howard ave looks good!

<p>I am so proud to be a part of a Council who is actively seeking and implementing solutions for this global crisis - climate change. Thank you, I look forward to seeing this strategy come to fruition and keep up the good work.</p>
<p>I think the document is overly long. It should be easier to pick out what things COUNCIL can do in reality...Adaptation more than Mitigation. It, needs a balanced approach, don't try to make out that NBC will have an impact on reducing emissions and recognise that whatever NBC does And or its residents do will have no impact in reality as emissions are global.</p> <p>So any proposals should be cost effective, supportive of individual actions but if people want drive their car as well as ride their bike or eat meat as part of a sensible balanced diet etc NBC should show it's approach does not pander to the extremists views</p>
<p>I DO NOT WANT MY RATES TO FUND DISCUSSION/DEBATE & ANY SORT OF 'CLIMATE CHANGE ACTION'. The draft policy is 40+ pages of ideological indulgent scare mongering (& how how much has council spent putting this document together that provides either useless or inconsequential information?). If council did it's job to stop pollution & over-development it would go much further to minimizing human impact on the planet, no need for new policies & declarations. I want my rates used for practical purposes such as garbage collection, park and street maintenance and the like. Common sense suggests efficient use of electricity & that is incumbent on everyone. We need more sports facilities, parks, public swimming pools, parking spaces to accommodate existing populations & the likely increased population.</p>
<p>Great plan and well researched and articulated. Very supportive of this initiative.</p>
<p>I hope the values in the draft strategy are in fact held by the community, at the moment I don't see a lot of evidence of this being the case. I hope you can take the community with you on this journey.</p> <p>There needs to be more specific timelines to some of the commitments - and a lot more education.</p> <p>How do you get developers and businesses on board ? - maybe need to make more of economic benefits of being truly sustainable.</p> <p>By default moving to a more sustainable lifestyle should include a bigger variety of housing opportunities including social housing, low income, universal housing, shared ownership schemes, as well as private ownership and rental. Community gardens and verge gardens should be prioritised.</p> <p>The renewable energy targets are too low in my opinion.</p>
<p>This action plan, appears to uphold with the values of my community (Curl Curl). I would however like to suggest implementing lagoon regeneration as a way to incorporate greater opportunities for wildlife preservation, especially for bird species. Such a problem regarding qualities of lagoon water levels have effects tying significantly with surrounding communities and the health of our oceans leading to their drainage. The health of lagoons are really the beginning for opportunity to develop greater quality of life for wildlife and society. Of course my solutions are not entirely (if at all) reputable, but technologies such as dam membrane linings, monitoring of water (especially due to industry infiltration) and general research are solutions that would be worth investment, time and effort. I hope you consider my concerns for our lagoons none in specifics yet Curl Curl lagoon is one of much concern often in a much larger scale.</p>
<p>I really appreciate the focus on sustainability and protecting our natural habitat around the Northern Beaches. I hope that the Northern Beaches council can speak loudly for our endangered flora and fauna and work hard to protect their habitat and range. I think it's important that we as a community actively restrict reducing vegetation cover in our forests, wetlands, and coasts. I think it is also incredibly important that we promote the revegetation of our suburbs. More trees mean cooler summers, more space for wildlife, and helps create urban wildlife corridors. If the Northern Beaches could include its expected increase in the population of 39,000 people while increasing its vegetation and forested areas, that would be an incredible feat and one future generations would enjoy and be proud of.</p>
<p>I am concerned by the diminishing tree cover in our area.</p> <p>Trees are constantly being removed for a variety of reasons, but I see very few being replanted.</p>

We know that is one very easy way to mitigate climate changes. Why is there not mass planting at every appropriate location?

Yesterday I saw established banksias being removed and a concrete strip laid in its place in Bilgola... we need more trees, not less.

Eucalyptuses were removed from my street, Lewis street, Avalon recently, and no replanting has happened, this is inexcusable.

Thank you for all the good initiatives, but we need more trees for shade, amenity and to counter climate change,

Also, more dog accessible beaches, please.

Bushland Action Plan

- If I die under a falling tree someday, I will know I died well. I don't want to see another tree come down for the rest of my life. A "safe" world without trees is catastrophically dangerous.

Waterways and Catchments Action Plan

- Regulating water access so it doesn't discriminate against other species - I'm dead serious. How do ducklings get out of a "healthy" river if all the mansions have built walls to the water? Where can animals drink if we have piped up all the rivers?

Coast Action Plan

- More mangroves! We love mangroves (the stinkier the better)!

"maintaining our beaches, headlands and rock pools to a high level of community satisfaction" = It's just not about us.

Biodiversity Action Plan

- Welfare and ethics. No more 1080 (and the question beyond 1080 is not "what can we use now?".)

- If you cannot kill them yourself, do they deserve to die?

- If we wanted to remove invasive species, we would have walked ourselves off for euthanasia long ago

- "Improving the connectivity of wildlife corridors" = Road under passes & overpasses

Sustainable Built Environment Action Plan

- "All new buildings being net zero emissions by 2030" = yes including their build! & materials & proper payment to services... (or no more development ! even better)

Green Neighbourhoods

- Developing groups... elders.... attachment to environment, nature + community

- Helping people share (including with their non-human neighbours)

Sustainable Living Action Plan

- Empowering the people so they unite and have a defining voice on environment and climate change = this is community action

Aspiration and Resilience Action Plan

- Don't take anymore trees down PLEASE

- "Understanding and actively managing risks from bushfires, coastal erosion and inundation and flooding in the community" = Allowing natural processes to occur & encouraging the community to learn about transitional ecosystems

- using the term "address" in regards to climate change is wishy washy

Council Operations

"A 60% reduction...." - in layman's terms??

Bushland Action Plan

- keep the trees > 40% canopy

- new developments need to be better controlled

- indigenous significant areas / respect

Waterways and Catchments Action Plan

<ul style="list-style-type: none"> - Measure quality of creeks & let the people who live nearby know the health of the waterways - inform people we are on water restrictions better <p>Coastal Action Plan</p> <ul style="list-style-type: none"> - "reducing impact of urban run off" = water tanks / detention tanks - ban plastic bags on northern beaches. Just do it despite Gladys <p>Sustainable Built Environment Action Plan</p> <ul style="list-style-type: none"> - " 50 % of suitable premises with solar panels installed by 2030" = subsidies/ recycling locally of solar panels (Kimbriki?) <p>Green Neighbourhoods</p> <ul style="list-style-type: none"> - "Plant a minimum of 5,000 trees each year" - natives, area specific <p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - All sporting clubs to move to net zero emissions by 2025-30 - sustainable, frameworks for club to follow & assist with implantation eg. cricket, soccer, golf, surf clubs, swimming, little athletics, netball, football codes - incentives for smaller rubbish: user pays - "drinking water use" = water reduction -incentives for reducing single use plastics - net zero emissions by 2030 not 2050 <p>Council operations</p> <ul style="list-style-type: none"> - EV charge stations at surf clubs, car parks, shopping centres, RSL clubs, golf clubs
<p>Bushland Action Plan</p> <ul style="list-style-type: none"> - what efforts are being made to consult indigenous owners / communities = is there an indigenous voice being represented through the strategy? - what strategies are being made to reach those who are not in the same privileged, social placement we are i.e. past primary school education. we need to extend influence beyond those who already believe <p>Sustainable Action Plan</p> <ul style="list-style-type: none"> - supporting /encouraging both sustainable diets eg. veganism, and particularly sustainable shopping - supporting local businesses (particularly smaller ones) with opportunities/resources to act, provide, and produce sustainably - some sort of rewards system, benefits to encourage business, sustainable housing
<p>Bushland Action Plan</p> <ul style="list-style-type: none"> - larger canopy cover on new build -stricter rules fro developers and tree removal -native trees for all street trees <p>Coastal Action Plan</p> <ul style="list-style-type: none"> - get rid of shark nets on all beaches - remove the drumline -more garbage bins to public spaces -signs in other languages about littering near cliffs and fishing hotspots <p>Biodiversity Action Plan</p> <ul style="list-style-type: none"> - more native street trees <p>Sustainable Built environment Action Plan</p> <ul style="list-style-type: none"> - Cheaper renewables <p>Green Neighbourhoods</p> <ul style="list-style-type: none"> - Green roofs as a requirement on all new builds using Indigenous low water plants

<p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - ban plastic straws & cutlery from cafes/ restaurants
<p>Sustainable Built Environment Action Plan</p> <ul style="list-style-type: none"> - allowing home owners green grants and more flexibility to building methods i.e hempcrete, super adobe housing - put more pressure on owners who want large carbon footprints <p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - attempt to cancel out of food waste from households by creating an educational food waste collection program -most families don't have a lot of interest unfortunately in creating rich soil from their waste, although know it is the right thing to do -put together monthly payment methods and days for food scrap pick up day! - when food is picked up, small pamphlets can be shared to talk new green plan/actions happening in our community
<p>Waterways and Catchments Action Plan</p> <ul style="list-style-type: none"> -"improve the condition of all our waterways" = no astroturf near waterways as it breaks down and enters the water way -rewind the clock to a time before plastic <p>Coastal Action Plan</p> <ul style="list-style-type: none"> - "maximising retention of natural coastal habitat and improve the quality of coastal vegetation" - stop the plowing / tractor flattening of the beaches, it disrupts the natural movement of sand and banks <p>Biodiversity Action Plan</p> <ul style="list-style-type: none"> -"reducing the impact of invasive species" = plant natives in new houses * how does council spread the word of the policy? <p>Green Neighbourhoods</p> <ul style="list-style-type: none"> - keep existing tree canopies - "ensuring development" = stop mass land clearing by developers. Keep a percentage of trees. Build into the land not clear land and grow back. <p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - "net zero emissions in our community by 2030" = a must! -"reducing single use plastics" = no astroturf as it breaks a part and ends up in water ways, minimise plastic use in building as it deteriorates - we have natural alternative to astro turf, it's called grass. <p>Council Operations</p> <ul style="list-style-type: none"> - "net zero emissions by 2030" - important! = "construction waster" - a huge waste sector. might need incentives
<p>Bushland Action Plan</p> <ul style="list-style-type: none"> - protect the wildlife within this bushland - avoid all clearing of bushland during new developments <p>Waterways and Catchments Action Plan</p> <ul style="list-style-type: none"> - highly recommend a great effort to remove micro plastics from our catchments <p>Coastal Action Plan</p> <ul style="list-style-type: none"> - keeping our dunes on the beaches clear from litter. They are always heavily polluted and it affects the wildlife in these bushland, as well as wastes into the ocean. <p>Sustainable Built Environment Action Plan</p> <ul style="list-style-type: none"> - reduce waste on building sites. Through providing incentives for tradesmen

<ul style="list-style-type: none"> - reduce the plastic / packaging that building materials come in - The building industry has a major waste factor <p>Green Neighbourhoods</p> <ul style="list-style-type: none"> -we can plant more trees than 5000 a year compared to the amount that are cleared due to development - new trees to be native <p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - reduce all single plastic use! Plastic bags, straws, plastic packaging needs to go! Urge businesses to change their strategy. Encourage not to use single use plastics - educated on recycling. Where is it going? We need to improve how we recycle so it makes it easier for the companies who collect it to do it properly - Introduce more community / vegetable gardens - Education in schools about sustainability <p>Adaption and Resilience Action Plan</p> <ul style="list-style-type: none"> - keep back burning limited, protect the wildlife <p>Council Operations</p> <ul style="list-style-type: none"> - improve knowledge and encouragement about being more sustainable in every day life to our community members - encourage businesses to improve their sustainable practices
<p>Hello</p> <p>I think this is a great plan if you can pull it off, especially if you are aiming for 0% emissions by 2030, more than the Federal Government is willing to push for.</p> <p>My main concern is the encroachment of urban development into bushland. Preserving our bushland means limiting our population while not destroying the peninsula with high-rise apartment blocks. Not an easy ask I know!</p> <p>How do you intend to push back on State and Federal Government issues in this matter? The NSW Government's policy on logging in old growth forests does not augur well for protecting our bushland or the environment in general. Can you speak out against government policy as a council, especially when it doesn't meet the aims and values you have just outlined for the Northern Beaches?</p>
<p>Bushland Action Plan</p> <ul style="list-style-type: none"> - sounds good! Squashing more and more people in will make this impossible . - Over population is a problem. We should spread the idea of zero population in growth. Just replace yourselves. That is my chief point. <p>Waterways Action Plan</p> <ul style="list-style-type: none"> - all great! <p>Sustainable Built Environment Action Plan</p> <ul style="list-style-type: none"> - find a way high rise and tenants can participate. I think there is away of doing this already. It needs to be advertised and implemented -95% solar by 2030 <p>Green Neighbourhoods</p> <ul style="list-style-type: none"> - stop the law allowing the cutting down of trees up to 10m from your home! 10:50 law. - Encourage tree planting that is compatible with rooftop solar <p>Sustainable Living Action Plan</p> <ul style="list-style-type: none"> - carbon emissions need to be at least 75% by 2040 if not 100%. must be 100 % by 2050 - "diverting 85% of waste" = 100% of waste from land fill - nil single use plastics not reducing

Adaption & Resilience + Council Operations are all great!

Comments on Draft Northern Beaches Environmental and Climate Change Strategy 2040.

With some caveats, I congratulate Council on the Environmental and Climate Change Strategy 2040. Much expert effort by staff and advisors has created this document. The priority placed on sustainability and environmental values is most welcome and consistent with community priorities. The vision statement, "a safe, inclusive and connected community that lives in balance with our extraordinary coastal and bushland environment," encapsulates these values although the key word "sustainable" could usefully be included before the word "balance". Since the concept of sustainability is central, an alternative statement such as "a sustainable community with a high quality of life living in balance with a healthy ecosystem that includes natural bushland and beaches" seems more appropriate. Ideally, our vision should include an optimally-sized, stable population since an ever-growing, or ever-shrinking, population is unsustainable.

My caveats involve the underlying processes that threaten environmental sustainability. These processes arise from growth in both the economy and the population, the latter being acknowledged on p.12 "We know that development can put significant pressure on our environment. This includes the impacts that come from increasing consumption and an expanding urban footprint." Population growth by 2040 is projected to be 39,000 residents (and 11,200 homes) and, since no optimum end point for population size is nominated, growth is likely to continue after 2040. We appear to be locked in to a continuing unsustainable threatening process. If "environmental sustainability is a priority" (SHAPE 2028 Discussion paper 2017), addressing these threatening processes should also be a priority.

This growth will most probably place pressure on the ecological environment via increases in the following factors singly and in combination:

- Habitat loss due to houses, roads, schools, bike paths etc;
- Loss of wildlife corridors;
- Non-native species eg, cats;
- Pollution and waste;
- Disturbance to habitat (eg, dunes, beaches, lagoons, recreation areas);
- Unnatural noise and light;
- Consequences of increased greenhouse gas production eg, warming, violent weather, beach erosion etc; and
- The urban heat island effect.

Consequently, growth should be a primary policy and management issue in the Draft Strategy. A key acknowledgement should be that material growth is unsustainable (by definition) and that there are limits. The concept of population stabilisation as a strategy should be addressed in the Draft. Rather, there are vague statements such as "We need to make sure that we manage any growth so it occurs in the right locations and is supported by sustainable infrastructure." (p.12).

An unpalatable conclusion follows:

If population growth continues, "management-at-the-margins" strategies that seek to reduce consumption, pollution, loss of biodiversity etc, though worthy, will ultimately fail via the increasing ecological footprint and the "tyranny of small decisions". The environmental values that make the Northern Beaches so attractive will be degraded. We will fail to achieve our stated goals ("to protect, enhance and restore the local bushland and biodiversity and the unique value it has on the Northern Beaches") to the detriment of both the environment and human wellbeing.

I understand that population growth is a wicked problem given the huge, established pressures for growth. Further, it may be thought that Council has no control over population growth and therefore the issue is off the agenda, a proposition I do not accept. For example, the following strategies could be implemented:

- o Determine public opinion concerning population growth in the northern beaches;
- o Educate the public about the relationships between population growth, the environment, the economy, human wellbeing and sustainability;
- o Publicise the large infrastructure costs of population growth;

- o Sponsor public dialog concerning the nature of an optimal population; and, importantly
- o Establish partnerships with other councils and lobby Governments to stabilise population size as part of a bottom-up process.

In a democracy, it is useful to assess public opinion. To its credit, Council has sought guidance from the public on a range of issues and found that environmental protection is pre-eminent. If local public opinion mirrors national polling, about 70% are opposed to population increases (Betts 2010, People and Place Vol.18). Certainly, this issue is topical with some state and federal politicians calling for a slower rate of growth, especially when the costs of infrastructure are so high (over \$100,000 per additional person).

Further, Australia's mayors claim that population growth is largely responsible for rate increases (Creighton, A. and O. M. Hartwich 2011. Australia's angry mayors: how population growth frustrates local councils CIS policy monographs, PM120). As well, analysis based on the Genuine Progress Indicator suggests that human wellbeing has been declining in Australia since about 1972 when the population was only 15 million (Martin et al. The Conversation).

Consequently, the time is right for councils to lobby for population stabilisation. In its own words, Council could pursue a "strong collaboration and advocacy role to bring relevant stakeholders together to deliver our outcomes" (p. 8 Draft Environmental Sustainability Strategy 2011-2012.).

The following quotes offer support.

- "We might even develop plans to stabilise urban populations at levels that can be sustainably supported". Professor Ian Lowe, 2011 Chair of the first State of the Environment Report 1996,
- "A growing population greatly compounds the planning challenges of shifting to a lower-impact lifestyle. A stable city can contemplate restoring degraded or previously developed areas for biodiversity corridors, whereas a growing city does well simply to avoid clearing already intact habitats." Australian Conservation Foundation
- "Population growth is a concern" Dick Persson
- "Population growth is one of the main drivers of environmental impacts" State of the Environment Report 2011
- "A new approach is needed to balance the economic benefit of a fast-growing population against its environmental and community impact. Rob Stokes (NSW Planning and Public Spaces Minister)
- "I've never seen a problem that wouldn't be easier to solve with fewer people, or harder, and ultimately impossible, with more". Sir David Attenborough

In conclusion, our stated environmental goals will be unachievable if the population size and its ecological footprint are not stabilised.

Alan Jones
October 2019

BUSHLAND ACTION PLAN

- Make wildlife protection a high priority in bushland protection/action, avoid clearing bushland for new developments

WATERWAYS AND CATCHMENTS ACTION PLAN

- Remove and protect microplastics from entering water catchments

COAST ACTION PLAN

- Keep the sand dunes on the beaches, and regularly clear litter

SUSTAINABLE BUILT ENVIRONMENT ACTION PLAN

- Development of a solar grid in all new areas, new buildings, houses, with grid firming and

storage.

- Provide charging infrastructure for electric vehicles especially 'Park and Ride' and biofuels/electrification public

GREEN NEIGHBOURHOODS

- Planting native trees and plants in new housing areas as well as existing spaces

NORTHERN BEACHES COUNCIL OPERATIONS

- Implement an annual review of the plan that consults the public, allowing for changes to be made each year
- In regards to recycling construction waste, providing incentives to get tradies on board
- BAN single use coffee cups - utilise, supply and promote biodegradable cups / keep cups for businesses

BUSHLAND ACTION PLAN

- Protect old trees, which will inturn save wildlife
- "Maximising retention of bushland" - What does this mean? Say NO to ANY further destruction of bushland
- Include indigenous people when writing policy
- Concrete buildings leads to LGA losing uniqueness and special appeal. Rethink and repromote area as a developing area for the arts and beauty of environment

COAST ACTION PLAN

- Discouraging sales of bean bags, polystyrene cups.
- Support coles, woolies, markets to zero plastic bag use, at check out and in fruit/vege bagging
- Manly, fast food and mcdonalds should be encouraged to use alternatives to plastic cups

BIODIVERSITY ACTION PLAN

- Free plants to residents - bushes, small plants, not large trees

NORTHERN BEACHES COUNCIL OPERATIONS

- This must happen. Climate before anything else!!
- Be an inspiration to other LGA's!
- Provide charging infrastructure for electric vehicles
- electric/ solar buses
- promote change through planning regulation
- Safe cycling, introduce traffic lights for bike lanes like in the netherlands
- bike racks on buses

SUSTAINABLE BUILT ENVIRONMENT

- subsidise cost of batteries that store solar energy
- Manlyvale B1 carpark is a fantastic example. Dee why is so bland, so full of concrete. Please copy manlyvale throughout northern beaches

SUSTAINABLE LIVING ACTION PLAN

- Solar powered buses!
- approachin pubs/rs's and other businesses to not use single use plastic cups

If you list the environmental problems we are currently suffering, you will find that nearly all of them have a common cause. Humans. Yes, our species alone is having an environmental impact similar to the impact of a huge meteorite! The planet would be far better off without humans. It's asking too much that we eliminate humans altogether, but the next bet is to limit their numbers. The Northern Beaches should at least declare a limit on the number of humans able to live here. In fact, I would contend that we have already exceeded this number! The whole world needs to similarly hang up the FULL sign, forcing us all to make reproductive and lifestyle choices before the environment becomes so degraded that limiting our numbers will no longer be a choice!

<p>I feel that people need to be aware that they need to dispose of used batteries properly. This should be made easy for everyone by some sort of regular collection system, to prevent batteries ending up in the garbage collection.</p>
<p>I do not want any extra person to come and live on the Northern beaches in the next 20 years. There are already too many people here. Too many people, too many cars, difficulty to park to shop, slow traffic.</p> <p>You have already wrecked the area by building 8 town houses for instance when there were only 2 houses before. You are blind as to how this area is not pleasant any more.</p> <p>I do not want these 39 000 people to move here. There are plenty of other areas elsewhere in Australia to accommodate them.</p>
<p>It is vital that we protect our wetlands. Since moving to Warriewood Valley 15 years ago, I have noticed how the wetlands have become more and more choked with Pampas grass, with less water available to native birds etc. More action needs to be taken here. The high rise development of Meriton so close to the wetlands has also polluted the water. We need to ensure that we don't have further intense development similar to this. Good luck!</p>
<p>You have missed so much.</p> <p>No effective public transport. When I moved to Avalon we had a regular bus service to the city, now we don't.</p> <p>You continue to miss that dog owners are in the majority and want access to surf beaches by timed access.</p> <p>Station beach may go ahead but it's still not a surf beach.</p> <p>So much more but no room</p>
<p>I am increasingly concerned about the welfare of the 3 or 4 major trees growing in the new B Line Carpark in Berry Reserve. By my reckoning they would be approximately 60 plus years old. Ever since the work was done in the carpark they are showing great distress and are in need of emergency care. Before the carpark was built I went to Council and was assured that these trees would not be taken out. But now they are withering before our eyes. If the Council considers itself to be environmentally aware these trees must be saved... so many other smaller trees were taken out of Berry Reserve for the carpark, but these remaining large trees are a very important part of Narrabeen life and must be cared for.</p>
<p>Response to council enviro policy draft - Protect Create Live Protect - Theme 2: Waterways and Catchments</p> <p>Our goal Our catchments and waterways will be healthy and resilient; valued and enjoyed by our community. They will be protected and enhanced as an integrated system; connecting built, natural and cultural elements.</p> <p>Comment Moving to chemical-free benefits each catchment Waterways need to be not only protected; but regenerated. Tactics need to be chemical-free. This starts with an audit of the use of pesticides across council operations 1 and the catchments that council has authority over eg golf courses, schools.</p> <p>It has been proven that pesticides, herbicides and fungicides are a hazard to microbes, insects and aquatic life 2. Their health and existence are essential to the recovery of waterways health. Techniques needed are cutting and removing weeds, saturated steam weeding 3 4, hand weeding and the enhancement of refuges at the margins 4, by killing weeds without chemicals and complementing plantings to support beneficial insects and endangered fauna 4 5.</p> <p>Treatment should start in shopping centres with saturated steam 3 4 instead of herbicide spraying onto pavements and gutters that run directly into waterways. This will reduce the impact of toxic urban run-off.</p> <p>Strategies to grow more flowers and native plants to support the 'good bugs' around playing fields will counteract the effect of the 'bad bugs', so insecticides will not need to be used 5 6. These points are also applicable to 'Protect – Theme 1: Bushland'; 'Protect – Theme 3: Coast' and 'Protect – Theme 4 – Biodiversity' as they are all connected.</p>

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- 4 Steaming to Success – Eastern Metropolitan Regional Council, WA
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- 5 Landscape diversity and field margin management Vesna Gagic CSIRO 2016
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Live - Theme 7: Sustainable Living

Council will lobby and advocate on behalf of our community to ensure that local, state and federal policies reflect and enforce the efforts needed to help our community transition to living more sustainably

Comment

Work sustainably

Residents of the Northern Beaches are disadvantaged by the continuing shift of state government jobs further west. Setting up a state government working hub that could provide a social, secure, serviced location would enable support and communication for meetings and office resources. 'Telecommuting' may be a current buzzword. It will allow work opportunities without the commute – well even if it is a few days a week. Council is positioned to propose this concept to a state government looking for innovation and cutting commuter traffic. Enabling residents to keep jobs in this sector adds to the diversity of the local community. This could also apply to local govt. Encouraging tertiary institutions to make use of the hub concept would also cut commutes for many students and academics. If shops as we know them are being under-utilised; this could be a new function.

Live sustainably

Council needs to continue to promote home composting that significantly reduces transport and waste disposal costs.

Council and residents using locally recycled soil and mulch will cut costs and dramatically improve soil carbon, microbial bio-diversity and water-holding capacity in local gardens, playing fields and parks.

Council needs to continue to support food produce markets. This cuts 'travel miles' for food and builds resilience to difficult times.

Council should support shared housing to improve density without high-rise; or the need for new building and infrastructure. This change to better use of real estate has social benefits, to solve pensioner poverty, loneliness and depression. It may encourage private food growing and eco retro-fitting. (Retrosurbia, Holmgren, David, 2018 Melliadora Press). Council could also support a 'Share my Garden' community program matching unit dwellers with private gardens.

Penelope Jacobs, BA Vis Comm. SCA, former co-developer and co-ordinator, Kimbriki Eco House and Garden and resident.

a great initiative that will have a great positive effect of the future of our beautiful northern beaches!

<p>Hello</p> <p>I ride a push bike, the northern Beachers has lots of parks including golf clubs and sports fields, surely a few meters can be taken of the edges for of road and off footpath cycle ways</p>
<p>Support the three key directions in the Strategy. Main issue is people need to walk the talk i.e. practice what they preach when it comes to advocating for stronger State, Federal and Local emission reduction targets and making choices themselves to live more sustainably.</p>
<p>Public Bins: more public bins up and down the northern beaches, there is consistently issue with not being able to find bins to dispose of rubbish. this is a huge issue considering our proximity to the coastline. Bins that are available are generally very full at any given. This is achievable to implement immediately.</p> <p>Regenerative practices: There is not one mention of the word let alone any practices regarding regenerative practices. In construction domestic and residential and bush care. This is a vital and necessary practice we need to have in order to maintain and repair the damage from land clearing, dune erosion, construction and all other human activities.</p> <p>Single use plastic: Too many shops, cafes and retail are using single use plastics, we know and understand the effects of single use plastic and items very well and it isn't possible to create a healthy local environment with too many single use items in circulation</p> <p>Circular economy: moving toward this will eliminate waste and continually using resources we have available locally will reduce mass consumption and keep valuable assets in circulation. which will reduce the need for more therefore consuming less. It can be started on a small scale very easily and momentum will easily carry this to a larger scale quite effortlessly.</p>
<p>I am seriously concerned with the environmental impact of the telecommunications towers that are being erected without serious review or safety consultation with the local residents and workers. The health implications are considerable and very serious long term. The effect the EMR has on the local environment and this includes trees, insects and animals. The 5G is said to be safe according to Telstra and Optus and ARPANSA yet it is not true.</p> <p>The levels of EMR completely exceed the safe levels recommended by enormous amounts.</p> <p>"The radiation is a serious issue and relates back to immune dysfunction, severe medical and neurological problems in humans. With animals they found bone marrow suffered - which produces the immune system, enzyme activity damaged, nuclear DNA damaged. Any level of microwave radiation affects biology not just the stronger signals.</p> <p>The new 5G wireless technology involves millimetre waves producing photons of much greater energy than even 4G and wifi. Allowing this technology to be used without proving it is safe is reckless - the millimetre waves are known to have a profound effect on all parts of the human body." https://envirowatchrangitikei.wordpress.com/5g/</p> <p>I am concerned for insects and animals and humans.</p> <p>The enormous 5G tower in the Dee Why Library car park is not safe and residents and visitors were never consulted. The workers within the library were not consulted. 5G harms life.</p> <p>You want to know how to protect the environment - halt the roll out of 5G before it harms us all. Demand safety and research BEFORE. Faster internet will not matter unless we are all safe. A clean environment and recycling will not matter if human health is not maintained and made a priority. You can't see it so it isn't important will not be justified if society suffers enormous health risks for the Electromagnetic Radiation we know is emitted from technology.</p> <p>I do not consent to 5G in my environment. My children do not consent to 5G in their school, playground, sports field, local library, hospital, shopping mall. We demand our health is considered safe.</p> <p>Please do more to ensure the community is safe. Stop to roll out of 5G. Investigate the safety. Nothing matters more than ensuring the population is safe. Then address the climate emergency please!</p>
<p>Overall the draft document contains worthy but generalised information but is too light on the detail of what is to be done in a planning sense to meet the urgent need to implement practical measures to mitigate and prepare for climate change as spoken of in Theme 8 of the draft document. i.e. "Continually incorporate best available Climate Change knowledge and practices</p>

into strategic land use planning".

Well Northern Beaches Council, the best and latest information, undoubtedly is the UN Intergovernmental Panel on Climate Change's (IPCC) Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) was approved at the IPCC's 51st Session (IPCC-51) in September 2019 in Monaco, which states:

"While sea level has risen globally by around 15 cm during the 20th century, it is currently rising more than twice as fast – 3.6 mm per year – and accelerating, the report showed".

According to the report, global warming has already reached 1°C above preindustrial levels, with: profound consequences for ecosystems and people; a warmer, more acidic and less productive ocean; melting glaciers and ice sheets causing increased sea level rise; and coastal extreme events becoming more severe.

The global ocean, the report notes, has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system, with consequences now visible in increased ocean acidification, stratification and loss of oxygen.

In context of the Northern Beaches CC mitigation planning, it is likely by 2050 current 1% AEP coastal impact increases to 50 % AEP.

This means that predicted range of permanent elevation of sea level elevate the tailwater depths with highly adverse consequences to existing Flood Hazard areas in terms of frequency and magnitude. Similar increases in berm heights of barrier sand deposits of the four ICOLL's will occur in line with sea level rise. Council should immediately establish and maintain regular survey data by recording of height and volume and rates of deposition of berms in order to be able accurate update in timely fashion of Flood Planning Levels in existing and expanded future Flood Hazard zones.

Council appears to need to give better attention to the fact that its protections in s.733 of the L G Act depends entirely on a successful defence in cases where harm is alleged to have been caused by Council, in respect of things done or omitted to be done, only if it can be found to have always acted in good faith on best available information available to it, in a timely and direct fashion.

In that context I submit that Council is now confronted with a serious situation of risk should it fail to rapidly move to update its adaptation and mitigation planning.

The Northern Beaches Council is to be congratulated for producing this (Draft) Environment and Climate Change Strategy 2040 document. It posits this council as a globally conscious and responsible agent and this document as providing a model of a hopeful future.

Herewith some important points and oversights....

Biodiversity

I note your image of a kangaroo and of a little penguin.

Wildlife corridors are essential to ensure habitat critical mass and safe access. Currently, there are discontinuous areas of habitat and most of the roads in the NB Council area such as McCarr's Creek road, Mona Vale road and Wakehurst Parkway demonstrate our prevailing human disregard for the right to exist of threatened wildlife. There should be zero wildlife 'roadkill' and zero wildlife injury or death caused by cats, foxes and by dogs.

Please include comment on unrestrained dogs as hazards. They terrorize birds such as visiting spoonbills in wetland areas ...

The little penguin colony, which should still be the pride of the area, as noted on p.24 and p.25 is at serious risk, from people and unrestrained dogs (irresponsible people) and strategies to absolutely maintain this colony as viable MUST be executed immediately and explained in the document.

The document makes no mention of koalas. Tragically, most of the area's groups of koalas such as at Oxford Falls have been extinguished.

Water conservation

Public toilet facilities are a source of waste of our precious water. Toilets are often left flushing and taps running.....
<p>Invasive species Rabbit elimination is needed, notably at the headlands where the erosion is serious.</p>
Excellent that there is a plan. Would be great to see strong actions supporting biodiversity protection and environmental quality such as 1) a reduction in domestic pet numbers via increased registration fees & dramatically increased fees for those choosing large dogs or multiple dogs in recognition of the environmental damage and costs borne by the community from excessive dog excrement polluting waterways, parks & landfill, and wear and tear and loss of utility from dog parks; 2) erect massive signs that impede views where trees in parks/ reserves have been killed; 3) ban the use of round-up in council land and start active tree planting campaigns so there is more shade and fauna protection in parks/ reserves
<p>I think the strategy provides the right balance by recognising and valuing the natural values of our local environment.</p> <p>No net loss of bushland should not include offsets that take place outside our council area. We must protect and enhance the bushland that we have left. It is disgraceful to see bushland continuing to be cleared for developments especially where there is known habitat for threatened species.</p> <p>I like that the health of bushland will be monitored but this should include direct monitoring of some of our key flora and fauna so that we can see how their status is changing over time. This is most important for threatened species.</p> <p>One issue that I think is overlooked is the number of domestic and feral cats roaming our neighbourhoods. Residents should be better educated about the toll cats have on native animals.</p>
My family strongly supports protection and preservation of our precious natural environment. We also strongly support responsible climate action policy on behalf of our council, for everyone's case. Therefore we support council's efforts to create this strategy. On the other hand we are concerned about pressure for inappropriate development for our area, which we understand council has to deal with. State government urban density targets are one example of concern, another example is the recent recommended plan for netball courts along Careel Creek - we need our green spaces and water ways to be protected and preserved to keep the Northern Beaches' qualities and environment we love.
<p>I can't find any reference to Air Quality in the Strategy.</p> <p>Since this is such an important area of community health, over which Council has jurisdiction, in so far as approvals to pollute are concerned, I would expect to see it covered as a Priority 1</p> <p>The winter air quality in many areas of the LGA is regularly poor due to the modern domestic wood burning fires that emit volumes of toxic but invisible PM 2.5 particles,</p> <p>I submit that council should be planning to address this serious health problem over the period ;by:</p> <p>Firstly, Introducing a policy (there is none) that has the targets of ;</p> <p>Declaring no burn zones in existing high pollution locations. ...short term.</p> <p>Banning the installation of all new wood burners across the LGA.....short term</p> <p>Adopting a goal of phasing out the burning of wood in all areas.... longer terms</p>
<p>It is all very well to want to reduce waste but the fact is we DO have waste and the reduction in size of our waste bins is an issue which has left MANY beaches residents furious. The roads around Forestville are a nightmare thanks to the inept roadworks on Warringah rd and surrounds ,there are nails and debris scattered all over Warringah rd, I have had 2 flat tyres in 1 year, never happened until the roads were ripped up.</p> <p>We NEED a strong council who will defend the beaches area and refuse to let developers destroy the remaining bushland by building housing when the roads and facilities cannot cope with more people and cars and the effects on the community. We DO NOT want to be living on top of each other, we want to keep the bushland and protect the flora and fauna of the area.</p>

Where is the plan to mitigate the disgusting number of native animals killed on the roads? I have asked this question before but received no response. More roads are built but no one has an answer on how to protect the animals so I am asking again, WHAT is the response to my query? I am a home owner in Forestville and have a vested interest in the safety of the native (some endangered) fauna in the area. If the Northern beaches become overdeveloped it will devastate the valuable and irreplaceable flora and fauna, and that would be a tragedy. I recently found a road killed bandicoot in my area , they are endangered so the problem is very real, please respond to my concern.

I made a well thought out submission earlier this week but have received no acknowledgement as yet. Can you confirm to me that you have received it.

██████████

Consider EV garbage trucks, EV lawnmower and edgers rebate off rates.

Climate change is over reaction from council and will not change the weather in the long term
We should accept that coal fired power supply is needed more than wind turbines
Adequate water supply by building dams to help the farmers is a much bigger issue

Stop trying to control the weather and start fixing things you do have control over - the average processing time for a DA is 87 days. Why?

Climate Change Strategy (Theory)

There are many, many scientists 100% believing in Climate Change and many, many scientists saying it is not true. I suspect actuality is probably somewhere in the middle, maybe a third as bad as the scaremongers are advising and maybe with 3 times the time period.

That said, I still believe it is a good idea to find more fuel efficient machinery etc. and reduce our dependence on fossil fuels, particularly petroleum fuel, which we mostly import.

FIRE HAZARD REDUCTION

I would have thought that the fastest way to reduce adding carbon dioxide into the air, would be to find alternate ways to do some (maybe a third) of the hazard reduction without the use of carbon dioxide producing fire. Surely in the 21st Century we can develop efficient mechanical hazard reduction machinery which can do some of the hazard reduction.

I suggest Council should look into efficient mechanical hazard reduction machinery.

I also suggest Council should look into using this mechanical hazard reduction where reasonably possible and use fire hazard reduction where mechanical hazard reduction (mowing, mulching etc.) can't reasonably be used.

I'm not suggesting stopping fire hazard reduction burning, rather suggesting we reduce where mechanical can reasonably replace it.

Coupling some mechanical hazard reduction with strategically planting of lower burn trees, could help reduce the bush fire threat and reduce our carbon dioxide footprint at the same time.

I would suggest the best targets for mechanical hazard reduction would be the 15 metres each side of roads, cycleways and walkways, and 15 or so metres surrounding parks, and homes backing on to bushland.

This may or may not be the answer, however I think Council should look at this as one way to make a big impact with these two considerations.

I agree with working towards lower emissions, more trees and more use of renewable's for electricity.

<p>We are made up of 70% water, so is the planet. I think this is no coincidence. Our thinking should be more towards fresh water.</p> <p>I believe more needs to be done with capture of water during rain and then slow absorption into the environment which what would have happened prior to European settlement. This would increase transpiration in dry times putting more moisture into the atmosphere and creating more rain.</p> <p>Use of desalinated sea water for industrial, commercial and watering of green spaces will better use our most precious resource. We are 70% water after all.</p>
<p>I was happy to see the Council declare a Climate Emergency, but now for the actions. The easiest first step would be to protect the bushland that we already have, rather than clearing bushland that is absorbing carbon, and creating more hard surfaces in catchment areas that then take pollution into our creeks and waterways.</p> <p>I would also encourage Council not to allow building in areas where there are vulnerable and protected species. Our world needs to protect all living things for our environment to remain sustainable for future generations.</p>
<p>I really enjoyed reading through this strategy and appreciate the work the Council has put into delivering this.</p> <p>From a first glance it is evident there is a lack of inclusiveness in the strategy in terms of diversity and participation. The ESG being +35 year olds may be an avenue for diversifying in age and cultural backgrounds. The lack of Aboriginal and Torres Strait Islander perspectives and knowledges in this strategy is really disappointing.</p> <p>Bushland Action Plan:</p> <ul style="list-style-type: none"> - put the bushland first and humans second - bushfire management should use Indigenous fire burning techniques and knowledges that allow wildlife to escape easier and protect the land better overall - developers should be banned from bushland areas unless they can create harmoniously with the existing ecosystems <p>Waterways and Catchment Action Plan</p> <ul style="list-style-type: none"> - better monitor and patrol construction-based waste into waterways - encourage mangroves and important wetland areas - remove single use plastics altogether obviously - ban restaurants from single use takeaway items especially sushi soy sauce fishes - ban styrofoam - advocate for sustainable fishing & fishing accessories with local businesses <p>Coast Action Plan:</p> <ul style="list-style-type: none"> - implement beach cleaning programs as essential part of lifeguarding duties - stop developing on eroding areas - stop astroturf at beaches - regularly check bins at beaches so they don't overflow - stop developing beach areas and allow for natural movement in the land - create better marine and coastal reserves for wildlife and ecosystems - STOP THE DRUM LINE and SHARK NETS - we are in their environment <p>Biodiversity Action Plan</p> <ul style="list-style-type: none"> - "reducing the impact of invasive species" = this should also include all man-made dangers to native species eg. chemical waste, material waste, harmful machinery.. etc. - improve education programs for adults on local biodiversity not just children - less development more biodiversity reserves <p>Sustainable Built Environment Action Plan</p> <ul style="list-style-type: none"> - explore other energy options besides solar - incentivise solar

- rooftop gardens for food produce & native foods
- food waste collected and composted
- community gardens in each suburb

Adaption and Resilience Action Plan

- "understanding and actively managing risks from bushfires, coastal erosion and inundation and flooding in the community" = lets just prevent these harmful natural disasters by looking deeper at the cause of the problem rather than just "managing" the problem. they are a result of ecological breakdown and other larger issues

I am very impressed with this strategy (and the fact that Council have declared a Climate Emergency).

My concerns rest with implementation and enforcement. In my local area there has been a devastating loss of trees in the last 5 or 6 years and an associated loss of vital habitat for wildlife. I do not see any enforcement of the offset rules when mature trees are removed and I am concerned about offsetting in general as there is no real substitute for retaining flora and fauna in situ - even if that is "inconvenient" to residents.

Also, my recent experience with the decision made by council regarding the Station Beach off leash dog area has shown that Council may have great aspirations regarding the importance of environmental custodianship but that individual councillors fail to put those aspirations into practice when faced with real life issues.

There is no excuse for choosing an environmentally sensitive beach for an off leash dog exercise area when we have many kilometres of more suitable options.

I hope that strategies such as Protect, Create, Live - when fully operational will end the ongoing habitat destruction we are seeing currently at the far Northern end of the Northern Beaches.

Caveat: - for your info, I do not live in Waratah Road and I have never met any members of Protect Palm Beach. I am a dog owner and lover but feel that native species (including aquatic species) should always take precedence over humans and their pets.

I have read and seriously considered the draft proposal...Thank you for the opportunity to comment on this historically important Northern Beaches Council strategy proposal.. Council initiative and declaration of Climate Change Emergency will add vital moral and practical impetus - and leadership at this critical period in human development...

Clearly and to be brief, the Mayor's reference to "a host of challenges" and "this strategy will guide our community to act now....." shows us the scale and diversity of these challenges...The competing and often conflicting interests of the natural environment (Biodiversity, healthy eco systems provide the foundation for ALL life to thrive) and the built environment cannot be underestimated,...For example, there are suggestions NBC might build a bridge over Dee Why lagoon entrance, that a boardwalk might be included in the Manly to Palm Beach walk track, that Frenchs Forest High School relocate to the old tip site at Aquatic Centre, the introduced tree species in Dee Why Centre are a few cases of built environment conflicting with the natural environment...As the Strategy says, Council's ability to influence varies but is extremely important....In my view, the fundamental cause of the extinction of species, loss and degradation of our natural environment has been (and continues to be) development and the incremental built environment...However, as we are all contributors - directly or indirectly - we must resolve these pressures

Emphasis on the way we as individuals live and consume is very important. Approached wisely it offers one of the most beneficial opportunities we can all partake...As a suggestion, a constant, clever and factual community/public education (a regular, short attention grab on NBC page in Manly Daily) comes to mind !!

The importance of Politics and Globalisation on the success or otherwise requires constant vigilance...In my experience the wider and better informed the community are of the goals and problem resolutions the more cohesive and democratic the ownership the community has/feels...Thoughtful and aware community committees play an important role.

Notwithstanding some of my comments, it gives me hope - and pleasure - to fully agree with the

values, commitments and aspirations of Protect. Create. Live. Northern Beaches Environment and Climate Change Strategy 2040 (Draft). I commit to contribute as best I am able. Thank you to all involved with this historic Climate Change document....." The longest journey begins with the first step "
I believe that in the council, there should be more awareness and education about pollution and harm to the environment for others who may not know. This could be on social media, bus signs or anywhere that would attract attention from young and possible older members of the public.
this is a great idea to enhance that we find a close enough 'solution' or more so protection plan for our planet
I believe that this plan appears very effective. It is vital that we value our environment and take into consideration as many sustainable practices as possible in order to make a change.
In my opinion, this looks great! I'm so glad the council is putting this strategy into place.
Climate change is a big problem and it needs to be stopped. If we dont act now our world will be ruined.
The draft strategy genuinely reflects the values held by our community!
The draft strategy genuinely reflects the values held by our community!
The draft strategy genuinely reflects the values held by our community.
The draft strategy genuinely reflects the values held by our community.
Everyone in our young generation is serious about climate change, this is because we realise that it will greatly effect our future. Many young people that live on the Northern Beaches often post about their involvement with the climate protests on their social media pages. Everyone (excluding the 1 in a millions) is willing to change to keep our environment healthy. Despite how it may seem, the young people of the northern beaches aren't stupid and we realise how serious this issue is.
I suggest that you start incorporating green roofs and walls into the designs of building and increasing the amount of green spaces to reduce the effects of climate change.
From skimming the above information of these strategies they seem great!! Reducing waste, reducing greenhouse gas emission and protecting biodiversity are all amazing goals. But the question I have is ... where will you get all of the money from? Achieving these goals takes MONEY!! It's why most of them haven't happened yet. Because the people in charge don't want to 'waste' tax payers money. I know it is not a waste of money, but how will we get the people in charge to dedicate huge of sums of money to do these projects?
aight lads lets give free parking to electric people
I believe they are being unrealistic. The progress they suggest in 20 years is enormous compared to what we have done in the last 20. Their goal of higher usage of solar panels is unattainable due to their cost, something that many families cannot afford. And i don't think our government will be paying for it. Reducing waste is also a big ask, considering our rapidly growing population. It may not be feasible to have less waste in 20 years when we have almost double the population.
The goals seem unattainable and a very long shot for the resources that are available for the council. these goals and strategies are fantastic ones, and are a real breakthrough for the environmental impact of the northern beaches. If these strategies are put into place this will be extremely beneficial for the environment and the future of this area.

This is a step in the right direction, however, it would be preferable if the council made more realistic goals than to delay current plans when the deadline arrives.

I am ashamed of how much waste we create and our carbon footprint, even in our household alone. It's hard to make a change ourselves when there are easier cheaper options we can choose, unfortunately at the cost of our environment. But I am proud that our council is trying to make a change and difference. I hope you will read this, and take these thoughts and ideas into consideration.

Detail the methods you are going to implement. It's good to have the goals, but you need a more specific detailed report on the steps you will implement to ensure you will achieve these goals. For example, in reducing emissions, how will you replace our current energy with clean sustainable energy without there being outages? Or in sustainable built environments, detail what will you do to be able to support encourage and enable green infrastructure development.

As a country, we have a massive recycling problem, with most of it going into landfill. Invest in new technologies that recycle plastics and other materials, that can be used to create new materials. For example, the new recycled materials could be used for housing as the population grows or even towards the structures that harness sustainable energy reducing emissions (solar panels etc). Unfortunately a problem with these materials is people may prefer to buy say a cheaper option, as recycling these materials does come at a cost (\$) which does effects the cost of the product, but if you provide an incentive, people may be more likely to buy and use these materials. For example, a requirement that when constructing new building a percentage of the house must be made from recycled products.

With the increase in new technologies constantly getting upgraded, more and more devices like computers, monitors, phones and laptops will be thrown away. Investing in more ways to recycle these old devices will provide some of the materials to use again, instead of having to make all brand new parts and components.

To preserve our precious beaches and fauna, banning single use plastics will prevent the harmful plastics going straight into the ocean or eventually going to the ocean endangering the declining sea life already around the world. You need to take charge as a body of government and implement laws of change. Unfortunately it's quite difficult to buy produce and products without the unnecessary plastics, but laws can change that. If single use plastics aren't there to be enticed by, people won't use it or buy it. If there is a more environmentally friendly way, like biodegradable plastics, use that, or even better, try not have to use plastics at all. After we stop using single use plastics, we can move to the plastics used in other food packaging, reducing landfill overall. Or if a full ban is not on the table, at least introduce and provide eco friendly alternatives to use, as customers become used to these ideas, you can then ban single use plastics that are directly harming the environment. Having a diverse range of beautiful native fauna and flora, is an even bigger reason to urgently stop the already increasingly amount of plastic our waterways, bushland and environment.

Yes you may get backlash for implementing these ideas, but eventually people will get use to the idea, and isn't it better to have a safe, healthy, clean place to live instead of a destroyed world full of rubbish. If we lead by example, strictly following your proposed strategies, we can not only change our community's impact on climate change and the environment, but be an example for our state, country, and possibly the world to change.

Overall, the draft is easy to understand, the layout is clear, but there are some areas where more details would be necessary to ensure in the future these plans are achieved (by 2040). But the message is clear; we have to do something now to save what we have left, and our council is willing to do something about it.

It was lovely I've got protect, create, live card with Herbal seeds in it.

I am suggest some plogging (jogging while picking up rubbish)event on the beach.

I am working preschool and would be lovely to someone who comes from council to have a talk or story telling as well. Lastly,I think we should have an event focusing on the importance of

<p>insects in our world. The number of insects in the world has decreased 60% in the last decade. Without insects our world will not be able to pollinate, which is good for the planet.</p>
<p>I look forward to commenting on specific action plan draft, especially those relating to environmental protection and management.</p> <p>It is critical that the strategy clearly conveys the legal obligations upon us all to protect listed places and species in our area. The plan gives the impression that all the activities that are required of us a purely voluntary. It needs to absolutely stressed that all citizens are bound by a range of explicit conservation and planning laws that contain extremely strong penalties, with significant financial and goal sentences. State that the Council is also bound by all such legal obligations. You should mention the range of laws that are governing nature conservation, including the Commonwealth's EPBC Act and the NSW TSCA. People need to know, or will not be constrained in their damaging activities.</p>
<p>I do not want my rates spent on renewable energy projects. These only serve to cost us money, make our power more expensive, make our industries less competitive with overseas countries, especially those which are burning our exported coal to make cheap power.</p> <p>It does nothing to reduce global warming (climate change or whatever they want to call it when their predictions prove to be wrong) as Australia contributes less than 2% of the so called global warming gasses.</p> <p>Conversion to renewable energy here is closing down our industries and lowering our standard of living.</p> <p>Anyway, climate action is a matter for the Federal Government.</p> <p>Council should focus on getting us the savings that were promised by the mergers.</p>
<p>Acknowledgement of country: the plan only makes one mention of Aboriginal people in the document, and when acknowledging the traditional owners, the council does not acknowledge who they are in particular eg. the Garigal clan of the Guringai people</p> <p>Bushland action plan: indigenous knowledge of cultural burning could come in handy as opposed to back burning, prioritise existing bushland -carbon sinks</p> <p>Waterways and catchments: mangroves are soo important as they are a major resource for carbon sinks, seaweed farms in Pittwater?, recycling needs to be more clear and specific so it doesn't end up as litter</p> <p>Coast: no PEP 11 seismic testing or gas drilling whilst we're in a climate emergency, stop ships and boats from littering and letting sewage into water</p> <p>Biodiversity: Indigenous cultural burning - less animals at risk whilst doing backburning processes, give bee farms for free?</p> <p>Sustainable built environment: accessibility of solar panels for low income housing, renters etc, easy access to solar energy, commit to stopping adani by ruling out their contractors eg. GHD engineering(through a motion)</p> <p>Green neighbourhoods: save our existing trees before planting new, solar grids so we share energy, encourage gardens in schools, vertical gardens on buildings</p> <p>Sustainable living: 2030 net carbon neutral, infrastructure for electric cars, make solar more accessible, sophisticated recycling systems</p> <p>Adaption and resilience: promote just transitions, lobby higher governments,</p>

Aspiration: net zero emissions by 2030 HAS TO HAPPEN, run education sessions/info nights for community, partner with Northern Beaches Climate Action Network groups, grants to local environmental groups

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I would like to see deciduous trees planted between the palm trees on the southern side of Dunbar Park.
It can be very hot walking along the path beside the path, and trees would make a big difference, yet give sun in the winter when the trees have lost their leaves.
Thank you.

I submit that we need to enable partnerships between peninsula schools, both public and private, local government and sporting clubs. We don't need to carve up more land for playing fields. We just need to make better use of the ones we already have. School ovals are mostly unused on weekends. Let's partner with schools, build toilet facilities/changing sheds & instal bubblers, and improve access/security to school ovals so they can be used on weekends for sport. It's a win-win : schools get upgrades to their ovals (maybe even resurfacing to all-weather surfaces), sporting groups have increased grounds to access and our natural environment isn't carved up any further to satiate the need for more sports grounds.

I am very much in favour of the Draft Environment & Climate Change Strategy 2040, in particular driving behaviour change through well resourced Environment Centres and programs. The EC's long-term immersive engagement with children at all school levels and parents via P&Cs provides the means to effect such change in the broader environment areas such as clean waterways, sustainability, and renewable energy. After much recent brutality to effect major change in our built environment this strategy represents a vital counterweight!

I think the following aspiration is an excellent one "Our goal-Protect and enhance the extent and quality of all bushland to preserve its unique value for future generations". But is this just a "motherhood statement" ? In reality we are losing more bushland and wildlife habitat on a daily basis. There are also huge threats to Manly Warringah War Memorial Park (for example) from the proposed Northern Beaches Tunnel and the planned relocation of Forest High School. Council has actively supported BOTH of these environmentally destructive schemes! The community has to regularly fight inappropriate developments (which encroach into bushland) because legislation never seems strong enough to protect our environment. In the case of Manly Dam...Development Applications have been lodged which detail the need to remove vegetation for asset protection zones within the park - even its "State Park" status is seemingly not strong enough to rule this out..

I also have grave concerns regarding the reduction in funding for Council's environment programs and bush regeneration contracts. Important areas of bushland (for example, the coastal walk between Dee Why and North Curl Curl) are being overrun with invasive weeds. There seems to be a lack of education in the community regarding the value of protecting our bushlands and native species. Householders grow noxious weeds without realising the impacts and Council Officer inspections have been reduced radically. Residents who live adjacent to parks and bushland should have an obligation of stewardship and be provided with the knowledge tools to assist them. So many people use adjoining parks as dump sites and the lack of awareness of the importance of our nature world is blindingly obvious. For example important habitat trees are regularly cut down for views or maybe because they simply shed leaves. A program of education regarding the importance of native gardens versus "English style " neat gardens would be useful.

The management of Crown Lands has recently been transferred from State Government to Council but the community has been kept in the dark in regards to future outcomes. Large areas of sensitive and vulnerable bushland are at stake. I believe that any land claims by the MLALC

of bushland parcels (deemed justifiable) should not then involve ultimate sale for development but result in fair compensation and transfer back to community ownership.

Council's tree canopy policy has not yet been ratified. Why the long delays? Hopefully this will give a substantial fillip to efforts to protect remnant trees and the need to plant more indigenous species. Currently the unmarked trucks of tree "removal" companies roam the streets with impunity and many trees seem to be cut down illegally on a daily basis...surely two trees should be planted for every one removed? Why can't Council also commit to planting locally endemic species in our parks and gardens rather than weedy Agapanthus or exotic Chinese Elms? This would also help provide people with a knowledge of (and pride in) our local biodiversity.

On another matter, I believe that Council should NOT use our protected bushland areas to participate in the flawed and discredited biobanking scheme. This might be useful for funding but it means other areas of valuable habitat will be wilfully destroyed. The outcome is always net environmental loss. Some of our most valuable areas of bushland seem to end up having "State Significant Schemes" built on top of them- for example a large area of irreplaceable Duffys Forest Ecological Community was lost for the Northern Beaches Hospital. Surely it is time for the last remnants of DFEC to be listed Federally as endangered and then properly conserved..

Lastly there should be an audit of all threatened, endangered and vulnerable plant and animal species on the Northern Beaches...and recovery plans created and implemented for all of them.

I thoroughly support the spirit of the draft strategy and hope that the goals of environmental protection and enhancement can be achieved. Education is key in much of this- both within the school system but also the broader community. If we can engender a real love of our beautiful native species, bushland, waterways and marine environment..then we can fiercely protect them as a community.

Northern Beaches Greens submission for Protect.Create.Live.

NBG local branch of NSW Greens extends from Dee Why to Palm Beach. Our members strongly support the Council's intention and role in implementing environment and climate change policies, particularly where they align with our core values of ecological sustainability, grassroots democracy and social justice.

ROLE OF COUNCIL IN FACILITATING LOCAL ACTION

Very supportive of council's role in promoting sustainability in the community. Strengthened by –

Educating community via workshops, market days, website, Coastal Enviro Centre, free classes, awareness building and training.

Facilitating uptake of renewable energy on public and private property through bulk buy initiatives, raising awareness of renewable investment opportunities for households, consumer advice service administered by council.

Assisting and expanding existing environment groups, community, schools and bush regeneration programs by providing greater access to council resources, incentives, infrastructure and publicity.

Educating businesses and advocating for them to become more efficient with resources, waste, energy use, recycling, re-use, repair and reductions in packaging etc

CLIMATE ADAPTATION

Council will inevitably become the insurer of last resort in the absence of other levels of govt taking enough responsibility for impacts of climate change such as extreme weather events, sea-level rise, damage to council assets, the natural environment and private property.

We Greens believe it is in residents best interests that NB council advocate, set an example and a high standard for the community, through modelling action on climate adaptation.

Many opportunities exist for building resilience and adaptation including –

Increase localization of activities related to sustainability, such as local food production through community gardens, effective multi -use of green spaces such as street and verge gardens, school garden programs, food swaps, markets, gardening in aged care facilities and for mental health patients. This will result in reduced food mileage/emissions and increase diversity of food suppliers.

Identify and make accessible air-conditioned, structurally secure public buildings, such as libraries, council chambers, shopping centres, cinemas and clubs during periods of high temperatures and extreme weather.

Ensure all new buildings in design and materials, both public and domestic, plus all council infrastructure, are resilient enough for extreme weather events – by implementing appropriate planning codes and guidelines in line with world's best practice.

Integrated tree planting and tree canopy protection in all new urban and densification developments. Strengthen existing tree preservation to reduce urban heat effect – re-enforced with strongly maintained planning and building codes and an expanded, accessible council arboreal advice service.

Turn tree retention into a community asset and a planning priority by publically and proudly advising all new developments of the environmental ethos of the northern beaches council. Where substantial tree canopy already exists, it is essential to limit the extent of excavation, percentage of hard surface site cover and damage to tree roots and water courses, particularly on steep slopes, where endangered spotted gum communities exist. Their instability as a consequence of inappropriate developments nearby is seriously increasing their rate of removal. If council is keen to increase tree canopy cover, then all urban development in those areas must respect strict requirements for their healthy survival.

Council could actively promote the economic and health benefits of forest bathing, known in Japan as shinrin yoku. Not only good for physical and mental well-being, it is proven to reduce stress hormone production, improve feelings of happiness, as well as lower heart rate and blood pressure, boost the immune system and accelerate recovery from illness.

Retain green spaces and permeable surfaces such as natural bush street verges to enhance environmental outcomes in drought and high rainfall events leading to flooding. Aim for much less use of hard surfaces and concrete in infrastructure projects - 'touch the earth lightly.'

Where possible cover public pathways, cycle ways, access routes, parking areas and outdoor spaces with solar panels to provide shade and clean energy, while enabling active transport options to continue during wet and/or warmer weather.

MITIGATION OF CLIMATE CHANGE

The priority for council here is to encourage decarbonising - to reduce impacts of climate change, while advocating for a strong stand against all activities which will make matters worse.

The council strategy must therefore -

Set an example with clear ambitious targets for becoming carbon neutral and for steady carbon emission reductions over a designated timeframe.

Limit wasteful and unnecessary energy consumption - such as night time lighting, plus encourage businesses/homes to reduce as well.

Encourage resilience planning and build flexibility into coastal recreational activities and industry - such as tourism, boating and fishing. Improve user awareness of the significance of protecting the marine environment and sensitive ecosystems from pollution and excessive use - to resist damage from climate extremes.

Review assets and all council business connections, including superannuation and insurance, to divest from any fossil fuel investments. Ensure all future council business will focus on companies which align with Paris goals and are divesting from fossil fuels.

Oppose seismic testing and development of offshore fossil fuel projects, either gas or petroleum along the coast of the northern beaches. Push for PEP 11 drilling and exploration licence to be blocked by the federal govt.

PROTECTING OUR NATURAL ENVIRONMENT

We suggest that council

Acknowledge the role of local indigenous people in caring for country and promote their long and sustainable management of ecological diversity on the northern beaches. This could be achieved by increasing awareness through more signage (or a phone app) to identify place names, historical connections, plus flora and fauna in local Garigal language - perhaps along the new coastal walkway.

Increase council vigilance in enforcing environmental protections and controls by rezoning sensitive areas, by adequate staffing of rangers to ensure compliance, by legally prosecuting enviro damage, by enviro checking planning approvals, by encouraging tree retention, emphasizing biodiversity protection and care for water catchments for lagoons, creeks, estuaries and beaches.

To reduce threats to native species at risk, plan to eradicate feral foxes and cats in sensitive areas and introduce an education program, followed by a ban on the sale of rabbits and cats - which have not been de-sexed. Educate chook owners on the danger to powerful owls from use of toxic poisons in rat management.

BUSHLAND

Protect existing bushland and acknowledge significance of building up the carbon sink by increasing the recreational areas covered by bushland and by creating pockets of biodiversity and green corridors for movement of wildlife and healthy catchments.

Fund and promote strategically located bush regeneration projects and provide training opportunities/ qualifications/recognition for young people and volunteers. Plan for rewilding of disturbed areas and green buffer zones between urban densification and transport corridors.

Conduct a council tree audit and actively monitor the loss or retention of urban trees. Provide incentives in council rates for existing properties/ new developments where above average numbers of trees or biodiversity hotspots are retained, endangered species are protected, or bushland is regenerated.

Map and identify urban backyard and bushland corridors, plus biodiversity hotspots and apply significance to them in planning, by naming them and emphasizing their importance for quality of life, climate change resilience and enhancing property values.

Recognise the value of urban and bushland vegetation in flood mitigation, particularly roadside verges, as a sponge for absorbing excess water, also as an effective, cost saving opportunity to

reduce stormwater runoff and erosion.

COAST, WATERWAYS AND CATCHMENTS

We strongly support council's goal to protect the coastal environment, existing waterways and catchments, while recommending that -

Risks must be anticipated from extreme weather events such as flooding and simple cost saving measures undertaken, such as the retention of natural road side verges and riparian zones kept vegetated/wild to mitigate impacts from increased water flows on surrounding property, infrastructure and the landscape.

Expand and enforce greater protection for catchment areas such as Manly Dam, Dee Why and Narrabeen lagoons by opposing inappropriate development in those areas which will also be prone to flooding.

Use mesh screens/netbags on all outfalls to collect waste. Propose that marinas and other high use coastal users invest in Seabins for skimming up debris and rubbish in waterways.

Consider strategic opportunities for rewilding and returning privately owned waterfront land to public ownership to reduce future costs from inundation. Employ the significant stabilising role of vegetated dunes and embankments to create buffer zones from coastal erosion impacts and sea level rise.

Acknowledge, protect and enhance the capacity of blue carbon sinks – seagrass beds, saltwater marshes and mangroves – to provide a far greater carbon storing capacity than forests, while acting as effective buffer zones and coastal environment stabilisers. Reconsider the Station Beach dog trial impact on sea grass beds located at Palm Beach. Lead and increase community understanding of blue carbon sinks and importance of biodiversity for environmental resilience.

Establish clear guidelines and plans for managing endangered coastal properties and low lying areas at risk of flooding. Council must anticipate, plan and articulate the requirements for engineered infrastructure such as building seawalls, bridges, levees, drainage facilities etc and the consequences of such actions, including funding, equity, community costs, insurance and future problems arising.

WASTE

Northern Beaches Greens firmly support the development of a circular economy with extended producer responsibility in the absence of any effective national system to deal with ever increasing problems of waste management. We encourage council to work with other levels of govt and to collaborate with other councils to develop a strategy to establish better systems overall.

Our limited natural resources are being consumed recklessly and we suggest that council instigate a program that challenges and impacts behaviour through some form of data collection and assessment of average waste per person – by setting goals to reduce consumption and by rewarding re-use and recycling initiatives by individuals, business, schools and households.

Plastics and container recycling stations need to be far more known and accessible - eg located in all supermarket car parks, schools, provide more public locations.

Advocate for or invest in plastic re-use technology. Support local businesses to re-use and repair, so that northern beaches residents take greater responsibility for dealing with own waste production, while providing local employment.

Facilitate effective waste reduction programs specifically for the northern beaches coastal environment. Lead by banning single use plastics, cutlery, straws, etc – take a firm stand such

as countries like France have done, to set a plastic free environmental agenda.

TRANSPORT

Essential that we get more cars off roads, therefore the Northern Beaches Greens are not with Council in its support for the Beaches Link Tunnel, because it will commit commuters to car use rather than public transport. We advocate for a trackless tram alternative with far greater long term carrying capacity, that will be faster and cheaper to implement and less damaging for the environment, particularly if it is solar/electric powered.

All future development or urban consolidation must be preceded by adequate public transport and other infrastructure services. All new developments must include recharging facilities for electric vehicles. Council should set an example, such as has been done in the ACT, by planning for their future vehicle fleet to be electric.

We hope council will lobby fed and state govts for increased investment in electric powered public transport and will oppose the sale of our public transport to private providers, who are likely to increase costs and reduce services. We would like to see a well-connected East/West light rail/metro link built between Dee Why and Chatswood running past the new hospital at French's Forest and connecting to other rail services.

On the northern end of the peninsula, the B-line has trapped many commuters into driving to carparks that are frequently full already.

With the state govt intention to sell the northern beaches public bus service, minus subsidies, Keoride will become far more expensive to use. Therefore to reduce car usage, council could support a flexible mini bus service, operating north of Mona Vale, that responds to an i-phone app employing demand technology, to determine its route and frequency.

We strongly support council's development of cycle ways and public walkways and want them integrated with accessible and affordable accommodation. To encourage local employment, sustainable tourism and less road use, council could re purpose under-utilised golf courses by transforming them into low impact tourist/ camping destinations on the northern beaches. Combined with accredited bush regeneration training courses, this could represent a low cost, low impact win/win for students and the environment.

Northern Beaches Greens appreciate the opportunity to respond to your environment and climate change strategy and commend your willingness to take action on behalf of us all.

Pru Wawn
Submission co-ordinator

Sustainable Northern Beaches has prepared a detailed submission on the Draft Environment & Climate Change Strategy. It is being submitted by email.

I wish to submit that I support the Submission made by Sustainable Northern Beaches in its entirety.

I would like to emphasise its view that Council should set higher targets for reduction of its own (operational) carbon emissions.

The following commitments should be strengthened:

- A 100%, not 60%, reduction in carbon emissions by 2030 (not 2040)
- Net zero emissions by 2030, not 2045.

These strengthened commitments can be achieved by:

- Over 2020-2025 minimise Council's energy use through efficiency measures and Council PV installation
- By 2026, and potentially in combination with other Councils, enter a Power Purchase Agreement for 100% renewable electricity. This could, but may well not, then have a higher cost.

However, after usage minimisation and with the continuing cost reduction of renewable sources, the cost will not be large within the Council's budget.

- By 2030 have its light vehicle fleet 100% electric, and purchase offsets for any small residual fuel use by heavy vehicles or equipment

The ongoing protection of our environment is important to the local Aboriginal community, of which I am a member.

Darug Nation and Guringai , Garigal and Gaimariagal are the important nations and clans of this area.

There are many Aboriginal sites along beaches and sandstone escarpments that need protection and signage.

Middens are along every beach and many remnant creeks, such as MCarrs Creek.

The midden along the dog exercise park at Etival street has already been destroyed. the council plans a dog beach at Station beach on Pittwater and it will destroy the 20,000 year old Aboriginal middens at the edge of Pittwater. These middens also are along the middle of the sand dunes at Palm Beach. There were still artefacts such as silcrete scrapers being revealed in the middens in the 1980s.

Angophra Reserve Avalon, has an Aboriginal burial site that is 3,000 years old and it is a skeleton of a woman with her arms crossed over an infant. The site was partially excavated by Aboriginal site officers with Val Attenbrow from the Australian Museum in 1984. It is the most significant Archaeological site on the eastern seaboard of Australia. Thi site and some in Riverview parade need protection from graffiti and desecration. The Metropolitan Aboriginal Land Council has legal responsibility for these sites, but do very little.

Every beach on the Northern Beaches coast has middens and in some sites, ochre mining sites such as at Long Reef.

The site of Gamariagal habitation by Narrabeen Lagoon is on the now located NSW Academy of Sport oval. The Aboriginal elder William de Serve lived in a shack and fished in the lagoon up until council bulldozed the houses in 1957-9.

Evidence of Aboriginal habitation is to be seen along Station Beach near the Customs Shed. The son of Chief Bungaree , Bowen lived with his family on this beach when he had a job as Black Tacker with the Customs officer. Bowen tracked bushrangers and was killed in 1856 at Bushrangers Hill Newport.

Car parks need to be covered in solar panels with free EV charging stations..

Those who oppose alternative energy and a change to more sustainable living are not only dooming themselves to a painful death, but their selfishness will also be devastating to every other living creature or plant. Thank goodness for some leadership by Mayor Reagan. Falinski is determined to undermine progress and his nasty response quoted in Pittwater Living shows where his priorities lie. Please act now as fast as possible.

Well done council

You could have more recycling bins e.g. bins for soft plastics and the soft plastic waste could go to a recycling plant in australia or another country.

Why is the Council promoting a surge in the numbers living on the Northern Beaches in 2040? I would have thought collaboration with the State Government and all councils would be working on having people moving to regional areas and concentrating on employment there.. This the priority. LEPs, DCPs, the environment, waste, town planning etc should only be considered when all these matters have been resolved. What about climate change? who will manage that? we the ratepayers should have a say in all discussions. Who is on the Committee? I understand 5 people have been selected. Who are they? Are they being paid and if so how much? I am quite angry at how the council has handled this whole project.

Response to Draft Northern Beaches Environment and Climate Change Strategy

Thank you for providing the community with the opportunity to comment on the Council's Draft Northern Beaches Environment and Climate Change Strategy. I am Convenor of the Northern Beaches Greens but am submitting this response as an individual. Additionally, I commend responses from Kristyn Glanville, on behalf of Manly Greens, and Pru Wawn on behalf of Northern Beaches Greens.

I applaud the strategy's extensive coverage of environmental issues, including the urgency to take action on climate change. It will be important to see this translates into concrete action in the future.

I've included most of my comments interactively but am just adding a couple below - concerning Aboriginal Environmental Custodianship - that I think would strengthen the Council's approach to sustainability and social justice inherent in environmental policy.

Acknowledgement of Country

Because it leads the strategy paper it's important to make the Acknowledgement of Country meaningful and this could be strengthened in a number of ways.

A couple of points:

- Naming the group or groups who lived and whose descendants still live here would be more respectful than just calling them Aboriginal – the non-indigenous term. I know this is tricky because of different conventions – but it could be decided with reference to Aboriginal people from the area such as Professor Dennis Foley or the NSW Aboriginal Land Council.

I've previously checked with the NSW Land Council and they say the name of the people from Pittwater is "Gadigal". I'm not sure if that extends throughout the whole of the Northern Beaches. They say Guringai was a name made up by the non-indigenous community.

- Current formulations of Acknowledgements of Country are becoming more personalised and tailored to the situation in which they are made – and this is particularly relevant when in the context of an environmental statement.

- Perhaps something along the following lines would work:

We acknowledge the traditional owners (or custodians) of the Northern Beaches, the Gadigal people of the Eora Nation, and pay our respects to their Elders past, present and future.

First Nations people have lived on this land and navigated its waters for many millennia. The environment we enjoy and significant heritage sites across the Northern Beaches are continuing reminders of their presence amongst us.

Aboriginal Environmental Custodianship

I believe it would strengthen our environmental strategy if we explicitly included Aboriginal custodianship in the Northern Beaches Environment and Climate Change strategy. I would suggest the following – the first paragraph is in line with Sections 2 (2) (a) and (b) of the NSW Constitution:

Northern Beaches Council recognises on behalf of residents that Aboriginal people, as the traditional custodians and occupants of the land:

- (a) have a spiritual, social, cultural and economic relationship with their traditional lands and waters, and
- (b) have made and continue to make a unique and lasting contribution to the identity of the Northern Beaches.

As such, Council will:

- Consult and cooperate with traditional owners on environmental policy.
- Institute a co-management strategy employing Aboriginal rangers to protect local land, water, flora and fauna. (This could be developed in cooperation with Macquarie University – through connections with indigenous rangers.)
- Support native title claims.
- Protect Aboriginal sites on Crown, council and private land that are being degraded by visitation, vandalism, erosion or other causes – eg sacred sites such as graves and artwork throughout the Northern Beaches.
- Institute an ongoing program of community education about Aboriginal land usage, sacred sites, other archaeological sites and history stretching over tens of thousands of years on the Northern Beaches.
- Progressively adopt indigenous names for the area – particularly where they are known or relevant.

I hope you are planning to replace the thousands of dog poo bags with compostable ones like Mosman Council have.

This is indeed an ambitious plan and our organisation CABPRA totally endorses the strategy and goals outlined in this paper and only hopes the the action plans can realise a solid strategy for achieving these goals. As i sit writing this today there is devastation from the bush fires and whilst we all know we have to change our way of living to help this sick planet but it requires drastic changes in how we approach planning and development and some tough stances made with developers which requires the help of state government. Great work though and we await the detail of the action plans.

Good to see a progressive Climate Strategy from Northern Beaches Council. Climate change is now accelerating as scientists accurately warned it would after 2015 if insufficient action was not taken by 2010, but is still not (yet) out of control. However the final tipping point for the commencement of irreversible runaway climate change may come as early as 2030. Hence it was great to see Northern Beaches Council recently vote to declare a Climate Emergency, for that is exactly what it has become, due to the inertia of most governments in most of the world during the previous two to three decades.

I think the Council's declaration should be proudly mentioned in the introductory section of this document and the reasons why urgency on climate action is required at a local government level should be more strongly emphasised. For various reasons climate change is still polarising the community (perhaps to a lesser extent on the Northern Beaches than other parts of the country) but if Council leads by example and education the majority of laggards will eventually follow, especially as the impacts of rising global temperatures become ever more obvious. Mitigation is far better than having to adapt to the coming climate chaos if we waste the last chance 2020s in further inaction.

Even though local councils may appear to be relatively small players they do influence policy at a state and federal level. I believe the public is largely ahead of where the state and federal governments are at in 2019 and will welcome Northern Beaches Council attempts to mitigate climate change at a local level as outlined in this strategy.

I support the Environment and Climate Change Strategy (draft).

URGENT RESPONSE

An urgent response is required to protect bushland, biodiversity, waterways and rural land from ongoing threats including inappropriate development, illegal land clearing, soil loss and degradation.

Trees and vegetation reduce temperatures and mitigate against climate change.

Protection of biodiversity and habitat increases the resilience of native flora and fauna.

Protecting our environment provides cleaner air, water, and soils, which contribute to survival.

Protecting rural land in Oxford Falls Valley, Duffys Forest and Ingleside protects soils and contributes to food security in the Northern Beaches.

THREATS

Since 2014, a substantial area of bushland has been lost due to development. Major infrastructure projects, such as the widening of Warringah Road and construction of Frenchs Forest Hospital, has resulted in the removal of numerous majestic native trees, as well as a significant area of the endangered Duffys Forest Ecological Community.

The Manly Vale Public School construction has resulted in the loss of good quality bushland including a heritage conservation area within the Manly Warringah War Memorial Park. Rainfall runoff has resulted in soil being washed downstream into Mermaid Pool.

In non-urban land inappropriate development has also resulted in the loss of bushland and biodiversity, including within riparian land and core habitat for native fauna.

Currently bushland loss continuing due to the widening of Mona Vale Road, as well as inappropriate development and illegal land clearing in non-urban land.

The transfer of Crown land is also a concern, as the land is no longer subject to the Principles of Crown land management, which take into account the conservation values of the land.

The transfer and privatisation of Crown land puts at risk the conservation values of the land.

The transfer to Council is a potential risk if environmentally sensitive areas are not zoned for environmental protection and there is no Plan of Management to protect the environment.

In the Northern Beaches Towards 2040 document, there is no reference to the Oxford Falls Regional Crown Reserve or State Park, so it is uncertain what their status is at present, and whether they are still Crown land 'owned by the people of NSW'.

FUNDING & OFFSETS

Biodiversity offsets required to compensate for vegetation loss associated with the Mona Vale Road (RMS) widening could be used to protect core habitat, buffer areas and other strategic environment sites on the Northern Beaches.

On the Northern Beaches government funding for road construction and widening is likely to exceed about \$1 billion, so far. By comparison, funding to protect natural habitat is negligible.

Funding to protect natural assets, such as waterways, can be seen as an investment. Manly Reservoir and Narrabeen Lagoon are both used for primary contact recreation. The water quality in these two catchment is dependent on protecting the remaining bushland in the surrounding catchment.

Continuing encroachment and loss of bushland is taking place in areas previously identified as environmentally sensitive. Future generations will inherit the consequences of eroding environmental values in non-urban land within Narrabeen Lagoon Catchment. The catchments of Narrabeen Lagoon and Manly Dam provide a refuge for wildlife and aquatic species, which are vulnerable to climate change impacts.

Council and State Government do not appear to monitor the loss of habitat and the decline appears to be a hidden statistic. The data is apparently not required as a key performance indicator in Council's annual budget. If Council or government do not record or reveal the decline in habitat, this indicates that they do not regard it as a priority. As custodians of our environment, those in authority could be seen as abrogating their responsibility.

The people acutely aware of the loss are local residents and other people that appreciate the bush and nature. This includes residents who submit objections to inappropriate development

<p>with unacceptable environmental impacts.</p> <p>Behind the scenes financial incentives are a driving force for developer driven outcomes. Vested interest and private property 'rights' can have a disproportionate influence on planning decisions and also can demonstrate a blatant disregard for the natural environment and heritage values.</p> <p>Acquisition to protect environmentally sensitive areas is a cost effective way of protecting natural areas from inappropriate development. It provides reliable long term protection for the land and has associated benefits for recreation and education.</p> <p>Acquisition can avoid the ongoing challenge and legal complications of confronting illegal land clearing, over-development and planning proposals that disregard the environment.</p> <p>Urgent action is required to provide reliable long term protection for our environment.</p>
<p>I support the intention of the NB Environment & Climate Change Strategy 2040 draft document. We must act aggressively & with clear action plans to face up to the climate crisis scenarios which lay before us.</p> <p>I want to see natural bushland left intact, not fragmented by development which makes native animal habitat unviable. The interruption to land around the new NB hospital & associated roadworks along north & south ends of Wakehurst Parkway is of concern to the survivability of wallabies & other wildlife.</p> <p>Remove cats from the natural environment.</p> <p>Reduce waste. Get rid of single use coffee cups which are the only option at council venues including Manly Swim Centre. If ceramic cups are considered unsafe near the pool get washable/reusable plastic cups.</p> <p>Reduce plastic usage. How can the plastics industry be required to pay for/deal with the waste it produces.</p> <p>Reduce water wastage. Have shower taps at Manly Swim Centre & other council facilities which turn off at regular intervals. That is require constant turning on, not constant water flow. Can shower water be used for toilet flushing at these facilities.</p> <p>Put in more water bottle refill stations.</p> <p>Put in fishing line/hook bins at fishing spots.</p> <p>Thank you</p>
<p>Theme 2 Waterways and Catchments: "Actively working to remove single use plastics and other litter from our network". Add, "including stopping this pollution at the source." (ie. through business engagement).</p> <p>Theme 3 Coast: "Actively working to remove single use plastics and other litter from our coast" Add, "including stopping this pollution at the source."</p> <p>Theme 7 Sustainable living: "We aspire to achieve... Net zero emissions in our community by 2030. Reducing carbon emissions in our community by more than half by 2040. Net zero emissions by 2050" I understand this is in line with the NSW targets etc but I believe we can do better. We need to drawdown CO2 rapidly in the next 10 years so the target should be "reducing... by more than half by 2030". And we need to include a desire to offset what we can't reduce. Let's make the aspiration a commitment- its totally achievable through investment in CO2 drawdown projects.</p> <p>"Reducing single use plastics" would be more meaningful with a target. I appreciate there could</p>

be many methods of measurement. An overarching measurement could be looking at packaging rather than waste. Perhaps, "Transition away from single use plastic packaging and promoting circular economy principles" It could be mentioned to be in alignment with Australian Packaging Covenant Organisation 2025 targets (100% reusable, recyclable or compostable packaging; 70% of plastic packaging being recycled or composted; 30% of average recycled content included in packaging (we've actually already achieved this!); The phase out of problematic and unnecessary single-use plastics packaging.

"We will: Minimise the use of single use plastic" Change to, "Reduce the use of single use plastic and disposable items and transition to increased use of reusable items"

Not sure whether this should be in Theme 8 or Theme 6 as it aligns with both goals. Add "We are committed to: Promoting urban food forests as a means to mitigate climate change, reduce food transport emissions and build resilience in our community"

Carbon drawdown is not only about trees, could there be a goal: "build up the humus in the soil to capture carbon"

Overall, the plan is great and shaping up to be even better- well done to everyone that contributed.

I'm most excited by the aspiration to achieve net zero emissions by 2030. Let's just make that a commitment and offset what we can't reduce. It's more than achievable!

For the last three years I have been observing breeding pairs of powerful owls in the Newport, Avalon and Clareville area. One pair in particular almost every day, I have a breeding pair that roost in my backyard. I am a powerful owl project volunteer and I am also writing a story for Australian Geographic on Powerful Owls.

I have concerns about the future welfare of the owls. Local residents should be protecting local wildlife and the NBC needs to implement planning and education programs.

Habitat destruction

The owls feed extensively in the urban landscape and backyards and I have noticed a decrease in the prey the owls are securing. I am also getting feedback from other residents who are wildlife aware, that numbers are decreasing.

I believe that tree clearing has contributed to a decline in the volume of native wildlife species. In the Clareville area alone there have been a significant number of large trees taken out of backyards in the last few years. Palms are also being heavily cleared, palms provide food and habitat for bats and ringtails – the owls favourite prey.

Backyards are critical areas for prey species. If Native wildlife is to continue surviving in our suburbs NBC needs to recognise backyards as important wildlife refuges, there isn't enough bushland alone to support our owls.

I would like to see an active campaign with education and council assistance to encourage and enable local residents to help local wildlife by establishing their own backyard refuges.

Dogs

We recognise the negative impact cats have on native wildlife, however Dogs also have a negative impact. If we released koalas back into Angophora Reserve today it wouldn't be long before they'd be taken by dogs or run down by cars.

While observing owls I have noticed dogs frequently roaming reserves day and night. I have seen and photographed native animals, mostly bandicoots and brushtails killed by dogs.

Dogs will grab and bite, and the animal will crawl off to die without the owner realising.

When you allow recreational access to a reserve and allow dogs on leash, many dog owners will let their dog off the leash and let them run ahead to hunt through the bush. If they don't kill native species, they still cause a significant disturbance, I have seen owls abandon favourite roost trees when dogs are let off leash.

Many dog owners believe (incorrectly) that only cats pose a threat to native wildlife and their dogs do no harm, even though there is significant evidence and studies that prove the negative impact of dogs. Some studies even conclude that dogs are worse than cats with twice as many deaths being recorded by dogs than cats in urban areas and reserves.

I'd like to see signs in areas frequented by dogs owners educating them on the negative impact of dogs on native wildlife.

Cars

We need more signage and an active campaign to get people to slow down and think about the native wildlife. The speed limit on Hudson Parade is 35km/h but most of the traffic is at 60km/h or more. There have been 2 powerful owls that I know of killed by cars in Clareville alone. We still have ancient signs warning of koala crossings but there is nothing to warn motorists about bandicoots or owls.

Backyards act as informal wildlife corridors and roads intersect these corridors. I'd like to see new signs erected to bring attention to the local wildlife that exists at present and a campaign started to educate people to drive responsibly, particularly in the dawn and dusk hours.

The NBC environment and climate change strategy 2040 has a positive message about conserving and preserving native wildlife, however the challenge of conserving threatened species is great and positive action is needed if we wish to see these species in our local areas in 20 years' time. Conserving existing bushland alone isn't enough.

Comments f

The areas that have not been addressed are

Urban hazards

- noise pollution
 - light pollution (research on blue light pollution has been found to impact severely upon humans health as well is wildlife)
 - run-off from pesticides into water and soil
 - air pollution
 - chemical residues flowing from industrial areas such as Brookvale into lagoons such as Manly
- Management of conflict around asset protection zones.

Actions that need more attention .

The goals and aspirations in dealing with canopy cover loss or bushland loss need to be changed to percentages . These need to be measurable .

The Green Grid connectivity issue is vital and needs addressing immediately .

The Council should be purchasing bushland to create connectivity and to preserve the large tracts of high quality bushland such as the areas around Redhill . This then impacts upon budgets for 2020

There should be 100% no net loss of bushland either on Council or state land . The Council should be aiming through planning controls to prevent loss of bushland on private land . This means the LEP must clearly defined comments on this issue .

Having observed the Land and Environment Court accept the argument that because an action was not listed as prohibited then it is permissible; it is imperative that the LEP and DCP are not able to be twisted in this manner .

I personally am opposed to the new northern beaches tunnel . Given that 39,000 additional people will be moving into the area by 2036, there will be far more cars and the roads will become even more gridlocked than they are today . It is imperative that the bus rapid transport

systems are put into place urgently running from Newport to the city, DY to Chatswood and Mona Vale to Macquarie Park . There needs to be major disincentives put in place by the Council to discourage the use of private cars on these routes .

Kara Taylor

From: [REDACTED]
Sent: Monday, 21 October 2019 4:57 PM
To: Council Mailbox
Subject: Environment and Climate Change Strategy (draft) - SUBMISSION
Categories: TT

Dear Sir and Ms

Within the last 8 years I have made countless submissions and correspondence to Pittwater Council and, more recently, Northern Beaches Council regarding air pollution from burning wood and its impact on air quality. During those 8 years the significant impact of wood burning pollution on winter air quality and health has been undeniably established. However, in those 8 years, there has been not the slightest improvement in Council's awareness, approach or action on this substantial issue.

The Strategy references the protection of the environment extensively, ecosystems, plants, animals and waterways but entirely overlooks the quality of the air essential to our very existence.

It is essential that Council include air pollution and air quality in this Strategy, taking all available measures to ameliorate this significant problem - policy, planning, compliance, education and liaising with State Government legislators.

By excluding air quality from the draft the Strategy lacks integrity and credibility.

Burning wood is not carbon neutral.

Yours sincerely

[REDACTED]

Kara Taylor

From:

Sent:

To:

Cc:

Subject:

Fw: Submissions closing soon - Environment and Climate Change Strategy 2040 (draft)

Hi Kara and Jacqui,

The draft strategy is excellent, well done!! It is extremely well written and presented. You have clearly taken into consideration comments and adjusted sections in response to the Environment SRG's views. All the consultation you've carried out and changes incorporated will ensure this plan stands the test of time, delivers results and is relevant to the community.

I have included my comments on the interactive PDF.

kind regards,

From: Northern Beaches Council <noreply=northernbeaches.nsw.gov.au@cmail19.com> on behalf of Northern Beaches Council <noreply@northernbeaches.nsw.gov.au>

Subject: Submissions closing soon - Environment and Climate Change Strategy 2040 (draft)

Northern Beaches Council

No Images? [Click here](#)



Thank you to those who have provided feedback.

It's not too late to have your say on the [draft Protect. Create. Live - Northern Beaches Environment and Climate Change Strategy 2040](#).

We need your help to make this plan happen.

Submissions closing this Sunday 10 November 2019.

Regards

Community Engagement Team

On behalf of the Environment and Climate Change Group

[Visit the project page](#)



You are receiving this email because you expressed an interest in Northern Beaches Council environmental projects. If you wish to unsubscribe, please see below.



Northern Beaches Council
Community Engagement



Kara Taylor

From: [REDACTED]
Sent: Sunday, 10 November 2019 8:22 PM
To: Council Mailbox; Kara Taylor
Cc: [REDACTED]
Subject: Submission [REDACTED] to "Protect. Create. Live.
Environment and Climate Change Strategy."
Attachments: [REDACTED] Submission NB Council Oct 2019.pdf; APPENDIX A
SolarAmbassador_Flyer.pdf; APPENDIX B Solar Ambassador FAQs.pdf

Dear Kara,

Please find attached the submission from the [REDACTED]
[REDACTED]

Please don't hesitate to reach out and [REDACTED] there are any questions. And we are looking forward to the final strategy and to working with council in the future in putting it all into action and helping our community to reduce its carbon emissions.

Kind regards,

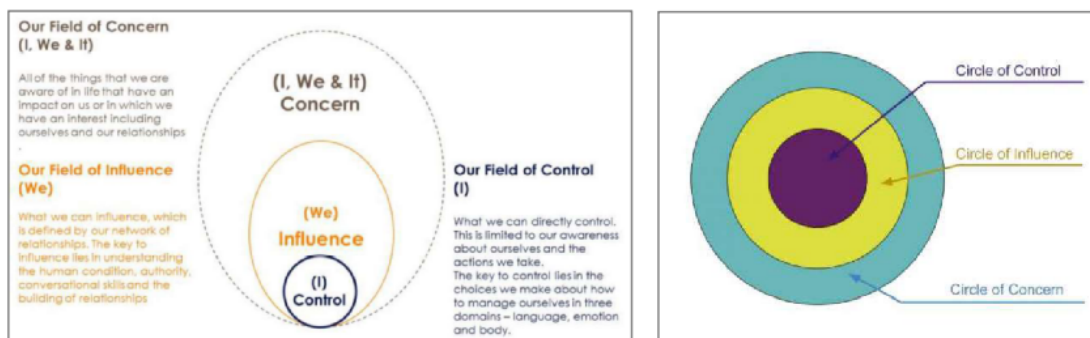
[REDACTED]

Submission to the Draft Northern Beaches Environment and Climate Change Strategy 2040

We are pleased to see the strategy linked into State, National and Global strategies including the United Nations Sustainable Development Goals. We appreciate council's commitment to action on climate change and to council's aspiration to achieve net zero emissions by 2030, which aligns with [REDACTED] current strategic objective. We appreciated the differentiation between strategies focused on climate change mitigation versus climate change adaptation and the inclusion of infographics that clearly communicate to the wider community the impacts of climate change and reminder that climate change impacts are being experienced now.

Key aspects not mentioned include the fact that Australia has one of the highest per capita CO2 emissions and ecological footprint and therefore the need to significantly reduce consumption levels in our society.

We agree with the listing under 'Council's ability to influence'. It would be great to see a differentiation between the circles of control versus influence (Covey, 1992). For example, council can control what energy it uses – ideally renewable, locally produced and community-owned - whereas only influence the type of energy used by the local community via education and targeted projects that counteract identified barriers to the use of renewable energy by the local community.



The Council can influence via

- Advocacy
- Education
- Leading by Example
- Applying its Key Levers (LEP, DCP etc.)
- Funding
- Engagement and collaboration

The latter is a powerful tool for council to 'super-charge' its Circle of Influence by 'collaborat[ing] with our local environment groups, volunteers, stakeholders, the community and other change makers to leverage the great work they are doing to amplify the collective impact'.

Additional strategies to increase council's Circle of Influence include for example:

- Using a Human-centred Design Approach to overcome obstacles/ pain points and optimise value proposition of desired solutions
- Community-based social marketing (CBSM)
- Developing a Theory of Change and prioritise potential projects or initiatives based on the possible impact, confidence in its success and resource requirements in order to determine the actions and activities that will provide the 'best bang for buck'

These approaches will support the management of the required behavioural change and allow the development of innovative projects and programs that help to 'nudge' our community towards a more sustainable trajectory.

We appreciate the reference to 'collective impact'. A collective impact approach requires collective impact assessment and a shared measurement platform to ensure that projects and initiatives can be monitored, fine-tuned and optimised to ensure that the objectives and key performance indicators (for example CO2e emission reductions or % of renewable and/or locally produced energy) achieved (Preskill, Parkhurst, & Splansky Juster, 2014). Measurement is key for results-based evaluation and program optimisation. As the old adage goes 'we cannot manage what we cannot measure'.

These indicators could link into a locally relevant assessment and indicator of overall quality of life in Warringah, similar for example to the Genuine Progress Indicator (GPI) used by Maryland and Vermont in the US, or a localised version of the Measures of Australia's Progress (MAP) used by the Bureau of Statistics (Ida Kubiszewski, 2014). Ida is currently working with Kangaroo Island on the development of a local indicator of overall quality of life, health and well-being and a similar project could be beneficial to support council in monitoring and optimising its strategic programs and initiatives.

We believe that the level and nature of the collaboration needed to achieve Council's commitments, let alone aspirations, should not be under-estimated. It will be a challenge to Council and require a significant culture change. It will need leadership and resourcing.

As a climate related community group, we are eager to work with Council to ensure the commitments to achieve the following commitments

- 50% of suitable premises with solar panels by 2050 (Theme 5)
- Reducing carbon emissions in our community by more than half by 2040 (Theme 7)
- Net zero emissions by 2050
- Council's getting to net zero emissions by 2045

RECOMMENDATIONS

We would like to make the following recommendations:

1. We would urge Council to raise its ambition to convert its aspirations in these areas to commitments.
2. The report should indicate what methodology it will use to measure community and council emissions. This needs to be via a creditable external agency whose methods and assumptions are understandable by the community. The source of data on homes fitted with solar should also be stated.
3. Reference should be made in the report to the process that Council will now follow to ensure its commitments are met. Action plans will be needed covering in detail what will be done and how the actions will be resourced for the immediate year ahead, and in broad brush terms, in future years. These actions plans should be formulated, where appropriate, with input from collaborating community groups. The action plans should be posted on the Council website.
4. The action plans should include clear performance indicators to ensure that the impact of actions and projects can be evaluated. Project performance should be tracked on a regular basis and be summarised in a collective impact assessment report that is presented to council and the community on a regular, ideally annual, basis.
5. The implementation of a formative evaluation process should be used to fine-tune program delivery and ensure that intended outcomes and impact are achieved¹. The progress achieved via each year's action plan should be reviewed on its expiry and the results of the review and the progress being made towards achieving the Council's commitments and aspirations should influence the detail of the following year's action plan.

SOLAR AMBASSADOR PROGRAM

We would hope that the action plan for the immediate year under Theme 5 would include developing a Solar Ambassador program in collaboration with [REDACTED] Beaches. We believe that by working with the community group [REDACTED]

Northern Beaches Council would have a much greater chance of success in achieving its objective of having a high percentage of suitable roofs in the Council area fitted out with solar.

We would help recruit volunteer Solar Ambassadors who would help doorknock on houses with suitable roofs, engage the owners or residents in conversation and leave a flyer that succinctly explains the benefits of solar and how to go about getting it installed.

The flyer would reference a website that had more comprehensive documentation on each step of the process and a set of FAQs.

The resource requirements from Council would be minimal and would include:

- Setting up a process for formally accrediting volunteer solar ambassadors and giving them some form of identification. This could involve vetting and a requirement to attend a one-day training course, which could be run [REDACTED]

¹ https://ssir.org/articles/entry/evaluating_collective_impact

- The design of the Solar Ambassador flyer, with input from a copywriter and graphic artist and arrange the printing thereof.
- Adding a Solar Ambassador Site to council's website in order to post the documents on its website.

[REDACTED] eers have created DRFAT content of template documents which are temporarily hosted on the [REDACTED] site. The project could start with a pilot trial in a selected street, which would allow us to gather data in regards to the inputs, outputs and impact of the trial which then can be used to optimise and fine tune the program before the recruitment of volunteers and commencement of the roll-out of the program at scale. [REDACTED] AFT template documents (Flyer and FAQs) are attached and links to additional draft text is provided in the documents.

We hope that once the Protect Create Live has been adopted that a Solar Ambassador program will be one of the items on next year's climate action plan.

NORTHERN BEACHES RENEWABLES – VIRTUAL POWER PLANT

We would suggest that council include a feasibility study/ proof of concept for a Northern Beaches Virtual Power Plant in the climate action plan. The business model would need to be developed as part of the feasibility study and could potentially be Public Private Partnership (PPP) as a collaboration between council, a community energy organisation and a community energy retailer.

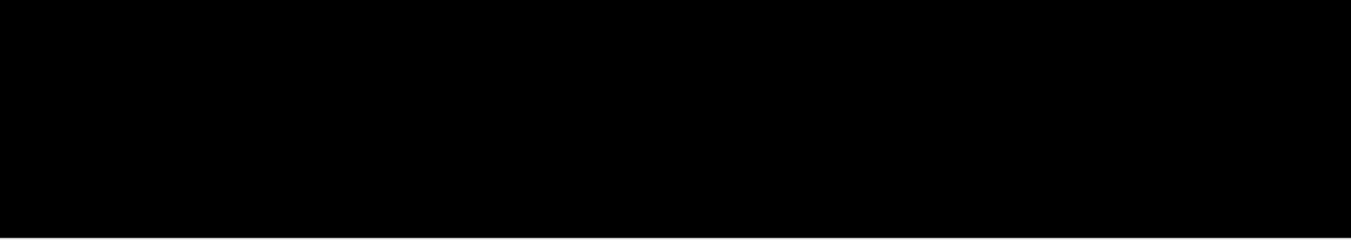
In 2012 Warringah council had commissioned a consulting study and report on localised renewable energy production. The study was commissioned at that point by David Bell and his area. The final consulting recommended a PPP to localise produce and retail energy as this would provide significant benefits in terms of resilience and sustainability. Based on this previous work, which would be even more applicable to the larger amalgamated council area, a localised renewable energy plant could ensure that the ambitious renewable energy targets are achievable.

In the past our local area had the Mackellar County Council, jointly operated by Manly Council and Warringah Shire Council, which supplied the Northern Beaches with electricity and gas. The Northern Beaches council could again spearhead localised renewable energy production and set an example for other councils to follow suit.

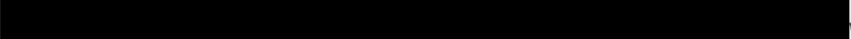
POWER PURCHASE AGREEMENT – COMMUNITY SOLAR PLANT

Some organisations, universities and even councils in recent years have entered Power Purchase Agreements with large-scale solar plants, including for example a recent PPA entered into by City of Sydney Council for purchase of renewable energy from a community solar plant in the Shoalhaven.

The Northern Beaches council could immediately shift its energy to renewable energy by entering a PPA with a solar plant. A solar plant owned by local community investors could further strengthen community engagement and allow residents to get a personal stake in the localised transition to clean energy.



The volunteer-based, local not-for-profit community energy organisation Clearsky Solar Investments is interested in exploring the development of a solar plant owned by the local Northern Beaches community with a Power Purchase Agreement with council to provide 100% community-owned renewable energy to the Northern Beaches council and help council achieve net zero emissions from electricity in the coming years.

 would be interested in opportunities to help council further develop these projects under the upcoming development of council's climate action plan.

CONTACT DETAILS



REFERENCES

Parkhurst, M., & Preskill, H. (2014). Learning in action: evaluating collective impact. *Stanford Social Innovation Review*, 12(4), 17-19

Covey, S. R. (1992). *The Seven Habits of Highly Effective People*. Simon & Schuster

Kubiszewski, I. (2014). Beyond GDP: are there better ways to measure well-being? The Conversation. <http://theconversation.com/beyond-gdp-are-there-better-ways-to-measure-well-being-33414> (accessed 26.10.2019)

You have just had a visit from a Northern Beaches Council volunteer solar ambassador. [REDACTED]

[REDACTED] made the visit because you appear to have a solar-friendly roof.

Did you know that investment in a solar system typically pays 'interest' of 20%. This assumes most of the power generated is consumed on site, but even if the house is unoccupied and all power is exported to the grid, the return would be at least 10%. The money would continue to roll in for the 25 years – the lifetime of the panels. Read on to see how easy it is to get solar happening on your roof.

Start by getting quotes from some installers

Ask friends and neighbours for their solar installer recommendations. You can discover all the Clean Energy Council accredited installers near you by entering your post code on: <https://bit.ly/2Q5yzXt> Even easier, you can register your interest on the Solar Quotes or Solar Choice websites and get 3 quotes emailed to you. We would recommend getting quotes from local installers who has been in the business many years and have many satisfied customers.

Before finalising the quote, the installer should be prepared to come to your home and talk through what they are proposing and do a shade analysis. They should advise if you need a new meter.

How big a system should you go for?

Ask for a system that exploits all suitable roof space facing North East and West. But leave space for a future solar hot water system if you don't already have one. Suitable means not obstructed by vents and skylights and only infrequently shaded, by vent pipes, trees and buildings. With a big system your self-consumption % will be smaller and hence the return smaller, but you will be ready for a future battery or electric vehicle charging station.

Should you include a battery?

Not now, if you want to maximise the return on your investment. You can add a battery later when prices are lower. Whatever inverter you use in your installation there will be a range of batteries that will be compatible. If the economics of your system is not important for you, then by all means get a battery now. You will be contributing to the common good both by helping to bring battery prices down and placing less demands on the grid. It is solar, not batteries that reduce emissions.

Choosing between quotes

Any installer is using reputable panels (Risen, LG, Trina, Jinko, Phono, Sunpower, Seraphim, Canadian Solar, Suntech, REC, JA Solar, Tindo, Opal Solar, Longi, Winaico, SolarWatt) and reputable inverters (ABB, SMA, Fronius, Goodwe, SolarEdge, Delta, Huawei Sungrow, Enphase.) will be fine. Higher price panels have greater efficiency which might be important if roof space is limited. Higher price inverters produce more power for the same amount of sunshine, have better monitoring systems and can (at a high cost) can provide limited battery power during a blackout.

Warranties for installations are typically 5 years, and product warranties 10 years

Still have questions?

You can confidently go ahead with just the above information, but if you want to dig deeper, visit our website [REDACTED]

If you do decide to go ahead – thanks for helping Council meet its community emissions reduction target

NORTHERN BEACHES COUNCIL SOLAR AMBASADORS PROGRAM – FAQ's

OK. You have studied the quotes and have chosen the installer you want to go with.

These are some of the questions you might want answers to in order to feel confident before you sign the contract.

Is the size of the system right for my circumstances?

You are either going to use all the suitable and available space on your roof, or just a part of it. It is true that only using part of your roof may give a higher return on investment in the short term. However, as your circumstances change, for example you get an EV or a battery, you may regret not having filled your roof. Maximising your immediate return may compromise your future return. Remember the panels last 25 years and electricity tariffs will only increase over time.

If you have a very large roof and only a single-phase supply (just two wires connecting your house to the grid) you may not be able to use the full roof as Ausgrid sets a limit on the peak kW of your system

Are expensive panels and inverters worth the extra expense?

So long as the panels are from a [reputable manufacturer](#) you only need to opt for more expensive panels if they have a feature you need for your circumstances. For example, if you have limited roof area you might want to use panels with high efficiency. If you have shading issues you will need panels that are as robust as possible against shading.

The same applies to some extent for [inverters](#). If you are using two different roof sections facing different directions an inverter which can independently optimise each array (dual MPPT) makes sense. If at some stage in the future you want to be able to have a limited amount of power through blackouts (we don't think the extra cost of this is worth it), you will need an inverter that can handle this along with a suitable battery. But even with a vanilla inverter, unlike panels, paying more may be wise. More expensive inverters are likely to last longer (up to 12 years) and have higher efficiency – which means they produce more grid power output per solar power input.

By the way, it is quite normal (and even desirable) for the inverter rating in kW to be lower than the peak capacity of your panels. Your panels only produce peak power under exceptionally favourable circumstances, so it is best to size the inverter for the typical power output as it then runs more efficiently. The inverter is not damaged when occasionally it has to handle more than its rated power.

Should I pay for a third-party monitoring system

The only third-party monitoring system we would recommend is [Solar Analytics](#). You have to pay a monthly subscription fee (\$6/month). For that you get some nice features not available with the monitoring systems that come with inverters. One of the most useful features is that you get an email alert the moment your system starts to under perform due to a panel or inverter fault. Early detection could avert a lot of foregone revenue. You don't have to decide now. Wait until you see how good your inverter's monitoring system is. Does it monitor household consumption as well as solar generation and export? Does it have a nice user interface on your mobile or computer?

Should I get a battery now?

We don't recommend it if return on investment is your motivation. Although it is satisfying to be able to exploit your excess daytime solar generation to power your home at night and be less at the mercy of your electricity retailer batteries are expensive right now and only last 10 years. Although without a battery you have no alternative but to export excess power to the grid, you can still get a good price for it so overall you are better off without a battery. This will change as battery prices come down to below \$500 per kWh of capacity. So make sure you plan for where you will mount the battery when you get one.

If, for all that, you do decide to get a battery – good on you! You will help to bring the price down for others and be able to be a pioneer in participating in various schemes that are emerging for getting paid for exporting power when the grid needs it. Check out the [REDACTED] site

What is the best way to finance the system?

If you can afford it, best to pay for it yourself. Otherwise take out a personal loan or add it to your mortgage. If your household income is less than \$180,000 you can access a [low interest rate green loan scheme](#) offered by the NSW Government. Avoid payment plans offered by some installers.

What are the worst-case scenarios?

Here is a list of some of the things that could go wrong and how to avoid them

There is a delay in getting permission from Ausgrid. To avoid this, ensure that the contract specifies that you get your deposit back if permission has not been obtained by a specified date. Ensure the installation does not start until permission is obtained.

A related problem is that *you may need to replace your meter before the system* can be switched on. To avoid your system being idle, get assurance from the installer that they will handle the meter upgrade and that they will get a firm date for the changeover from Ausgrid. The installation should not start until the date is known

Your installer substitutes inferior panels or inverters for those specified in the quote. To avoid this, make sure there is nothing in the small print of the contract that would allow it.

The final cost is much larger than the initial quote. An initial quote may be based on a Google maps view of your roof. It is normal (and indeed you should insist upon it) that the installer will come to your place before coming up with a detailed design and final quote, which you can either accept or reject.

The installation causes your roof to leak. It is the installer's responsibility to fix any damage they cause, make sure the installer is aware of this obligation. It could be useful to have some spare tiles. You can read up on your rights under Australian Consumer law [here](#)

The installation has some unexpected surprises. To avoid this make sure the installer explains where everything is to be located and where the cable runs will go. Before the final payment go through this [check list](#)

The energy produced by the system over a full year is less than your installer predicted. Monitor the power. During installation make sure your get an assurance from your installer that they will come back to track down and fix the reason for poor performance. It is important that on the initial site

visit that the installer does a full year analysis of shade impact so that shade is taken into account in the design and the energy yield estimate

One or panels or the inverter fails. If it is during the warranty period, it is the responsibility of your installer to rectify the problem. If your installer has gone out of business, you should contact the local representative of the company that supplied the item. This is the reason for using one of the brands we recommend. All of the recommended brands have a presence in Australia. You can expect the inverter to need replacement after 10-12 years. The normal warranty for inverters is 5 years but you can pay extra to extend to 10 years.

Your system is damaged by a storm event of animals chewing through cables. Make sure your home insurance covers your solar system for storm damage. You should also get your system inspected by your installer every 5 years to make sure it is working at peak efficiency and that the insulation on the cables is in good condition to minimise even further the miniscule risk of a fire

Your next door neighbour's trees or building extension shades your panels. Try to anticipate whether this is likely before committing to the installation as there is little you can do should this happen

You move house. Not much you can do about this one. Hopefully the increase in value of your property will more than compensate for the loss of the income stream.

The way grid electricity is priced changes. As more and more people install solar there will be less and less income for the energy retailers and distributors – so less to spend on maintaining the poles and wires. Who knows what their response will be but one idea that has been floated is to increase the grid connection fee and charge for peak demand over the billing period rather than for the actual energy consumed. So even if you are self-sufficient most days, your demand during one cloudy week would determine your month's bill. The feed-in tariff may also vary from hour to hour and day to day depending on how much is being produced. By the time this happens there will be smart controllers available that give you the best outcome given the grid pricing regime

Should I change my electricity retailer?

Once your solar system is installed it may well be an advantage to switch retailers. This is very easy to do. Once you have identified the retailer and plan you want to switch to, you just call them or fill in a form on their website. All you need to tell them is your NMI number – which you will find on the section of your bill that records actual usage in kWh. The new retailer then makes it happen without any further intervention on your part.

There are a couple of websites that allow you to enter the details from your current bill and that identify for you plans from various retailers that would result in more money in your pocket. The website we like best is www.wattever.com.au as this one takes into account solar exports and allows you to specify green power. To find out more and to be aware of some of the pitfalls that might be hidden in the small print it is worth reading [redacted] guide: <https://wattever.com.au/essential-guide-comparing-electricity/>

The NSW government also provides a tool for calculating your savings if you switch to another plan <https://energysaver.nsw.gov.au>

You may want to pay extra by opting for Green Power from the grid – then you can truly say that your house is 100% powered by renewable energy (and if you have an EV, your transport as well). You may also want to reward one of the smaller retailers committed to promoting local renewable

energy even through their offering is less attractive than a plan offered by one of the big three energy companies. Predatory pricing is not unknown in the industry! Greenpeace have published a Choice style [ranking if the environmental commitment of energy retailers](#).

Am I really making a difference?

We know that the globe has to get to zero carbon emissions by 2050 and that global emissions must peak by 2020 and have dropped by 50% relative to the peak by 2030 if we are to stay below 1.5 degrees of warming. To what extent is your household a lifter or a leaner in this respect? Sadly you can't count the first ten years of clean power your panels produce as the subsidy you would have received through small scale certificates means that that generation was in fact paid for by people opting to buy Green Power. (You could of course forego the subsidy, in effect buying the certificates yourself and thus rightfully claiming emissions avoided). Any of the energy exported over the last 15 years of your system's life could be used to offset emissions associated with other aspects of your lifestyle such as meat eating and flying. Best to try to reduce these and to plant as many trees as you can if you really want to pull your weight, but the bigger the solar system the closer you will get to living a zero -carbon life.

Kara Taylor

From: [REDACTED]
Sent: Saturday, 9 November 2019 2:55 PM
To: Council Mailbox
Cc: [REDACTED]
Subject: Environment and Climate Change Strategy Comment
Attachments: NBCouncilEducationProposalNotes.docx

Categories: TT

Hi Kara, following my earlier comments I have attached a supplementary comment regarding a proposal to include a state of art Environmental Education Facility as part of this strategy – see attached. The rationale is based on my observations that most people in our community, young and old, do not have a very clear understanding of the impact of climate change and how they can play their part in transitioning to a sustainable lifestyle. Maybe Council could take a lead in setting up an engaging educational facility on the Northern beaches – it would need to be really well conceived so it captured the minds of young and old.

My early ideas are attached – and they are not based on Council having to fund the whole thing. I think the business community and philanthropists could be very interested. Happy to sit down and expand my ideas if you like.



A Sustainable Living Education Initiative

Ideas to stimulate discussion

What is the Problem we are seeking to address?

- Our country is not making adequate progress in meeting the IPCC goal of reducing our emissions by 45% by 2030 and zero emissions by 2050 (1.5degC option)
- If we do not dramatically increase our rate of progress the IPCC says we will face major disruption to the natural processes we have come to rely on.
- There is a reluctance in our community to react. The voting pattern confirms that the community is currently not prepared to step out and facilitate urgent action
- There is a need to change the communities attitudes

Program Objectives

To create within our community a high level of commitment to take action and willingly undertake measures that lead to a sustainable lifestyle.

To be successful the initiative should have the following outcomes:

- Schoolkids and citizens of all ages being prepared to move out of their comfort zone and actively engage in the process of transitioning to a sustainable lifestyle
- Schoolkids in particular being aware that they should actively support initiatives in our community and political arena that commit to action on climate change. Older schoolkids will soon vote and are still at home and able to guide parents thinking.
- Citizens of all ages becoming prepared to focus on the manifestos of political parties and vote for those that have a really effective platform for dealing with climate change issues.
- A highly effective Program that has a rapid impact on community attitudes and that leads to a willingness to undertake very ambitious sustainable living goals.
- A Program that can be expanded to reach a large proportion of the community in a relatively short period - maybe over a 5 yrs period

The Program Development

How would such a Program be brought into existence?

Changing peoples' attitudes is a very difficult task. Different approaches will be required for different age groups and different sections of the community. To effectively meet the above Objective will require a very carefully crafted Program that is compelling, inspiring, effective, and convincing in the absolutely need to deal with the transition to sustainable lifestyle as soon as possible. Progress along these line to date has been painfully slow and not nearly fast enough the meet the IPCC target of reaching 45% reduction in carbon emissions by 2030.

To design and implement a successful Program will require the input from a wide range of experts with the following expertise such as:

- Experienced teachers - just what is required to attract and maintain the interest of teenagers, parents, and the wider community. In particular an effective and compelling **Call To Action**
- Educational support equipment suppliers - what is the experience in this field for the impact of modern educational equipment - 3D VR experiences, touch screens, hands on interfaces, music, social media, games, competitions, etc
- Local government - has experience in providing community educational programs

- Dept of Education - have groups of teachers dedicate to teaching sustainability in our schools (AGEE - Australian Association for Environmental Education) and may be in a position to provide facilities in school-space
- Schoolchildren - to provide ideas on how to engage. A boring Program would soon fail.
- Experts - to advise on the science behind the measures that we need to adopt to transition to a sustainable lifestyle.
- Museum staff - with discovery project experience
- Environmental groups experience - to provide an input of how the community reacts to environmental initiatives
- Financial expertise - to look at options for financing the Program - governments, crowdfunding, philanthropy, and ???

Possible Program structures for consideration:

1. Special venue option - a dedicated Sustainable Lifestyle Educational Centre. Not easily expanded to reach the wider community
2. Visiting school bus option - aimed at regular visits to schools (and elsewhere) by a well-equipped bus. Easily expandable for schools
3. Northern Beaches initiative - reaching out such as Melbourne Museum **Gut Tunnel** display, Questacon, Coal Loader, Coastal Environment Centre, Kimbriki
4. Council based - regular events by a travelling exhibition
5. Social media based

To get things moving - A Sustainable Lifestyle Education Thinktank?

One approach would be to bring together a carefully selected enthusiastic group of those with the above experience for a facilitated two-day conference to examine the options and if possible to settle on an effective Program design.

- Has this been done before – such as the New York Climate Museum, the Perth Scitech facility (which already has a travelling exhibition in action)
- Who has the expertise and standing to organise such a conference?
- What would be its chance of success - is it really worth contemplating?
- How could we evaluate whether it's worth the effort?
- Who would fund the conference?

Comments

The whole educational experience would have to be **something really special** - combining all the mechanisms to stimulate interest - see the attached idea for a program based on using a visiting school bus.

Next Steps

What are the next steps in evaluating whether the conference is worth the effort?

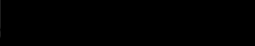



Draft Environment and Climate Change Strategy

SUBMISSION

November 9



Thanks for the opportunity to comment on this draft strategy. 
 but this is my own submission. I have commented only on the Themes on which I had something to contribute. I fully support the Strategy and sincerely hope its aspirations can be achieved. We cannot afford to do otherwise.

Comments

Theme 1 Bushland

Work to protect existing bushland and enhance its ecological value using best practice restoration techniques.

Comment: Information on this work should be available to the general public. Just what is being done? What are the problems? How much does it cost? How can I help - by controlling weeds in my garden – by joining bushcare etc. At present even members of the volunteer bush regeneration groups I'm involved in are unaware of what contractors are doing on their sites. There are supposed to be work plans for each site so that contractors and volunteers are acting as a team.

Capture quality baseline data on our bushland and continue to monitor and report to the community.

Comment: I think Pittwater Council staff put together detailed maps and species lists of Pittwater LGA ecological communities and plants species in each reserve. This could be data you could build on and it should be made available to the public to help raise awareness and appreciation of our bushland.

Managing and protecting bushland should include: 1. assisting residents to recognise selected weeds – eg Asparagus Fern - and manage these on private land. 2. Council Management of these weeds on road reserves.

Motivate, inspire, educate and support our community and stakeholders to value, protect and enhance our bushland, including facilitating environmental volunteering

Council should not over-rely on the internet to publicise its work in caring for bushland and getting people to volunteer. A lot of people have no idea that urban bushland needs management, what this involves and that volunteers can get involved. Motivation and education is complicated – has to be done in many different ways over a long time. As I live in Avalon, my suggestions may be more relevant to the Pittwater area:

- Signage about bushcare on each reserve,

- occasional street stalls in shopping centres staffed by bushcare volunteers eg Mona Vale, Avalon, Warriewood Square, beside the Narrabeen Lagoon walkway at Jamieson Park, on the track behind Mona Vale dunes between Golf Ave and Robert Dunn Reserve near Mona Vale Hospital. Speaking to people face to face is essential.
- Pittwater Place Mona Vale. Suggest a week-long bushland management display beside top of escalators, with before and after photos of bush regeneration sites, some weed specimens, photos / stuffed native animals /birds that need the bush etc etc Contact: [REDACTED] Speaking to people face to face is essential
- Be more pro-active: For instance: letterbox residents of MacPherson St Warriewood inviting them to get together to look after Narrabeen Creek behind properties on the north side of the road. It's great habitat for small birds and Eastern Waterdragons. I doubt bushcare happens here at present. Don't give up if not much interest is shown at first.
- Letterbox areas near where bushcare groups are already working, but often struggling to maintain numbers.
- Bushcare volunteers would probably be willing to help with letterboxing.

Theme 3 Coast

Improve the condition of our coastal and marine environment using regeneration and habitat enhancement techniques

Motivate, inspire, educate and support our community and stakeholders to value, protect and enhance our coastline

How will anyone know about these commitments and intentions?

1. Take the opportunity to erect a series of discreet but attractive interpretive signs along the coastal walkway, providing information relevant to each location.
2. Create an app for phones: - the information to pop up at various stopping points on the walkway eg: One Amazing Fact: Our coastline of today is only about 8000 years old. Where were the beaches then? You could put up a huge amount of information and graphics about vegetation, geology, birds, whales & dolphins, waves and tides, bush regeneration work along the way, distances.

Theme 4 Biodiversity

Caring for bushland overlaps with this topic, so my comments in Theme 1 Bushland also apply here.

It's important to plant local native canopy tree species as these offer native birds and other fauna the best habitat. Replanting /replacing lost Eucalypts, Angophoras and Turpentine is vital as no other introduced trees would have the same invertebrate fauna supporting birds, bats and microbats. Many of our existing mature trees have long ago had damage – mostly invisible - done to their root systems and are senescent as well. Younger trees growing over many years where their root systems are healthy and undisturbed would not pose the same danger of dropping branches. Convincing people to plant these trees needs a hard sell, appealing to emotion and reason.

Theme 5 Sustainable Built Environment

Excellent aspirations.

Seek out, support and encourage precinct scale solutions to reducing resource use.

Comment: Encourage property owners of residential and commercial complexes to install solar panels on their roofs to create the equivalent of small local power stations

Theme 6 Green Neighbourhoods

More excellent aspirations. See comments about biodiversity and canopy tree species above. However loss of canopy trees in this area is high, partly because of development of larger houses replacing older smaller ones – with maximum site coverage - and the State Government policy of allowing “granny flats” under the Exempt and Complying Development process. Council needs to strongly oppose this, specially where tree loss occurs.

Work to minimise disruption from trees to utilities and other community services

Canopy tree planting is quite limited by proliferation of overhead powerlines. Can Council prevail on the powerlines people to bundle these quickly and wherever possible, and investigate undergrounding as well.

A request : Could you please convince Warringah Mall to plant canopy trees along its Pittwater Rd boundary?

Northern Beaches Council

Draft Environment and Climate Change Strategy

Introduction

I was pleasantly surprised to see that Council has presented a well thought-out Strategy and included a suite of Commitments and “We Will” undertakings to show how it will undertake the Strategy. I am also impressed at the opportunity for respondents to provide comments via the interactive document.

Although I have a wide range of interest in environmental issues, the main thrust of my comments for this Strategy relate to the measures that Council will undertake to address Climate Change. The IPCC has made it clear that we need to move a lot faster to prevent serious outcomes – and there are no rational grounds for disputing this. So I expect Council to align their activities to the need for reducing emissions by 45% by 2030, and by 50% by 2050. The measures outlined in the Strategy are welcome but in my view do not go far enough.

My second area of prime concern is to measure and report on progress on an annual basis. Time is of the essence and both Council and the community will need to join together in this journey over the next 20 yrs. To make sure we are on target to meet our goals we need to measure and report on progress annually. In doing we will see where we are making adequate progress and if not make the appropriate changes. Regular feedback on the impact of our endeavours will give the community confidence that progress is happening. Right now no-one really knows how we stand.

Thankyou for the opportunity to comment – we in the community are ready to become involved and look forward to joining with Council in the journey ahead.

[REDACTED]

Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

MESSAGE FROM THE MAYOR**COMMENT**

It is very pleasing to hear that *NBC will act as a role model for our community by adopting ambitious corporate commitments and driving change in our community.*

In many ways Council is like a typical household and can embrace the same measures as is needed in our community. Measures such as: Lighting (LED), space heating (with energy management), Low emission vehicles, controlled solar gain (awnings), zoning of working space, offsetting carbon emissions, installing solar PV, water efficiency (raintanks, grey water reuse), use of public transport, and more. Council could easily spruik its commitment and create a running example of what measures it has taken and provide an annual assessment of the impact on its carbon footprint.

SUMMARY**COMMENT**

It is very pleasing to see that Council has included Commitments and Aspirations and says it will undertake a wide range of measures in its strategy. And *to keep on track and measure progress* is a very very important part of making this strategy work. An annual review of progress will be necessary to enable improvements that may be required. These should include: Carbon emissions, water use, electricity use, solar PV uptake (domestic and commercial), and use of public transport.

VISION**COMMENT**

Again its good to see a confirmation of using measurable commitments to reach goals. A significant omission from the vision is an acceptance of the need to aggressively tackle climate change. A vision that embraced to IPCC recommendations for limiting the impact to 1.5degC would be an imperative.

COMMITMENTS

It's wonderful to see this suite of ambitious but achievable commitments embodied in the Strategy.

ASPIRATIONS**COMMENT**

Working closely with the community is an important role for Council to take – and acting as an example in its own operations will have a lot of impact. Regular reporting will be required to spruik the outcomes and to encourage households to follow suit.

OUR STRATEGIC LINE OF SIGHT**COMMENT**

Council says the Line of Sight aligns with the 2015 Paris Agreement and with the UN Sustainable Development Goals – good to see but some greater detail is necessary, in particular the commitment of achieving the 1.5degC goal.

COMMENT

The NBC website FAQs state: *"Towards 2040 will inform decisions about strategic land use planning including the assessment of planning proposals to rezone land and the preparation of Council's new Local Environmental Plan (LEP) and Development Control Plan (DCP). It will also inform broader policies and strategies, such as Council's local housing strategy. Together, these documents will provide a comprehensive and consistent planning framework. Towards 2040 will also form the basis of collaborative and advocative planning work undertaken with the NSW Government and other relevant stakeholders."*

We believe that the strategic line of site section in this document including the strategy alignment with 2015 Paris agreement and UN Sustainable Development Goals, should also be clearly stated in the Towards 2040 strategy document.

OUR PLANS**COMMENT**

The Plan Structure diagram is confusing. Does this Environment and Climate Change document have the same level of influence on LEP, DCP, NSW planning etc as Towards 2040?

If yes we think that the connector lines should come from the bottom of this document into the top of the Long Term Strategies and LEP, not the sides.

If no, then what is the strength of this document? How does Council ensure that its goals and commitments are incorporated into the subsequent documents and planning? Is it necessary to add all this document's aspirations, goals, targets and commitments into the Towards 2040 document?

We also think it would be clearer if the "Towards 2040" and "Shape 2028" names were added to the appropriate boxes.

COMMENT

The Plan Structure diagram needs reworking to better illustrate the relationships, and the naming of the boxes needs to be consistent with the document titles. For example, the Community Strategic Plan is really Shape 28? And presumably the LEP and DCP will be informed by the Environment and Climate Change Strategy via a series of Action Plans.

INFLUENCES**COMMENT**

Climate Change – well stated impacts, and we need to see the measures to combat climate embedded in the following Themes. A vision that embraces to the IPCC recommendations for limiting the impact to 1.5degC would be an imperative. When it comes to working with the community an upfront engagement of local advocacy groups would be very worthwhile.

Climate Change Mitigation – the Aspiration to reach net zero emissions by 2030 is welcome. Any residual emissions can easily be offset to reach net zero.

Population Growth – this is the Elephant in the room. It is doubtful if the world can ever effectively cope with climate change if the world population continues to grow. Although Council is required by the NSW Govt to meet population projections, Council in every forum should take the opportunity to explain the implications of a growing population and lobby for a sustainable population strategy.

Councils ability to Influence

Advocacy – important – well stated

Education – very important and an opportunity to engage with local advocacy groups to develop a vibrant community plan to address pressing issues.

Leading by example – a golden opportunity is for Council to Walk the Talk. In many ways Council is like a typical household and can embrace the same measures as is needed in our community.

Measures such as: Lighting (LED), space heating (with energy management), Low emission vehicles, controlled solar gain (awnings), zoning of working space, offsetting carbon emissions, installing solar PV, water efficiency (raintanks, grey water reuse), use of public transport, and more. Council could easily spruik its commitment and create a running example of what measures it has taken including an assessment of the impact on its carbon footprint.

Engagement and collaboration – See comments above. Council moves will include *embracing innovation and inspiring the community*. Collaborating with local groups up front could produce some great outcomes – for example a local virtual grid concept as advocated by [REDACTED]

[REDACTED]

Additional Matters

Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 1: BUSHLAND

We aspire to achieve...

No net loss of bushland

COMMENT

Councils Aspiration of *No net loss of bushland* is an absolute necessity. All over our LGA we are currently witnessing Death by 100 Cuts – as small and not so small areas of native bushland is cleared. Providing bushland offsets does not replace native bushland. And wildlife corridors must be preserved and improved if we are to avoid a lifeless landscape in the coming years.

We are committed to...

- Maximising the retention of bushland

COMMENT

There needs to be a focus on NATIVE bushland

- Improving the quality of existing bushland

COMMENT

Ok but the most important requirement is to stop cutting it down

- Improving the connectivity of wildlife corridors

COMMENT

More wildlife overpasses may be required as well.

- Balancing bushland protection with the need for responsible bushfire management

COMMENT

The wording should be reversed to: Balancing bushfire management with bushland protection

We will...

COMMENT

Strong agreement with these commitments

- Work to protect existing bushland and enhance its ecological value using best practice restoration techniques
- Protect our bushland and its associated biodiversity through strategic land-use planning and development controls
- Capture quality baseline data on our bushland and continue to monitor and report to the community
- Actively engage in partnerships, research and innovation opportunities to improve the way we do things
- Improve and manage sustainable recreational access whilst protecting environmentally sensitive lands
- Consider scenic and cultural landscapes and heritage in strategic land-use planning, development controls and when undertaking works
- Motivate, inspire, educate and support our community and stakeholders to value, protect and enhance our bushland, including facilitating environmental volunteering
- Work to prevent unlawful actions, such as illegal clearing and dumping, and reduce pollution by implementing enforcement and compliance activities to protect the bushland from destruction

COMMENT

Is there a facility for individuals to easily report illegal activity – perhaps an APP.

- Promote more wildlife friendly gardens

Additional Matters

Recommendations

[REDACTED]

Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 2: WATERWAYS AND CATCHMENTS

We aspire to...

Improve the condition of all our waterways

We are committed to...

COMMENT

Strong agreement with these commitments

- Protecting our receiving waters and riparian areas
- Protecting and improving the condition of creeks and riparian vegetation
- Minimising threats to aquatic ecosystems
- Reducing the impact of urban runoff on our waterways
- Actively working to remove single use plastics and other litter from our network

COMMENT – It seems that our system of democratic governance is finding it impossible to legislate for the effective recycling of most plastics. In Europe those plastics that are not extracted for recycling are sent to incinerators rather than to landfill. Incinerators burn plastics and many other waste products to produce electricity and heat. Europe has successfully managed to control emissions - Surely we can do the same here (check out Vienna)

We will...

COMMENT

Strong agreement with these commitments

- Prioritise and implement works to improve our impacted waterways, including activities to minimise the impact of the natural environment on people and property
- Progressively improve our stormwater network so that we discharge to our waterways in an environmentally sensitive way without increasing risks to the community
- Protect our waterways with strategic land-use planning and development controls including water sensitive urban design
- Integrate the management of our waterway systems so that they better protect receiving environments
- Balance the way we manage our waterways to consider both improving the condition as well as minimising impacts of natural hazards
- Capture quality baseline data on our waterways and continue to monitor and report to the community

COMMENT

Strong support for Monitor and Report

- Actively engage in partnerships, research and innovation opportunities to improve the way we do things
- Improve and manage sustainable recreational access whilst protecting environmentally sensitive lands
- Ensure scenic and cultural landscapes and heritage are considered in strategic land-use planning, development controls and when undertaking works
- Motivate, inspire, educate and support our community and stakeholders to value, protect and enhance our catchment and waterways
- Work to prevent unlawful actions, such as illegal discharges, by implementing enforcement and compliance activities to protect waterways from pollution and destruction

COMMENT

Is there a facility for individuals to easily report illegal activity – perhaps an APP.

- Promote more wildlife friendly gardens?

Additional Matters

Recommendations

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 3: COAST

We aspire to...

Ensure our coastal environment, amenity and processes are protected into the future

We are committed to...

- Our beaches have the highest water quality rating
- Maintaining our beaches, headlands and rockpools to a high level of community satisfaction
- Maximising retention of natural coastal habitat and improve the quality of coastal vegetation
- Reducing the impact of urban runoff on the coast
- Actively working to remove single use plastics and other litter from our coast

We will...

- Preserve the natural character from human activity using policy and strategic land-use planning and development controls
- Reduce pollution entering our coastal environment using best practice source controls, treatment measures and better detection systems
- Improve the condition of our coastal and marine environment using regeneration and habitat enhancement techniques
- Create inclusive opportunities for our community to enjoy the coast, by delivering high quality, sustainable, resilient and appropriate facilities whilst protecting environmentally and culturally sensitive lands
- Actively engage in partnerships, research and innovation opportunities to improve the way we do things
- Motivate, inspire, educate and support our community and stakeholders to value, protect and enhance our coastline
- Work to prevent unlawful actions, such as illegal clearing and development, by implementing enforcement and compliance activities to protect our coastline from damage

COMMENT

Is there a facility for individuals to easily report illegal activity – perhaps a APP.

- Promote more wildlife friendly gardens?
- Work to allow coastal processes to naturally shape the coastal environment through our policies, strategic land use planning and development controls

Additional Matters

COMMENT

Council needs to tread carefully when it comes to accepting some or all of the responsibility for restoration works. There are going to be an avalanche of requests for Council support as the water level rises due to climate change, and the prospect of ongoing litigation seems very likely.

Recommendations

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 4: BIODIVERSITY

We aspire to...

Maintain our local native plant and animal species, populations and communities

We are committed to...

- Maximising retention and ecological condition of key habitats
- Reducing the impact of invasive species
- Improving the connectivity of wildlife corridors
- Improving biodiversity in the urban environment

We will...

- Prioritise high value conservation sites and implement on-ground works, such as bush regeneration and invasive species control, to protect our biodiversity and enhance the ecological value and function of our environment
- Prepare and implement a strategic approach to biodiversity land management and use this to inform our strategic land use planning and development controls
- Capture good quality baseline data and continue to monitor and report to the community

COMMENT

Strong support for Monitor and Report

- Actively engage in partnerships, research and innovation opportunities to improve the way we do things
- Motivate, inspire, educate and support our community and stakeholders to protect and enhance our biodiversity
- Work to prevent unlawful actions, such as illegal clearing and development, by implementing enforcement and compliance activities to reduce the loss of biodiversity
- Consider the impacts of climate change on biodiversity and understand pathways for adaption

Additional Matters

Recommendations

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 5: SUSTAINABLE BUILT ENVIRONMENT

We aspire to achieve...

All new buildings being net zero emissions by 2030

COMMENT

This is a very important aspiration, and something that should be easily achievable with the use of residual offsets.

We are committed to...

- Reducing resource consumption in our community
- 50% of suitable premises with solar panels installed by 2030

COMMENT

A very important commitment. With the help of the Solar industry and with Council involvement it will be possible to meet this commitment. One proposal that may turn out to be really effective is that of the local environmental group Clean Energy for Eternity who is advocating a Solar Ambassador concept. If we are to meet the IPCC goal of reducing emissions 45% by 2030 (2005 base) this commitment will play an important role – and it will involve Council liaising with the community.

We will...

- Support and encourage renovations, retrofits and refurbishments to lower energy and water use in our community, including driving conversion to renewable energy, especially solar panels
- Help our community to understand the benefits of building sustainably
- Improve local planning controls to ensure residential and non-residential buildings and infrastructure are sustainably designed and built
- Encourage state and federal government to rapidly drive down emissions and water use through actions such as better building standards for residential and non-residential buildings and relevant infrastructure; eg. increasing BASIX, implementing standards for non-residential development and best practice infrastructure delivery

COMMENT

Our current level for BASIX requirements is far too low. Home energy ratings for a start should be no less than a 7.5 NatHERS rating right now, and by 2030 maybe 8.5. Some serious lobbying needs to take place with senior Govt ministers to bring this about.

- Implement the Northern Beaches Move Transport Strategy to improve travel infrastructure, public transport, mass transit, and community behaviour

COMMENT

The B Line bus service has seen a significant increase in public transport use. One of the barriers to further use is that with fewer B Line stops patrons have to drive and park at fewer locations, and the available parking is soon at capacity. It seems inevitable that much more parking will be necessary to attract more patrons.

- Actively engage in partnerships, research, innovation and investigate potential for incentives to provide opportunities for our residents and businesses to increase uptake of sustainable choices to reduce their footprint
- Seek out, support and encourage precinct scale solutions to reducing resource use

Additional Matters

Recommendations

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 6: GREEN NEIGHBOURHOODS

We are committed to...

- Increasing the existing urban tree canopy to expand the local green grid
- Planting a minimum of 5,000 trees each year
- Ensuring development integrates and supports the surrounding natural environment

We will...

- Identify, design and deliver priority local green grid corridors, connections and shared uses. We will integrate this into our planning instruments
- Support, encourage and enable green infrastructure development through our planning instruments and regulations
- Implement relevant tree plans and strategies such as the Draft Northern Beaches Council Urban Tree Canopy Plan 2019 to protect and enhance our urban trees. Key directions in the plan include protecting urban trees, maintaining tree canopy covers, improving tree health and diversity and inspiring the community to protect and enhance urban trees
- Work to minimise disruption from trees to utilities and other community services
- Select tree canopy species that compliment the local natural environment

Additional Matters

Recommendations

[REDACTED]

Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 7: SUSTAINABLE LIVING

We aspire to achieve...

Net zero emissions in our community by 2030

COMMENT

This is a bold aspiration and will need a major effort to reach this goal. Community engagement will be of prime importance.

We are committed to...

- Reducing carbon emissions in our community by more than half by 2040

COMMENT

The IPCC target is to reduce emissions by 45% by 2030 (2005 base, 1.5degC). This rate of reduction amounts to significantly more than 50% by 2040. It is a complex assessment of just how much the community should contribute to the national target of 45%, but in simple terms it would appear that the Council's goal of 50% does not align with the IPCC recommendations. Why not? The Climate Emergency Council status that has adopted should surely mean we adopt the IPCC recommendations. And why chose a year of 2040 when the IPCC (and others) have settled on 2030??

- Net zero emissions by 2050

COMMENT

Agreed this is the appropriate target- needs annual tracking and reporting (see more later)

- Maintaining or reducing overall drinking water use in our community by 2040

COMMENT

Needs a target to mean anything.

- Diverting 85% of waste from landfill by 2040
- Reducing the rate of waste generation per person by 2040.

COMMENT

Needs a target to mean anything

- Reducing single use plastics

COMMENT

Needs a target to mean anything

We will...

- Motivate, inspire, support and encourage our community to reduce their waste production, energy and water use, and other consumption, food, long distance travel etc., through engagement, education and incentives. To do this we will:

review and maximise Council's Environment Centres and other programs to deliver the goals and commitments in the strategy; and

support community groups to deliver sustainable living choices

COMMENT

To Motivate, inspire, support and encourage our community is not easy and will require a more effective program than has been the case so far. Because this mission is so important considerable effort should be directed to develop a world class initiative involving the best educative minds available. Possible options: A NB climate museum, a travelling sustainable living exhibition (such as the Melbourne Museum Gut Tunnel), annual Sustainable Fairs with lots of schools involved, inter school competitions centered around sustainable living activities, showcasing Council and community success stories – and other enlightened possibilities that could be developed via community engagement.

- Minimise the use of single use plastic

- Support innovative solutions to reduce waste and minimise waste transport
- Reduce waste to landfill through service delivery, including diverting food and green waste to composting, and provision of recycling alternatives and educating the community in ways to minimise waste production at home and maximise recycling
- Drive water efficiency and reuse in our community, including through reuse of grey, black and stormwater

COMMENT

As we move ahead with water conservation it will become more important to reuse greywater and blackwater. Council should investigate and plan for this before a water crisis occurs.

- Implement the Northern Beaches Move Transport Strategy to accelerate our transition to low emissions vehicles and increase our active travel trips
- Actively engage in partnerships, research and innovation opportunities to improve uptake of sustainable living choices
- Council will lobby and advocate on behalf of our community to ensure that local, state and federal policies reflect and enforce the efforts needed to help our community transition to living more sustainably

COMMENT

The most important measure our State Government can take is to put in place measures to decentralise our population. Centres like Newcastle, Bathurst, and Nowra should be provided with huge incentives to attract people away from Sydney. These measures would be costly but the cost of an ever increasing population in Sydney will be much higher. Council should advocate for decentralising whenever possible.

Additional Matters**Recommendations**

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

THEME 8: ADAPTATION AND RESILIENCE

We aspire to...

Reduce the risk of natural hazards and climate change to our community and our environment

We are committed to...

- Understanding and actively managing risks from bushfires, coastal erosion and inundation and flooding in the community
- Public infrastructure designed, constructed and maintained to address climate change
- The community being prepared, educated and resilient to natural hazards and climate change

We will...

- Undertake community education and engagement to improve preparedness and resilience
- Drive innovation and research to be leaders in natural hazard management and climate change mitigation and adaptation
- Continually incorporate best available climate change and natural hazard knowledge and practices into our strategic land use planning, development controls, construction and operations
- Collect good quality, meaningful data and leverage local knowledge to support and enable decisions
- Enhance our approach to how we manage natural hazards
- Advocate, collaborate and network with stakeholders to represent the needs of our community and environment and leverage outcomes from regional approaches and projects. This includes active involvement in regional initiatives such as Resilient Sydney, and implementing the Resilient Sydney Strategy
- Maintain and enhance, strong collaboration with emergency services and relevant agencies
- Build our skills and capacity to respond during a natural hazard emergency to reduce the impact and facilitate recovery
- Improve our community's connectedness and their access to information to empower them to make appropriate decisions during an event.
- Continue to identify properties affected by natural hazards to ensure strategies are in place to reduce their impact

Additional Matters

Recommendations

[REDACTED]

Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

NORTHERN BEACHES COUNCIL OPERATIONS

We aspire to achieve ...

Net zero emissions by 2030.

COMMENT

Because Council has direct control over its operations this Aspiration should be achievable – with the use of Offsets if necessary to cope with tail end emissions.

We are committed to...

- A 60% reduction in carbon emissions by 2040

COMMENT

In line with Councils recent decision to declare a Climate Emergency, the commitment should be to a 100% reduction and brought forward to 2030

- Net zero emissions by 2045

COMMENT

As above, Council should commit to 100% by 2030 for its own operations

- A 10% reduction in our drinking water use by 2040

COMMENT

By 2040, with 20 yrs to improve town water supply and domestic use this figure should be significantly higher. Grey water reuse for watering operations and stormwater capture should make significant savings.

- Diverting 85% of waste from landfill by 2040
- 90% recycling of construction waste by 2040
- All suitable sites being powered by renewable electricity by 2030
- Increasing the frequency of everyday sustainable behaviours in our community
- Increasing the number of environmental volunteers
- Delivering our environmental education programs and facilities to a high level of community satisfaction

COMMENT

As before: To *Motivate, inspire, support and encourage our community* is not easy and will require a more effective program than has been the case so far. Because this mission is so important considerable effort should be directed to develop a world class initiative involving the best educative minds available. Possible options: An NB climate museum, a travelling sustainable living exhibition (such as the Melbourne Museum Gut Tunnel), annual Sustainable Fairs with lots of schools involved, inter school competitions centred around sustainable living activities, showcasing Council and community success stories – and other enlightened possibilities that could be developed via community engagement.

We will...

- Regularly monitor, report and publicise our sustainability initiatives

COMMENT

In meeting Councils Commitments nothing could be more important than the regular monitoring, reporting, and publication of progress. This will provide a real incentive to embrace the need for a transition to sustainable living. To be effective the reporting should be on an annual basis for most indicators including:

- Reduce carbon emission from our operations by using alternative processes, different ways of working, products and vehicles
- Monitor our waste generation and minimise waste, maximise recycling and reduce waste to landfill
- Build the capacity of staff to support and implement initiatives

- Strongly and consistently consider sustainability criteria in all Council's procurement activities, including electricity contracts and investments
- Actively seek opportunities for capture of water and wastewater and find ways to reuse it
- Reduce drinking water use by continually improving the way we use water, especially for irrigation and our swimming pools
- Retrofit Council buildings to make them use less energy and water and incorporate green infrastructure. Examples include solar panels and efficient lighting, appliances, air conditioning, and pool water heating
- Make Council buildings and other assets connected and automated to be smarter and more efficient
- New builds and infrastructure to be exemplars of best practice in sustainability and embrace innovation
- Lobby and advocate on behalf of our community to ensure that local, state and federal policies reflect and enforce the efforts needed to help our community transition to living more sustainably

Additional Matters**COMMENT**

In meeting Council's Commitments nothing could be more important than the regular monitoring, reporting, and publication of progress. Such feedback will provide a real incentive for the community to embrace the need for a transition to sustainable living. To be effective the reporting should be on an annual basis for most indicators including: Electricity use, Gas Use, Water Use, GHG emissions, % Suitable Council buildings with solar PV, Council annual renewable energy generation, Council vehicle emissions. Relevant parameters that are easily obtained should also be included. Some careful thought needs to be directed to this process so it does not involve unrealistic Council effort and more importantly so it is in a suitable form for presenting and inspiring the community.

Recommendations

The following commitments should be strengthened:

A 100%, not 60%, reduction in carbon emissions by 2030 (not 2040)

Net zero emissions by 2030, not 2045.

These strengthened commitments can be achieved by:

- Over 2020-2025 minimise Council's energy use through efficiency measures and Council PV installation
- By 2026, and potentially in combination with other Councils, enter a Power Purchase Agreement for 100% renewable electricity. This could, but may well not, still have a higher cost. However, after usage minimisation and with the continuing cost reduction of renewable sources, the cost will not be large within the Council's budget.
- By 2030 have its light vehicle fleet 100% electric, and purchase offsets for any small residual fuel use by heavy vehicles or equipment

[REDACTED]
Comments on Draft Northern Beaches Environment and Climate Change Strategy 2040

IMPLEMENTING THE STRATEGY

The strategy will be supported by 11 action plans:

Climate Change

Environmental Education and Sustainable Behaviours

Bushland

Waterways and Catchments

Coast

Biodiversity

Sustainable Built Environment

Sustainable Living

Adaption and Resilience

Northern Beaches Council's Operations

Urban Tree Canopy Plan (draft 2019)

Additional [REDACTED] matters

Referring to Council statement : *"Council will be evaluating our progress against the goals, commitments, and aspirations in this strategy annually. A detailed assessment, report and review will be completed every two to four years"*

COMMENT

It is very pleasing to see Council committing to regularly undertake this very important function. To provide timely feedback to the community, and to give assurance that Council is "walking the talk" it would be more effective to issue a progress report every year. If Council is evaluating progress annually as stated, there should be no reason for not reporting annually

[REDACTED] recommendations

That Council will report on Implementation progress annually.

Kara Taylor

From: [REDACTED]
Sent: Sunday, 10 November 2019 11:07 PM
To: Council Mailbox
Subject: Submission to Protect. Create. Live Environment and Climate Change Strategy (draft)
Categories: SL

Please see points below
In this draft document council states

The draft strategy is the result of extensive research and consultation

With ownership in both public and private hands being able to balance competing priorities means it is important that Council works with our community and key stakeholders to realise our goals.

Despite the above statements not one landowner from the deferred area was part of any consultation, peer group. Considering the reason we became deferred was due to Warringah Council excluding us from consultation & making decisions that were not evidence based.

1. Climate change

Council still is building high rise on existing & potential flood zones. as well as storm surge areas including Dee why Narrabeen Collaroy & Manly. These areas are already subject to substantial flooding in heavy rainfall.

2. Bushland

Fire management The recent fires in NSW show how fire management is not working. .The majority of thses fires started in national parks & reserves which are overgrown & not effectively managed. Land management & fire management needs to move back to how the Indigenous Australians managed our land As stated in much literature & with evidence in early painting of the 1700,s & early 1800's including the State library which states below

For thousands of years before the first Europeans arrived, Indigenous Australians had been living on and manipulating the land and the environment. Indigenous Australian methods of agriculture, horticulture and aquaculture included crop-growing, fish-trapping and controlled burning ('fire-stick farming') to encourage new growth in native plants and to facilitate hunting.

the painting below is Working the land ... Joseph Lycett's c.1817 watercolour, Aborigines Using Fire to Hunt Kangaroos, depicts the innovative use of fire burning. Credit: National Library



This is evident that bushland in this area was not overgrown or inaccessible as it is now & their meeting places, engravings, middens & history being overgrown & lost on the northern beaches. As commented on the interactive text document a more consistent & effective fire regime is required which is part of nature instead of the current emergencies.

3 Waterways

Water particularly stormwater recycling & catchment needs to be improved.

More stormwater recovery pits before this water reaches streams, lakes & our oceans. Leachate improvements at Kimbriki tip as well as improvements to curl curl lagoon (old tip site). More scheduled cleaning of these pits.

improved management practices to prevent overflow from north head & warriewood sewage works.

Integration to reuse these recycled products.

4. Sustainable Built Environment

Unlike residential rural industrial land Council has ignored pleads by the Deferred landowners to be included in exempt development code for renewable energy. Currently the deferred area landowners require a DA to place solar panels on their homes yet the 10 adjoining residential neighbours beside me dont. Nor does the similar size & land use properties at Duffys Forest.

Why is council not building sustainable footpaths or water recovery gutters. Technology has changed in the last 20 years & despite this council using the current "in click" words. More work needs to be done to upgrade the infrastructure to a sustainable footprint. The burden should not just be on the future landowner. Council needs to proactively improve its infrastructure to combat its footprint.



5. Green canopy

This direction must not put lives or our safety in danger. Correct trees species & size must be used. our local schools have had to remove large dangerous trees from their grounds. With climate warming & less rainfall the effect of limb drop of large gums will become more prevalent. Council must ensure large dangerous trees are removed from our open spaces & planted with more appropriate tree canopy. The trees you want to plant now may not necessarily be appropriate in 10 or 20 years. Your climate change introduction states strong winds will become more prevalent therefore trees on roads & cycleways must be safe to withstand wind storms.

6. Transport

with future technology including driverless cars & buses Council needs to look at our aging population & new infrastructure & services to allow people to age in place. Buses like the hop skip jump bus of manly should be in all suburbs & would pick up people on designated routes to take them to shops club ect. This bus/car would be driverless. What future infrastructure is being put in place to enable this type of system to work effectively. Battery operated push bikes are becoming more popular as well. New bike/ driverless car lanes need to be planned now. I can walk the 1.5 km to my local shops now but will I be able to in 10 years will you. Our transport system needs to become more niche specific especially with the aging population & intensification of population along the coast.

7. Biodiversity

the oxford dictionary states biodiversity is

the variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable. **we have biodiversity with the majority of the area specific found in our local national parks & reserves**

Our native animals are already adapting to changes in their environment. They already live with us in not only rural areas but in residential & industrial. Go to Belrose tip in summer & see the wallabies the Health monitor that feeds in the food waste pit. Brush turkeys have invades the suburbs. Bats are all through the peninsula. This great & mysterious world revolutionises us & animals & plants to its changing environment. Look at past ice ages. Who would have thought australia had dinosaurs but we are digging them up in queensland.

Renewable energy & new technology will play an important part in the future. We need to ensure we are keeping up with this technology & planning for its implementation now. Sustainable practices must include a revised bush management & fire regime similar to how this area was kept in the 1700's by the aboriginal land custodians.

I look forward to seeing your revised Draft document in the near future





Mr Ray Brownlee
CEO
Northern Beaches Council
PO Box 82
MANLY NSW 1655

Dear Mr Brownlee,

Re: Submission to 'Towards 2040' - Draft Local Strategic Planning Statement

Thank you for the opportunity to provide feedback on Northern Beaches Council's *Draft Local Strategic Planning Statement* (LSPS).

[REDACTED] to reduce the incidence of cancer in [REDACTED]
[REDACTED] closely with key stakeholders with health and
built environment expertise to reduce the incidence of skin cancer by improving access to
adequate shade in NSW. [REDACTED] also promotes healthy lifestyle behaviours, including
physical activity, which reduce the risk of certain cancers.

[REDACTED] is committed to supporting your Council to reduce skin cancer in your LGA and
has prepared the following submission that will:

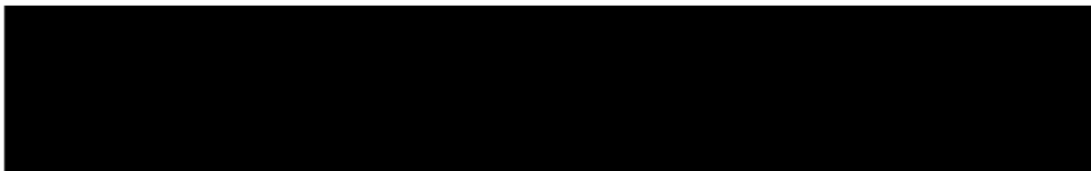
1. Outline the importance of well-designed shade for the prevention of skin cancer
2. Explain the role of local policy in shade provision and skin cancer protection
3. Offer specific comments and suggestions regarding your draft LSPS
4. Provide further information and contacts to assist your LGA in planning for good quality shade.

1. Skin cancer and shade

Skin cancer is the most common cancer in Australia. At least 95 per cent of melanoma skin cancer and 99 per cent of non-melanoma skin cancers are caused by overexposure to ultra-violet radiation (UVR) from the sun.¹ UVR is a carcinogen, and two in three Australians are expected to develop skin cancer before the age of 70.² In Northern Beaches LGA, the incidence rate of melanoma between 2011 and 2015 was 64.0 per 100,000 population, which was higher than the NSW average rate.³

Across NSW, UVR levels are high enough to damage unprotected skin for at least 10 months of the year.¹ Unlike temperature, UVR can't be seen or felt and damage to unprotected skin can still occur on cool or overcast days.

The good news is that skin cancer is highly preventable. In addition to personal protective behaviours ([Slip Slop Slap Seek Slide](#)), there is evidence that well-designed and correctly



[REDACTED]

positioned shade, from both natural vegetation and built structures, can reduce exposure to UVR by up to 75 per cent.⁴

The provision of good quality shade is integral to assisting the community in reducing its exposure to UVR. However, quality shade needs to be planned and provided with careful thought if it is to be effective. This is where your Council can play an important role through the planning and design of good quality shade.

2. The role of local policy in shade provision and skin cancer prevention

Local planning provisions have a key place in ensuring the practical planning and delivery of shade, as does other policy that encourages the retention and addition of shade in a range of settings. As such, the Institute urges Council to 'step up' its priority for natural and built shade by:

1. recognising shade as a key planning, design and health issue for your LGA
2. recognising the range of co-benefits of shade in addition to protection from UVR ie comfort, shelter, aesthetics, biodiversity, reduction of the urban heat island effect, less evaporation, climate resilience, cooling of surrounding areas, improvements in health and wellbeing etc.
3. preparing policy to specify high quality design principles for shade in new private developments (for example by updating Development Control Plans for residential and commercial development)
4. preparing policy to ensure the provision of adequately budgeted and well-designed shade in public spaces and as part of public infrastructure eg in playgrounds, recreation areas, commercial and activity centres, transport interchanges, bus and tram stops, along footpaths and streets etc.

[*Shade: A planning and design priority that prevents skin cancer, 2019*](#) provides a summary of the benefits of shade.

[*Guidelines to Shade - A practical guide for shade development in New South Wales, 2013*](#) provides practical design details and guidance for Council.

3. Specific comments and suggestions regarding Council's draft LSPS

[REDACTED] recognises the LSPS as the key strategic land use planning document for your LGA for the following 20 years, and hence considers it vital to include within it specific references to shade provision.

[REDACTED] would like to commend Council on recognising in the LSPS the importance of healthy communities, greener urban environments and quality open space.

[REDACTED] commends Council for explicitly stating 'Strategic principles for managing growth and change' (p32) that require future planning proposals to satisfy various criteria, including a range of issues that relate to natural and built shade.

[REDACTED]

[REDACTED]

The attached [example LSPS text relating to shade provision](#) provides detailed suggestions to assist you in finalising your LSPS. The example text outlines:

- Why shade (both natural and built) is important
- The co-benefits of well-designed shade and green spaces
- What is well-designed shade?
- Detailed LSPS actions relating to review of DCPs, consideration of shade in specific types of DAs and public infrastructure assessment, and commitment to shade provision in Council projects and infrastructure provision.

[REDACTED] would like to provide suggested improvements to the Planning Priorities and Actions within the LSPS to ensure the issue of well-designed shade, both built and natural, is adequately addressed. Please refer to the comments in the table following.

In addition, the Institute also notes the following documents accompanying the draft LSPS that are relevant to shade issues:

- *Background Paper - Planning for our Environment*
- *Northern Beaches Social Infrastructure Study - Issues and Opportunities Background Paper*

[REDACTED] would like to suggest that the role of well-designed shade and its role in UV protection should be acknowledged in these documents, particularly in the following places in *Planning for our Environment*:

- p20 – “Shade... protects us from the sun’s rays” should be amended to: “Shade...provides protection from over-exposure to UV radiation”.
 - p23 - ‘The Opportunities’ should also include: “providing shade for protection from over-exposure to UV radiation”.
 - p24 – ‘Actions Council will consider for the new planning framework’ under ‘Priorities in Practice’ should also include: “Ensuring well-designed and appropriately placed natural shade is planned and budgeted for throughout the LGA, using best practice principles such as the *Guidelines to Shade - A practical guide for shade development in New South Wales, 2013*”.
- [REDACTED]

LSPS Directions and Planning Priorities	Relevant Actions	Comments and suggestions
Landscape		
PP 1: Healthy and valued coast and waterways	1.1 to 1.9	<p>recognises the range of actions that Council is committed to regarding its coast and waterways.</p> <p>considers that well-designed and correctly positioned shade is a priority for outdoor recreation destinations and foreshore parks, particularly in areas such as beachfronts where UV radiation is at its highest at particular times of the year, and where visitors are likely to be wearing less clothing that protects them from UV radiation.</p> <p>is willing to collaborate with Council to plan for increased shade along foreshores and major outdoor recreation destinations, and to help communicate the importance of year-round UV radiation protection to residents and visitors.</p>
PP2: Protected and enhanced bushland and biodiversity	2.1 to 2.7	<p>recognises that the protection of biodiversity co- benefits of natural shade, as outlined in the attached document <i>Shade: A planning and design priority that prevents skin cancer</i>.</p> <p>Hence the Institute is supportive of the actions relating to</p>

PP2: Protected and enhanced bushland and biodiversity		biodiversity, and notes that specific suggestions relating to DCP provisions etc are made later in this submission.
PP5: Greener urban environments	2.6 Embed green infrastructure into the NSW planning system and make funding available through developer contributions, rate reductions or levies	<p>considers that the provision of shade (both public and private) is a type of green infrastructure that should be included in developer contributions plans, and in other fiscal policies of Council.</p> <p>commends Council's commitment to 'greener urban environments', but makes the following suggestions to ensure that the critical consideration of shade is given equal prominence in this issue:</p> <ul style="list-style-type: none"> at p62, add "protection from over-exposure to UV radiation" at the end of the second sentence (currently ending with 'UHI effect') Add an information box, similar to the current one regarding the Urban heat island effect, relating to shade with the following suggested text: Ultra-violet (UV) radiation is a type of natural hazard. At least 95 per cent of melanoma skin cancer and 99 per cent of non-melanoma skin cancers are caused by overexposure to UV radiation from the sun. Well-designed and correctly positioned shade, from both natural vegetation and built structures, can reduce exposure to UV radiation by up to 75 per cent. <p>Figure 33 should explicitly contain a reference to shade</p>

		<p>that explains that it 'provides protection from over-exposure to UV radiation' as well as provides 'comfort in hot weather and shelter' as well as other cobenefits.</p> <ul style="list-style-type: none"> at p63, add to the second paragraph (after 'combatting UHI effect'): "and providing protection from over-exposure to UV radiation" at p65, include the following in the 'Principles': "prioritise shade and recognise its role in protecting in over-exposure to UV radiation".
PP5: Greener urban environments	5.1 Implement the Urban Tree Canopy Plan, including the protection of iconic trees and tree-lined areas	<p>██████████ suggests that Council ensure that the consideration of well-designed and appropriately located shade is an integral part of the Urban Tree Canopy Plan.</p>
PP5: Greener urban environments	5.2 Investigate area and land use-specific tree canopy and green cover targets, based on the Government Architect NSW's proposed targets, prioritising areas with low canopy cover, socio-economic disadvantage and high levels of urban heat	<p>██████████ suggests that Council add "UV radiation" to the end of Action 5.2.</p> <p>The Institute would be willing to add its expertise to the implementation of this action.</p>
PP5: Greener urban environments	<p>5.3 Develop LEP and DCP controls for urban tree canopy and urban heat, including deep soil requirements, landscaped open space and increased front building setbacks in narrow road corridors</p> <p>5.4 Prepare design guidelines to inform LEP and DCP controls, including requirements for roof</p>	<p>██████████ suggests that the following be added to:</p> <ul style="list-style-type: none"> Action 5.3: "well designed and correctly positioned built and natural shade". Action 5.4: "built and natural shade". <p>Page 3 of the attached example LSPS text relating to shade provision provides some practical examples of DCP issues</p>

		colours, wind circulation, green roofs, green walls and water sensitive urban design	relating to shade, which could also be used in design guidelines referred to in 5.4.
PP5: Greener urban environments	5.5 Investigate the feasibility of Greater Sydney Green Grid projects, identify a local green grid, and protect and enhance these grids in the new planning framework		suggests that the 'provision of shade for protection from over-exposure to UV radiation' should be one of the elements that guides the development of the local Green Grid.
PP6: High quality open space for recreation	-		notes that Figure 35 (p68) shows that recreational walking is the most common form of sport and recreation undertaken by NSW residents. suggests that at p69, the following be added to the 'Principles': "Provide adequate built and natural shade in all open space and recreation areas and recognise its role in protecting in over-exposure to UV radiation".
PP6: High quality open space for recreation	6.1 Prepare LGA-wide studies including a social infrastructure and open space study and an open space and recreation strategy 6.2 Develop LEP and DCP controls that respond to the findings of the above studies and improve open space provision, connect to the local green grid, and manage conflicts including the use of environmental protection zones for natural open spaces		suggests that Council ensure that the consideration of well-designed and appropriately located shade is: <ul style="list-style-type: none"> an integral part of the studies and plans at Action 6.1 included in DCP controls regarding open space and recreation. The Institute would be willing to add its expertise to such controls, either in collaboration with Council, or with NSROC or another joint collaboration forum.

[REDACTED]	<p>PP6: High quality open space for recreation</p> <p>6.3 Implement the Sportsground Strategy by reallocating grounds to maximise use; facilitating shared use of school fields; and upgrading selected sports grounds either through reconfiguration, drainage and lighting improvements and/or synthetic fields</p> <p>6.5 Investigate the provision of sports fields in new housing development areas including Warriewood Valley and potentially Ingleside</p>	<p>6.3 Implement the Sportsground Strategy by reallocating grounds to maximise use; facilitating shared use of school fields; and upgrading selected sports grounds either through reconfiguration, drainage and lighting improvements and/or synthetic fields</p> <p>6.5 Investigate the provision of sports fields in new housing development areas including Warriewood Valley and potentially Ingleside</p>	<p>6.3 Implement the Sportsground Strategy by reallocating grounds to maximise use; facilitating shared use of school fields; and upgrading selected sports grounds either through reconfiguration, drainage and lighting improvements and/or synthetic fields</p> <p>6.5 Investigate the provision of sports fields in new housing development areas including Warriewood Valley and potentially Ingleside</p>	<p>[REDACTED] suggests that Council ensure that the consideration of well-designed and appropriately located shade is an integral part of the Sportsground Strategy, and in the provision of new sports fields in new areas.</p>
[REDACTED]	<p>PP6: High quality open space for recreation</p>	<p>6.4 Deliver new open space in Frenchs Forest Planned Precinct</p>	<p>6.4 Deliver new open space in Frenchs Forest Planned Precinct</p>	<p>[REDACTED] suggests that Council ensure that the consideration of well-designed and appropriately located shade planned and budgeted for in this Precinct.</p>
[REDACTED]	<p>Efficiency</p> <p>PP7: A low-carbon community, with high energy, water and waste efficiency</p>	<p>-</p>	<p>-</p>	<p>[REDACTED] notes Council's commitment to furthering its actions in a range of sustainability and efficiency projects and advocacy at p75, including:</p> <ul style="list-style-type: none"> • An identified range of opportunities for Council to lead in energy efficiency and sustainability • Promotion of the Green Star Communities rating for planned precincts • Lists of projects that Council where has already been a 'sustainability leader' • 'Net Zero Carbon Buildings Commitment' <p>[REDACTED] suggests that Council ensure that the consideration of well-designed and appropriately located</p>



<p>PP7: A low-carbon community, with high energy, water and waste</p>		<p>7.1 Deliver Frenchs Forest Planned Precinct as a low-carbon, high-efficiency precinct and a Green Star Community</p> <p>7.2 Identify opportunities for precinct-scale efficiencies, compact settlements, smart technology and infrastructure and better building standards and retrofits in the environment study, employment study and local housing strategy</p> <p>7.3 Develop LEP and DCP controls based on the studies and require a Green Star, NABERS or similar compliance rating for new buildings in strategic centres, employment hubs and areas subject to urban intensification</p> <p>7.4 Improve building standards for residential and non-residential buildings and relevant infrastructure, support the push for net zero carbon buildings, and monitor progress</p> <p>7.5 As part of Protect, Create, Live and Move, develop action plans for public transport,</p>	<p>shade is an integral part of these initiatives and partnerships.</p> <p>At p76, the Institute suggests adding the following to the 'Principles': "prioritise shade and recognise its many benefits, including protecting in over-exposure to UV radiation".</p> <p>supports the development of 'the low-carbon, high efficiency Precincts and Green Star Communities' and the actions under this Planning Priority.</p> <p>the Institute further suggests that the provision of well-designed built and natural shade and its many benefits (in addition to UV protection) be:</p> <ul style="list-style-type: none"> • an additional feature of the low-carbon, high efficiency Precincts and Green Star Communities • specifically examined in the Environment Study, Employment Study and Local Housing Strategy. • addressed in DCP controls • included in improved building standards • included in the action plans for public transport, sustainable living and green neighbourhoods
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	sustainable living and green neighbourhoods	
Resilience		
PP8: Greater community resilience to natural hazards and climate change.	-	<p> suggests that Council recognises UV radiation as another type of natural hazard that Council can assist in mitigating in its community.</p> <p>See the explanation at PP5 above.</p> <p>To assist in mitigating UV radiation, Council could consider the development of a shade and UV protection strategy or policy, either on its own or as part of NSROC. The Institute would be pleased to assist Council in this regard.</p>
PP8: Greater community resilience to natural hazards and climate change.	8.5 Develop Protect, Create, Live and associated action plans for adaptation and resilience	<p> recommends that the consideration of shade be included in the Protect, Create, Live Strategy and associated action plans.</p> <p>Well-designed built and natural shade can be used effectively to cool urban surfaces and hence contribute to higher energy efficiency of adjoining buildings, hence contributing to climate change resilience.</p> <p>Guidelines to Shade - A practical guide for shade development in New South Wales, 2013 provides practical design details and guidance for Council in this regard.</p>
PP8: Greater community resilience to natural hazards	8.6 Prepare a climate action plan for the LGA and a climate adaptation plan for Frenchs Forest	<p> recommends that the consideration of shade be included in the climate action plan for the LGA and the climate adaptation plan for Frenchs Forest Planned</p>

<div></div>			and climate change.	Planned Precinct	Precinct. See comments in 8.5 above.
			PP8: Greater community resilience to natural hazards and climate change.	-	<div> suggests an additional Action 8.8: Recognise UV radiation as a natural hazard and plan for well designed and correctly positioned natural and built shade to protect against over exposure to UV radiation.</div>
			Infrastructure and Collaboration		
			PP9: Infrastructure delivered with employment and housing growth	<p>9.1 Develop an LGA-wide land use infrastructure implementation plan informed by LEP studies to align planning and funding for housing, employment, social infrastructure, green infrastructure and transport</p> <p>9.2 Develop LEP and DCP controls that safeguard transport and infrastructure needs, including a review of the SP2 infrastructure zone</p> <p>9.4 Facilitate a whole-of-government precinct-level approach to planning for growth and infrastructure in urban renewal areas such as Brookvale strategic centre</p>	<p> considers that the provision of well-designed and appropriately located built and natural shade is a type of infrastructure that must be:</p> <ul style="list-style-type: none"> aligned with future growth coordinated with social and green infrastructure addressed in DCP controls included in any precinct level planning
			PP9: Infrastructure delivered with employment and housing growth	9.6 Advocate to increase the range of essential infrastructure applicable under Section 7.11 of the Environmental Planning and Assessment Act 1979 (EP&A Act)	<p> considers that the provision of well-designed and appropriately located built and natural shade must be:</p> <ul style="list-style-type: none"> included in the consideration of developer contributions adequately budgeted and planned for through Council's Delivery Program

	9.9 Fund infrastructure improvements through Council's delivery program and contribution plans	
People		
PP11: Community facilities and services that meet changing community needs	<p>11.1 Complete a social infrastructure study, open space and recreation strategy, childrens services strategy, community centres strategy, social plan and specialized plans for specific demographics (young people, older people, people with a disability or people from a culturally or linguistically diverse background)</p> <p>11.3 Incorporate the findings of these studies by planning for new and upgraded infrastructure or developing LEP and DCP controls that facilitate and incentivise joint and shared use, universal design and multi-use facilities</p> <p>11.4 Prepare place plans that respond to the findings of these studies</p>	<p>Similar to the comments at PP9 above, the Institute considers that the provision of well-designed and appropriately located built and natural shade is a type of social infrastructure that must be:</p> <ul style="list-style-type: none"> coordinated with social infrastructure study, open space and recreation strategy, childrens services strategy, community centres strategy, social plan and specialised plans for specific demographics addressed in DCP controls included in specific place plans
PP11: Community facilities and services that meet changing community needs	11.10 Prepare a public transport plan to improve access to community facilities	<p>considers that the provision of well-designed and correctly positioned shade contributes to the comfort and appeal of using public transport interchanges and approaches and should be included in the Public Transport Plan.</p>
PP 12: An inclusive, healthy, safe and socially connected	-	Page 103 shows some statistics for health issues in the LGA.

community		<p>recommends that the incidence of melanoma be included here – 64.0 per 100,000 for the LGA, compared to 51.0 for NSW (see reference no 3 at the end of this letter)</p>
PP 12: An inclusive, healthy, safe and socially connected community	-	<p>At p104, the Institute suggests adding the following to the 'Principles': "Provide well designed shade throughout the community and recognise its many benefits, including protecting in over-exposure to UV radiation".</p>
PP 12: An inclusive, healthy, safe and socially connected community	12.1 Engage early with State agencies in precinct and place plans to plan for healthy, safe and socially connected communities	<p>notes Council's willingness to engage with state agencies to plan for healthy communities, and offers its expertise and collaboration in this regard.</p>
PP 12: An inclusive, healthy, safe and socially connected community	12.2 Deliver Frenchs Forest Planned Precinct that meets Green Star liveability criteria for healthy and active living, safety, walkability and access to fresh food; community development projects and programs; and celebrating culture, heritage and identity	<p>See comments at Actions 7.1 and 8.6 above.</p>
PP 12: An inclusive, healthy, safe and socially connected community	12.4 Prepare a social infrastructure study, open space and recreation strategy, social plan and specialised plans for specific demographics (young people, older people, people with a disability or people from a culturally or linguistically diverse background), community centre strategy	<p>See comments at Action 11.1 above.</p>

PP 12: An inclusive, healthy, safe and socially connected community	12.5 Develop LEP and DCP controls that respond to these studies and address universal design requirements; communal spaces in residential flat buildings, including rooftops; fresh food production in urban areas; design criteria for the public domain, including making it easier to walk and cycle; temporary uses; night-time economy; arts and creative industries; and public art	[REDACTED] recommends adding "the provision of well designed built and natural shade" to the end of this Action.
PP 12: An inclusive, healthy, safe and socially connected community	12.7 Develop wellbeing indicators to monitor community health and community facilities and services provision	[REDACTED] suggests that "Solar UV radiation and skin cancer incidence" be included in the wellbeing indicators'.
PP 12: An inclusive, healthy, safe and socially connected community	12.8 Prepare a public transport plan that identifies and improves public transport service to concentrations of vulnerable population groups	See comments at Action 11.10 above
Great places		
PP17: Centres and neighbourhoods designed to reflect local character and lifestyle	Actions 17.1 to 17.4	<p>[REDACTED] reinforces the importance of well designed natural and built shade in contributing to comfortable and functional neighbourhoods and centres.</p> <p>The Institute suggests that the consideration of shade be an integral part of:</p> <ul style="list-style-type: none"> • LEP local character study • scenic and cultural landscapes study • public domain guidelines • DCP controls • design excellence provisions

<div style="background-color: black; width: 100%; height: 100%;"></div>				<ul style="list-style-type: none"> improvement of design criteria for the public domain local character statements for key areas place planning
Connectivity				
PP19: Frequent and efficient regional public transport connections	<p>19.1 Prepare and implement a public transport plan, LEP transport study and LGA wide land use infrastructure implementation plan to improve public transport; align transport and growth; and address network capacity limitations</p> <p>19.2 Develop LEP and DCP controls that incorporate these above studies and create good internal amenity for developments along main roads and future transport corridors</p>		See comments at Actions 20.1 to 20.5 and 21.1 below.	
PP20: Sustainable local transport networks	-			<p>suggests that the principles at p143 should include "Provide well-designed and correctly positioned shade to facilitate walking and cycling".</p>
PP20: Sustainable local transport networks	<p>20.1 Implement Move, our Walking Plan and Shared Transport Policy and prepare and implement a bike plan, public transport plan, parking plan, smart communities framework and pedestrian access and mobility plans</p> <p>20.2 Develop LEP and DCP controls that incorporate these above studies; support active travel and emerging technology in new</p>		<p>Notes Council's commitment to sustainable local transport networks and considers that shade contributes to people feeling more comfortable in being outside, encourages walking and cycling, and protects them from UV radiation while they are being active.</p> <p>Hence, the provision of well-designed and correctly positioned shade should be:</p> <ul style="list-style-type: none"> planned and budgeted for as part of any transport 	

<p>PP 21 Road space and facilities to match changing community needs</p>	<p>developments, such as minimum standards for end of trip facilities, bike parking and car share and to support workplace travel plans; and reduce parking requirements in centres well-served by public transport in exchange for public benefit</p> <p>20.3 Investigate improvements to transport interchanges such as ferry wharves and bus stops to support multi-modal trips</p> <p>20.4 Investigate new safe cycling routes separated from traffic within five kilometres of strategic centres or connecting to local centres, villages and destinations such as ...</p> <p>20.5 Prepare place plans that encourage active travel and use of emerging technology, such as public domain improvements and bike parking</p> <p>21.1 Implement Transport for NSW's movement and place framework through completing action plans for parking, road network, road safety, freight and public transport to coordinate land use and transportation; improve accessibility and walkability; and reduce congestion in and around centres</p>	<p>infrastructure, particularly walking and cycling routes and transport interchanges</p> <ul style="list-style-type: none"> • addressed in DCP provisions • included in any place plans <p><u>Guidelines to Shade - A practical guide for shade development in New South Wales, 2013</u> provides practical design details and guidance for Council.</p>
		<p>considers that the provision of well-designed and correctly positioned shade should be part of the implementation of the Movement and Place Framework. See relevant comments at PP 20 above.</p>

<p>Jobs and skills</p> <p>PP22: Jobs that match the skills and needs of the community</p>	<p>22.1 Complete the LEP employment study and develop LEP and DCP controls to grow job opportunities; review commercial and retail land supply; review industrial lands; promote innovation; and improve amenity and design of centres and non-residential buildings</p>	<p>Shade is an integral feature of successful commercial and employment centres - it contributes to people feeling more comfortable in being outside, encourages walking and cycling, and protects them from UV radiation while they are being active.</p> <p>Hence, the provision of well-designed and correctly positioned shade should be an integral part of 'improving amenity and design of centres and non-residential buildings'.</p> <p>See comments at Action 7.1 above.</p>
<p>PP 23 Frenchs Forest as a sustainable health and education precinct</p>	<p>23.1 Finalise and implement Frenchs Forest Precinct Plan including Green Star Communities application; public domain strategy; town centre DCP; and special infrastructure contributions plan and support:</p> <ul style="list-style-type: none"> • a low-carbon precinct with high efficiency in energy, water and waste...etc... 	<p>At p 169, under the 'Principles' for Manly, the Institute suggests adding the following to "Maximise sunshine on the beach, harbor and foreshore areas, The Corso and East and West Esplanades": "while providing well designed shade to protect from over-exposure to UV radiation"</p> <p>See comments at PP1.</p>
<p>PP 24 to 27 (regarding individual centres)</p>	<p>-</p>	
<p>PP29: A thriving, sustainable tourism economy</p>	<p>29.6 Prepare place plans that support the tourism economy; enhance visitor experiences; improve connections to the Coast Walk; and where relevant, address competing land uses</p>	



Implementation	-	<p>... suggests that the 'Measures' section be reframed so that "Solar UV radiation and skin cancer incidence" and a range of other health indicators be added to the performance indicators. This should be done in recognition of the monitoring framework of Action 13 in 'A Metropolis of Three Cities'.</p>
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4. Summary

[REDACTED] mmends Council on the range of healthy built environment issues that are included in its draft LSPS. [REDACTED] key message is that the provision of well-designed, appropriately located and properly budgeted built and natural shade is integral to assisting the community in reducing its over-exposure to UVR, and hence in reducing the risk of skin cancer in the community.

Local planning strategies and DCP provisions have a key place in ensuring the practical planning and delivery of shade, as does policy that encourages the retention and addition of shade in a range of settings. Council's draft LSPS is critical to setting the agenda for the development of such policy in the future, and the Institute has been pleased to provide practical suggestions on how this can be done.

5. Further information and assistance

Resources regarding how to design good quality shade for UVR protection, tools for performing shade audits, and shade case studies are provided in the *Additional Information* section below.

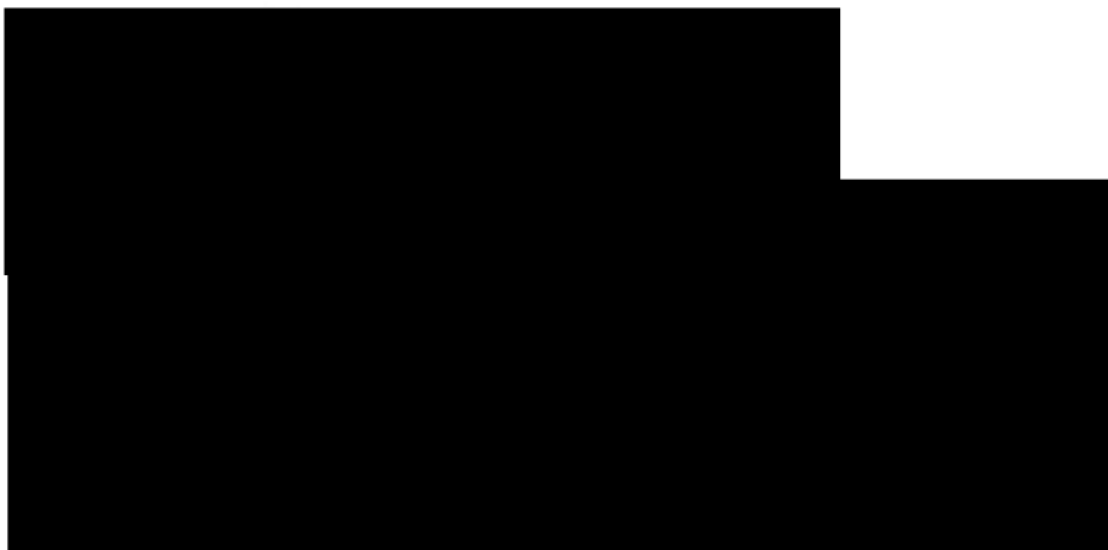
We can provide assistance in developing local government policy and strategy relating to shade, and can refer you to technical documents for the planning and construction of shade. A consultant [REDACTED] has been engaged to assist in preparing this submission and to offer further support to Council [REDACTED]

Further information and assistance can be obtained from [REDACTED]



Thank you for the opportunity to comment on Council's draft LSPS. Please keep the Institute informed as to the progress of the LSPS and any further relevant planning policy related to shade.

Yours sincerely,



Record Number: E25/22-105

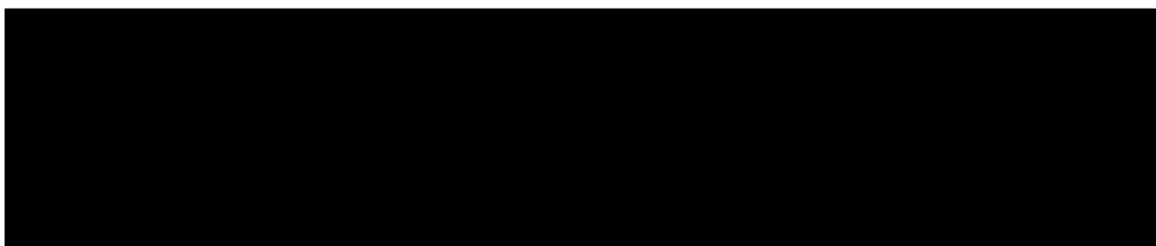


References

1. Armstrong BK, Krickler A. 1993. *How much melanoma is caused by sun exposure?* Melanoma Research 3(6):395-401.
2. Australian Institute of Health and Welfare 2016. *Skin cancer in Australia. Cat. no. CAN 96. Canberra: AIHW*
3. Cancer Institute NSW Statistics Portal [https://www.cancer.nsw.gov.au/data-research/access-our-data/cancer-statistics-nsw#//](https://www.cancer.nsw.gov.au/data-research/access-our-data/cancer-statistics-nsw#/)
4. Parsons, P., Neale, R., Wolski, P. & Green, A. 1998, *The shady side of solar protection*, Medical Journal of Australia, 168: 327-330.

Additional information

- i. Cancer Council NSW, 2013: [*Guidelines to Shade - A practical guide for shade development in New South Wales*](#)
- ii. Cancer Institute NSW, 2017: [*NSW Skin Cancer Prevention Strategy*](#)
- iii. Cancer Institute NSW, 2019: [*Shade: A planning and design priority that prevents skin cancer*](#) (also attached to this submission)
- iv. Cancer Institute NSW, 2019: [*Sun protection behaviours in NSW, 2017*](#)
- v. Cancer Institute NSW, undated: [*How schools, councils, community groups and sporting organisations created shade: 10 Case Studies*](#)
- vi. Fallding, J for NSW Skin Cancer Prevention Strategy Shade Working Group, 2019: [*Shade Provision: Suggested text for inclusion in Local Strategic Planning Statements*](#) (also attached to this submission)
- vii. [*cancer.nsw.gov.au/shade-and-uv*](https://cancer.nsw.gov.au/shade-and-uv)
- viii. [*cancercouncil.com.au/cancer-prevention/sun-protection/shade-and-sun-protection*](https://cancercouncil.com.au/cancer-prevention/sun-protection/shade-and-sun-protection)
- ix. [*healthstats.nsw.gov.au*](https://healthstats.nsw.gov.au)





4 October 2019

CEO
Northern Beaches Council
Dee Why

Dear Sir

Submission on Draft Northern Beaches Environment and Climate Change Strategy 2040

[REDACTED] welcomes Northern Beaches Council Draft Environment and Climate Change Strategy: "Protect. Create. Live" and supports its adoption by Council. We believe that this strategy recognises the challenges that climate change places before us and sets out appropriate goals and strategies to address them.

Regarding the specifics of the document, we would like to suggest the following amendment to Theme 1: Bushland and Theme 4: Biodiversity. Both mention a commitment to improving the connectivity of wildlife corridors. We would like to see this commitment reinforced by inclusion of a specific action, such as "We will identify wildlife corridors within our region and investigate ways to protect and enhance them."

Finally, [REDACTED] would like to commend those who contributed to this ambitious document, including members of staff and members of the Environment Strategic Reference Group.

Yours Sincerely

[REDACTED]
[REDACTED]

[REDACTED]

Kara Taylor

From: [REDACTED]
Sent: Tuesday, 22 October 2019 5:58 AM
To: Council Mailbox
Subject: ENVIRONMENT & CLIMATE CHANGE STRATEGY (draft) - SUBMISSION...
Categories: TT

TO WHOM IT MAY CONCERN -

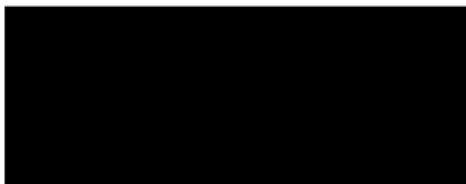
Please note: put simply, there are no borders, no State divisions within the atmosphere above and around us all. Therefore, wood fires burning in one State and the carcinogenic wood smoke from these suffered by those in other States within our entire country, drifts elsewhere and anywhere, adversely affecting the air EVERYONE BREATHES.

So, do we need to add smoke from wood burning within a council area which has neither snow nor ice, nor below zero temperatures, to that lethal mix? Do we need to see newborn babies choking in suburban homes where the entire neighbourhood is engulfed in wood smoke due to its topography, because the inversion layer disallows the dispersion of said smoke?

We are all informed of the scientific facts and figures explaining the detrimental health effects wood smoke has on us all - if not, check it out NOW. We DO NOT NEED WOOD SMOKE ON THE NORTHERN BEACHES AND IT IS TIME WOOD FIRES IN ALL ITS GUISES OF FIRE PITS, WOOD BURNING PIZZA OVENS, WOOD HEATERS, WERE BANNED JUST AS BACKYARD BURNING WAS BANNED LONG AGO FOR OUR COLLECTIVE GOOD HEALTH.

Let's apply 'THE PREVENTICARE PRINCIPLE' and set a precedent, saving on the National Health Bill, and CLEAR OUR AIR FROM WOOD SMOKE RIGHT NOW! The statistics, for example in Tasmania, have shown overwhelmingly how the health of humans - particularly that of men - improves when wood smoke is taken out of the equation and air quality is clarified from this insidious polluter.

Sincerely,



Co

Submission on Northern Beaches Council's 'Protect. Create. Live. Environment and Climate Change Strategy'**Introduction**

Manly, Curl Curl, and part of the Frenches Forest ward for the Northern Beaches local government area. The support policies adopted by Council which promote our core values, which relevantly to this policy include ecological sustainability, social justice, and grassroots democracy.

strongly support the role of Council in implementing environment and climate change policies and strategies at the local level, and reflect the will of our local community to protect and enhance the local environment we love so well.

1) Role of Council in facilitating local action

We broadly agree with the role of Council identified in the strategy for promoting ecological sustainability. We suggest strengthening the framing of this to make explicit the role of Council to:

- a) Equip people to live more sustainability – there is a knowledge and convenience jump which can act as a barrier to people making changes. Council's website, workshops, and the Coastal and Manly Environment Centres can be places which act as a repository of information for people who want to live more sustainability. This could be implemented through existing Council structures (for example the Manly Environment Centre acting as Council's "portal" for community members and local business to obtain practical advice and assistance on implementing environmental sustainability measures).
- b) Advocacy with, and assistance for, local businesses to upskill and implement sustainability measures. Many areas of environmental sustainability for business, such as container deposit schemes, are best facilitated where a large number of businesses can participate to develop viable solutions such as 'returnr' takeaway container deposit scheme. Many businesses would benefit from education in how they can operate in a more sustainable manner.
- c) Facilitation of private investment by families and small business in renewable energy, eg facilitation of community investment of solar gardens on Council or public land (such as rooftops), or bulk buy initiatives where households can

choose to join a PPA negotiated by Council with an external solar farm. Such initiatives come at little cost to Council other than administration.

- d) We support the role of Council to work with and build on existing community groups protecting the environment, and making it easy for groups such as clean up crews or bush regeneration volunteers to liaise with Council on resources available at Council to assist their activities.

2) Climate adaptation

We consider Council has an important role in advocating for the interests of the Northern Beaches for action to be taken by other levels of government on climate change. Many of the costs of climate change related extreme weather and urban heat will fall upon Council, in the form of having to repair coastal erosion, damage to Council assets, and assist landowners with damage to private property. As such, it is in Council's own interests to advocate for action on climate change by all levels of government. In saying that, Council only has direct jurisdiction to carry out adaptation policies in the local area. We support Council taking measures for climate change adaptation and resilience, and note the following suggestions:

- a) Considering innovative ideas for Council land to promote climate adaptation in ways which promote community building. Many Council green spaces are covered by turf, which while providing pleasant greening, are canvases for new opportunities for communities and families to engage with public space in a way which promotes climate resilience. For example, use of surplus Council land or wasted/unproductive space (such as kerbside grass) can be adaptively used for community gardens or families/streets growing fruit and vegetables. Innovative use of such spaces provides opportunities for land to be used as a carbon sink (through increase vegetation), improves potential for food security (as more food is grown locally in case of drought in rural areas), and reduced emissions associated with transporting food from other places.
- b) Addressing the potential for urban heat, including recognising and preserving the shade and reflection provided by trees, rooftop and side gardens on buildings. Planning codes and Council assets should promote use of light and reflective paint on buildings and road surfaces and paths. Planning codes should prevent potential for heat being trapped in urban environments, including through the materials used and integration of trees/vegetation to provide shade. In particular, the strategy should enable Council to:
 - a. monitor the canopy cover for key areas in the LGA for canopy cover by Council-planted trees and by resident-planted trees and shrubs. As part of the Council's long term strategy, the extent of the canopy cover can be reported and compared with the cover in other LGAs. In addition, an important KPI could be to have the canopy cover increase over time.
 - b. Measure the heat-island effect on hot days in areas where a heat-island effect is known to occur on hot days. Technology for this is readily available and can be used to assist in assessing tree-planting or road re-sheeting with lighter-coloured materials.
 - c. Participate with other Councils in initiatives to assess re-sheeting materials developed from waste products and to mandate their use for

road re-sheeting once their suitability for use in the Northern Beaches has been established.

- c) Building and promoting resilient infrastructure. Council should be planning public spaces which are resilient to extreme weather events, such as flooding, high winds, storms, and high temperatures.
- d) Designing planning codes which promote resilient buildings. For example, mandating passive design elements which promote energy and water efficiency and reduce the need for air conditioning through good design, and innovative integration of solar panels, water tanks, etc to promote there being local energy and water security.
- e) Investment in public spaces which provide shade and cooling, to provide respite to residents vulnerable to high heat.
- f) Public spaces should be designed to anticipate extreme weather and enhance environmental outcomes. For example, use of permeable surfaces to promote groundwater being recharged (providing resilience to drought), conversely designing adequate greenspace to capture water (providing resilience to flooding).

3) Mitigation of climate change

Council should make clear that the priority for all levels of government should be to prevent climate change through decarbonising. Adaptation to climate change should be seen as a response to those impacts which can't be prevented – but not a reason to not make the changes necessary to prevent the worst impacts. We support Council adopting ambitious targets to reduce its carbon emissions and be net carbon neutral in its operations. We suggest the strategy deal with:

- a) Opposing seismic testing and development of offshore fossil fuels projects off the Northern Beaches generally. This is due to the potentially devastating impact on the environment, recreational use, and coastal dependent industries like fishing and tourism of seismic testing and pollution associated with offshore gas/petroleum.
- b) Resilience planning with coastal dependant industries (Eg fishing, tourism, recreational fishers) to be flexible in response to ecosystem stress (eg if a particular part of the marine environment is under stress, a strategy for diverting activities temporarily to other places).
- c) Council review its own investments, banking providers, consultants, and insurers. Council should divest from any investments that fund fossil fuels and divert business from companies that do not have a clear plan to divest their own business from fossil fuels.
- d) Where Council is committing to carbon emission reductions over a phased timeframe, however suggest Council should include:
 - ☐ Clear and incremental goals for achieving Council's goals, and these goals should not leave most of the 'heavy lifting' until the distant future.
 - ☐ Clearer identification and explanation of different goals set for Council and the community, and rationale for why these may differ.
 - ☐ Identification of how implementation will be monitored and reviewed against Council's strategic goals.

- More ambitious timeframes for Council to reduce its carbon emissions and achieve carbon neutral operations.
- e) Encourage reduction of lighting out-of-business hours in commercial buildings, to reduce wasteful and unnecessary energy consumption contributing to carbon emissions from the Northern Beaches, as well as contributing to disturbance to native nocturnal wildlife.

4) Protecting our natural environment

Council has a central role in protecting our natural environment, as it is generally the owner or manager of public land in the area. We make the following suggestions and comments:

- a) The Strategy must emphasise and promote the role of local Indigenous people in caring for country, and their knowledge in understanding and managing the local ecology of the Northern Beaches.
- b) Set a high priority in the Northern Beaches Council local strategic planning statement *Towards 2040* for compliance with strong environmental controls in the new LEP and the DCPs.
- c) Council should emphasise it has a proactive role in enforcement of environmental controls. There are many areas where Council has a direct role in enforcement of environment protection measures, such as enforcing erosion and sediment controls in planning approvals, and prosecuting intentional damage to mangroves and trees.
- d) Council should acknowledge more clearly how its priorities may interact and compete, and how trade-offs will be resolved. For example, if a priority is protecting catchment for lagoons, beaches, estuaries, etc, then the strategy should articulate how Council will deal with and prioritise conflicts with interests of individuals and other community concerns. For example, to realistically achieve some goals of protecting or enhancing the environment, it may mean resumptions or rezonings of privately owned land in environmentally sensitive locations, or approving higher density development in more appropriate locations to reduce development pressure on other areas. Each of these examples carries a corresponding potential concern by impacted individuals or community position. It should be acknowledged how these competing will be resolved.

5) Bushland

Council's goal is to protect the existing bushland. However, it should adopt a more ambitious goal to increase the amount of bushland, given the role of bushland as a carbon sink, places for recreation, and pockets of biodiversity. We suggest:

- a) Promoting regeneration or rewilding of disturbed areas, such as through bush regeneration projects, resumptions in key catchment locations (to expand footprint of bushland corridors), and use of zoning and planning laws (to sterilise privately owned land from more intensive uses impacting on nearby wildlife or vegetation).

- b) Promoting and recognising the connectivity of bushland corridors with urban trees located on private and public land.
- c) Recognise the role of urban and bushland vegetation in flood mitigation, by creating opportunities to capture water rather than generating stormwater runoff.

6) Waterways and catchments

Council's goal is to protect the existing waterways and catchments. However, it should adopt a more ambitious goal to increase the protected catchment area, and potential for expansion or rewilding of waterways and their catchments. We raise the following suggestions:

- a) Improve the ability of public land to act as places for ground water to recharge, and be resilient to extreme weather events such as flooding.
- b) Anticipating how waterways such as lagoons and creeks will change or create risk, where extreme weather events such as storms arise.
- c) Better recognise the role of creeks and estuaries for regulating temperature, and thus mitigating urban heat from new development, and climate change related temperature rise.
- d) The potential for rewilding of disturbed waterways to expand biodiversity and better act as carbon sinks, places for recharging of groundwater, and capture stormwater.
- e) Recognising and expanding protection for the catchment areas of places like Manly Dam, and opposing development on public or private land which undermines that catchment area or its buffers (eg opposing the proposed relocation of Forest High to playing fields in Frenches Forest, as this would remove greenspace which provides important buffer between the Manly Dam catchment area, and more development areas)

7) Coast

We generally support the protection of the coastal environment, given the expanding understanding of how the ocean and coastal environments act as carbon sinks, and provide a role in regulating temperature thus mitigating temperature increases associated with climate change. We make the following suggestions:

- a) Prioritise the improved management of sewage outfalls with a view to ending discharge of secondary treated effluent, as this is an ongoing pollutant disturbing the chemical balance of the water where waste is entering and potentially disrupting those ecosystems. Council should consider:
 - a. Any opportunities for local industry to engage in resource recovery of human effluent;
 - b. Establishing a Community Consultative Committee to assess and advocate for Sydney Water to invest in full tertiary treatment of effluent from the North Head Wastewater Treatment Plant.
- b) Consider strategic opportunities for rewilding and returning privately owned waterfront land to public space where feasible. Council should recognise the

role of vegetated coastal dunes as carbon sinks and their significant role in stabilising dunes from issues such as coastal erosion, which will be exacerbated due to climate change. Public open space and vegetation between areas of development and the ocean can also provide important buffer between these two land uses.

- c) Council should promote innovation in managing coastal ecosystems experiencing stress (eg recognising need for periods of respite during stress or breeding season). This may include engaging with impacted industries or recreational activities (such as fishing) to temporarily shift activities from stressed environments until they have had a chance to recover.
- d) Council should consider its priorities in terms of the equity of expending its limited funds to protect private dwellings as against other projects to enhance or increase publicly owned land, and clearly articulate how it would prioritise and manage conflicts.

8) Waste

The strategy does not clearly articulate how a circular economy approach to waste is necessary to protect the environment in the Northern Beaches, and generally reduce the impact of Northern Beaches residents on the broader environment. Waste has an impact on the local environment, through generating litter that pollutes local bush and waterways. Council should also promote patterns of consumption which encourage and enforce recycling and reuse rather than continued depletion of limited natural resources which end up in landfill.

- a) Waste prevention and avoidance should be the cornerstone of Council's approach.
- b) Where avoidance is not feasible, the Council should facilitate and/or deliver expansion of recycling of new waste streams, such as encouraging or delivering soft plastics collection points.
- c) Consider opportunities to prevent or capture methane emissions associated with food and green waste.
- d) Council should consider how it can act as a facilitator to close the loop, for example, connecting the local Kimbriki tip with local industry to find new ways for waste streams to be locally reused and recycled, generating local employment opportunities, and avoiding the carbon emissions associated with local businesses obtaining raw materials from outside the area.
- e) Act as a facilitator for local shopping centres and businesses to reduce their waste generation, and use planning controls and development approvals to require new developments to implement measures to avoid waste generation (such as including conditions in planning approvals requiring the occupier to restrict use of single use plastics).

9) Urban development

Critical to any protection of the environment is ensuring that urban development is carried out in a sustainable way, and recognising the relationship between our urban

environments and undisturbed areas of bushland, vegetation and waterways. Critical to this is recognising:

- a) The importance of preserving our environmental heritage. Our environment is part of the heritage of Indigenous and non-Indigenous Australians, and our connection to pre-colonial history.
- b) The principle of intergenerational equity. Protecting our environment is critical to ensure future generations can enjoy the same connection to nature as we do, and that short term thinking in managing our environment will have negative health, economic, and social consequences for future generations.
- c) It is inappropriate for greenfields/urban release development to take place in places like Terrey Hills/Ingleside, which form part of the green lungs for our area and catchment/buffer for bushland.
- d) The liveability of medium and high density development patterns is dependent on there being high quality public open space, with well preserved areas of parkland, bush, and coast for people to relax and participate in recreational activities.

10)Management of Urban Water

The strategy should also better engage with how urban water interacts with waterways, and mechanisms for better capturing urban water to ensure water security into the future. For example:

- a) Use of planning controls to promote permeable surfaces in new urban developments and public spaces, and minimise potential for stormwater run-off including during extreme weather events.
- b) Urban stormwater should be better captured to provide opportunities for groundwater recharge or water recycling, rather than as stormwater run-off into the sea.
- c) Acknowledging the importance of sediment and erosion controls in protecting waterways from new developments.
- d) Mechanisms to require new developments to capture rainwater, such as requiring or facilitating the installation of rainwater tanks for all new buildings or homes.

11)Backburning Interval Regulations

There have been inconsistencies in backburning, with some areas re-burnt within 2 years which can stress some bushland species to an unsustainable point. There are some rare or vulnerable plants within the Northern Beaches and it is important that these species are given their best chance to survive and propagate without being burnt again while still just seedlings.

12)Protecting and enhancing existing biodiversity

The Northern Beaches is home to a number of rare and vulnerable species, which continue to be vulnerable to threatening processes such as inappropriate development, pollution, and climate change. We suggest the strategy should support the following:

- a) A plan to monitor or eradicate feral foxes and cats in sensitive areas, such as the Little Penguin Breeding areas in Manly, which is the only mainland breeding colony in Australia. Only 28 breeding pairs of Fairy Penguins remain which makes them very vulnerable.
- b) Increasing biodiversity in urban spaces, through the plantings selected for public spaces and landscape plans approved by Council for new developments. A broader range of plantings on footpaths could create habitats for small birds and other species. Unnecessary pruning of urban habitat should be kept to a minimum.

13) Urban Tree Canopy

We support a strategy to protect and enhance the urban tree canopy, including because of its potential to provide shade and cooling in urban areas, as well as its ability to contribute to biodiversity by providing habitat for native birds and other species. We note the adverse impacts for communities associated with the loss of urban trees, including loss of natural filtration of air pollution, and loss of visual amenity.

We note that Council has stated its support for the Beaches Link Tunnel. This would appear to be at odds with the stated strategy of Council to preserve urban trees, as the Beaches Link Tunnel would result in clearing large corridors of land for tunnel access. While it is not always possible to preserve tree canopy when large infrastructure projects are implemented, we note that this highlights the importance of ensuring the justification of that project in the first place. For reasons noted below, the environmental justification of the Beaches Link tunnel is limited due to its role in cementing cars as the dominant form of transport in the Northern Beaches.

14) Transportation

Australians have one of the world's largest ecological footprints per capita and that owning and driving more petrol and diesel powered cars, significantly increases that environmental footprints. Council's longterm strategy states *"we are aspiring to reduce private car use by 30%... This is an essential part of living sustainably in our environment as transport contributes 29% of NB emissions."* We note that there is a commitment: to lobby and advocate on behalf of our community, to ensure that Local, State and Federal policies reflect and enhance the efforts needed to help transition to living more sustainably. We further suggest:

- a) Ensuring development is only approved where there is adequate public transport and other necessary services. The Northern Beaches suffers from issues relating to urban sprawl, which puts pressure on existing greenspaces as development continues to encroach on catchment areas and vegetation corridors. Sprawl also cements cars as the dominant form of transport, as public transport is less efficient to implement in areas of low density.

- b) Council should strengthen its goals for reductions of private car use.
- c) Council should promote public transport oriented patterns of urban development, and lobby for adequate investment in public transport by Federal and State governments.
- d) Enhancing the existing transport strategy to oppose development of the Beaches Link Tunnel, which will engrain the car as a dominant form of transport, and detract from investment in dedicated public transport servicing the local community, such as a local bus or tram network to facilitate local travel between home, school, work, and retail.
- e) Population growth should be accommodated within areas which are already environmentally disturbed and have good access to public transport (ie to reduce reliance on cars).


Conclusion

Thank you for considering this submission. Please do not hesitate to contact us regarding any further questions or comments.

Kind regards



**DRAFT NORTHERN BEACHES ENVIRONMENT & CLIMATE CHANGE STRATEGY
2040****November 8 2019**

 commends Council for the production of an excellent document, drawing on the community vision and built around sustainability. The direction it represents is the right one for the Northern Beaches.

This submission contains a number of comments and suggestions about the details of the document. We hope that they contribute positively to Council's review of the Draft Strategy after this period of public display, and also to the development of the many more detailed strategies that will follow.



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INTRODUCTION

[REDACTED] a registered community group and Incorporated Association [REDACTED] has been active in the Northern Beaches for over 10 years. [REDACTED] members are a group dedicated volunteer professionals who *are passionate about using their expertise to make a better world*. Using advocacy not protest we have always sought to offer constructive comments on how to transition to a sustainable lifestyle.

[REDACTED] our group made several submissions to the Ingleside planners on how Ingleside can become “a shining example of how a modern community can live sustainably and in harmony with the natural environment”.

More recently, as [REDACTED] we have increased our scope of advocacy to focus on the wider issues of sustainable development in the Northern Beaches.

Our areas of special interest are in developing:

A carbon neutral community

All energy supplied by renewable energy resources. Suitable houses and commercial buildings fitted with solar panels. A community wide virtual power network that supports the national grid. Electric vehicles with community charge points.

A liveable, healthy, pedestrian friendly community

A wide range of housing options including affordable housing. Walkable precincts with denser housing around village centres. Walking tracks and cycleways around the entire precinct. Easily accessible small parks and playgrounds. Adequate community facilities such as halls, business space, health, and retail services. Community gardens close to village centres. Trees for shade. Preservation of unique local character

A minimum water usage, zero waste community

Water harvesting and storage. A precinct-wide water and ecological waste-water treatment management system with reclaimed water usage in parks, gardens, and toilets. Local recycling of all waste, eliminating the need for landfill disposal.

A community supported by public transport and safe local roads

Hop-on-hop-off commuter buses looping continuously around local village centres. Regular and frequent public transport to the CBD, Chatswood, and employment hubs. Through roads to bypass village centres. A network of bike lanes making cycling an attractive option. Vegetated buffer mounds for traffic noise mitigation.

A community living in harmony with the natural environment

A healthy biodiversity rich environment. Clean waterways protected by generous riparian zones. Conservation of existing natural bushland and mature trees. Protected scenic areas such as escarpments and ridge lines. Generous wildlife corridors connecting the parklands with wide buffer zones around sensitive features such as upland swamps and endangered habitat.

[REDACTED] appreciates the work Council has undertaken to facilitate community feedback for this Strategy.

The Environment and Climate Change Strategy

_____ commends Northern Beaches Council on its commitment to 'bring together diverse community groups to make the community's vision a reality', to 'seek to find balanced and integrated solutions to complex problems' and on its acknowledgement that 'genuine community participation goes beyond 'having a say' on isolated issues'. The opportunity to work with Council on these big picture challenges has been a key driver for _____ since its inception.

The Environment and Climate Change Strategy document sets out the good intentions of NBC to show leadership in working towards zero carbon living. We feel that the strategy and actions plans can provide inspiration and excitement within the community.

Sustainability is the fundamental thread running through the Strategy document. It needs to be embedded into our minds, not only to mitigate and adapt to Climate Change but to be the inspiration – the light bulb moment for a change of thinking about the need for change in the way we live.

The other element that needs to be embedded in all our minds is the critical point that everything we do must be directed to making sure we achieve zero carbon emissions by 2050, a goal in line with that of State Government.

Once individual members of the community understand the importance of the Themes and Goals as set out in the Strategy and see the personal benefits, we can all come together to really make progress.

There is, however, a missing element - that of biophilic design.

Biophilic Design

_____ strongly advocates that Council apply the philosophy of biophilia to its strategic planning.

Biophilia is the innate and genetically determined affinity of human beings with the natural world. Before the Industrial Revolution the human lifestyle was aligned with nature. We are now at a point where mechanical and technological innovation has taken away our awareness and connections with nature, disconnecting it from life in our modern cities. Biophilic design, when considered from the start of any project, can be a game changer.

Biophilic design is a building and landscape design that enhances human physical and mental well-being by fostering the existing connections between people and nature.

"True and lasting sustainability depends on combining low-environmental-impact and biophilic design. Low-environmental-impact design aims to minimise the damaging effects of the built environment, whereas biophilic design provides the rationale and motivation to maintain and be good stewards of our buildings, landscapes and communities. If only one approach to sustainability is used, the resulting creation tends to fail both people and nature over time."

Stephen Kellert: 'Nature by Design: The Practice of Biophilic Design'

This concept of being carers of our buildings, landscapes and communities is encapsulated in the certification and design framework tool known as the *Living Building Challenge* (LBC). It provides a better, more holistic approach to the design of the built environment than other rating tool.

Not only does it provide themes in the form of 7 Petals covering all the technical or tangible aspects such as water, energy, materials it also includes the not-so-tangible themes of place, health + happiness, equity and beauty that are not a part of other programs.

By including the LBC and biophilic design principles into Council commitments as described on page 15 of the Strategy – ‘Council’s Ability to Influence’ - Council could both inspire the community and lead by example.

Inspirational community education could be structured to follow the 6 elements in the LBC:

1. Place based relationships – geographic, historic, ecological connections to place to name a few.
2. Light and Space – natural light, shadow interplay, spaciousness, inside-outdoor spaces
3. Evolved Human – nature relationships, exploration, prospect, refuge, attraction and beauty
4. Environmental Features – colour, water, views, façade greening
5. Natural Patterns and Processes – sensory variability, information richness
6. Natural Shapes and Forms – biomimicry, simulation of natural features

Studies show biophilia is very relevant in many ways with the added benefits such as:

- fostering healing in hospitals – reducing stress, lowering blood pressure, assisting pain relief
- exposure to nature – lowering rates of adult diabetes, myopia, obesity, allergies, asthma
- improving work performance – lower days off work, increased productivity
- improving employee recruitment and retention
- improving student morale - happier, enthusiastic school children + teachers

Biophilic design is an emerging field. Used together with the Living Building Challenge, this package is being rapidly recognised as the way to create a built environment that is inspirational, healthy, restorative and functional.

It is our strong recommendation that the practical and holistic actions presented in Living Building Challenge be followed in all aspects of the Protect, Create, Live vision of the Northern Beaches Environment and Climate Strategy 2040

DRAFT STRATEGY INTRODUCTION

Message from the Mayor

COMMENT

We are pleased to learn that NBC *"will act as a role model for our community by adopting ambitious corporate commitments and driving change in our community (p.3). 'Walking the Talk' by Council,* will be an essential ingredient in successfully driving change within the community.

To do this suggests Council use its own sustainability story of achievements across any number of energy efficiency, renewable energy generation, water conservation and waste reduction measures to inspire and engage the community. We would like to see Council provide an annual assessment of the impact of its actions on its carbon footprint.

Summary

COMMENT

Commends Council on the production of an excellent document, drawing on the community vision and built around sustainability. Alignment of this strategy with Global, National, State and regional plans makes it a game-changer for NBC and a real step-up for Local Government planning.

However, tracking and measuring progress against targets will be critical, with an annual review against key measures necessary to enable improvements that may be required. Essential measures include GHG emissions, electricity consumption, installed solar PV capacity (domestic and commercial) and rate of uptake, water use, and use of public transport.

Vision

COMMENT

Council indicates its intention to implement measures that are measureable and meaningful. However, looking through the Commitments in the Chapter Themes, it is not immediately obvious what the targets are nor how the indicators might be measured. At this stage assuming that this level of detail will be included in the specific action plans.

A significant omission from the vision is an acceptance of the need to aggressively tackle climate change. A vision that embraced the IPCC recommendations for limiting the impact to 1.5degC should be an imperative.

Our Strategic Line of Sight

COMMENT

We are pleased to see the Strategy framed within a Global – Local context, and aligned to state, national and global processes, structures and targets, with particular reference to the Sustainable Development Goals and the Paris Agreement. SNB would like to see this 'Strategic Line of Sight' also embedded in the 2040 Local Strategic Planning Statement.

Our Plans

COMMENT

The plan structure diagram is confusing. For example, the Environment & Climate Strategy is on the same level as Long Term Strategies, however our understanding is that this is the first of the Long Term Strategies. We think it would be clearer if the "Towards 2040" and Shape 2028" names were added to the appropriate boxes.

Challenges and Opportunities

COMMENT

SNB would like the following climate change mitigation targets set for greenhouse gases:

- Net zero emissions by 2050 (Community-wide)
- 50% reduction in community-wide GHG emissions by 2040
- 50% of suitable premises with solar panels installed by 2030

Influences

COMMENT

We believe that Local Government has a key role to play, in accelerating action on sustainability and climate change and support the Council's stated intention to 'do things differently, to do them better' (p.14). SNB would like to see the Northern Beaches Council embrace a leadership role in low-carbon and sustainable urban living, including using technological innovations to help foster sustainable behaviour across the community.

Given the urgent need for action on climate change, Council should consider targets for a wide range of actions to be used both as a 'call to action' as well as a measurable and easily grasped measuring stick for the community.

THEMES

THEME 1: BUSHLAND

We aspire to achieve...

No net loss of bushland

COMMENT

'No net loss of bushland' should certainly be a commitment but, as an aspiration, it is an uneasy statement. Aspiration is without quibble. Aspiration is a 'dare to dream' proposition. On the other hand, the term 'net loss' is an equivocation. And what does it mean? Does it mean that for every future hectare of bushland lost Council will buy land elsewhere in the LGA and plant up a similar sized area? Or replant the same diversity and number of species? Or both? Or do more?

Even then canopy trees will take 100 years to even begin to restore the eco-services that were in play. And building the same complex biodiversity of existing bushland may take 1000 years. How can Council even begin to restore this loss?

Compounding the problem is the current practice of offering developers the chance to offset their bushland destruction elsewhere as this has no benefit for the local bushland.

A valid aspiration would be to aspire to 'no loss of existing bushland'. We recognise, however, that realism probably lurks behind the current offering. Perhaps NBC feels that it is inevitable that we will lose more existing bushland to further urban development - housing and infrastructure - and is unwilling to 'aspire' to something unachievable. However, if it is the right aspiration, then despite the almost guaranteed failure in the short-term, we should still be aspiring to that standard. At the very least it will help focus community minds on the unacceptable practice of continuing to tear down existing native bushland.

The Strategy Summary says this document's aspirations are ambitious. We would urge to make this first aspiration just that.

We are committed to...

- *Maximising the retention of bushland*
- * *Improving the quality of existing bushland*
- *Improving the connectivity of wildlife corridors*
- *Balancing bushland protection with the need for responsible bushfire management.*

COMMENT

All of the above commitments would still support an unequivocal aspiration of 'no loss of existing bushland'.

With regard to balancing the protection of bushland with fire management - responsible fire management must be seen as an-going ecological tool that, if done well, enhances the quality and quantity of our bushland. However we would like the actual wording to be reversed to: 'Balancing bushfire management with bushland protection'.

'No net loss of bushland' should certainly be added as a commitment.

There also needs to be a commitment to and a focus on 'native' vegetation, and a plan to carry our native bushland into urban areas and into the hearts of our villages and centres.

We will...

- *Work to prevent unlawful actions, such as illegal clearing and dumping, and reduce pollution by implementing enforcement and compliance activities to protect the bushland from destruction*

COMMENT

Could NBC provide an online facility for individuals to easily report illegal activity with some anonymity?

- *Promote more wildlife friendly gardens*

COMMENT

Encourage water provision, wildlife porous fencing, and ropes into swimming pools to allow animals to climb out.

Additional COMMENT

Northern Beaches Council's major asset is its bushland, otherwise known as our urban forest. This urban forest provides society with physiological, sociological, economic, and aesthetic benefits. But how precious is it? We don't know because Council has no methodology in place to value it.

If Council doesn't place a value on its urban forest it is harder to insist that the community places value on the retention of bushland or trees. Putting a dollar value on a tree sharpens the argument and may well blunt the chainsaw.

Both the City of Sydney and the City of Melbourne have published their tree valuation methodologies along with a number of other cities and organisations. We would urge NBC to adopt one of these existing formulae so that we can understand both the incredible value of our urban forest as well as the cost of cutting it down.

We would also advocate that Council push for a standardised tree valuation methodology throughout NSW.

Recommendations

1. Replace the aspirational statement 'No net loss of bushland' with 'No loss of existing bushland'.
2. Add 'No net loss of bushland' to the list of Commitments
3. Add a commitment to both 'focusing on native vegetation', and a 'plan to carry our bushland into our urban areas'.
4. Provide an online facility for individuals to easily report illegal activity with some anonymity.
5. Establish a tree valuation methodology to assess the value of our urban forest
6. Place the value of our urban forest on Council's asset register
7. Advocate for a standardised tree valuation methodology throughout NSW.

THEME 2: WATERWAYS AND CATCHMENTS

We are committed to...

- *Protecting and improving the condition of creeks and riparian vegetation*

COMMENT

To protect and improve the condition of our creeks we first need to map them from source to sea. Astonishingly this is not the case with Cicada Creek and may well be the same for a number of creeks within the LGA. In the case of Cicada Creek, despite the first European settler remarking on the ability of this creek to provide water all year round, the wellspring is not mapped. It simply first appears as a concrete channel.

Secondly the current minimum standards for riparian zones are inadequate given the existing use of our creeklines as wildlife corridors and the amount of urban runoff flowing into all our streams. These small waterways provide vital ecological services and must be provided with generous riparian zones in order to continue this essential work.

- *Actively working to remove single use plastics and other litter from our network*

COMMENT

It seems that our system of democratic governance is finding it impossible to legislate for the effective recycling of most plastics. In Europe those plastics that are not extracted for recycling are sent to incinerators rather than to landfill. Incinerators burn plastics and many other waste products to produce electricity and heat. Europe has successfully managed to control emissions. Vienna is a great example. Surely we can do the same here.

We will...

- *Prioritise and implement works to improve our impacted waterways, including activities to minimise the impact of the natural environment on people and property*

COMMENT

Specific actions to protect seagrass beds from boating impacts (mainly propeller chop) could include:

- Establishing exclusion zones for propeller-powered vessels over seagrass beds.
- Education of boating community focussing on tinny owners.
- Placing physical barriers at low tide extent of seagrass in Pittwater, North Harbour etc.
- Working with RMS waterways on enforcement of exclusion zones.

- *Progressively improve our stormwater network so that we discharge to our waterways in an environmentally sensitive way without increasing risks to the community*

COMMENT

Specific actions could include:

- Education of builders and contractors on need for care and maintenance of sediment control barriers on building sites.
- More proactive enforcement and penalties for contractors who breach sediment control regulations.
- More gross pollutant traps on creeks and streams – seek state government funding assistance.

- *Protect our waterways with strategic land-use planning and development controls including water sensitive urban design*

COMMENT

WSUD is needed in all developments:

- This is relatively easy with DAs – just put the controls in the DCP.
- It is harder with CDCs – needing state government to put requirements into the SEPP Exempt and Complying Development.

- *Integrate the management of our waterway systems so that they better protect receiving environments*

COMMENT

Engage with RMS on compliance around foreshore and waterways.

- *Balance the way we manage our waterways to consider both improving the condition as well as minimising impacts of natural hazards*

COMMENT

Council must consider the impact of concrete structures on creeks and streams, such as high alkalinity on freshwater crustaceans and institute a planned program for their removal

- *Improve and manage sustainable recreational access whilst protecting environmentally sensitive lands.*

COMMENT

See above re seagrass protections.

- *Work to prevent unlawful actions, such as illegal discharges, by implementing enforcement and compliance activities to protect waterways from pollution and destruction*

COMMENT

Need a facility for individuals to easily report illegal activity – perhaps an app.

RECOMMENDATIONS

1. That Council maps every creek and stream rising in the NBC LGA
2. That Council provides generous riparian corridors to all creeks including those deemed 'low value' to buffer and support the restoration of the Creeks and their natural flow regimes, assist with flood mitigation, provide an adequate wildlife corridor, and to allow our creeks and streams to deliver the ecological services we expect of them
3. That all NBC creek beds and riparian zones be restored from their headwaters, removing concrete channeling, pipes and dams.
4. That Council provides wide underpasses where creeks cross under existing roads so that the natural flow regime and attendant ecological process are unimpeded.

THEME 3: COAST**We will...**

- *Preserve the natural character from human activity using policy and strategic land-use planning and development controls*

COMMENT

Council needs to consider the long-term buyback of properties on fore dunes so the dunes can be restored to their original role of buffering storm wave action.

- *Reduce pollution entering our coastal environment using best practice source controls, treatment measures and better detection systems*

COMMENT

Specific actions could include:

- More proactive enforcement and penalties for contractors who breach sediment control regulations.
- More gross pollutant traps on creeks and streams
- Council could also seek state government funding assistance.

- *Improve the condition of our coastal and marine environment using regeneration and habitat enhancement techniques*

COMMENT

See above re fore dune restoration comments.

- *Create inclusive opportunities for our community to enjoy the coast, by delivering high quality, sustainable, resilient and appropriate facilities whilst protecting environmentally and culturally sensitive lands*

COMMENT

Avoid building seawalls on the beachfronts.

- *Work to prevent unlawful actions, such as illegal clearing and development, by implementing enforcement and compliance activities to protect our coastline from damage*

COMMENT

The community needs a facility for individuals to easily report illegal activity – perhaps an app.

Addition: comment

- Work to allow coastal processes to naturally shape the coastal environment through our policies, strategic land use planning and development controls

THEME 4: BIODIVERSITY

Background

'At a landscape scale we need to increase connections between our natural areas

COMMENT

To be effective this statement needs a measurable goal of how many kilometres of exclusion fencing and underpasses are to be installed on major arterial roads such as Mona Vale Road, the Wakehurst Parkway and Forest Way.

Connectivity needs to be restored between Garigal National Park and the Manly Dam area and to be re-established between Redhill and the Manly Dam bushland.

Garigal National Park Stage III, which includes all the bushland from Garigal National Park through to Redhill, needs to be implemented urgently. The declaration of Garigal Stage III would enlarge the area of undisturbed bushland that acts as the lungs for the Northern Beaches as well as a reservoir for our biodiversity.

Connectivity on local roads is vital and needs to be investigated. There needs to be a plan to build selective fencing which complement the uses of underpasses by native animals. For example there are many examples in Belrose where this could be implemented. The Council needs to keep records of how many connectivity points are implemented and have a detailed plan for more connectivity in the future.

Connectivity through the canopy is also important for birdlife and mammals. Local street trees that provide this connectivity arch need to be preserved. Two trees of the same species and of different ages should replace trees that have to be removed. There should be a register that is regularly maintained, to track which trees have been planted in public areas and/or private areas to determine whether planted trees survive. If they don't survive they should be replanted. There should be a register of all trees like the tree program in Melbourne. Well-educated staff are urgently required to implement this system. They need to be adequately resourced

'Bringing nature into our streets and suburbs will improve their character and liveability, encourage connection with nature and improve attractiveness of active travel'.

COMMENT

Trees are vital as cooling agents from the urban heat island effect. If residents are going to be encouraged to use active transport, then a network of canopy trees needs to be planted urgently along roads. For example the cycle path from DY to Narrabeen along Pittwater Road is excellent. The Council is to be commended for having built it. However in summer it is just too hot to ride or walk. It desperately needs some trees to be planted to provide adequate shade.

'Development, pollution and invasive species, both plants and animals, are constantly increasing the pressures on our local biodiversity (IPBES, 2019)'

COMMENT

To implement effective action on invasive species, especially weeds, NBC needs to employ far more bush regenerators and prioritise all of the areas to be weeded and maintained. For example, the sand dunes along the beaches from Collaroy to Mona Vale are in desperate need of weeding and replanting. There are many other areas in the Northern Beaches that are completely overrun with weeds.

'Invasive species need to be removed and suppressed to prevent them from competing with native species'

COMMENT

There is now evidence to suggest that native animals, even threatened species, can survive with a very low level of predation by feral animals. The Council needs to investigate this research and then adequately implement invasive species controls. There should be a measurable goal of the number foxes per square kilometre. This goal should be revisited each year given the research on this topic. Feral cats may now be able to be controlled by the implementation of Eradicat, a control currently being used in Dryandra in WA. The Council needs to investigate this method of control and if feasible needs the staff to implement it. As stated above the goal should aim to achieve having a specific number of feral animals per hectare.

'It will require a community wide effort and careful and considered planning to ensure we protect and enhance our extraordinary local biodiversity'

COMMENT

The Council needs to enforce a policy of **nuisance cats** where domesticated cats repeatedly kill native species. WIRES has had multiple eastern pygmy possums brought in by one member of the public. Everyone should contain their cat within their house or in a cat run. The Council needs to keep records of incidents like this and use the current legislation to control domestic cats.

We aspire to...

Maintain our local native plant and animal species, populations and communities etc

COMMENT

These goals, while commendable, need to be specific. There should be measurable outcomes and these outcomes should be revisited regularly given current research in the area.

We will...

- *Prepare and implement a strategic approach to biodiversity land management and use this to inform our strategic land use planning and development controls*

COMMENT

Council staff involved in this biodiversity land management need adequate resources. At present they are understaffed and are not able to respond easily to compliance issues.

- *Motivate, inspire, educate and support our community and stakeholders to protect and enhance our biodiversity*

COMMENT

The Council needs a two-pronged approach – a carrot to educate, motivate and inspire the community and stakeholders. However a stick is also required with enforcement of legislation to ensure that the small percentage of the population who do not adhere to protecting and enhancing our biodiversity are held accountable by our legal system. The Council needs a much greater number of well-educated compliance officers who can act quickly upon reports. It is imperative that all levels of the Northern Beaches Council including senior managers take these comments on board and act accordingly.

THEME 5: SUSTAINABLE BUILT ENVIRONMENT***We aspire to achieve...***

All new buildings being net zero emissions by 2030

COMMENT

To achieve that goal, a series of achievable and measurable actions are required.

We are committed to...

- *Reducing resource consumption in our community*
- *50% of suitable premises with solar panels installed by 2030*

COMMENT

'Suitable premises' must be quantified, first by mapping. In the late 1990s SEDA mapped sites across NSW for solar access as candidates for rooftop PV, and found that approximately 1/3 were eminently suitable, 1/3 partially suitable, and 1/3 unsuitable.

These percentages are likely to be very similar on the Northern Beaches given the following:

- The northern peninsula has many shaded sites that are quite unsuited to rooftop PV. Even so, the village commercial centres (Careel Bay shops, Avalon and Newport shopping centres) have several hectares in total suitable for rooftop PV.
- The central and southern districts have many residential and commercial sites well suited to rooftop PV.

Suitable sites need to be quantified and annual targets set for installation. Barriers to installation need to be identified, and strategies to overcome these created and implemented.

Cost is less likely to be a barrier now, as the payback on PV is now generally less than 3 years. In what is effectively ten years, if the target (as mentioned by Mayor Regan) is 60,000 PV systems, then at least 6,000 must be installed each year. That is about 23 each and every working day, starting now.

We will...

- *Support and encourage renovations, retrofits and refurbishments to lower energy and water use in our community, including driving conversion to renewable energy, especially solar panels*

COMMENT

How? We suggest by removing any unnecessary planning barriers, through education and pro-active design and construction advice promoting world's best practice.

However most building work is on renovations, retrofits and refurbishments and many do not appear on council's DA radar (Complying Development using the NSW Housing Code). How will council reach these people? Our suggestions are:

- By advertising and promotion in the real estate world (online and Manly Daily etc) especially the Liveability Real Estate program;
- By working with Certifiers to make them aware of the consumer and industry education programs (see below).
- By working with design and construction industry organisations who deliver leading sustainability training (such as BDAA Sustainability Design Specialist Masterclass courses; APHA Passive House Designer and Trades courses).
- Recognise that although new dwelling construction is approx. 2% of existing housing stock per year, there is a significant culture of 'knock down rebuild' on the northern beaches.

- Focus also on home unit builders and smaller scale medium density developers, many of whom will be highly resistant to any interference in their usual business model. This will take highly targeted interventions from a hand picked selection of individuals, with the cooperation of organisations such as the Green Building Council, and the Living Futures Institute.

- *Help our community to understand the benefits of building sustainably*

COMMENT

SNB supports community understanding of the benefits of building sustainably in terms of protecting the environment, reducing waste, saving energy and money, improving indoor air quality and propose this be achieved through workshops, seminars and personal engagement. However education and truly effective community engagement means more than just posting on council's website and an ad in the Manly Daily.

- Seminars at times convenient to residents, on a range of detailed topics, heavily promoted and repeated are effective. (eg. Willoughby's 'Dream Homes' long running series)
- Engaging with ReNew to run 'Speed date a Sustainable Designer' sessions (ref Lane Cove, Blacktown councils), where residents book 20 mins with a designer or techie with proven track record and reputation, to discuss their individual projects or houses.
- Monkey see, monkey do: seeing working examples is a powerful way to motivate people (it works on all of us): seeing working built examples in the flesh. Engaging with Sustainable House Day (also facilitated by ReNew) in September, but also working with supportive locals with sustainable houses to open their houses more often than once per year. Perhaps combine that with the designer and/or builder being present to present or answer questions etc.

- *Improve local planning controls to ensure residential and non-residential buildings and infrastructure are sustainably designed and built*

COMMENT

Here are a few suggestions as to how to improve local planning laws:

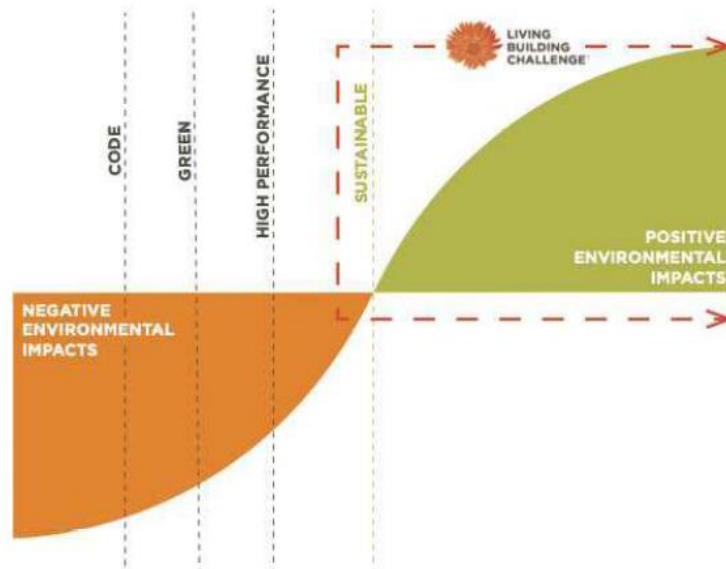
- Council should work with NSW Dept of Infrastructure Planning & Environment to create a 'special case BASIX' for NBC LGA. This was agreed by Minister Stokes for Ingleside (prior to change in planning circumstances).

But BASIX alone will not achieve the goal here. In its current form BASIX is just an aspirational policy, with the following failures:

- it is an inadequate and inaccurate measure of design compliance,
- inadequate certification,
- no 'as built' measurement or testing,
- cannot be a measure of that success (partial or otherwise),
- NatHERS tools (and DIY tool's emulation of NatHERS) for thermal comfort is fraught:
- 15 years behind in software development of the tools compared to any other software in general use,
- Over reliance on thermal mass and simplistic R value in insulation,
- Poor modelling of lightweight structures,
- No consideration of humidity control or condensation risk, especially in insulation detailing and constructed systems,
- Rewards large building unduly,
- Makes poor assumptions about glazing performance, compensating for the Australian glazing industry's poor products in the global context.

World's best practice in building rating schemes is generally accepted to be found in the Living Building Challenge (LBC) which sets 'the ideal' as the indicator of success.

THE LIVING BUILDING CHALLENGE IS A PHILOSOPHY, CERTIFICATION, AND ADVOCACY TOOL FOR PROJECTS TO MOVE BEYOND MERELY BEING LESS BAD AND TO BECOME TRULY REGENERATIVE.



It contains seven 'petals' or themes, and twenty imperatives, as shown here:

The Living Building Challenge is composed of 20 Imperatives grouped into seven petals. Some Imperatives are not required for all Typologies.

		TYPOLGY			
PETAL	IMPERATIVE	New Building	Existing Building	Interior	Landscape + Infrastructure
PLACE	01 Ecology of Place				
	02 Urban Agriculture				
	03 Habitat Exchange				
	04 Human Scaled Living				
WATER	05 Responsible Water Use				
	06 Net Positive Water				
ENERGY	07 Energy + Carbon Reduction				
	08 Net Positive Energy				
HEALTH + HAPPINESS	09 Healthy Interior Environment				
	10 Healthy Interior Performance				
	11 Access to Nature				
MATERIALS	12 Responsible Materials				
	13 Red List				
	14 Responsible Sourcing				
	15 Living Economy Sourcing				
	16 Net Positive Waste				
EQUITY	17 Universal Access				
	18 Inclusion				
BEAUTY	19 Beauty + Biophilia				
	20 Education + Inspiration				

 CORE IMPERATIVE

 SCALE JUMPING ALLOWED

 HANDPRINTING IMPERATIVE

 IMPERATIVE REQUIRED FOR TYPOLGY

 REQUIREMENT DEPENDENT ON SCOPE

 NOT REQUIRED FOR TYPOLGY

Council could also develop a more robust LEP & DCP by establishing working groups with local industry experts to workshop controls to optimise sustainability outcomes. These are often detailed and can have complicating interactions between them, needing an ongoing testing & review. There are many practitioners well qualified and willing to assist council staff in this way. (Note that this was practiced successfully in Pittwater during the formulation of Pittwater 21).

Note that the Living Building Challenge contains 'Beauty' as a theme – a topic with which planning law and codes have typically struggled with in the past. Its importance in our daily lives and interactions with the built environment cannot be overstated though, and it also relates to biophilic design and the necessity of interactions with nature (also addressed elsewhere in our submission). Buildings which are seen as beautiful are generally loved, and loved buildings are generally kept for longer periods and well maintained, which is more sustainable than the average Sydney building's lifespan of 42 years.

- *Encourage state and federal government to rapidly drive down emissions and water use through actions such as better building standards for residential and non-residential buildings and relevant infrastructure; eg. increasing BASIX, implementing standards for non-residential development and best practice infrastructure delivery*

COMMENT

Collect and collate broad baseline data on the status of all buildings (residential, commercial and industrial) within the Northern Beaches LGA with regard to the relevant eco-indicators using appropriate metrics to measure improvements. These would include but not be limited to energy use per sq. m. of floor area: average and mean area use per resident: gas usage: photovoltaic installations including number of kilowatts per building, etc.

See above re BASIX for residential buildings.

Re National Construction Code (NCC), which covers non-residential, the 2019 update contained some useful increased stringency, but it still maintains a minimum compliance which on its own is not sustainable. The Living Building Challenge's imperatives can be applied usefully to the non-residential sector.

Also the comments above re promotion of rooftop PV apply. Apart from meeting the operational energy needs of the businesses within, excess power can be made available to the residents on residential sites that are not suitable for their own rooftop PV. Connection can be either by means of physical or virtual micro-grids, or by financial connections through debentures (such as ClearSky offer) - it does not matter where the PV is located. Council can encourage this through education, and certain provisions in LEP and/or DCP (eg, PV panels could be exempt from building height limits, provided they do not add to overshadowing of neighbouring properties, etc).

- *Implement the Northern Beaches Move Transport Strategy to improve travel infrastructure, public transport, mass transit, and community behaviour*

COMMENT

The B Line bus service has seen a significant increase in public transport use. One of the barriers to further use is that with fewer B Line stops patrons have to drive and park at fewer locations, and the available parking is soon at capacity. It seems inevitable that much more parking will be necessary to attract more patrons.

Provision of EV charging points will contribute to EV uptake, but not to easing congestion and parking pressures. Therefore the public transport plans in the Move strategy must be given highest priority. Focussing on pedestrian and cyclist accessibility and safety are paramount. It is noted that Council's road safety and cycling safety team have been doing excellent work with limited budgets and support (more support from senior management would enable them to increase their reach and impact).

- *Actively engage in partnerships, research, innovation and investigate potential for incentives to provide opportunities for our residents and businesses to increase uptake of sustainable choices to reduce their footprint*

COMMENT

The CRC for Low Carbon Living (soon to wind up) has provided some excellent opportunities, and its successor (to be announced soon?) will hopefully offer similar or increased opportunities. Similarly, academic research bodies (such as ISF) and industry research groups can provide good information and material for incorporation into policies and programs.

- *Seek out, support and encourage precinct scale solutions to reducing resource use*

COMMENT

This is a great idea, with few examples facilitated at LGA scale in Australia (like – any??). It could be as simple as connecting one building site that has excavation material with another needing clean fill. Although Kimbriki fulfils this role to an extent now, and recognising that it generates income for council, it also generates emissions from the transport to and from, and materials handling. A direct site-to-site transfer would be more efficient.

A more sophisticated example would be a microgrid sharing electricity within a precinct. This would allow rooftop PV to be shared amongst several or many consumers. It may (likely) require the cooperation of the existing utility supplier (poles and wires), but can also be set up to provide benefit to that utility (less exposure to future risk being one).

THEME 6: GREEN NEIGHBOURHOODS***Our goal...***

The built environment integrates nature and connects our community through green and blue networks to support active travel and healthy lifestyles. We design our communities around nature.

COMMENT

It is an inherent human inclination to affiliate with nature and this has been widely demonstrated to have beneficial effects on human health and well-being. This affiliation with nature is known as biophilia and the emerging practice of integrating nature into our neighbourhoods and houses is known as biophilic design – see page 3.

We support providing connected green spaces which afford the opportunity for the community to participate in outdoor activities with associated health and well-being benefits.

We are committed to...

Increasing the existing urban tree canopy to expand the local green grid

COMMENT

The Northern Beaches is blessed with one of the highest urban tree canopies in metropolitan Sydney which provide shade, reduce the risk of people suffering heat stress, mitigate the urban heat island effect, assist in climate change adaption and reduce the costs of energy for cooling.

However, mature canopy trees are under significant and increasing pressure from development, clearing for views and for bushfire protection. We support tree planting to maintain, and ideally to increase the existing tree canopy in the face of increasing development pressures. At the rate of 5,000 trees per year this requires 14 trees per day to be planted. In addition to planting trees, Council should ensure that mature trees are valued appropriately, and protected to the greatest extent possible. Council should also ensure that development conditions for landscaping and planting are enforced.

We will...

Identify design and deliver priority local green grid corridors, connections and shared uses. We will integrate this into our planning instruments

COMMENT

We support the inclusion of green infrastructure development in planning instruments and regulations (LEP, DCP) and recommend that existing healthy native bushland in development areas be surveyed and mapped and provided as an overlay on development plans to guide planning approval for any future land clearing applications.

Such a map would also inform proximity to utilities and any potential conflicts with other community services and assets.

We further support the selection of local endemic trees, which will complement the local environment and will replace any trees lost to storm or other misadventure.

[REDACTED]

THEME 7: SUSTAINABLE LIVING***Our goal***

- *Our community is actively working towards being energy, water, waste and transport smart so that we can meet net zero carbon emissions by 2050.*

We aspire to achieve...

- *Net zero emissions in our community by 2030*

COMMENT

This target is a bold aspiration. A major community engagement effort in support of transition to low carbon and sustainable urban living will be essential to deliver the desired outcome.

Supports Council's aim to accelerate action and inspire innovation whenever possible in order to meet the target. We recommend that a trajectory to 2030 be developed, with annual measurable actions defined. SNB would like to see Council commit to targets that are in line with the best available science, including recommendations of the peak science organisation on climate, the IPCC.

We are committed to...

- *Reducing carbon emissions in our community by more than half by 2040*
- *Net zero emissions by 2050*

COMMENT

We will need a year-by-year action plan to achieve these GHG emission targets with robust metrics, and a tough compliance regime. Then we need a contingency plan year by year to provide a path to catch up if we slip behind.

Would like to see annual tracking and reporting for metrics where data should be readily available to Council. Key performance indicators related to GHG emissions could include:

- a) Council GHG emissions [tonnes CO₂-e]
- b) community-wide GHG emissions [tonnes CO₂-e]
- c) % renewable energy in Council's electricity energy mix
- d) Clean energy generation by Council installed PV capacity [kWh]

- *Maintaining or reducing overall drinking water use in our community by 2040*

COMMENT

Firstly, would like to see 'maintaining' struck out as an option. With Sydney's water supply running down and an expensive new Desalination Plant planned, SNB is of the view that it should be possible to commit to doing better than 'maintaining' the level of use of drinking water in our community. Reduction is essential. Council should set a realistic target that can be measured and then track progress.

As we move ahead with water conservation it will become more important to reuse water as far as possible, including stormwater, greywater and potentially blackwater. Council should move as quickly as possible to drive water efficiency and re-use in the community, and should investigate and plan for this well ahead of any water crisis occurring.

Commend the development of precinct-wide water recycling which, together with monitored and policed water restrictions will bring down household water use. Blackwater of course is

challenging, a [REDACTED] understands that re-use of blackwater will require either modifying NSW Health Guidelines, or ignoring them in certain areas, e.g. re-use of treated waste water.

- *Reducing the rate of waste generation per person by 2040*

COMMENT

SNB supports the commitment to reducing generation of waste per person. But by how much? We need targets that can be measured, monitored and reported.

- *Diverting 85% of waste from landfill by 2040*

COMMENT

We recommend that Council educate the community on the principles of a circular economy where waste is seen as a resource, not as something to be discarded at end of life, with the aim being to conserve natural resources and find alternative uses for otherwise valuable materials. We recommend a zero organic waste to landfill target.

Secondly, because organic waste in landfill decomposes to methane in landfill, and has at least 20 times the carbon intensity of CO₂, we think that an important part of the strategy should be addressing the part of the waste stream that impacts most directly on the goal and net zero carbon emissions by 2050 target. Diversion of organic waste, including food waste, should be a high priority.

- *Reducing single use plastics*

COMMENT

[REDACTED] also suggests that Council consider setting a zero organic waste to landfill target and eliminating, rather than simply reducing single use plastics.

This commitment also needs to have a series of year-to-year targets to zero behind it. 2040 is too far out, but 2030 should be achievable. Council could consider 'leading by example' on single use plastics, by adopting a Policy to eliminate single use plastics, as North Sydney Council has recently done.

We will...

- *Motivate, inspire, support and encourage our community to reduce their waste production, energy and water use, and other consumption, food, long distance travel etc., through engagement, education and incentives.*

COMMENT

To motivate, inspire, support and encourage our community is not easy and will require a more effective program than has been the case so far.

[REDACTED] commends a Sustainable Living Program be developed along the lines of the **Sustainable Living Expo** presented by Climate Action Pittwater in 2010 and 2011 in association with Pittwater Council which covered all aspects of sustainable living and proposed an ongoing series of workshops and seminars throughout the year to ensure that up-to-date information and practices are communicated to the community to encourage uptake of sustainable principles and embedding them in the normal day-to-day life of the community

sustainable living expo

Sunday 10 October 9.00am-4.30pm Memorial Hall Mona Vale

We will...

Implement the Northern Beaches Transport strategy to accelerate our transition to low emissions vehicles and increase our active travel trips

COMMENT

Targets are needed for number of private car trips reduced. Increasing the effort, support and budget for Council's existing excellent Road Safety and Cycling and Walking Teams would be a good first step in the action plans.

Extending the budget on footpath building, maintenance and widening should also be in the first steps.

Council should also investigate the provision of EV charging points with private providers.

commends Council extend the KeoRide service intensity to shorten waiting times and increase usage.

We will...

Actively engage in partnerships, research and innovation opportunities to improve uptake of sustainable living choices

COMMENT

We support Council in its intention to engage in partnerships, research and innovation opportunities to improve uptake of sustainable living choices. Because this mission is so important encourages Council to apply best practice education for sustainability approaches to the challenge of activating change towards low carbon and sustainable urban living. A key strategy could be showcasing Council and community success stories of change.

We will...

Council will lobby and advocate on behalf of our community to ensure that local, state and federal policies reflect and enforce the efforts to help our community to transition to living more sustainably

COMMENT

We support Council to advocate for policy alignment and to help achieve synergies and more rapid decarbonisation from the local to the global level. Council has a role to play, with positive advocacy on the need for more rapid decarbonisation of Australia's economy, at both the national and at the sub-national levels. This includes advocacy for a sustainable population policy, and decentralisation to the regions, to strengthen local communities and social well-being.

THEME 8: ADAPTATION AND RESILIENCE***We will...***

- *Undertake community education and engagement to improve preparedness and resilience*

Comment

Community education and engagement will need to be targeted as appropriate in different localities. For example Collaroy will require specific engagement with regard to storm damage and erosion, Duffys Forest with regard to bushfire, and some like Great Mackerel will need both. Ku-ring-gai Council has a great program - Climate Wise Communities

- *Continually incorporate best available climate change and natural hazard knowledge and practices into our strategic land use planning, development controls, construction and operations*

Comment

Leadership in natural hazard management should include considering innovative engineering and building design solutions to hazards that may not fit easily into current common practice. For example, Lake Macquarie City Council has adopted a policy in their DCP that allows houses in low flow flood zones to float with rising floodwaters, tethered and serviced a la marina pontoons.

- *Advocate, collaborate and network with stakeholders to represent the needs of our community and environment and leverage outcomes from regional approaches and projects. This includes active involvement in regional initiatives such Resilient Sydney, and implementing the Resilient Sydney Strategy*
- *Maintain and enhance, strong collaboration with emergency services and relevant agencies*

Comment

Aligned with the point above on innovation and research, allowing solutions outside the current scope of old Standards and statutory bodies (such as RFS), by using best research from bodies such as ANU (using bushfire as the example here).

- *Continue to identify properties affected by natural hazards to ensure strategies are in place to reduce their impact*

Comment

But this must be done with accuracy and rigour (not like the clunky slip hazard mapping produced by GHD for Pittwater some years ago, that took a coarse grained approach and identified hundreds of properties as being at risk, where there was no risk at all).

NORTHERN BEACHES COUNCIL OPERATIONS***We aspire to achieve ...***

Net zero emissions by 2030.

COMMENT

Because Council has direct control over its operations this aspiration should be achievable – with the use of Offsets if necessary to cope with tail end emissions.

We are committed to...

- *A 60% reduction in carbon emissions by 2040*

COMMENT

In line with Council's recent decision to declare a Climate Emergency, the commitment should be to a 100% reduction and brought forward to 2030

- *Net zero emissions by 2045*

COMMENT

As above, Council should commit to 100% by 2030 for its own operations.

- *A 10% reduction in our drinking water use by 2040*

COMMENT

By 2040, with 20 years to improve town water supply and domestic use this figure should be significantly higher. Grey water reuse for watering operations and stormwater capture should make significant savings.

- *Diverting 85% of waste from landfill by 2040*
- *90% recycling of construction waste by 2040*
- *All suitable sites being powered by renewable electricity by 2030*
- *Increasing the frequency of everyday sustainable behaviours in our community*
- *Increasing the number of environmental volunteers*
- *Delivering our environmental education programs and facilities to a high level of community satisfaction*

COMMENT

As we have previously commented - to motivate, inspire, support and encourage our community is not easy and will require a more effective program than has been the case so far. Because this mission is so important considerable effort should be directed to develop a world-class initiative involving the best educative minds available. Possible options include

- A NB climate museum
- a travelling sustainable living exhibition (such as the Melbourne Museum Gut Tunnel),
- annual Sustainable Fairs with lots of schools involved,
- inter school competitions centred around sustainable living activities, showcasing Council and community success stories
- other enlightened possibilities that could be developed via community engagement.

We will...

- Regularly monitor, report and publicise our sustainability initiatives

COMMENT

In meeting Council's Commitments nothing could be more important than the regular monitoring, reporting, and publication of progress. This will provide a real incentive to embrace the need for a transition to sustainable living. To be effective the reporting should be on an annual basis for most indicators including:

- Electricity use,
- Gas Use,
- Water Use,
- GHG emissions,
- % Suitable Council buildings with solar PV,
- Council annual renewable energy generation,
- Council vehicle emissions.

Relevant parameters that are easily obtained should also be included. Some careful thought needs to be directed to this process so it does not involve unrealistic Council effort and more importantly so it is in a suitable form for presenting and inspiring the community.

RECOMMENDATIONS

The following commitments should be strengthened:

- A 100%, not 60%, reduction in carbon emissions by 2030 (not 2040)
- Net zero emissions by 2030, not 2045.

These strengthened commitments can be achieved by:

- Over 2020-2025 minimise Council's energy use through efficiency measures and Council PV installation
- By 2026, and potentially in combination with other Councils, enter a Power Purchase Agreement for 100% renewable electricity. This could, but may well not, then have a higher cost. However, after usage minimisation and with the continuing cost reduction of renewable sources, the cost will not be large within the Council's budget.
- By 2030 have its light vehicle fleet 100% electric, and purchase offsets for any small residual fuel use by heavy vehicles or equipment

CONCLUSION

IMPLEMENTING THE STRATEGY

COMMENT

supports the broad vision and direction of this high quality Northern Beaches Council draft Strategy document. It is now necessary to move to the process of determining the objectives, the actions, carrying them out, with the end result of achieving the goal, the critical and most important goal of the entire program, as determined by the IPCC, and as incorporated into the State Government and the Northern Beaches Council, – ‘Zero Carbon by 2050’.

That process is as follows:

- Research
- Strategy development
- Objectives, Goals, Actions, KPI's, Standards
- Measurement – regular and continuing
- Feedback – regular and continuing

Research

Research is necessary in a number of areas in the draft document. Hopefully, a lot of the research exists – eg. By the GSC, the State Planning Dept, and the NB Council. For example, relating to the Sustainable Built Environment – what do we have now in terms of dwellings (free standing, units, terraces, ‘affordable’ houses, social housing etc), social infrastructure (libraries, schools, community buildings, transport, parks etc)?

What do we need in people and skills and social infrastructure to add to the above in order to produce a balanced NB local Social, Economic and Environment area, with the right number and type of dwellings and infrastructure?

We know there is not enough ‘affordable’ and social housing, for people who provide vital services in NB, and who have to travel long distances to get to the NB (eg a plumber had to come from Hornsby this morning to fix a water pipe on Scotland Island). It could well be that the research reveals that a large percentage of the dwellings needed will be for ‘affordable’ and social housing.

What sort of dwellings would the people of the NB like to see, or are willing to accept? – a high level of sustainability of course – a low emissions footprint (?) What sort of cost can people afford – for rent – for purchase?

It would be silly, and very expensive, not to know these things, before ploughing into the Strategy. And the same applies to all the other segments in the draft document. So, more serious community engagement is going to be necessary, along with the other research, acknowledging that useful work has already been completed. The above is signalled in Population Growth p12.

Strategy Development

The research will give the basis for the development of Objectives, Goals, Actions, Standards, to address all the segments in the draft - ‘Protect. Create. Live. - Northern Beaches Environment and Climate Change Strategy- 2040’ – as well as Performance Indicators, Measurement and Feedback systems, all to meet the Vision and the achievement of ‘Net Zero Carbon by 2050’.

The main ways of doing this will be to discover all the existing research from organisations like the GSC, the State Government, the existing NBC research with community groups, plus whatever additional research is necessary with these organisations.

Then, through a series of facilitated workshops, to work with all the research to determine the Objectives, Goals, Actions.

The Standards will address those aspects referred to in the NB Environment and Climate Change Strategy draft document (eg. Resource Consumption, all Buildings, Water, Energy, Local Planning Controls to result in a high level of Sustainability, Basix, Transport etc.

Measurement and Feedback

This will be followed by the most appropriate ways of Measuring and giving Feedback to all the stakeholders. All of this needs to be undertaken on a regular and continuing basis, and all tied back to the Delivery Program (4 years), the Operation Plan (annual) and the financial controls of the NB Council.

'Council will be evaluating our progress against the goals, commitments, and aspirations in this strategy annually. A detailed assessment, report and review will be completed every two to four years' Pg 42

COMMENT

It is very pleasing to see Council committing to regularly undertake this very important function. To provide timely feedback to the community, and to give assurance that Council is "walking the talk" it would be more effective to issue a progress report every year. If Council is evaluating progress annually as stated, there should be no reason for not reporting annually.

CONCLUSION

Members [REDACTED] have taken the Draft Environment & Climate Change Strategy, and in order to make the most of the time available, allocated the tasks of reviewing and commenting on each Theme, to those individual members of the group with expertise and interest in that Theme.

Feedback from each individual member was then collated in a format similar to that of the Strategy Report. Sections of that report for which there was no comment were not included.

The collated response was then submitted in PDF form via email.

However, when the individual comments were reviewed as a whole, a few common concerns that apply to multiple Themes stood out.

These concerns are:-

- Addressing Climate Change to the maximum extent possible within Council's ability and control is the overriding issue.
- There are lots of goals. To be meaningful, these need to be translated to strategies, targets, and actions, with rigorous progress measures and progress audits in all areas. In conjunction with this, measure baseline quantities of the resources we have now.
- Targets are sometimes absent or may not reflect best practice. All themes could benefit from a critical review - especially for carbon footprint, building sustainability, and water use ('maintenance of existing' is not an option). Also, we recommend short-term and intermediate targets to demonstrate a prompt start and commitment to achieving the long-term goals.
- The many plans and documents, the relationship between them, their relative priorities, and the timing and specification of deliverables to flow from them, is confusing. Could we have a clarification of these points?
- The need for strong advocacy on behalf of the NB community to state- and federal-level authorities to achieve the best outcomes for NB – and to avoid bad outcomes.
- Community support is vital. We encourage NBC to lead by example and, working with the community through education and demonstration, enthuse the wider NBC community about the NBC activities.

Kara Taylor

From: [REDACTED]
Sent: Friday, 8 November 2019 12:39 PM
To: Council Mailbox
Subject: Attn: Kara Taylor
Attachments: Climate Change Action Ideas.docx
Categories: SL

Hi Kara

It's [REDACTED]

A few weeks ago we ran a Climate Action evening in Avalon [REDACTED] One section was about the NBC Environmental and Climate Change Strategy, where we had people in groups for a bit of a brain-storming session. Attached is the transcript of ideas. They seem to be actions rather than direct comment on the Draft Strategy, however, there were about 100 people at the event who made comments, which will boost your Community Connection figures.

If you want to ask me anything, give me a call [REDACTED]

Transport
<ul style="list-style-type: none"> • Bike share (like Goget cars.) • Keep driving change for more & Improved bike paths, not just for recreation but for transport. - real and safe ones not just an imprint of a bike on the main road. • Connect cycle paths • Create a safe bike lane that allows electric bikes and scooters between the city and Palm Beach • More share cars. • Community members sharing cars - council help website • Implement continuous ride-share routes to reduce vehicle numbers (they do this all over Asia). Less parking needed etc. • Encourage/invest in electric charging stations all over the Northern Beaches. • NRMA have started installing charge stations for electric cars. Do it up the Peninsula at all service stations. • Encourage children walking to school in groups supervised by parents/community members - School walking bus. • Provide proper transport in school zones. Small buses just for school kids. • Create incentives for schools for parents to car-pool or kids walk to school (no more 4WD with 1 kid drop off) • Free public transport • 100% renewables for all public transport • Electric or hybrid powered buses • Electric and Hydrogen based transport. • Fewer buses with no-one on them, particularly school buses eg.689. • Extend B -line to Palm Beach. • Increase the B line; did it actually reduce cars on the roads? • More public transport routes on the Northern Beaches, more regularly • More services providing access to B Line. • Keep Keo cars to pick up from houses - increase it. • Light rail (again) • Make Sydney easier to use public transport • Flexible working hours - keeping cars off the road. • Ban vehicles on the road which are not being environmentally friendly • Mandatory use electric/hybrids for council business (like Bankstown council)
Education
<ul style="list-style-type: none"> • Commercials that relate to an older out-of-tech generation • Information regarding where is our recycling going? And soft plastics. • Roofs & streets • Sustainable house advice to people. • Understanding the importance and preciousness of our water • Education on why solar panels are good. • Having sister/sister: brother/brother councils in other parts of the country to share ideas and stories to give a bigger picture of the effects of global warming in our diverse country • Eco groups in schools. Bronze, Silver and gold awards to Eco schools. • Introduce wild school

- Compulsory ethics and education about climate change - acceptance of political action on the curriculum.
- Engage speakers for school talks
- Support local schools undertaking environmental activities including funding recycling bins in schools.
- Barrenjoey's sustainability team is in the process of launching a recycling system and shifting to carbon neutral but lacks funding which was refused in a recent meeting with Rob Stokes and Jason Falinski. The team would love to get involved with council.
- Teach kids how to grow their own food locally; learn how to design and implement sustainable technologies - incorporate sustainability as a core element in all studies/education paths.
- More talk about climate change in school - science classes (than 5 years ago) and in geography, teaching kids about growing own food - all schools adopt "Nude Food" program - i.e. No plastic packaging.
- Sustainability to be a core subject in schools
- Teaching younger generations will; program for primary schools (Jane Goodall) impact future community members.

Home

- Encourage inter-generational living - make it easier
- Look at harvesting & recycling water.
- Encourage tanks at houses.
- Don't use drinkable water.
- Grey water to flush toilets.
- Create our own renewable energy,
- Air to water technology.
- Stop eating beef or at least reduce consumption of meat and dairy in every household
- Grow food locally.
- Turn lights off

Fossil Fuel Energy Reduction

- Community owned and operated renewable energy operation, with a view to be energy self-reliant as possible.
- ENOVA
- Local solar grid.
- Council to promote solar power on schools and homes.
- Buildings to be fitted with solar panels given rebates.
- Subsidies for solar panels for schools and businesses.
- \$100 billion dollars to convert every Australian house to off grid solar battery @ 18kw/no system.
- Use Sovereign fund to convert all homes to solar.
- Encourage solar on all schools, clubs and other public places. We need to use our institutions, using buildings that are already running (Barrenjoey School) that can be used for solar generators, education centres for the entire community.
- Support batteries for private households Have a Solar Farm somewhere. Turn off street lights 12noon - 5pm.
- 100% renewable energy for council buildings a.s.a.p

Planning

- Small, cheaper eco-friendly affordable housing (low rise) in a blended community environment. Turning the quarter acre block into multiple housing providing income for single owners.
- Ease planning for experimental sustainable architecture.
- Increase taxes on holiday homes.
- Higher environmental standards for new buildings (more of the green buildings covered in plants).
- New housing to require solar.
- Ecological building methods and materials - hemp etc.
- Council adopt a policy that would require solar panels and water tanks to be put on all new dwellings and commercial buildings?
- Mandatory use of recyclable plastic in new roads and upgrades.
- Stop clearing land for apartment blocks.
- Cut down few trees & plant more.
- Prepare for coastal retreat.

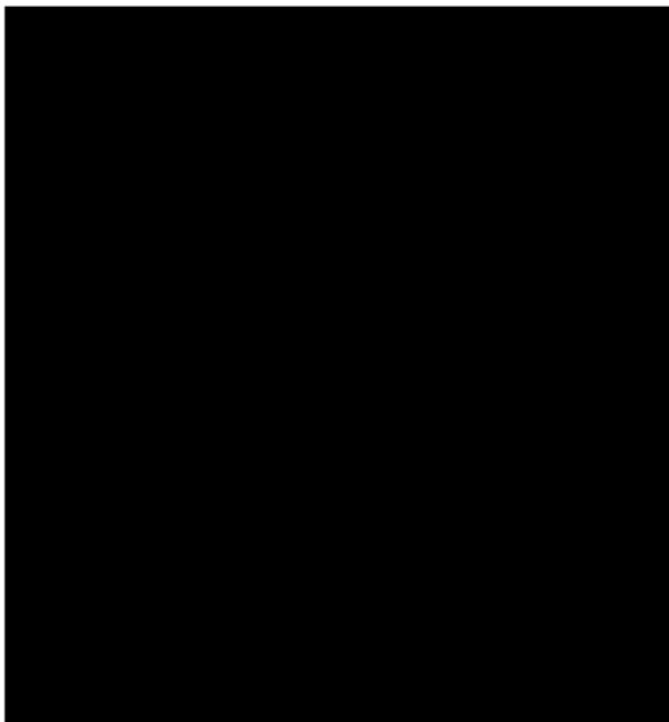
Waste & Recycling

- Recycling/reusing building materials (more pressure on building companies to take care of demolition of specific materials)
- Look at building waste.
- Introduction of household compost collection (successful in Newcastle and Central Coast) where homes receive small bins where they collect food waste which is collected by Council during their weekly waste collection.
- Composting veggies in green waste bins.
- Free compost and free compost/worm bins.
- Council providing compacting bins and a compost bin for natural food waste local landscape companies can use it for soil)
- Models for waste management.
- High school composting, plastic reduction, waste reduction and education such as the Mater Maria Catholic College.
- Create a recycle centre for the community (like the Bower in Marrickville).
- Take renewables, e.g. clothing (school uniforms), books for school kids more seriously, re-use these things.
- Make dairy-contaminated cardboard and paper recyclable (e.g. pizza boxes)

Other

- No harbour tunnel.
- Council opposes any offshore drilling.
- Advocate for less disastrous land clearing.
- Ban Palm oil.
- Blockchain-based voting and governance.
- Develop our own digital direct democracy system. (eg. Estonia)
- **housing** young people into meaningful work for a sustainable future.
- Create change and status towards people committed to the socialisation of Care for the benefit of children, the disable and elderly. United we stand, divided we fall.
- No Astra Turf.

<ul style="list-style-type: none"> • Encourage food and fuel growth in public spaces. • Seaweed plantation off the coastline (Co2 offset). • Get a precious plastics container running (on line website with info.). • Publicise "success stories" such as no plastic bags. • More transparency required about the impacts of products on the environment - An environmental star rating for example. • Invest Council funds directly into sustainable energy • Support Climate Change school strikes if possible. • All schools support climate strike. • No pesticides in local parks. • Stop destroying koala habitat • Return Koalas to Avalon not only as a physical outcome but to send a clear message that we as a community are motivated for big ideas. • Why do we need a new suburb in Terry Hills and along the Mona Vale Road. • Dead wildlife along the Mona vale road since new demolition of plants for the road • Sponsor an Australian native Animal (Koalas) give an option to buy a koala for a birthday present and money put towards Wires to take care of animals hurt by new road in Mona Vale
Business
<ul style="list-style-type: none"> • Promote "ocean friendly" businesses via app. • Council support to help businesses transition away from plastic (plastic bags, straws etc.) • Rewards and incentives to businesses that use sustainability as a fundamental driver. • Ban plastics • Ban single use plastic bags • Demand that businesses take responsibility for and reduce excess packaging. • Patronise businesses that demonstrate action to reduce packaging. • Target Coles and Woolworths to start the reduction of plastics. Even start simple - package loo roll in paper.



Kara Taylor

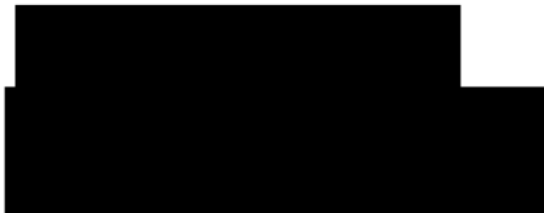
From: [REDACTED]
Sent: Friday, 8 November 2019 12:50 PM
To: Kara Taylor
Subject: FW: Protect. Create. Live. Environment and Climate Change Draft Strategy
Attachments: comments.PNG

Hi Kara,

Please see below an email from one of our Youth Advisory Group members re: Climate Change Strategy – great to see initiative from a young person and thought this might be beneficial to your team (could use this as an additional consultation). Please let me know what you think/if available.

Also, not sure if you've seen the post we did on KALOF for the survey, but it had some comments on it which I thought you might want to capture, have attached a screenshot.

Cheers,



Subject: Protect. Create. Live. Environment and Climate Change Draft Strategy



Would someone from council be interested to talk to a group of passionate Year 9 and 10 (14-16 year olds) Geography students at NBSC (Manly Selective Campus) about the Protect. Create. Live. Environment and Climate Change Draft Strategy?

The elective geography class (which I helped to get started at my school!) will be looking into the strategy sometime soon.

Also, in regards to the Year 9 Geography Challenge, it's been deemed unrealistic to complete it this year due to the short time frame and similarity to their assessment they just completed and we will likely just do it next year, sorry about that.

However, there is a Year 10 class who are keen on doing it, so there is a possibility for them to do the challenge. I'll get this confirmed, and if it is confirmed I'll send you all the details asap, thanks!

Kara Taylor

From: [REDACTED]
Sent: Friday, 8 November 2019 1:44 PM
To: Council Mailbox
Cc: [REDACTED]
Subject: Submission re Protect Create Live
Attachments: 0_SolarAmbassador_Flyer.pdf; 4_FAQs.pdf
Categories: SL

Dear Kara

Thanks for the opportunity of making a submission on the strategy,

The purpose of my submission is to flesh out in more detail what [REDACTED] has in mind with respect to the Solar Ambassadors program which I presented to Council at its meeting in August.

We believe that by working with our group Council would have a much greater chance of success in achieving its objective of having a high percentage of suitable roofs in the Council area fitted out with solar

We would provide volunteers (from the pool that door-knocked to raise the issue of climate change in the recent election) who would door-knock on houses with suitable roofs, engage them in conversation and leave a flyer that succinctly explained the benefits of solar and how to go about getting it installed.

The flyer would reference a website that had more comprehensive documentation on each step of the process and a set of FAQ's

All Council would need to do would be to

- set up a process for formally accrediting volunteer solar ambassadors and giving them some form of identification. This could involve vetting and a requirement to attend a one day training course (which could be run by [REDACTED])
- get the flyer designed, with input from a copywriter and graphic artist and arrange the printing thereof.
- post the documents on its website

We have drafted the content of all documents and are temporarily hosting them on our website.

We could start with a trial in a particular street and in the light of that experience fine tune the program before we recruited volunteers and rolled out the program at scale.

I have attached drafts of the text of the flyer and FAQ's. The links in the documents are all live so you can download the draft text of the remaining documents in the package.

We really hope that once the Protect Create Live has been adopted that a solar ambassador program will be one of the items on next year's action plan

Kind regards