WAVERLEY COUNCIL

Waverley Council
PO Box 9, Bondi Junction NSW 1355
DX 12006, Bondi Junction
Customer Service Centre
55 Spring Street, Bondi Junction NSW 2022
ABN: 12 502 583 608

Our ref: A12/0147

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NSW Department of Planning and Environment
GPO BOX 239
SYDNEY NSW 2001
Sent via e-mail to designandplacesepp@planning.nsw.gov.au

Waverley Council Submission to the draft Design and Place State Environmental Planning Policy (SEPP) Explanation of Intended Effect (EIE)

Thank you for the opportunity to provide feedback on the *Design and Place State Environmental Planning Policy* (SEPP) *Explanation of Intended Effect* (EIE). The EIE, associated brochure and *Frequently Asked Questions* documentation has been reviewed, and Council officers attended the Design and Place SEPP webinar held on 3rd March and workshop on 11 March 2021, and the following comments are provided. This submission has been prepared by Council officers and not the elected Council.

Council strongly supports the Department's work to date on elevating the importance of design excellence and place-based design in the planning system. Providing two separate opportunities to submit feedback on the SEPP is also highly commended.

The Design and Place SEPP Explanation of Intended Effect (EIE) provides a solid foundation in which the draft Design and Place SEPP can be prepared with consideration to. Council officers are keen to continuously engage and provide detailed input into how the Design and Place SEPP progresses and ultimately facilitates good design in NSW.

It is noted that the EIE sets out a vast area for comment, and minimal time for the preparation of submissions. Hence it is made clear that absence of detailed discussion in this submission is not to be taken as tacit support for an issue.

Should you have any questions about the contents of this submission please do not hesitate to contact Emma Rogerson, A/Senior Strategic Planner (02) 9083 8194.

Regards,

Tony Pavlovic
Director, Planning, Environment and Regulatory

1. Overall Objective and Integration

The DPIE is to be commended on the work and consultation that has been completed to date on what is a significant undertaking for the built environment. The Country-led and strategic approach to the design of places and buildings is also strongly supported.

The consolidation of SEPP 65 and the BASIX SEPP provides a key opportunity to enable good design to factor into the assessment tool, including passive design to reduce the overall consumption of electricity and water, material design and the minimisation of carparking.

The breadth of the proposed SEPP is ambitious and should be developed with extensive input from Councils to correctly navigate the intersections of the SEPP with local plans. A key objective of the SEPP is to facilitate place-based planning. This approach is strongly supported; however, it is to be noted that councils have developed place-based planning controls over time to respond to the unique conditions of their established characters. These controls must not be undermined by the application of State policies, which by their very nature cannot provide detail in a place-based manner. Where new areas are being developed, detailed controls or design criteria may be appropriate, however in many established areas of Sydney, standard controls or criteria are unlikely to suit the character of these areas that have developed incrementally over time. Accordingly, it is strongly cautioned that the SEPP should provide a principles-based approach and provide guidance for applicants and councils alike as to how to achieve these principles and objectives, with flexibility allowed for the application of design criteria and controls. This approach is already taken in SEPP 65 and the ADG and should be continued.

2. SEPP Application and Development Scales

The application of the SEPP to urban land in NSW, and the acknowledgement of different development scales is supported. Urban and rural land face vastly different challenges and opportunities, so a distinction is important. The same applies to development of different scales, however, the applicability of the three development scales proposed ('precinct', 'significance development', and 'all other development')may need to be reconsidered or expanded to suit theimplementation of the SEPP in highly urbanised and established areas such as Waverley.

The Waverley LGA is unlikely to experience 'precinct' and 'significant development' scale projects given the highly established nature of the LGA, the great number of Heritage Items and sites located within Heritage Conservation Areas, and the dense nature of existing development resulting in relatively small lot sizes. For this reason, the proposed SEPP will likely only be applied in an 'all other development' scale in Waverley which as per *Table 1 – Proposed Design and Place Considerations* of the EIE will not be subject to 11 of the 19 *Mandatory Matters for Consideration* (Matters).

It is acknowledged that small scale, minor development such as dwelling house alterations and additions and commercial tenancy fit-outs may not need to consider a number of the *Matters*, however, new higher density development on sites smaller than those defined as 'significant development' will benefit from being subject to *Matters* which they are currently not under the proposed EIE. These new higher density developments may include, but are not limited to, the construction of residential flat buildings or mixed-use multi-storey buildings on sites less than 4,000sqm near local or neighbourhood centres or on sites less than 1,500sqm in Bondi Junction.

As such, introducing a fourth development scale that differentiates between minor alterations and substantial development on a smaller site for high density areas, and applying *Matters* No. 1, 6, 7, 8, 10 and 11 in addition to those that 'all other development' are already applicable for would help to ensure that the important *Matters* are considered as much as possible.

The criteria for the fourth development scale could be development on a parcel of land on a site greater than 1,000sqm in a metropolitan centre, and on a site greater than 2,000sqm anywhere else, in areas where the population density is more than 50 persons per hectare. Any development not classified as 'precinct', 'significant development' or the new category may be considered as 'all other development'.

3. Five Guiding Principles, and Mandatory Matters for Consideration

The intent of the principles is supported, however further detail is to be provided around what constitutes alignment with the principles, and how the principles interact with each other when in conflict, that is, is there a hierarchy by which the principles are to be applied? In their current form they are too broad and vague.

The move towards a principles-led planning system is supported, however it is acknowledged that there are inherent challenges that arise due to the subjective nature of design development and the nature of the assessment and review process in the NSW planning system. The approach taken in the current SEPP 65 and Apartment Design Guide (ADG) is good in principle – providing an overarching objective and design guidance on how to achieve the objective provides sufficient flexibility to apply to an area such as Waverley that has an established character that is contrary to the design criteria set out in the ADG. Accordingly residential design subject to the ADG in Waverley largely aims to meet the principles and objectives of the ADG, however adheres to the place-based guidance already provided in the Waverley Development Control Plan (WDCP), which has been developed over time to respond to the unique character of the place. A key example of this arises with building separation distances, which are unreasonably onerous in the Waverley area if the ADG setbacks are provided, however many residential flat buildings have suitable amenity with much smaller setbacks, and are better able to respond to the distinct character defined during the Inter-War development period.

It is important to acknowledge that the place-based approach which the EIE strongly advocates for, is more likely to be achieved in established areas by following the local council's development standards and controls, as these respond to the unique nature of place, which the ADG currently does not. Accordingly, a similar approach is supported: the principles and objectives are to remain strong and upheld, whilst there is to be flexible application of the design criteria using design guidance and council's controls to achieve the objectives.

Open Space Activation and Liveability

2. Public Space and 14. Impacts on Public Space

Whilst the requirement of no net loss of public space will protect against the replacement of public open space with private building forms, taking this requirement further and mandating a specified

increase in public space from the existing in particular areas based on dwelling capacity and proximity to public transport will better achieve the identified 'benefit' for 'precinct' scale development. This further measure will also facilitate adequate public space in areas that currently have very little, if any, for the "no net loss" to be calculated with.

4. Local Living

The intent behind the Local Living Matter is supported. In Waverley 90% of residents live within a 10 minute walk to a local centre that is able to provide access to essential goods and services, as identified in the Our Liveable Places Centres Strategy. It is important to note that a 20 minute walk is appropriate for able-bodied people, however it is important to consider those with movement impairments as well as carers of children by providing seating and pocketparks, and to ensure adequate shading and rest points on hot days

16. Activation and 15. Impacts on Vibrant Areas

A minimum non-residential activation on frontages of sites facing 'activity streets' is supported, as this aligns with the existing Active Street Frontages Local Environmental Plan clause that Waverley Council, and others currently have in place to encourage ground floor activation. Clarity in this *Matter* should be provided regarding the status of the 'activity streets', for example does this only relate to streets that are currently highly activated, or streets that are not currently activated but identified to have a future opportunity to be. To avoid confusion, an Active Street Frontages-style mapping method should be considered to identify these 'vibrant areas' in conjunction with Councils. The same clarification and coordination with Councils should be provided for identifying 'vibrant areas' used in *Matter* 15.

Accessibility

3. Connectivity

Links between green infrastructure including landscape corridors, recreational walking and cycling networks, and the network of public space are supported in theory, however, further information on what an appropriate connection comprises of should be provided.

12. Transport and Parking

Minimising car parking for the purpose of promoting alternative methods of travel is commended. 'Precinct' and 'significant' development should consider providing car parking based upon the findings of a *Parking and Traffic Report* prepared by a suitably qualified traffic engineer for the specific development site.

Housing

10. Density

The implementation of density ranges based on the location and transport access for 'precinct' and 'significant development' project scales is supported as a strong mechanism to reduce urban sprawl

and encourage compact urban development where services and infrastructure can accommodate it. The density range figures must consider the importance of open spaces and achieve a balance between providing enough housing on site whilst providing enough open space, both public and private, to combat the trend in floor space prioritisation occurring in higher densities areas near public transport hubs and strategic centres.

11. Housing Diversity and 19. Affordable Housing

A requirement to respond to the local housing strategy, local affordable housing scheme and the specific housing types and tenures appropriate for the demographic of the particular area is commended as the housing needs, challenges and opportunities will vary between the LGA's across urban areas within NSW, and a targeted individual approach can best address these factors. The correlating 'benefits' against the two *Matters* are already considered priorities for Waverley Council within current policy. The *Waverley Local Housing Strategy 2020 – 2036* seeks to increase the amount of affordable rental housing. The *Waverley Affordable Housing Contributions Scheme Planning Proposal* similarly seeks to increase the amount of affordable housing by way of proposing a 1% levy on all new residential apartment development, and supporting the minimum 10% levy for sites receiving uplift, calculated in accordance with the market value of residential floorspace around the time of the development.

Sustainability

6. Water Management

This *Matter* is supported overall and should be made relevant for all three development scale types. At a 'precinct' and 'significant development' scale the water quality improvement targets should be supported. At a smaller 'all other development' and lot scale, where the BASIX Water Index currently promotes water reuse through rainwater tanks and stormwater tanks for outdoor/indoor uses, the scalability of water management considerations to lot scale (e.g. use of raingardens) and implementation of water quality improvement targets should be made.

7. Green Infrastructure

The replacement of any moderate/significant trees with at least two trees or precinct DCP/council replacement rate, whichever is higher, should be introduced under this matter for all stages of development and all three scales of development. This *Matter* should also require diverse vegetation structure to support biodiversity, particularly in habitat corridors.

At a lot scale, BASIX currently rewards low water use and indigenous/native plant species. However, this is not resulting in the planting of appropriate large trees/shrubs for shading. Whilst Waverley Council officers strongly support the use of indigenous/native plant species, a focus should be developed to include:

- Developing large canopy trees and shrubs for shade/cooling.

- Developing dense shrub vegetation and other understory species to provide habitat for small bird species and improve biodiversity in urban areas.

See Section (iv) of Table 2 for more detail.

8. Resilience

At a 'precinct' scale there needs to be mandatory consideration of future climate warming for 2030/2050/2070 at a precinct scale. More information is to be provided on the Resilience Toolkit, and Waverley Council welcomes the opportunity to work with the DPIE to develop this.

Further information on the relationship between the Coastal Design Guidelines and Flood Plain Management Program is also required.

This Matter should be applied at a smaller 'all other development' lot scale too and consider the inclusion of a Thermal Safety provision, which could sit either in Principle 4 or 5. This would ensure high Thermal Safety standards are set e.g. BASIX Thermal Comfort cooling caps to ensure that community vulnerability to a warming climate is reduced. This will also result in buildings that minimise their reliance on mechanical cooling, are affordable to keep cool, and that will keep residents safe during a blackout.

17. Emissions and resource efficiency - Matter 17 is not supported in its current form.

Residential

See Section (i) of Table 2 for more detail in terms of residential development.

Commercial

The National Construction Code Section J was updated in 2019, which set much more stringent standards for commercial buildings. As part of the COAG's Energy Council's Trajectory for Low Energy Buildings, the energy efficiency requirements for commercial buildings are being strengthened in 2022, 2025, 2028 and every three years thereafter.

NABERS

It is unclear whether the Design & Place SEPP is advocating a separate pathway to this through NABERS. NABERS is built for use post-occupancy, i.e. after the DA stage. It should also be noted that common areas of apartments are assessed under the BASIX provisions.

NABERS is about measuring the ongoing performance of a building. Whilst Waverley Council supports NABERS as a rating tool for existing buildings, its use as part of a planning control is questionable. For example, if a building locks in a NABERS commitment agreement, the building could purchase Greenpower once operational in order to achieve the required NABERS star rating. This is allowing tradeoff between renewable energy and good building design/energy efficiency.

NABERS is, however, a useful tool for monitoring carbon emissions/water consumption in the existing building stock.

City of Sydney's net zero energy buildings performance standards

The City of Sydney has done a significant amount of modelling work with WSP and consultation with the building industry. Consideration should be given to the City of Sydney's net zero energy buildings performance standards for office, retail, hotels, mixed use and multi-unit residential development. In addition, Waverley Council officers have recommended a faster paced emissions reduction target trajectory outlined in Table 2, section (i) below.

18. Tree canopy

Waverley Council officers support this consideration. Support for the assessment and development of appropriate regulations to enable green roofs and walls in high-density neighborhoods will be needed. Clarity is also needed on the future role of the vegetation SEPP in this context. At a smaller 'all other development' lot scale, currently we are seeing reductions in canopy due to infill development and replacement of large trees with smaller trees. Incentives are needed for larger trees to be planted and stewarded on public and private land.

Urban Design and Heritage

1. Cultural and Built Heritage

The outcome of gaining greater clarity around the steps required for a well-considered response to character, place and culture is supported. The information included is thoroughly prepared on this *Matter* – there were no gaps apparent.

Frequent and ongoing use of a space reinforces a groups connection to the space. Beauty and character can act as an attractor – with economic benefits. There is additional benefit in elevating the purpose of design, ensuring that good design processes and 7 objectives of good design are followed, and addressing context, character and Country.

5. Street Design and 9. Fine-Grain Movement

The information provided in the EIE for these two *Matters* can only be meaningfully commented on once more detail has been provided with the exhibition of the draft Design and Place SEPP document.

13. Attractive Form

The importance of local character and attractive, comfortable human-scaled buildings and spaces is commended; however, more information is required to understand the implications of this *Matter*. Information on the interaction of *Local Character Statements* and this SEPP should be provided.

4. Supplementary Documentation

Revised Apartment Design Guide (ADG)

Amendments to SEPP 65, the ADG and associated transition do have some positive aspects. The increase to 70% cross ventilation is welcome, as is the increased time that Solar Access can be measured. More consideration of amenity of apartments in terms of acoustics, storage and access corridors is also supported. Despite this, there are a number of concerns.

The overall stated objectives of the Design and Place SEPP are provided in the introduction to the document, with the concerning identification of the Design and Place SEPP as the replacement of already established controls and guidelines with 'mandatory considerations'. This poses a potential threat whereby an applicant simply has to establish that they have 'considered' the SEPP not complied with it.

The introductory explanation indicates that all but the smallest elements of development in any growth area, regardless of location, will fall under the determination of remote advisory panels.

A pressing issue relates to the replacement of the existing SEPP 65 principles. The current SEPP 65 '9 principles of good design' relates to specific issues to do with design and are directly related to the Apartment Design Guide (ADG). The new 5 Design and Place SEPP principles replace the existing SEPP 65 principles but are not measurable or logical. It is strongly recommended that the existing SEPP 65 principles are retained for residential apartment development, in addition to the overarching Design & Place SEPP principles.

From a design perspective, other issues are detailed as follows:

- The scope of the new ADG is limited. The revision of this document provides opportunity to increase the scope of applicability and include a larger range of developments, such as boarding houses.
- The requirement to have 40% commercial space in all buildings in R4 and R3 zones is not appropriate in many areas that are uniquely residential. It must be linked to a commercial or retail strategy.
- The requirement to have max 8 units per floor in buildings over 9 storeys is also too restrictive. It depends on the design. The aim to reduce floor plates is good but it depends on the specificities of the site. The 30m setback rule for Towers is also too restrictive. Places like Bondi Junction would not be able to be developed and many centres will see this as stifling development.
- With no substantial or directed improvement for family living, the overall outcome is likely to be a reduction of 'fit for purpose' design where families are required to live in apartments. Requiring a dwelling mix, and minimum standards for children's play areas in any new apartment development may be useful starting points.
- The statement 'greater flexibility' should not provide a basis for lowering of standards.
- Weakening of deep soil provisions is a negative step and is strongly discouraged. This proposal is counter to the increased provision of canopy and deep soil identified elsewhere in the EIE.

- The removal of Part 5 from the ADG fails to address the real issue of delays; namely that understanding of requirements and / or failure to incorporate these is the real problem.
- Incorporating the ADG as 'matters for consideration' is not a strong enough application of the ADG to the assessment process. Combined with the other proposed weakening of criteria this could lead to a return to the poor designs that instigated SEPP65 in the first instance.
- Deletion of the number of design criteria can only be positive if a stronger overriding objective supportive by specific criteria is provided. That is not coming through in this document.

From a sustainability perspective, it is important for the ADG and BASIX to be in alignment. Waverley Council recommends that ideally all greenhouse gas reduction targets/commitments should sit within BASIX. Whilst the ADG should have guidance in relation to carbon that is consistent with BASIX, ideally all mandatory requirements would be clearly housed in the one tool.

BASIX is successfully delivering one of the only carbon reduction targets in Australia. It models greenhouse savings from technologies/design solutions for all new dwellings and major alterations and additions in NSW. Rather than mandating one action e.g. an energy consumption display in all apartments, it takes a metrics-based approach. If an energy educational display was included in BASIX, it would quantify the expected greenhouse gas savings from its installation. This would then show applicants the associated greenhouse savings from this action and give choice as to what actions applicants would find the most appropriate/cost effective in order to reach the BASIX Energy/greenhouse reduction target. This approach encourages evidenced based policy which results in a quantifiable benefit.

The BASIX tool packages design/technology choices into a clear list of conditions of consent. It marks clearly as to what sustainability requirements should be marked on the plan at DA and CC stage. Whilst education around these systems can always be strengthened, the development industry and Councils has been using this system since 2004 and are very familiar with this process. Keeping all sustainability-related requirements in one place is easier for applicants and councils alike.

A further strength of BASIX is that it keeps a record of all of the design decisions that a development makes and stores this data electronically. Recently, Waverley Council has accessed and reported on this data. It also allows the NSW Government to monitor the actual water/energy consumption of new dwellings post occupancy and also to report easily on the greenhouse/water savings for the State.

<u>Potentially the Thermal Comfort provisions for apartments could sit with the ADG.</u>

Currently the BASIX Thermal Comfort tool sets cooling and heating caps that apartments and houses must meet. There are two pathways for Thermal Comfort:

i) Simulation method

ii) Deemed to Satisfy (single dwellings only)

It may be practical that the requirements for Thermal Comfort for apartments sit within the ADG. This would then align design guidance around thermal comfort issues e.g. insulation, glazing, shading

requirements with the current ADG advice on solar gain and ventilation requirements. It would engage more architects in this process, which would have improved design outcomes.

New Urban Design Guide

The vagueness of the new Urban Design Guide makes it hard to provide any specific comments. The general direction that is intended for the Guide is supported, however the most meaningful feedback will come when a draft document is available.

The separation of the ADG and UDG makes sense to a certain extent. The Urban Design Guide will be most helpful for Planning Proposals, however the majority of developments within Waverley LGA are Development Applications for 'all other development', rendering the new UDG irrelevant because it is currently only proposed to be applicable for 'precinct' and 'significant development' project scales.

The Urban Design Guidelines are well intentioned, but they assume that all places are the same. All streets are to be of a certain width. This discourages innovation in Urban Design, such as a pedestrian-only centre proposed with a central car space and micro-mobility to dwellings. The future guidelines should not prevent new things from being envisaged. The opportunity to connect design that supports pedestrians and active transport with low-carbon precincts should be highlighted and strengthened.

Additionally, it should be highlighted that the approach used in BASIX could be used in the new Urban Design Guide when setting greenhouse policy on a precinct scale. The Department could:

- Set a benchmark
- Set a clear greenhouse gas and potable water reduction target
- Provides a framework which quantifies actual greenhouse gas/water savings at Precinct level
- Allow flexibility to meet target
- Allow government to set targets high enough that some outcomes will essentially be mandated

New Design Review Guide

Feedback received from Local Government on the matters of the new *Design Review Guide* (DRG) during the next exhibition of the draft Design and Place SEPP should be provided with great weight given the large impact that this Review Guide will have on the day to day processes of Development Assessment officers. As a draft *Design Review Guide* has not been made available at the time of writing this submission detailed feedback cannot be provided. Notwithstanding this, the listed aims and intents of the DRG and the inclusion of additional thresholds for design review are supported at this stage.

5. Sustainability in Residential Buildings

Overarching Sustainability and Resilience Comments

Without targets, it is hard to meaningfully comment on methodologies. The Principles should identify targets of the following form:

- **Principle 1 –** Targets or BASIX Index for embodied energy (ie retaining heritage buildings).
- **Principle 2 –** Targets of BASIX Index for Waste or circularity.
- **Principle 3 –** Targets or BASIX Index for transport (eg fuels gas? EV support?) or walkability.
- **Principle 4 –** Retain targets/Indices for Water mgt (onsite retention & reuse) add water quality, canopy, landscaped area and deep soil. Retain and strengthen existing BASIX thermal comfort, energy use. Greenhouse gas emission targets.
- **Principle 5 –** Requires place-based climate adjusted hazard data for bushfire, flood, coastal erosion. Could also include drought, SLR and thermal safety. Consider design life targets to promote adaptive designs.

It is extremely hard to comment on Resilience considerations with no information provided on proposed resilience guidance. Notwithstanding this, comments on this topic are provided in Table 1.

Table 1 – Waverley Council suggested Resilience-related inclusions and targets

Proposed Resilience Guidance Item from EIE	Suggested inclusions	Potential performance benchmarks or targets
Toolkit: to guide identification of risks to address resilience, and to assess compliance with the resilience priority, and requirements of the SEPP	• Requirements for design solutions based on future climatic condition, not historical data. • Examples of designs that manage increasing intensity and frequency of natural hazards expected to result from a warming climate. • Clear guidance on how vulnerabilities are identified and treated via applicant requirements (see next slide)	• NSW Govt endorsed place based (ie local scale) climate adjusted hazard data for bushfire, flood, coastal erosion. • Suggest include drought, SLR and thermal safety • Harmonise with resilient engineering standards on urban infrastructure eg roads and bridges, water management and energy supply (via State Infrastructure Strategy).
Strategic guide to planning for natural hazards in NSW : to inform the preparation of regional, district and local strategies and proposals to rezone land	Update and harmonization of existing hazard guidance, regulations, data and programs to include future climate conditions for • Floodplan Management • Bushfire Protection • Coastal Design • Drought Include Hazard mitigation in LEP and DCP guidance?	• Regularly revised hazard lines, data and metrics based on best available science • (Consider) Building Typology design life targets to promote adaptive designs based on place-based future hazards • Thresholds for “retreat, avoid, accommodate” adaptation responses

Resilience considerations should be spatial and temporal, and incorporated into requirements early, especially regarding applicant requirements. See Figure 1 for a draft worked example.

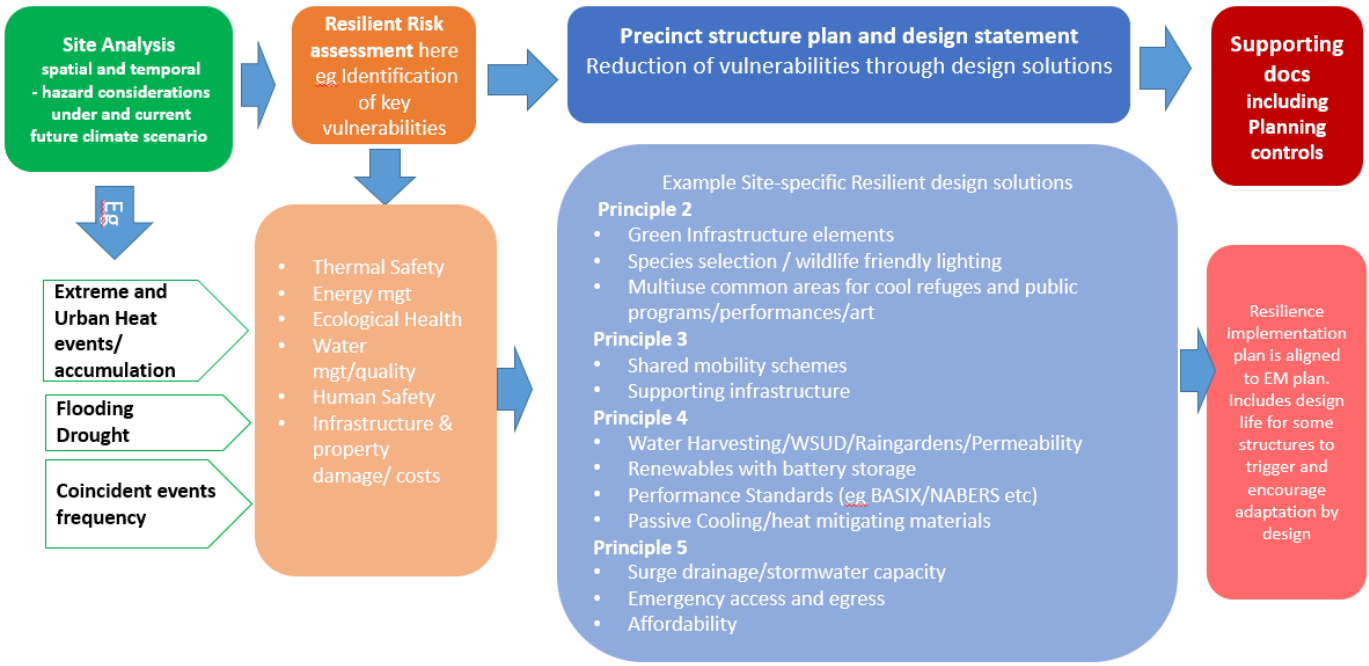

Figure 1 – Draft process of assessment of Resilience consideration through applicant requirements

With regards to meeting the Objects of the *Environmental Planning & Assessment Act 1979* (EP&A Act), the SEPP is expected to clearly and overtly target Object G - to promote good design and amenity of the built environment, through a method for design processes, design evaluation, and design review that is proportionate to the impacts and outcomes that contribute to a well-designed (healthy, responsive, integrated, resilient and equitable) built environment which includes inviting public spaces. Despite this, resilient design outcomes are poorly defined.

A principles-based SEPP may not meet all objectives of the EP&A Act. For example, '*Object (a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources'.* Assessment in the absence of monitoring of sustainability and resilience is insufficient to ensure ecologically sustainable development. Also, '*Object (h). proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,'* cannot be assured through better design alone. The SEPP should also consider existing development and how to increase resilience in established areas.

Proposed Changes to the BASIX SEPP

Table 2 below outlines key concerns on the proposed changes to the Building Sustainability Index (BASIX) SEPP proposed under the Design and Place SEPP.

Table 2 – Proposed improvements to BASIX and the Waverley Council response

Design & Place SEPP changes	Waverley Council comments
i) Sustainability targets that are currently embedded in the online BASIX tool will be included in the Design and Place SEPP - Staged and incremental increase in sustainability targets to enable industry to plan for future change and implementation in line with the NSW Government's Net Zero Plan. - By requiring development to contribute to the existing statewide, whole-of-economy target of 35 per cent reduction in construction and operational carbon emissions by 2030 (compared to 2005 levels) and setting future targets to achieve net zero emissions by 2050	**Supported with proposed variations.** Waverley Council supports both a rigorous review and update to the BASIX Tool as well as an increase in the sustainability targets. Waverley Council is advocating for BASIX Energy Targets and Thermal Comfort Targets to be strengthened and the BASIX Water Targets to be reviewed in light of updated climate data. <u>BASIX Energy & Thermal Comfort</u> *Background* As part of our recent *Future Proofing Residential Development to Climate Change study* (the Study), the sustainability performance of BASIX compliant building designs was modelled against future climate projections for the Eastern Sydney region for 2030 and 2070. Despite a relatively mild climate, all compliant dwellings in the Eastern Beaches failed the Thermal Comfort requirements for cooling by 2030, and by 2070 cooling loads increased on average 308% above the Baseline Year for all building types, based on modelling undertaken by WSP Global. This Study recommended that: — The climate files used in the NatHERS software referred to in BASIX are updated to ensure dwellings are designed to withstand future conditions. — Design modifications are investigated for different building types to guide the Thermal Comfort policy setting in BASIX under future climate scenarios. — The Thermal Comfort Heating and cooling load balance in BASIX is reviewed, in particular the cooling cap. — The BASIX heating and cooling calculations for Energy scoring are reviewed. — A review of BASIX Energy scoring targets and provisions for multi-unit developments be undertaken, so that the lower target scores for Energy these attract reflect the inherent efficiency advantages for dwellings in higher density developments while encouraging improved efficiency measures and peak demand reductions from both common areas and individual dwellings. <u>In Summary:</u> The key recommendation from the Future Proofing study is that NatHERS, BASIX or any other modelling tool eligible for use under the Design and Place SEPP <u>must be</u> grounded on future climate projections (e.g. 2030, 2050 or 2070) to ensure all residential & commercial development approved today is safe for our future, hotter climate. **Waverley Council is calling on the DPIE to ensure that the Design & Place SEPP requires the use of future climate files in both the NatHERS Software that BASIX references and the BASIX tool for the 2022 update.** If the NCC does not deliver future climate data in its 2022 NCC revision, Waverley Council is advocating for the NSW Government to lead the way.

Implementation mechanisms

There are two potential implementation mechanisms for updating climate data and ensuring that all NSW housing is built to withstand warmer temperatures.

Mechanism 1
The NSW Design & Place SEPP could require all NSW residential development through BASIX Thermal Comfort requirements to use a future climate scenario e.g. 2050 (*CSIRO RCP8.5 for Climate Zone 56)* in the NatHERS simulation assessment.

Notes: 1) It should be noted that the current BASIX Tool is using a NatHERS climate file of 1970-2004. This should be updated to a current climate file immediately, and provisions made for a future climate file for 2022.

2) this would require the BASIX Thermal Comfort Deemed-To-Satisfy provisions to be updated.

Mechanism 2
If NSW chooses to adhere to the national NCC framework in terms of climate data, then the NSW Government could set ***more appropriate cooling caps in BASIX Thermal Comfort based on future climate projection data***.

Either of these methodologies would ensure that houses in NSW are built to withstand the increasingly warm climate we are already experiencing.

Supporting evidence to increase the BASIX Energy Target for high-rise

i) BASIX buildings are retrofitting their common area lights within 3 years of being built, to a cost of $60k

Waverley Council has analysed a number of BASIX built high-rise buildings through the Building Futures program, a program which supports energy efficiency reductions in common areas. In these buildings, the current BASIX Energy target of 25 was not high enough to drive high performance lighting in common areas, with developers installing fluorescent lights with no lighting controls. It is a common finding that within five years of being built, high-rise buildings are retrofitting their common area lighting (carparks, fire stairs, hallways) (up to a cost of $60k) in order to save money for the Body Corporate. We are happy to share the energy audit reports of these examples with you.

Action: Waverley Council advocates for a rise in the high-rise Energy targets to drive the uptake of the most efficient lighting controls in common areas as well as other energy efficiency technologies, in order to deliver greenhouse emissions reductions as well as financial savings for body corporates.

ii) Future Proofing Study found that high-rise buildings find it easier to meet BASIX Thermal Comfort targets

The Future Proofing Study found that high-rise buildings have a natural advantage to meet their BASIX Thermal Comfort provisions, due to their inherent design characteristics (insulation from other apartments etc).

iii) All building types should contribute to government's Net Zero Plan

We support the NSW Government's Net Zero Plan by requiring development to contribute to the existing statewide, whole-of-economy target of 35% reduction in construction and operational carbon emissions by 2030 (compared to 2005 levels) and setting future targets to achieve net zero emissions by 2050.

Whilst achieving a 35% reduction in embodied carbon is challenging, achieving a > 35% reduction in operational carbon is not. **Currently single dwellings, low rise and mid-rise are already achieving a 35 – 50% reduction in operational carbon emissions through BASIX.** High-rise apartments are currently only achieving a 25% reduction in operational carbon emissions through BASIX. There is great opportunity for high-rise buildings to meet higher carbon reduction targets.

Waverley Council supports a more ambitious staged Energy target increase supporting our Community Greenhouse Gas Emission Reduction Targets for 2030 and 2050:

- BASIX Energy targets to BASIX 60 for single dwellings and BASIX 50 for all multi-units by 2022
- BASIX Energy 70 for single dwellings and BASIX 60 for multi units by 2025
- BASIX Energy 80 for all building types by 2030
- BASIX Energy 90 for all building types by 2035
- BASIX Energy 100 for all building types by 2040

Note: These target increases must be supported by:

- Upgrade the national greenhouse accounts (NGA) factors for the NSW electricity grid in BASIX; and
- Update future climate data in BASIX and NatHERS.

These BASIX Energy Targets are achievable by:

- increasing thermal comfort standards (through future climate data or increased BASIX Thermal Comfort/Safety cooling caps),
- delivering greater energy efficiency and the increasing improvement in energy efficiency technologies over time,
- phasing out of natural gas in line with NSW Government net zero policy,
- onsite solar PV
- offsite commitment to power purchasing agreements (potentially monitored through NABERS)
- the natural benefit to buildings as the grid 'greens' which will result when greenhouse coefficients for electricity are updated regularly.

BASIX Water

The *Future Proofing Residential Development to Climate Change* study recommends:

— That the BASIX tool is updated with climate data that more accurately represents the near-term and longer-term future drier climatic conditions that these buildings and their occupants will need to withstand. Eg. 2050 NarCLIM data.That the BASIX calculations are retained, reviewed and adjusted in relation to outdoor water consumption (particularly the landscaped irrigation assumptions) given the predicted shifts in rainfall and evaporation for NSW.

- Once the climate data is updated and the calculations are reviewed, further testing of different building examples is completed to ensure that all building types can meet the BASIX Water Targets.

		It is anticipated that when the climate data is updated in the BASIX tool, it may be challenging for some building types to reach the current BASIX Water targets without access to alternate water supply. The NSW Design & Place SEPP could require all new precincts in NSW to provide reticulated recycled water. Additionally, working to achieve this in existing brownfield sites should be a State priority. Through Waverley Council's Building Future's Program, we have witnessed examples of stormwater tanks connected to toilet flushing for high-rise apartment buildings. Whilst some buildings have had positive experiences, other buildings have had some issues. Moving towards larger scale stormwater reuse is something we will likely need to employ more of in the future. Whilst we support larger scale rainwater harvesting projects to be encouraged under the SEPP, all buildings that install a rainwater/stormwater tank connected to internal supply under BASIX should be subject to positive covenants with Council which covers compliance, maintenance and repair. We encourage the Department to survey buildings built under BASIX in relation to stormwater tanks and rainwater tanks, to ensure that systems are being correctly installed and maintained.
ii)	To promote consistency across the State, councils are currently not able to set their own higher or lower BASIX targets. This provision will continue to apply and is proposed to be transferred to the Design and Place SEPP. However, mechanisms to allow councils some flexibility in this area will be explored during development of the Design and Place SEPP.	**Support Councils requiring higher targets if the target trajectory does not meet their commitments under their LSPS** Mechanisms to allow Councils to set higher targets in low Carbon precincts Our Local Strategic Planning Statements (LSPS) gives effect to the two planning priorities from the Eastern Sydney District Plan. i) Reducing carbon emissions and managing energy, water and waste efficiently (Greater Sydney Region Plan Objectives 33, 34, 35) ii) Adapting to the impacts of urban and natural hazards and climate change (Greater Sydney Region Plan Objectives 36,37,38) The current BASIX targets limits our ability as local government to deliver on these commitments. One option to allow Councils to set higher targets would be: 1) Planning commitments in place Recognize Councils who have: • nominated low Carbon precincts to set higher BASIX Energy/Water targets in those areas; e.g. the Bondi Junction Green Infrastructure Masterplan; or • LSPS or Greater Sydney District Plans Higher targets could be administered through the BASIX tool on a postcode basis.
iii)	Provide more flexibility in the available assessment pathways to demonstrate a design meets sustainability	**Waverley Council does not support this.** Waverley Council notes that if alternative assessment pathways are introduced this may introduce: • a less/greater robustness in policy outcome depending on the tools implemented. • a less robust data set to allow NSW Government to report on sustainability outcomes.

performance requirements **C.2.1.1 An independent, merit assessment pathway** **C.2.1.2 Providing other assessment tools that 'plug in' to BASIX**	• A huge resource impost on Council's DA planners and • A high resource requirement to train and support staff managing multiple complex systems. If the Design and Place SEPP <u>does</u> introduce alternate pathways, the NSW Government must ensure that they: ○ are as robust (or better than) the current BASIX tool, ○ meet clear carbon/water reduction targets, ○ can quantify greenhouse/potable water savings, ○ are built for <u>all</u> residential building sectors, and ○ have the ability to capture and deliver data into the electronic planning system, to allow for the overall review and reporting of the BASIX greenhouse and water reduction targets and thermal comfort requirements. ○ Have a clear and well- resourced educational component and ***ongoing training*** for Council's DA planners and private certifiers. It is absolutely essential that there is accountability and transparency in the assessment process. It is our experience that there is a diverse range of skills within the NatHERS assessor community. We have had occasional instances of fraudulent certificates for certificates. However, we also have concerns about the resource impost of multiple tools. If the NSW Government decides to go ahead with 'plug in' assessment tools, Waverley Council strongly advocates that this assessment **must go through a non-Council process**, such as the NSW DPIE's BASIX Team for assessment, and not through Council's normal DA process. Council does not have the resources to deal with multiple systems. We also advocate for more resources on education and training regarding the primary tool - BASIX. The Future Proofing project identified that the building industry and DA planners still require more support (potentially via educational videos) to ensure DA and CC plans are accurately and consistently marked with BASIX commitments and NatHERS stamps/spec blocks. Additionally, under the BASIX SEPP the certifying authority is required to generate a BASIX Completion Receipt following the final inspection and prior to issuing a final occupation certificate. This process is not always being completed and requires resourcing and potentially linking to the e-planning system as a mandatory requirement.
iv) Align sustainability performance requirements with the principles of the Design and Place SEPP E.g. Expand BASIX to include: * embodied energy – the energy consumed in producing the materials	**Waverley Council officers do support this.** Waverley Council recommends revising the Thermal Comfort provisions to become a "Thermal Safety" provision, which could sit either in Principle 4 or 5. This would ensure higher Thermal Safety standards are set to ensure that *community vulnerability to a warming climate is reduced.* This will result in buildings that: • minimize their reliance on mechanical cooling, • reduce peak demand, • are affordable to keep cool, and • that will most importantly keep residents safe during a blackout. <u>Embodied energy</u>

for the construction of the home * green infrastructure – this includes lawns, tree cover and gardens that can cool the site, reduce the energy required for cooling, and retain stormwater * stormwater run-off – the volume of stormwater that leaves the site, which is impacted by the use of rainwater tanks and green infrastructure.		The BASIX Energy index is a greenhouse reduction policy which delivers <u>operational energy efficiency gains</u> for tenants and body corporates and operational carbon reductions. A target which reduces embodied carbon is supported, however it is recommended that it is handled in a separate index of BASIX e.g. A BASIX Materials index. **These targets should not be traded for operational carbon reductions**. It should be noted that measuring embodied carbon is inherently complicated and that including this index does not simplify the planning process. <u>Green infrastructure & Stormwater</u> The *Future Proofing Residential Development to Climate Change* project recommended that: • the BASIX calculations are reviewed in relation to outdoor water consumption in landscaping Additionally, it is Council's experience that BASIX promotes low water use/indigenous species, however it does not currently encourage shade trees for cooling benefit, or shrubs/ground covers to reduce urban heat loads. In the original conception of BASIX in 2004, it had a Stormwater Index. This could be a solution to implementing some of the green infrastructure / water quality objectives. For example, this could reward use of raingardens to improve stormwater quality or rainwater tanks for stormwater detention. It should be noted that rainwater tanks and stormwater tanks are recognized in BASIX Water Index from a potable water demand angle. More resources are required to ensure that small scale rainwater tanks are being fitted properly by plumbers and maintained by residents. A collaboration between DPIE, Sydney Water and Councils could help to address these challenges. There is also a strong connection between landscaping and stormwater management to resilience/ heat mitigation outcomes for urban environments. Recognising the benefits of landscaping in the BASIX Energy index would be potentially useful to encourage shade trees and ground covers to help mitigate urban heat, improve thermal safety and flood management. Melbourne City also has a Green Factor Tool, which scores urban heat island reduction, biodiversity, stormwater reduction, and other social indices. Developing a similar matrix for BASIX would be useful. Finally, ensuring that landscaping commitments are accurately delivered as part of the Occupation Certificate process is also important for DPIE to support through the provision of training and resources to certifiers.
v)	Measure and report on sustainability performance requirements in a consistent way to other jurisdictions	**Supported with variation.** Waverley Council strongly supports a well-resourced monitoring and evaluation component of the NSW Design & Place SEPP. As per the recommendations in the Future Proofing Study that called for the establishment of a monitoring & evaluation protocol that ensures that: — BASIX is reviewed and adapted on a regular basis — Utilities are required to monitor the energy and/or water consumption of BASIX dwellings to support robust data in BASIX

		— The BASIX methodology is published to allow for peer review
		— Ensure that revenue from the BASIX State Environmental Planning Policy (SEPP) is utilised for tool maintenance and enhancement
		
		Waverley Council would support:
		• a serious peer-review and major update of the BASIX tool for 2022
		• ongoing updates as per NSW Government published schedule, for example:
		  ○ minor updates every 6 months
		  ○ a 'moderate review' and upgrade every 2 years in line with target increases.
		  ○ A 'major review' every 5 years based on outcomes from monitoring and evaluation programs.
		
		The Design & Place SEPP/BASIX should continue to report on annual greenhouse gas emissions reductions and potable water reductions from the built environment and share this with its national and interstate counterparts.
		
		All components of the Design & Place SEPP e.g. the Apartment Design Guide & Urban Design Guide must be updated to the same schedule.

vi)	Improve customer experience in using tools	**Supported.** Waverley Council strongly supports an update to the existing BASIX website and help notes (as well as the BASIX calculations/policy/technologies). Council requests a better resourced education/training of BASIX to Council sustainability staff, DA planners, compliance staff, as well as industry professionals.
vii)	Promote innovation/recognize emerging technologies	**Supported with variation.** Waverley Council tentatively supports the update of the BASIX tool with new technologies, however, these technologies must be well established in the market place and have robust and independent studies (preferably by Universities) proving that these technologies meet the advertised greenhouse/water reduction targets.
viii)	Biannual tool update	**Supported.** See response to v) above
ix)	Transparency	**Recommendation.** Waverley Council is advocating for a detailed review of calculations and making the methodology publicly available to ensure transparency and to facilitate peer review. At BASIX's inception the methodology was published for a number of years, which developed trust with industry and government. Reporting on the amount of revenue raised by BASIX and the amount spent on maintenance would also show transparency and commitment to maintaining this important State policy.
x)	BASIX Plus	**Not supported.**

		Waverley Council does not support the development of a 'BASIX Plus' marketing tool. The current BASIX tool already recognizes best practice, it is understood that the higher the BASIX Score, the more energy/ water efficient the development is. E.g. a development that reaches a BASIX Energy Target of 80 is reducing it's greenhouse gas emissions by 80% compared to the NSW average benchmark from 2004. Consider investing in educational resources so users clearly understand the current system. A BASIX 100 development has reached net zero operational carbon (based on a 2004 benchmark).
xi)	BASIX benchmarks are reconfigured	**Not supported.** Waverley Council does not support the BASIX benchmark being reconfigured. The BASIX benchmark is an important framework in delivering a target-based greenhouse/water reduction scheme. Losing these would: • Reduce education around good design – without the quantification of carbon/water savings per technology/design feature – developers/building designers would not understand what actions contributed the most to greenhouse/water reduction. • Without the benchmark system, NSW Government will lose the ability to report on actual greenhouse/water savings for the State. Note: as the grid continues to green, and is eventually 100% renewable, then the BASIX Energy index could have a new benchmark based on energy consumed (MJ/person.year) to encourage energy efficiency. Waverley Council strongly advocates for keeping the existing benchmark framework. To achieve a higher greenhouse/water reduction target, then DPIE could both: • Increase the BASIX targets • Update climate data and National Greenhouse Accounts (NGA) factors for the NSW electricity grid.
xii) **C.2.1.3 Allowing a tailored approach for thermal comfort and energy performance**	Allow tradeoff between Thermal Comfort and Energy/Greenhouse gas emissions	**Not supported.** Waverley Council does not support the trade off between Thermal Comfort and Energy/Greenhouse gas emissions reductions in BASIX. From a Thermal Safety standard, it is essential that thermal comfort provisions are strengthened and met every time by developments. To reach net zero operational carbon (BASIX 100), buildings need to: • Achieve Thermal Comfort standards i.e. good building design + • Be energy efficient (i.e. lower carbon emissions and ongoing costs) + • Offset the remainder of their energy needs/carbon emissions with renewable energy (either onsite, through the greening of the grid, or at a last resort offsite PPAs).
xiii)	Alignment of BASIX with NSW Government's Net Zero targets.	**Supported.** Waverley Council supports the NSW Governments intention to update building and planning controls to align with the NSW Government's net zero targets.

xiv)	Future index - transport	**BASIX could be expanded to promote good urban design at a precinct scale by recognizing the greenhouse gas benefits of reducing our transport carbon footprint.** Whilst all of the ideas below are currently in Council's DCPs, the advantage of establishing a carbon reduction framework, benchmark and target is that it would allow the NSW Government and councils to report more easily on their transport planning policies. A new BASIX Transport index could set a target for % greenhouse reduction from travel, which could encourage: • Installation of EV charger in apartments and residences • Provision of bicycle storage and lockers in all residential development (this is not only an issue for apartments, but also townhouses/villas) • Provision of carshare facilities in large scale multi-unit developments • Recognition of development location to nearest amenity / village centre (i.e. walkability) • Recognition of development location to public transport • Supporting zero or low rates of car parking spaces in areas close to public transport, with consideration of: a. Access to frequent public transport services and; b. Inclusion of pickup/drop down spaces for residents within the development to cater for less mobile populations e.g. elderly, disabled, families with young children.
xv)	Future index Waste/ Materials	**Supported.** Develop a Waste/ Materials index in BASIX to: - Lock in best practice for waste & recycling storage areas and signage in common areas of all new residential development. Including: o General waste, recycling, less typical waste eg. Textiles/e-waste, bulky waste storage room, storage facilities, ease of access - Lock in best practice for waste vehicle collection access eg. Turning circles etc. - Lock in best practice for waste & recycling storage areas within kitchen design of all new residential development. - Promote organic waste diversion, through onsite or offsite solutions. - Promote recycled content of building materials eg. o Reused bricks in new developments o Recycled glass used in common outdoor areas/paved surfaces o Recycled wood/sustainably harvested timber o Recycled plastic o Recycled concrete o Recycled steel o E.g. could set a target that 10% of materials have recycled content during construction o Challenges – this would require third-party certification - Could be developed in line with other BASIX indices with metrics based on per capita waste/recycling targets either during construction or operation of building

xvi)	Recognizing conflicts in sustainability	Some conflicts already exist when delivering sustainable development. For example, a development may prioritise a roof garden and hence not have room for Solar PV. As sustainability indices are expanded within the Design & Place SEPP, some mechanisms need to be designed to cope with any conflicts of use of space to meet both water/energy/transport targets.
xvii)	Importance of focusing on existing houses	The BASIX Alterations and Additions policy needs to be reviewed and strengthened, as it is quite out of date. The Future Proofing Residential Development to Climate Change project has just completed a review of Alts & Adds in the Eastern Suburbs region. It provides some recommendations for a review and update, and calls on the Department to fund a more comprehensive review.

6. Waste

Waste management is a key aspect of sustainability which can make a substantial difference to the way places function. Sustainable waste management practices through design should be implemented as a consideration throughout the *Design and Place SEPP* and its accompanying documentation in accordance with Tables 3 and 4 as follows:

Table 3 – Waste considerations within the *Mandatory Matters for Consideration.*

Matter for Consideration	Waverley Council Comments
4. Local Living	By planning for waste storage and collection at back of house, there is no impediment of cycleways or pedestrian access. When bins are presented on the footpath, it most often leads to obstruction safety issues. Include precinct planning with mandated back of house waste collection where required.
5. Street Design	Ensure streetscape is designed with waste infrastructure storage and servicing planned for at the start to avoid impeding on pedestrian flow and connectivity (by keeping bins off the footpath) Offer incentives for voluntary planning agreements for shared waste storage/servicing access. This has huge benefits for the community as it may mean a reduction in roller doors at street level (for servicing truck access), improves amenity and saves space.
7. Green Infrastructure	Include principles from the *Circular Design Guide* as a requirement to facilitate product reuse, recycling, and cascading is recommended. Circular design includes: material selection, standardised components, designed-to-last products, design for easy end-of-life sorting, separation or reuse of products and materials, and design-for-manufacturing criteria that take into account possible useful applications of by-products and wastes.
8. Resilience	Incorporate sustainably sourced materials that have longevity and resilience to climate change.
10. Density	Waste servicing in dense communities is challenging, particularly for on-site collection. Often private contractors are engaged as they have smaller vehicles

	which allows for a nicer building design with smaller truck access opening, however this is not desirable as it means an increase in truck movements (carbon emissions) and costs to our community. Controls around waste servicing particularly at a precinct level are recommended.
17. Emissions and Resource Efficiency	Currently there is limited data for measuring waste management efficiency. NABERS exists for office spaces only. There should be best practices targets for waste management. For example: • Minimise the generation of unnecessary waste. • Maintain principles of circular economy and reduce waste sent to landfill. • Design for source separation of waste at the point of generation at all stages of development. • Ensure all residents and businesses have access to recycling and reuse systems • Minimise collection vehicle movements

Table 4 – Waste considerations within the revised Apartment Design Guide

ADG Matter	Waverley Council Comments
Best Practice	Best practice waste management needs to be incorporated into the ADG, but it is less clear what best practice refers to. Providing best practice guidelines that have meaningful information to draw from is key.
Potential Waste Targets and Measures	For the environmental assessment (Part 5), *waste management* (4W) is listed as the measure, however waste management is tricky to measure, and requires design targets for apartment buildings for waste management (as none currently exist). The purpose of these targets is to: 1. Minimise the generation of unnecessary waste. 2. Maintain principles of circular economy and reduce waste sent to landfill. 3. Design for source separation of waste at the point of generation at all stages of development. 4. Ensure all residents and businesses have access to recycling and reuse systems 5. Minimise collection vehicle movements
Design Criterion	Similar to *design criterion will require development applications to demonstrate, through a landscape maintenance plan, how green infrastructure including tree canopy and green cover, in deep soil and on structures, will be maintained and sustained over the life of a building,* introducing a design criterion for (1) waste circularity in construction and (2) waste minimisation, (3) responsible waste management post-construction that includes as a minimum: *Waste circularity in construction:* 1. Include sustainable, ethically made, and locally sourced materials in the building materials (A materials schedule could be put forth as suggested in the draft SEPP page A25)

	2. Include recycled content in building materials including any road surfaces 3. Include repairability of materials 4. Report carbon footprint of materials *Waste minimisation in design:* 1. Allow for space to recover problem wastes (e.g. textiles, electronic waste, etc) 2. Allow for space to store all waste and recycling and other wastes generated 3. Design waste storage rooms to ensure residential waste is stored separately to non-residential waste *Waste Management post-construction:* 1. Location of all waste and recycling storage areas. 2. Responsibilities for cleaning bins, transporting bins to the nominated collection point, cleaning of storage areas and booking and transporting bulky waste for Council pick up must be outlined in contracts with the building manager, cleaners and tenants. 3. Directions for cleaning and maintaining the waste storage areas and bins 4. Signage placement to identify different bin types, where to place bulky household waste and problem waste 5. Bin placement to ensure recycling bins are placed alongside the general waste bins for ease of access and to encourage recycling habits. 6. Measures to ensure that all waste and recycling bins do not remain on public land for extended periods 7. The occupant/body corporate must have one copy of the Waste Management Plan and make this available upon request. 8. Details of ongoing waste management strategy are to be documented within the Waste Management Plan and updated (for example every 5 years or when a change occurs)
Design Criteria	The proposed design criteria (Table A8) for waste management, states "Provide new design guidance: waste facilities for residential and non-residential uses to be separated" In general councils already require separate waste storage rooms for residential vs non-residential waste. To truly improve waste management, increase recycling and circular economy principles, the New Design Guide could incorporate many other principles that align with the NSW 20 Year Waste Strategy and circular economy principles. Referring to best practice (stated earlier) and including the *Circular Design Guide* as a requirement to facilitate product reuse, recycling, and cascading is recommended. Circular design includes: material selection, standardised components, designed-to-last products, design for easy end-of-life sorting, separation or reuse of products and materials, and design-for-manufacturing criteria that take into account possible useful applications of by-products and wastes.

Missing Waste-Related Information

1. Ensure links to legislation, policy and strategic direction are clearly laid out, for example:

    a. Link to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (the Codes SEPP) – to offer approval processes for Recycling Equipment and Facilities.
    b. Link to Infrastructure SEPP – to ensure planning for waste facilities is made available to local councils while transportation to the facilities are optimised to reduce the environmental and social impacts.
    c. NSW 20 Year Waste Strategy (to be released this year).
    d. Relevant legislation, e.g. Protection of the Environment Operations Act 1997.

2. Waste data: This summary in Figure 2 below outlines some of the data sources and rational for waste measures that could be employed.

Key jurisdiction-wide waste data collection pathways, requiring the implementation of classification systems	Primary purposes / end-uses of the information
• Annual Survey of Local Government (waste and resource recovery) • Monthly reporting by licensed waste facilities in the Regulated Area (SMA, ERA and RRA)[5] • Annual reporting by licensed waste facilities in non-regulated areas • All data from household Chemical Cleanout program • Transport certification data on Controlled Hazardous Waste • Several reprocessing industry surveys for select material categories in C&I and C&D waste streams (part-funded or undertaken on behalf of OEH) • Litter survey (undertaken by Keep Australia Beautiful)	Primary reasons for data collection: • Payment of landfill levy under section 88 of the *Protection of the Environment Operations Act 1997* (POEO Act) • Demonstrating compliance with the conditions of an environment protection licence under Schedule 1 of the POEO Act • Tracking hazardous waste within NSW and interstate in accordance with *Movement of Controlled Waste NEPM* • Reporting against NSW *Waste Avoidance and Resource Recovery (WARR) Strategy* performance indicators in 4 key result areas • *WARR Act* requirements for Extended Producer Responsibility Priority Statements • Requirements of the NEPM for used packaging materials Key waste data published for legislative requirements : • Two-yearly (approx.) report on progress of NSW *Waste Avoidance & Resource Recovery Strategy*, reported in four key result areas: - Resource Recovery - Waste Prevention & Avoidance - Toxicity - Litter & illegal dumping • Extended Producer Responsibility Priority Statements (as required)

Figure 2 Data Sources and Waste Measures (source: Hyder, Waste Classification in Australia, 2011).

3. Resources and Decision making tools: For example, The Material Circularity Indicator (MCI) tool allows companies to review products to rigorously measure the circularity of material flows for selected products.

7. Designing for Country

In the first instance, the voice of Aboriginal people must be enshrined in the preamble of the constitution. The statement from the Heart must become something we are all a party to. The Makarrata, or coming together after a struggle, is a truth telling exercise which is what we need if we

are to confront the past and move forward together as a nation. Then we can start to think about what it means for planning.

with the principle of connecting and design for Country is welcomed and strongly supported, however it is difficult to understand how the Design and Place SEPP will facilitate engaging meaningfully with an Aboriginal community that is fractured, sparse and over solicited. In the experience of Waverley Council officers, Aboriginal communities decide what knowledge is to be shared with whom and in what time frame. Building the relationship is takes involvement and time – a larger investment usually than the timeframe of most projects.

Waverley Council officers imagine that 'to **prioritise country**' is a kind of environmental respect for natural systems, protecting fragile ecosystems and guarding against natural disasters, maybe even encouraging traditional Aboriginal Land Management methods. It is respect for sacred places that are part of the dreamtime, the everywhen. The places of ritual, women's places, men's places, the songlines and web of connections across the continent. It is a whole world view and vast area of knowledge that is only accessible to Aboriginal people, and is vastly removed from a Western planning system. Inclusion of the Connecting to and Designing for Country frameworks in the proposed SEPP is strongly supported, however these principles must be championed by State-led developments and precincts as well. Indeed, in some situations the meaningful consideration of Country may require an adjustment to a Strategic Plan to better incorporate more appropriate land management methods or to accommodate and respect places of significance.

As a Nation, we have not stopped destroying aboriginal Culture and Country since 1788. Since 2016, over 400 applications to impact or harm Aboriginal Heritage sites in NSW have been approved by the NSW Government. 100% of Aboriginal Heritage impact permits have been given formal approval. This was confirmed by Minister Don Harwin at Budget estimates on 25th February 2021.

For the planning, design and developer community to be able to design for Country and engage meaningfully with the Aboriginal community, the State will need to facilitate the engagement process so that the appropriate knowledge and Custodians are involved from the beginning of a strategy or project.

8. Design Skills

The requirement for suitably qualified and experienced design professionals to be designing developments that are three or more storeys, open space over 1000 m2, and precincts and significant development is highly praised. The proposed minimum design skill requirements are expected to increase accountability and better achieve a superior design of the built environment where a project is likely to have a high impact on the environment or community due to its scale or future population.

The introduction of a requirement for involved leading planners to hold minimum qualifications for the same larger developments is recommended too, to ensure that all key professionals involved with a substantial project are adequately suited to provide the best outcome possible. Suitable leading planners should be required to hold tertiary qualifications in a planning related degree and be a full Planning Institute of Australia member.

A minimum experience requirement for both leading designers and planners for these larger developments is also suggested. This may be by way of demonstrating experience on a project of a similar scale in a similar urban context.

9. Application Requirements

The implementation of minimum application requirements is supported; however, they should be further detailed to ensure that they are consistently applied. An example of each of the four application requirements, including a site analysis, a precinct structure plan, a design statement, and precinct planning supporting documents should be provided in the SEPP to ensure that the quality of each document is consistent.

10. Transitional Provisions

Waverley Council officers note that the EIE specifically asks for feedback on the lead time required by stakeholders for the components of this SEPP to inform the making of the identified transitional provisions. For Waverley this means the time needed to "ensure appropriate skills are in place to meet the assessment requirements under the SEPP". This would largely involve briefing Strategic Planning, Urban Design, Development Assessment, and Sustainability officers on the requirements of any new SEPP and undertake a detailed analysis on key impacts for the Waverley area. In addition, Council would brief the Design Excellence Panel and the Local Planning Panel to ensure a complete understanding of any proposed new framework. Waverley Council officers ask that a timeframe of 3 months is provided to arrange for this.