Nature Conservation Council
The voice for nature in NSW

Urban Density Policy, 2020

Purpose: The purpose of the following principles is to provide a framework for NCC members to assess the desirability of proposed housing developments, which increase urban density. While it is generally accepted that green field, detached housing urban sprawl has an adverse impact on our environment, not all medium, high or infill density development is good either.

The NCC policy position proposed is that **we should not accept increased density development unless there is a net benefit to both our natural and our social environments.**

Principles

1. **Urban sprawl:** The NCC recognises that low density housing development often results in urban sprawl, land reshaping and clearing, which is highly destructive of native vegetation, habitat, natural drainage and biodiversity. Development of increased density is capable of an improved (increased) conservation outcome provided appropriate conditions are applied and a net biodiversity gain can be demonstrated.

2. **Remnant vegetation:** NCC recognises that within existing, older low-density suburban housing developments there can be remnant vegetation and ecosystems which should not be destroyed and should be respected when designing sites for redevelopment to a higher density.

3. **Green spaces and corridors:** NCC recognises that medium density housing, as well as industrial and commercial development sites, if well designed, can contribute to providing increased land for green spaces, not only for active and passive recreation, but importantly also to provide wildlife corridor links, improved habitat for native animals, birds, reptiles and insects, and protection of riparian zones

4. **Greenhouse gas emissions:** The NCC recognises that medium density housing when combined with transport oriented design (TOD) and investment in public transport and active travel infrastructure (regional and local bikeways and footpaths) should reduce car dependence and avoid the use of resources for car manufacture and large expanses of paved surfaces, as well as reduce greenhouse gas emissions from concrete and bitumen production and fossil fuel powered vehicles.

5. **Community participation:** Recognise that all development, including medium density, should aim to have the support of the community and be planned with the community in a participatory and meaningful way with properly considered options and commitment to sustainability.

6. **Medium Density Requirements:** To provide a benefit, medium density housing, factory, commercial and institutional developments, must:

- Result in land being set aside for conservation. Land saved from development should be protected and the conservation lands resources for ongoing protection.
- Result in more green space provided for recreation and habitat in close proximity to the development than would result from the development of an equivalent number of low-density residences (Land acquisition may be required to provide the green space).
- Be supported by frequent and readily accessible, safe, public and active transport infrastructure along shady, tree lined and logical routes;
- Be of a high standard of passive solar design.
- Adhere to the principles of biophilic design including that no building should be higher than a tree which is capable of growing on the site and surrounding terrain, to a maximum height of 25m (8 storeys).
- Respect the integrity of the landscape and not alter levels to a degree where the landform and its landscape character is changed.
- Result in strategically planned and managed urban tree canopy cover (also known as Urban Forest) that provides optimum liveability for its community.
- Achieve an Urban Tree canopy coverage of 40%[1] excluding green roofs and 50% when green roofs are included.
- The urban forest population, when not comprising a naturally occurring ecological community, will be composed of no more than 5% of one tree species, no more than 10% of one genus and no more than 20% of any one family[2].
- Maintain or improve native urban ecology and biodiversity to provide healthy ecosystems.
- Existing nature corridors are maintained and connected to existing remnant habitat
- Not encroach on existing National Parks and Nature Reserves
- Does not involve excavation that will compromise the root zone of surrounding trees

Application to commercial and industrial estates

- Commercial and industrial estates often cover large areas and have a record of reduced canopy cover, therefore new industrial, commercial and bulky goods retails outlets should meet 40% canopy cover requirements and have green roofs and/or solar PVs, and rainwater tanks mandated.

Application to hospitals and schools

- Hospitals and schools (both public and private) are locations where connection to nature is highly beneficial. All new schools, hospitals and major renovations should meet the highest standards of biophilic design to maximise learning and wellness, in addition to achieving 40% canopy cover onsite.

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[1] Current City of Melbourne target by 2040.
https://www.melbourne.vic.gov.au/community/greening-the-city/urban-forest/Pages/urban-forest-strategy.aspx
(City of Sydney target is 27.13% by 2050, Greater Sydney Commission aspirational target is 40%)a
https://www.greater.sydney/metropolis-of-three-cities/sustainability/city-its-landscape/urban-tree-canopy-cover-increased

[2] Current City of Melbourne target.
https://www.melbourne.vic.gov.au/community/greening-the-city/urban-forest/Pages/urban-forest-strategy.aspx

Conclusion

The NCC can support the development of sites with well-designed medium density housing, industrial, commercial and institutional buildings, provided that it

1. facilitates the conservation of natural areas and biodiversity;
2. is supported by public transport, cycling and walking infrastructure;
3. adheres to the principles of biophilic design (including having a maximum height of 8 storeys),
4. attains an urban forest canopy cover of 40% on site, and
5. is supported by the local community after genuine and informed community consultation.

Urban Density Policy

As Agreed :: NCC Annual Conference 31st October 2020

Definitions:

Urban development: Typically, low density residential and urban development originated in 'the quarter acre block' and more recently has seen lot sizes of 450m² to 800m²; typified by single and two storey dwellings with a dwelling density of 6 – 15 dwellings per hectare.

Medium-density housing is residential development that is at higher densities than standard low-density suburban subdivisions. In Australia the density of standard suburban residential areas has traditionally been between 6-15 dwellings per hectare. Medium density housing can range from about 25 to 80 dwellings per hectare, though most commonly the density is between 30 and 40 dwellings/hectare. Such developments may consist of detached, semi-detached, terraced housing, townhouses or multi-unit housing.

High density housing: Typically has a density of 100 dwellings per hectare or more. High density is not always high rise. Paris neighbourhoods of classic apartment buildings have a net density of approx. 225 dwellings per hectare.

Low rise: A low-rise building is commonly described as a multi unit structure whose architectural height is below 35 meters (12 storeys), and which is divided at regular intervals into occupiable levels. It encompasses all regular multi-story buildings which are enclosed, which are below the height of a high-rise, and which are not entirely underground[3]. Classic low rise are more usually 6 – 8 storeys such as that found in the classic cityscapes of Paris (see below).

High Rise: A high-rise building is a structure whose architectural height is between 35 and 100 meters[4]. A structure is automatically listed as a high-rise when it has a minimum of 12 floors, whether or not the height is known. If it has fewer than 40 floors and the height is unknown, it is also classified automatically as a high-rise.

Biophilic design: Biophilia is defined as the inherent human inclination to affiliate with nature. Biophilic design, an extension of biophilia, incorporates natural materials, natural light, vegetation, nature views and other experiences of the natural world into the modern built environment (see example picture below).

[3] Emporis.com

[4] Emporis.com

Document history

Document Issued 21 April 2020 - with approval by NCC Planning Group – for NCC Executive support

V7 - Revised by Don White 15 May 2020 - to give effect to comments from NCC Executive in April + condense text and tighten up

V8 For NCC Annual Conference - with changes incorporated