

**Submission
No 169**

**INQUIRY INTO PLANNING SYSTEM AND THE IMPACTS
OF CLIMATE CHANGE ON THE ENVIRONMENT AND
COMMUNITIES**

Organisation: Ku-ring-gai Council Staff Submission

Date Received: 7 November 2023

LEGISLATIVE COUNCIL - Inquiry into the planning system and the impacts of climate change on the environment and communities

Inquiry Report on how the planning system can best ensure that people and the natural and built environment are protected from climate change impacts and changing landscapes, and in particular:

(a) developments proposed or approved:

(i) in flood and fire prone areas or areas that have become more exposed to natural disasters as a result of climate change,

(ii) in areas that are vulnerable to rising sea levels, coastal erosion or drought conditions as a result of climate change, and

(iii) in areas that are threatened ecological communities or habitat for threatened species

(b) the adequacy of planning powers and planning bodies, particularly for local councils, to review, amend or revoke development approvals, and consider the costs, that are identified as placing people or the environment at risk as a consequence of:

(i) the cumulative impacts of development,

(ii) climate change and natural disasters,

(iii) biodiversity loss, and

(iii) rapidly changing social, economic and environmental circumstances

(c) short, medium and long term planning reforms that may be necessary to ensure that communities are able to mitigate and adapt to conditions caused by changing environmental and climatic conditions, as well as the community's expectation and need for homes, schools, hospitals and infrastructure

(d) alternative regulatory options to increase residential dwelling capacity where anticipated growth areas are no longer deemed suitable, or where existing capacity has been diminished due to the effects of climate change

(e) any other related matters.

Thank you for the opportunity to submit comment on this issue. Please contact us if you require any further clarification.

Urban Planning Team

The Ku-ring-gai local government area is surrounded by bushland, biodiversity and riparian lands. Many properties are exposed to bushfire and flood hazard, and many tracts of land are under increasing development pressure threatening existing flora and fauna, including areas of endangered Blue Gum High Forest and Sydney Turpentine Ironbark Forest.

Council is keenly aware of the urgent necessity to meet net-zero targets to address climate change issues and their impacts on the local area, its population, fauna and flora.

Ku-ring-gai Council is highly pro-active in its approach to resilient development and future proofing the built environment to protect its residents now and into the future, including in areas of hazard. Council has a legacy approach, seeking to plan for the very long term, ensuring the ongoing conservation of natural assets whilst providing greater numbers of homes and facilities able to service current and future generations, including accommodation of expected population growth.

Council has a well-considered, evidence based suite of planning documents, and other related policies, strategies and guidelines that stipulate sustainable practices, with requirements for a rigour of ecological and environmental consideration in any proposal brought to Council – both planning proposal with strategic long term considerations, and development applications with generally short to medium term considerations.

Council's planning instruments have been developed to align with State planning policy and strategic directions, including those of the Greater Sydney Metropolitan Plan and the North District Plan, both of which apply to the Ku-ring-gai Council area. However, it is increasingly obvious that State-level decision making bodies are not required to apply the same level of consideration to those documents, particularly in the assessment of planning proposals. The assessments that Council applies are sometimes unravelled in Gateway reviews, Panel determinations and final Gateway determinations with no consideration of the evidence presented for Council's refusal.

It is clear that there is a disparity in the strategic approach of state-led planning instruments promoting sustainability and the consistency of their application by state level determining agencies and other bodies.

Council has adhered to the principles of State-led policies requiring proponents to deliver on sustainable considerations that ensure the generational safety and performance of the built environment, including their cumulative impacts on the ecology and environment. However, the development of a number of state level policies such as SEPPs with their lack of detail and 'one-size fits all' approach, have limited or no requirement for climate change considerations nor evidenced demonstration of how the proponent's proposal will deliver considered outcomes for the environment and for the safety and well-being of the community into the future.

Many of the SEPPs have removed the ability for Council to apply any fine grain considerations that could address climate related issues. The now redundant Design and Place SEPP commenced a strategic approach by a state level instrument to the delivery of quality built environments with considered development that could be directed. It appears that the push for ease of development and fast turn over for increased development has outweighed the need to have a considered approach. The short-term gains are prioritised over the long-term gains and climate change and sustainability considerations are often ruled out possibly due to the time required to make those evidenced considerations.

There appears to be a continuing erosion of planning principles by decision makers that may not be trained to understand strategic merit, nor have the time to investigate claims by proponents which, in Council's experience, put forward cases stating compliance, but when a due-diligence check is conducted, there is clearly no evidence to back the poor development outcomes they propose.

Where Council is no longer in a decision making role, it is observed that the due-diligence checks are not conducted by the decision makers; rather, those decision making entities take at face value the claims of proponents, approving developments that clearly provide exponential financial benefit to the proponent with little to nil consideration of the medium and long term impacts of the approved proposals, particularly on the environment and on the sustainability of community health and growth.

Ku-ring-gai Council supports development of all types and densities. Council pushes for the highest quality of development, and development that will not create legacy issues for the local government area, its environment and its community. Council is keenly aware that without a consistent approach to climate change at all levels of government, there can be very little meaningful positive impact.

We are already witnessing the impacts of climate change on the environment and the poor control exerted by planning instruments and decision makers keen to approve and fast track development approvals.

The gradual denudation of land with removal of trees and vegetation instrumental in improvement of urban environments may be attributed to weak planning instruments that do not give decision makers clear direction and ability to uphold the provisions in the NSWLEC. There is a clear lack of mandated requirements in LEPs for onsite deep soil provisions fundamental to support established trees and vegetation that preserve soil quality and prevent erosion with uncontrolled runoff.

The impacts of climate change on communities and society is also unfolding with an increased burden on people living in unpredictable fluctuating weather patterns in denuded living environments resulting from the cumulative impacts of poorly considered development. These environments will be unlikely to support outdoor active and healthy lifestyles during high heat or deluge rainfall events, particularly for vulnerable people. Conversely, indoor environments are likely to have a greater reliance on artificial heating and cooling due to the 'desk-top' cookie cutter approach encouraged by the complying development Codes (SEPPs).

The burden on the economy is also of concern where there is failure to consider climate change, with the impacts resulting in increased costs of heating, cooling, remediation and disaster relief.

Recommendations

- Planning instruments require tighter legislation and strategic plans that prevent the loose interpretation that is currently being applied by both proponents and decision makers. Decisions that clearly enable significant development potential to the detriment of safety and environmental conditions requires probity measures that can balance the benefit to a proponent with the benefit to the community/environment.
- There is a strong requirement for training of decision making personnel on the interpretation and terminology related to climate change, resilience and the non-negotiables - this must be stated in the planning instruments.
- Training of decision makers on the difference of approach between a planning proposal and a development application – a planning proposal assessment does not involve the negotiation of a development outcome nor a negotiation to benefit a proponent. It is purely an assessment of the strategic and site specific merit of a development with consideration of the locality and the appropriateness of the proposal particularly with a view to long term benefits and impacts
- Where non-planning agencies have the ability to influence planning outcomes, they should be required to substantiate their position on proposals through mandatory and transparent evidence studies, particularly where risks and impacts are high.
- Ministerials are often delivered with little to no backing information. Ideally these require an evidence base to justify the sign off of each part of the Ministerial, rather than just a tick and/or deferment of the considerations to a later stage in the planning proposal process. If a proposal does not meet a Ministerial requirement or provide evidence to substantiate the assessment, a decision making body should not be able to push through a proposal, particularly where it is not supported by the Community.
- Make consistent and firm the policies and strategies that determine planning outcomes, particularly planning proposals which have the potential to undermine local areas, and prevent a different set of assessment criteria being applied at local Council level and another undisclosed set

of criteria applied at State level. The confidence of the community in the planning system is highly reliant on transparent and consistent decision making across government.

- Planning instruments must provide clear definitions of terminology related to climate change, such as heat island effects, and how these aspects can be mitigated. Include a list of the evidential studies and content required from proponents to demonstrate diligent consideration. Stipulate these plus the requirement for the decision-making body to check and verify the content of proponent studies through professional review. This will enable proponents to understand what is required in this arena, and give decision making bodies clarity on how to assess proposals so that the assessment criteria is consistent, plus offer clarity to any community interest groups.
- Planning instruments at every level, including the Act, SEPPs, Ministerials and LEPs need to explicitly state that vulnerable (elderly and child related) uses, and medium to high density uses are prohibited on or adjacent to bush fire prone land and flood prone land. This will remove ambiguity and the ability to negotiate poor outcomes on land. Further, reference to infill development on sites in these locations already operating with vulnerable uses should be prohibited from increasing development potential. When the facility has come to a point where redevelopment is required, that any future development be conducted within the existing standards or be relocated to more appropriate sites outside risk areas if higher standards are required.
- In developing SEPPs, due diligence must be applied to align the outcomes with the increasing body of evidence on climate change and the impacts of the built environment. The Codes SEPP and the Medium Density housing SEPP currently enable poor outcome low and medium density dwellings with no ability for meaningful deep soil provision on a site, nor planting and continued health of canopy trees to maintain soil structure, sub-surface water movements, reduction of heat island effects. There is minimal consideration of colour and heat absorption, no mandatory requirement for solar panels or the like. Mandatory requirements for building elements that promote sustainable practices, and landscape provisions to cater for large canopy trees to prevent the cumulative denudation of the land and its gradual conversion into desert profiles is imperative to prevent the ongoing current contribution to climate change.

Following are two submissions made by Ku-ring-gai Council that have raised concerns regarding climate change issues. Neither submission appears to have influenced any improved outcome by decision makers.

1. Ku-ring-gai Council Submission to the Planning Proposal to increase development standards on bushfire prone land at Stanhope Rd, Killara (Lourdes Retirement Village) – October 2022

In 2018 Council refused a planning proposal to increase development for senior's housing on bushfire prone land, providing full and evidenced justification for the refusal due to its lack of strategic merit.

Council based its recommendation on the objectives, principles and directions of key strategic documents, including the Sydney Metropolitan Plan and the North District Plan – with which Council is required to comply.

In a review, the SNPP approved the proposal to proceed to a Gateway Determination. Despite determining the same planning proposal, the rules for determination by the SNPP appeared different to those that Council is required to abide by (the Metropolitan and District Strategic Plans). The Panel gave no justification on how the proposal met the requirements of strategic merit and gave negligible weight to Council's evidenced reporting including on issues of climate change.

Council made a comprehensive submission to the Department's exhibition of the proposal. We understand that the RFS has now agreed to the proposal, previously they did not approve it. Council is the only body that has conducted evidence based investigation of the bushfire risks associated with the site, however it appears that little to no weight is being given to these recent and evidenced studies. We await the final decision by the SNPP and DPE.

The below is an excerpt from Council's submission. The full submission is attached (also on DPE planning proposal portal).

Ku-ring-gai Council strongly objects to the planning proposal for reasons evidenced in this submission.

This Council does not want to be held in any way responsible in the event of a bushfire related incident and any resulting coronial inquest on increase of population on 95 - 97 Stanhope Rd, Killara, nor for any loss of life or property elsewhere in the LGA that results from the setting of precedent through the approval of this planning proposal.

If this site was considered as a greenfield site in today's environment, with awareness of the greater risks of climate change and likelihood of more frequent and intense fire events, this site would not be deemed suitable for the development of seniors housing or other vulnerable uses. Given the use is existing, it is accepted that the landowner has the right to retain the existing number of vulnerable people on the site. It is not accepted that the population be increased on the site due to the risks and the inappropriate development type that would be necessary to accommodate higher numbers of people.

Key points of contention include:

Merit

- The proposal has not demonstrated a balance of positive strategic merit aligned with the *Greater Sydney Region Plan - A Metropolis of Three Cities*, the *North District Plan*, the *Ku-ring-gai Local Strategic Planning Statement* and the *Ku-ring-gai Housing Strategy*.
- The proposal fails to demonstrate site specific merit on the fundamental issues of bushfire risk, ecology and heritage consideration.

Precedent

- The potential setting of precedents through approval of this planning proposal will result in the erosion of the multi-disciplinary approach taken by Ku-ring-gai Council to provide a high quality living environments consistent across the LGA through a place based approach that demonstrates hazard protection of its citizens.
- This precedent will likely undermine this Council's exemplary work in bushfire protection measures continuing to be embedded in the planning system, which other Council areas look to model and which is of interest to the Department of Planning and Environment's Bush Fire Planning, Resilience and Urban Sustainability team.

Setting of precedent that undermines federal, state and local policy

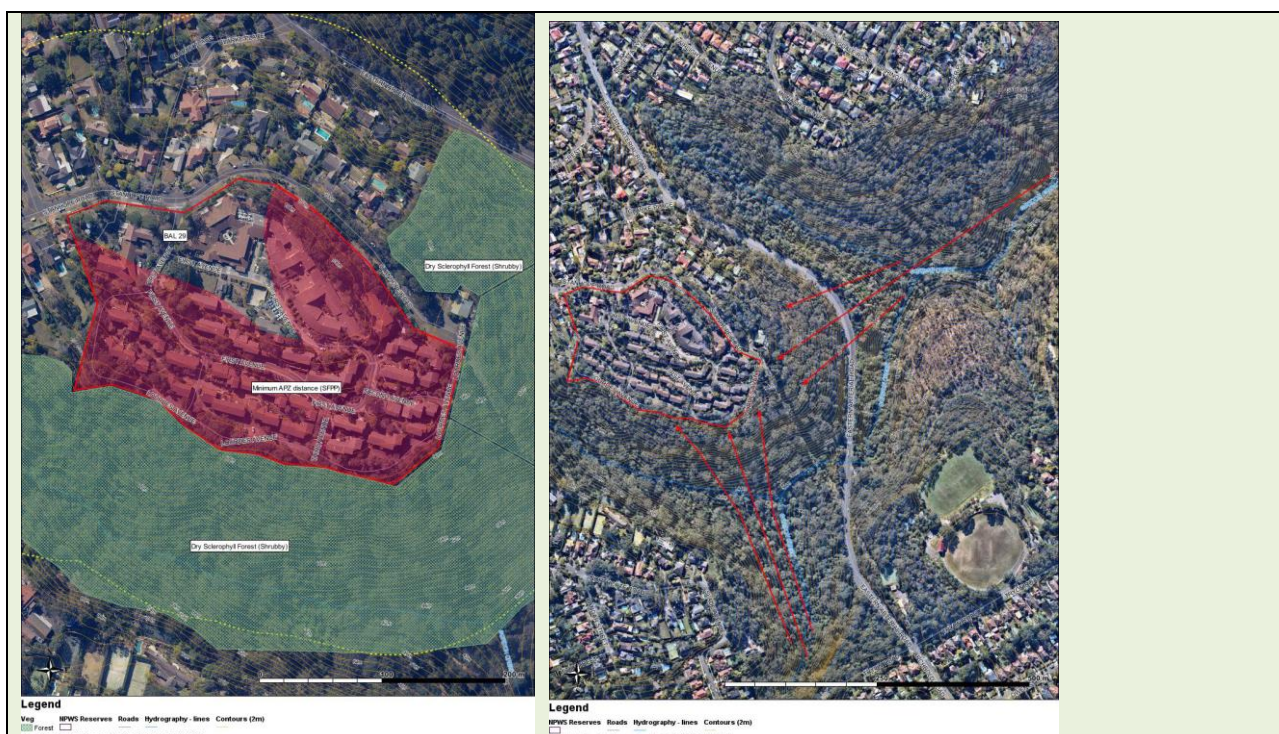
- The amendment to the KLEP 2015 through this planning proposal is likely to set a significant negative precedent for the Ku-ring-gai Council area and for other similarly placed areas across NSW. The setting of such precedents will likely result in the erosion of the multi-disciplinary approach

taken by this Council to protect its citizens, particularly in the growing highly volatile climate events including rain, heat and fire.

- Such a precedent stands to undermine and overturn many of the strategic principles that Council has instilled across its legislation, policies, guidelines and operational practices to:
 - conserve its high value canopy tree landscape,
 - protect its natural and built form heritage for future generations,
 - provide high standards of liveability through appropriate placement of dense housing,
 - ensure its forward planning approach to climate change and resilience is embedded in the planning system,
 - remain consistent with and continue to be significantly aligned with state policy.
- This precedent will undermine Council’s exemplary work in bushfire protection measures which is continuing to be embedded in the planning system and replicated by other local Councils.
- Council does not want to be held in any way responsible in the event of a bushfire related incident and any resulting coronial inquest on this site resulting from the increase in populations proposed in this planning proposal; nor from inquests resulting on other land that leverages off the precedent of this proposal.

Bushfire

- The proposal fails to demonstrate protections to the proposed increased population on the site, including vulnerable elderly, in an environment of changing climate patterns and the expected increased incidence and severity of fire related events.
- The exhibited bush fire report attached to the planning proposal contains no detail to substantiate the claims of safety to citizens, instead the proposal appears to rely on the support of the NSW RFS to justify the lack of factual evidence in the exhibited planning proposal materials.
- The planning proposal fails to provide transparent exhibited bushfire related evidence to warrant the departure from key strategic considerations that are applied to all other sites across the LGA and NSW and that, if approved, would set precedents detrimental to key work related to bushfire safety.
- Detailed design evidence pertaining to bushfire aspects cannot be deferred to the development application stage, it is required at this planning proposal master plan stage to determine if the increased dwellings and population on the site is warranted or not.
- Calculated and detailed information on bushfire risk measures is necessary as it will enable authorities to make informed and responsible decisions. These decisions will be accountable in any future inquiry into the agreement of increased populations on bushfire prone land.



Red shaded area shows the required APZ. Red arrows show the fire runs threatening the site



Excerpt from Bushfire Prone Lands Map 2017

Liveability

- Dense development as proposed is more appropriately placed in and around urban centres, not on low density bushland sites at distances more than the considered 800m stipulated in the *Greater Sydney Region Plan - A Metropolis of Three Cities* and the *North District Plan*.
- The planning proposal will deliver a built form mass with extensive excavation across large footprint buildings that preclude the provision of quality onsite active open space, and that would enable deep soil provisions to support site ecology and preservation of the tree canopy to the important and intact canopy ridgeline.

Feasibility

- It is accepted that the development may be dated and require refurbishment, however, no evidence has demonstrated why the site cannot be redeveloped under the Housing SEPP control bonuses. The current standards would enable manageable increases to dwelling numbers and onsite population.
- No evidence such as a feasibility study has been provided to demonstrate why the extreme intensification of development standards on the site is required to secure its redevelopment, particularly when those standards do not deliver development that can relate nor respect its context.

Lack of detail

- The lack of detail provided in the planning proposal Urban Design Report, and generally across the planning proposal documentation, suggests that the key consideration of the master plan is to primarily achieve certain development potentials that will benefit the landowner with only an ancillary address the issues of the site.
- The lack of foundational site analysis, site planning and built form massing based on demonstrated detail and compliance with required standards has not been furnished in the proposal's exhibited studies. This is of concern given the high bushfire risk of the site and the clear values of the site context, neither of which have been adequately addressed to give evidence for the increased standards.
- Without this detailed consideration, it is unrealistic to assume that the proposed master plan densities and site treatment would meet required standards under the multiple Acts, SEPPs and Instruments and be acceptable at a DA stage.

Ecological assessment

- The ecological report makes mention of the assessment of significance under "*Threatened Species Conservation Act 1995*". No assessment of significance is contained within the ecological assessment, further the *Threatened Species Conservation Act 1995* (TSC Act) has been repealed and replaced with the *Biodiversity Conservation Act 2016* (BC Act).
- The assessment pathway under part 5A of the TSC Act is incorrect.
- It is understood that a rezoning application does not need to identify the assessment pathway, however based upon the site being identified upon the NSW Biodiversity values map and mapped as supporting both critically endangered Blue Gum High Forest and Sydney Turpentine Ironbark Forest, the assessment pathway would be via a biodiversity development assessment report (BDAR) instead of an assessment of significance under section 7.3 of the BC Act.
- A review of the bushfire report prepared by Blackash Bushfire Consulting identifies management over the entire site as an asset protection zone (APZ). The current tree canopy coverage over the subject property is inconsistent with that of an APZ as set out in the Rural Fire Service Document Planning for Bushfire Protection 2019. The canopy coverage within the subject property exceeds the maximum of 15% as set out in the RFS document. Management of the vegetation within the southern portion of the property in particular will result in the removal of native vegetation mapped upon the NSW Biodiversity Vales map (Figure 1). A BDAR will be necessary to be submitted with a future DA.
- The ecological assessment fails to consider direct and indirect impacts upon the downstream environment which supports habitats for threatened species, in particular it is understood that the proposal will result in extensive excavation activities including basements across the majority of the plateau area to the north of the site, and subterranean tunnels proposed in the Blackash report. These may result in changes in the hydrological environment to the downstream receiving environment. These impacts have not been considered in the ecological assessment report.
- Further ecological works to be undertake include mapping of the extent of the onsite PCTs and threatened species survey in accordance with published guidelines. The rezoning of the subject property should not be considered until such times that the impacts upon threatened species of plant and animal and listed endangered ecological communities are fully considered through the provision of a BDAR.

- The built form density outcomes of the proposal indicated in the Planning Proposal Urban design Study will result in the removal of a significant area of onsite canopy, including 124 trees (32% of all trees on site) (43 high category trees and 81 trees of low and very low retention value).
- The Gateway Determination Report concludes that “the proposal presents an opportunity to provide additional tree planting in accordance with a landscape plan that will contribute to the local amenity, character and tree canopy”, however The broad landscape planning provided within the Urban Design Study does not provide sufficient detail to determine future canopy outcomes (including on site planting) Further, the provisions in the proposed DCP are inadequate and fails to include detail from its ecological assessment and arborist report.
- The built form outcomes in the Urban Design Report of continuous and extended basement parking and building footprint precludes the provision of adequate deep soil areas that could support any substantial vegetation and tall canopy trees that would enhance the canopy cover and green grid connection.
- The ecological assessment report presents a desktop review and does not identify any survey effort to determine presence/absence of threatened flora and fauna species recorded within the locality.
- The extent of survey presented within the ecological assessment report is inconsistent with following guidelines referenced by the Office of Environment Heritage for biodiversity surveying *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities November 2004*
- Field survey methods for amphibians Threatened species survey and assessment guidelines (Department of Environment and Climate Change 2009)
- •Surveying threatened plants and their habitats NSW survey guide for the Biodiversity Assessment Method (Department of Planning, Industry and Environment)
- There is no impact assessment contained within the ecological assessment report that acknowledges the threatened species of plant or animal that are impacted upon by the proposal for example the proposal seeks to remove foraging resources for Grey-headed Flying-fox (*Pteropus poliocephalus*) however no impact assessment has been prepared in accordance with section 7.3 of the *Biodiversity Conservation Act 2016*.

It is negligent, therefore, to embed standards for increased site potential through a planning proposal when those standards have not been shown to be based on sound and reasonable planning and design principles. Equally it is unreasonable to then manipulate standards in the KDCP to enable incongruous outcomes for the site - especially as this site has multiple constraints and considerations which speak to strategic and site specific merit, and which are not met in the proposal.

2. Ku-ring-gai Council Submission to the draft Medium Density Housing Code (SEPP) – November 2016

In 2016 Council made a detailed submission on the draft Medium Density Code, however the Code came into play with little regard to the implications for climate change, denudation of land and vegetation, and lack of consideration of built form, materials and colours. Those concerns raised 7 years ago are still relevant today as we see the unfolding of the results of the instrument across NSW.

The below is an excerpt from that submission, with the full submission attached for your information.

1. Agencies overseeing and developing key strategic planning approaches

The exhibition documents present no discussion on the resultant **environmental** problems of increased heat emission, stormwater runoff and pollutants, and energy burdens which will inevitably arise from this delivery mechanism (as is already being experienced with single dwelling complying development delivery within Ku-ring-gai and across Sydney). The complying development pathway will place a considerable burden on the environment and create **economic** issues requiring injections to remedy and rectify the effects of poorly resolved development resulting from the fast track process.

2. Justification of complying development outcomes - State, Federal Government directions

Greater Sydney Commission (GSC)

The exhibited documents are not aligned with the GSC key documents. The delivery of medium density housing through complying development will not achieve the key strategic directions stipulated by the GSC, rather it will counteract those efforts.

For example *A Plan for Growing Sydney* states goals and directions which rely on good urban design and planning to “*make the city’s built environment sustainable and energy efficient while also protecting the environment*”. It refers to principles of environmental sustainability and the importance of strategic and considered planning “*promoting environmental resilience as housing and economic development occurs (and which) will have greater benefits than site-by-site decision making*”. Complying development can only deal with site specific delivery. It does not have the capacity or expertise to consider implications beyond the site.

It makes reference and commitment to the *Green Cover Demonstration Design Project 18* stating that the Government will “*deliver Green Cover Design Principles to inform how to incorporate vegetated, permeable and reflective surfaces into urban settings, to address thermal loading in the built environment and provide co-benefits such as reduced energy costs for cooling, stormwater management, cleaner air and biodiversity habitat*”; and

It refers to social sustainability and how “*through urban layout, we can improve air quality in residential areas to improve our health and wellbeing... These actions will encourage best practice urban design to manage or mitigate the impacts of increased urban temperatures and will reduce the impact of Sydney’s growth and increasing density on the quality of our natural environment and on our neighbourhoods and communities.*” The outcomes that will result from the proposed medium density, delivered through complying developments, as per the MDH Codes SEPP and MDDG make no attempt to consider these issues, resulting in developing that will ignore these considerations.

The draft amendment update to *A Plan for Growing Sydney* called *Towards our Greater Sydney 2056* states core objectives for “*A Sustainable Sydney*” including “*A city in its landscape; An efficient city; A resilient city*” and “*how we can green our streets, neighbourhoods and suburbs with new tree canopies.*” The proposed development standards cannot deliver on these principles.

Sarah Hill, (CEO GSC) has commented that “*the Commission is focused on making Greater Sydney a better place and a strong global city to ensure that as Greater Sydney grows it becomes more liveable, more productive and more environmentally sustainable.*” The GSC “*recognises that cohesive and vibrant cities have overlapping components and an integrated approach to city making is crucial to success.*” The complying development mechanism does not have the ability to deliver this integrated approach.

The draft *District Plan* instructs local Councils: “*when making strategic plans, relevant planning authorities should consider how tree canopy cover in land release and established urban areas can be protected and increased, with a focus on providing shade to streets.*” The exhibited complying development documents make no consideration of this and will undermine this principle within areas such as Ku-ring-gai where this principle is already established and delivered through the integrated planning documents.

Rod Simpson (Environment Commissioner GSC) commented: “*The biggest threat to ecological systems both locally and globally is climate change and we will be working very closely with state and commonwealth agencies and councils to work out the most effective ways of helping to achieve a zero carbon city by 2050, as well as being more energy and water efficient*”. Ku-ring-gai Council has integrated numerous green principles in its DCPs to ensure delivery of all built outcomes lower the impacts on climate change. The proposed complying development delivery of medium density housing will undermine the efforts that this Council has put in place to ensure development is delivered in a

considered manner to provide the required accommodation whilst managing short and long term impacts.

Federal Government's 'Green Cities' policy (announced 01/2016 by Minister Greg Hunt)

The exhibited documents are not aligned with the Federal Government's direction. The delivery of medium density housing through complying development will not achieve the principles stipulated by the Minister, rather it will counteract those efforts.

For example, the FSR and landscape as proposed in the exhibited documents, are diametrically opposed to the policy which calls for "*cities with high levels of trees, foliage and green spaces (as they) provide enormous benefits to their residents. Increasing urban canopy coverage decreases heat, which improves health and quality of life.*" Ku-ring-gai Council is currently delivering on these aspects for all housing typologies. The proposed complying development mechanism will undermine this Council's long standing efforts in developing models of delivery that consider both short and long term outcomes.

The fine grain integrated suite of planning documents that Ku-ring-gai Council has put in place are the result of extensive research and consultation to ensure development delivery meets current needs whilst supporting the established area character and integrating growth in a considered and sustainable way with due consideration of generational impacts on social, environmental and economic issues.

Urban Green Cover Guidelines - Minimising Local Temperature Impacts in Cities and Towns

This technical manual stipulates "*integrating vegetation, green spaces and permeable surfaces into our cities and towns (so that) communities can adapt urban environments to minimise local temperatures, now and into the future. Increasing urban green cover provides effective and relatively low cost resilience to heat impacts while improving community amenity and providing multiple benefits*". The complying development pathway does not have the depth of consideration of a development to ensure any of these considerations and their delivery in the final outcomes.

Rob Stokes MP noted the importance of considering climate change in any planning approach that delivers accommodation for communities: "*The Urban Green Cover Guidelines will assist NSW built environment professionals increase resilience to future extreme events and natural hazards and help communities prepare for a changing climate. I trust you will find them a useful resource for planning and achieving more liveable and resilient neighbourhoods and communities in NSW*". The complying development pathway, utilising designers that are not registered architects and private certifiers that do not hold a town planning degree, does not have the mechanism to give any in depth consideration along these lines.

Office of Environment and Heritage (OEH)

The exhibited documents are not aligned with important direction from OEH regarding management of development with regards to climate change. The delivery of medium density housing through complying development is in direct opposition to these directions.

According to OEH *2016 Impacts of Climate Change - East Coast Lows*, rainfall extremes and average rainfall is likely to increase but become more variable. Compounding the effect of this transition is the occurrence of east coast low (ECL) events which can happen up to ten times per year and bring heavy rain and strong winds. OEH reports that climate change is likely to already be affecting the intensity, frequency and duration of these ECL events. As a result many NSW Councils are already looking to upgrade stormwater drainage systems to cope with increase in flow volume and intensity.

The complying development mechanism is already failing in terms of creating effective stormwater outcomes for single dwelling developments delivered through complying development, with Council having to remedy poorly resolved stormwater design, spending considerable time and expense to mitigate the impacts of the complying development. Stormwater, particularly the increase predicted by OEH, is of particular concern in Ku-ring-gai given the ridge, valley, slope topography.

The Ku-ring-gai DCP seeks deep soil allocations and the planting of vegetation including large canopy trees to all housing typologies. This requirement has many reasons, one of which is the importance of permeable areas to absorb increasing runoff, and the establishment of deep and wide root systems to

hold soils in place and prevent downslope erosion with runoff. If not managed, the erosion will not only denude the ridges and slopes, but create knock on effects of sediment and pollutants in downslope riparian areas. The complying development pathway will not support this local approach, nor will it be able to consider stormwater issues with the rigour of Council assessment which ensures developments do not cause ongoing issues.

Ku-ring-gai, like many other areas has an aging population. As people age they become more vulnerable to heat stress. Heat waves are recognised by the NSW Department of Health and the Red Cross as a major risk associated with climate change. According to OEH *2016 Impacts of Climate Change – Heat*, land use modifications, especially those that reduce the area of shade from the destruction of the tree canopy, increase hard surfaces, and reduce air flow across the region. These combine to increase not only daytime temperatures but more importantly night time temperatures. This contributes to the increase in heat exposure and greater reliance on mechanical ventilation during night hours and associated energy consumptions and increase demand on the energy supply network.

According to UNSW Built Environment *Multi-Scale Research Urban Climate Sustainable Development 2016*, as the urban footprint increases in density the risk of creating urban heat islands rises accordingly. Transitioning to greater densities requires particular planning skills to ensure the risk of creating heat islands across an area is minimised. Ignoring this requirement once again creates a scenario of a significant increase in foreseeable risk of hospital admissions and deaths related to extreme heat events. (Deaths that are preventable.)

OEH (2016) notes that heat waves kill more people than any other type of natural disaster. Considered strategic planning of medium to high density development is vital in ensuring both the social and environmental sustainability of the communities that are being housed within new development. Considered strategic planning also avoids the need of remedial 'fix it' works having to be conducted to deal with poor initial development.

The one size fits all complying development pathway cannot deliver considered strategic planning across the numerous different terrains across Sydney and NSW and can only result in poor environmental, social and economic impacts due to its fast track nature and limited cross consultation and integration.

In terms of economic sustainability, the urban forest plays a role in defining Ku-ring-gai and enhances the area's aesthetics and consequently its property values. Studies have estimated that properties in tree-lined streets are valued around 30% higher than those in streets without trees (*Sander H., Polansky S., Haight R.G., 2010. The value of urban tree cover: a hedonic property price model in Ramsey and Dakota, Minnesota, USA. Ecological Economics 69(8), 1646-4656*) Significant canopy coverage provided by our urban forests improve the lifespan of some assets (for example asphalt), by shading them from harmful rays – potentially by 30%. (*'Urban Forest Impacts on Carbon, Water and Urban Heat Islands', G McPherson, Centre for Urban Forest Research, USDA Forest Service, 2009*). These type of preventative measures have not been considered in the MDH Codes SEPP or MDDG.

United Nations

The proposal is inconsistent with the United Nations, General Assembly Draft outcome document *United Nations Conference on Housing and Sustainable Urban Development (Habitat III) - New Urban Agenda*, particularly with regards to loss of vegetation across NSW that will contribute to land surface temperature increases and the urban heat sink effect which impacts on the amenity and liveability of housing and their environments. It noted that:

"Given cities' demographic trends and their central role in the global economy, in the mitigation and adaptation efforts related to climate change, in the use of resources and ecosystems, the way they are planned, financed, developed, built, governed and managed has a direct impact on sustainability and resilience well beyond urban boundaries."

These outcomes cannot be achieved through the complying development pathway.