Submission Cover Sheet

Nature in Our City

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The ACT Young Planners welcome the ACT Government’s initiative in setting a direction on how Canberra values, protects and grows the important ecosystem in our growing city.

Canberra, like cities all around the world is facing a plethora of challenges and opportunities, including significant population growth, climate change, loss of habitat and the urban heat island effect.

The United Nations Sustainable Development Goal 11.7 aims to “provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities” by 2030.

For many years our growing and sprawling city has built over our natural environment. Whilst it is recognised that this growth has also facilitated new water systems and greenery, more needs to be done to protect and increase the city’s green and blue infrastructure. Great cities harmonise the pressures of urbanisation with living infrastructure, and acknowledge that no matter how large a city grows, there must always be a place for nature in our city.

This submission highlights the significance of green and blue infrastructure in Canberra and how it affects our people, environment, economy and health. We note that quality infrastructure is not limited to large scale projects, but can also be found in small well-considered spaces.

Please note that the views expressed are those of the ACT Young Planners Division of the Planning Institute of Australia (PIA) and do not necessarily represent National PIA.
People/

Human interaction
Providing high-quality green and blue infrastructure in our cities, such as open space, water bodies and vegetation has a huge positive impact on individuals and communities. It creates both formal and informal opportunities for people to gather, socialise, play and be active, and in turn helps to build a sense of community and belonging. It also offers opportunities for people who may not normally interact to come together, and help develop social ties and community cohesion. This is particularly useful in areas of high deprivation and for groups in society who are more vulnerable to social exclusion, such as older and younger people, ethnic minorities and people with disabilities.

The ACT Government’s ‘Mingle’ community development program demonstrates the use of green infrastructure in new suburbs for enabling social connections with events often centring on a local park or playground.

Open space
As Canberra’s built-form densifies, levels of private open space can be as small as 6m². As such, it is even more vital to provide sufficient shared open space for people to use and enjoy. It should be strategically and equitably located and integrated into our cities for people to easily access. Green space can be located on the roofs of buildings, as traditional parks and playgrounds, or on either side of a walking track.

Safety
The presence of well-considered green and blue infrastructure which draws people outside has a secondary benefit of providing passive surveillance for the community. This creates safer environments and helps builds an active and vibrant day and night life for cities.

Environment/

Reducing adverse environmental conditions
Trees with widespread canopies provide ‘windshields’ to our streets, particularly in the CBD and other areas with tall buildings. Unlike concrete walls, trees maintain ventilation throughout their canopy while blocking strong breezes at the human-scale, making cities much more desirable places to be.

Trees provide shade to the urban environment, significantly cooling our cities and reducing the urban heat island effect caused by vast areas of non-pervious grey infrastructure such as roads and buildings. Importantly, green, blue and grey infrastructure can and should work harmoniously together. For instance, a rain garden can act as a buffer between a road and a foopath, or a living green facade can cool a building whilst providing natural air-filtration and good visual amenity.

Wildlife
The most iconic blue infrastructure of the Canberra is Lake Burley Griffin which blends into the heart of the city. Indeed, the importance of blue infrastructure is not only to be a signature statement or landmark, but also to deliver the ecological needs of a city. Lake Burley Griffin accommodates numerous forms of life including birds, fishes and vegetation. Well designed infrastructure such as Lake Burley Griffin has shown that infrastructure can serve more than one purpose, that is, an important natural asset, and a place for recreation and hosting national events.
Health/

Reduce illness

Quality and accessible public open space helps lower the incidence of preventable noncommunicable diseases, such as type 2 diabetes, obesity, cardiovascular diseases, mental illness and cancer and is seen as a preventative and efficient way to treat these conditions. As urban dwellers are often subject to high stress levels, open space can help reduce the likelihood and levels of illness.

Health and wellbeing

Access to green space can stimulate the development of gross and fine motor skills as well as cognitive, emotional, social and physical development in children. Public open space is increasingly called on to fill this role for urban-dwelling children as parts of our city moves towards highrise living.

Older people can find it very difficult to maintain moderate levels of physical activity. Therefore providing green spaces that encourage people of all ages to be active, such as shade, seating and public toilets, is important for physical and mental public health.

Neighbourhoods which offer a variety of quality, aesthetically pleasing green spaces combined with access to urban destinations increase the walkability which makes outdoor activity easy and enjoyable for people of all ages, encouraging active lifestyles and facilitating mental and physical wellbeing.

Quality open space encourages physical activity

Protecting wildlife habitats
Economy/

Water
Stormwater management strategies that aim to mimic natural hydrological cycles within existing reticulation networks has the potential to reduce the significant costs faced by local government associated with stormwater management.

Water sensitive urban design such as permeable pavement, bioretention systems, and urban water traps, can slow the speed at which water passes through the whole system, reducing wear and tear and in turn reducing upkeep costs.

Apart from network costs, water sensitive urban design also raises the quality of water as it moves through the system. It can remove refuse, sediments, and other foreign contaminants that lowers the cost of end of cycle water treatment. It can also reduce the overall volume of water that reaches the end of the cycle and therefore reduces the volume of water that requires treatment.

When these various forms of green infrastructure work together, they can yield significant cost reductions on an ongoing basis for local government.

Energy
There is great potential to change the way we draw on our energy grid and to lower the overall amount of energy that we draw from it. The benefits of this would be enjoyed by local government and energy producers, but particularly by the community at large.

Green infrastructure that aids in the insulation of buildings such as green walls and rooftop gardens can reduce the intensity of fluctuations in a building's daily energy needs – smoothing the peaks and troughs of the cycle. Catering for these highs and lows in the energy system adds significant network costs to the energy system, and these costs are generally passed on to consumers.

Greening the way we manage and treat stormwater towards a more passive system as discussed earlier can also result in lower energy overheads. When there is less treatment, less water pumping, and less storage required, this can lead to energy savings for the cost of running the whole system.

Health
Heathy cities mean healthy people. Significant economic costs are borne by the healthcare system for illness and disease associated with contaminated water and air, as well as the urban heat island effect.

Green infrastructure can enhance the quality of the water we drink, it can minimise our reliance on pollution intensive energy production, and it can reduce the urban heat island effect, this in turn, would have a positive impact on the overall health of the population.
Recommendations

That the ACT Government:

1. review existing waste water management strategies and broader green infrastructure policies, ensuring that best practise is being applied, and is consistent with the Territory’s move towards zero net carbon.

2. plans for the location and linkages of core green and blue infrastructure before the built form, ensuring that people can easily access and connect with quality open space.

3. works towards better informing the public on the value and importance of green and blue infrastructure in our cities. To improve public participation in caring for our natural environment, and to encourage citizen-led 'greening' initiatives in their own communities.

4. legislates minimum requirements for greenery in all new developments. For example, City of Toronto Green Roof Bylaw.