OFFICE OF THE COMMISSIONER FOR SUSTAINABILITY AND THE ENVIRONMENT

To whom it may concern

Standing Committee on Education and Community Inclusion – Inquiry into the management of ACT school infrastructure

The Office of the Commissioner for Sustainability and the Environment encourages decision making that facilitates ecologically sustainable development for the ACT. As such, this submission to the Inquiry into the management of ACT school infrastructure focusses on the Terms of Reference point *g) the environmental sustainability of school infrastructure and facilities.*

Schools provide a unique opportunity for the implementation of sustainability measures within the ACT. This is because i) schools serve critical roles within communities and are distributed across the Territory, ii) schools occupy a large property footprint and require ongoing capital works and iii) Canberra's children and young people are deeply invested in a sustainable future and culture for our city.

While aspects of the ACT public school system have already embraced elements of sustainability and showcased initiatives, sustainability has not been implemented at a systems-level across the ACT public school system.

Water sensitive urban design

Schools with a predominance of hard surfaces such a concrete footpaths, quadrangles and play areas contribute to water runoff issues into the stormwater system. The rapid runoff of water from hard, compared to porous, surfaces acts to contaminate waterways. Leaves and grass clippings, fertilizers and rubbish enter the ACT's waterways during rainfall events.

Water sensitive urban design (WSUD) provides a planning approach that minimise runoff into the waterways and reduces potential contaminants entering the system. This planning should be implemented into new school developments and upgrades, such as for example the North Ainslie Primary School senior oval redesign.

Opportunities

1. Implement maximum hard surface limits to school exterior environments in new school developments.
2. Encourage WSUD principles in exterior capital works and maintenance in existing schools.

Water efficiency

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The Canberra region is likely to experience increased water scarcity in the future, due to a combination of climate change impacts on rainfall and evaporation patterns, and population growth. Schools use accounts for a significant proportion of the potable water supply in the ACT.

Opportunities

3. Mandate installation of rainwater tanks for all external water use, including irrigation.
4. Encourage installation of rainwater tanks for non-potable internal usage such as toilet flushing.
5. Mandate installation of minimum 4-star water efficient appliances whenever these are replaced or in new buildings.

Living infrastructure

Schools provide an ideal location for increasing Canberra's living infrastructure and canopy cover. The ACT's Living Infrastructure Plan aims to provide a means of climate change adaptation, increase the connectivity of green infrastructure across Canberra, enhances biodiversity, reduces air pollution, and improves urban amenity. At the local level, increases in living infrastructure provides numerous co-benefits for children and educators.

Living infrastructure should be increased in schools through projects such as the forest classroom at Lyneham Primary School or the community-Majura Primary School micro-forest project.

Opportunities

6. Develop a dedicated living infrastructure plan for ACT school environments.

Energy, heating, cooling and thermal efficiency

The electrification of schools is critically important for reducing schools' greenhouse gas emission contributions and improving efficiency. In addition, older school buildings are under-equipped for maintaining thermal efficiency, including through insulation, double glazing and window treatments and cooling attachments.

Opportunities

7. Ensure that all heating and cooling system installations and upgrades are electric.
8. Mandate that all schools install rooftop solar, with arrays sufficient for in-school use.
9. Prioritise thermal efficiency upgrades to schools, including ceiling and wall insultation, double glazing or window treatments.

Waste avoidance and management

The generation of waste places pressure on the environment, from the resource used in production and transport of materials, the land required for disposal and management to avoid further land contamination. Consumption has a significant impact on the

environment, and when waste materials are not reused, recycled or used efficiently, an opportunity for contributing to the circular economy is lost.

Waste reduction and management requires concerted programs and resourcing to be effective.

Opportunities

10. Implement waste management systems in all schools, including support for soft plastic, food and organics, co-mingled recycling and e-waste streams.
11. Encourage on-site recycling of food and organic waste.
12. Discourage on-site provision of single use plastics

Low embodied carbon

Construction and build materials are a major contribution to the ACT's greenhouse gas emissions as scope 3 (or embodied emissions). While the electrification and thermal efficiency upgrades of schools reduce scope 1 and scope 2 greenhouse gas emissions, embodied carbon should also be considered in infrastructure decision-making.

Opportunities

13. Consider embodied emissions in school building works and material selection, including scope 3 caps.
14. Implement sustainable procurement policies for IT infrastructure (emphasising, for example recycled materials and net zero content).

Climate-ready design

The Black Summer of 2019-2020 demonstrated that aspects of the ACT are maladapted for current levels of global warming and their impacts on Canberra. The buildings at the proposed Throsby School (due for 2022 opening) must provide an environment conducive to learning under further warming and associate increases in the frequency and severity of extreme weather and climate events.

Opportunities

15. Develop an ACT public school system-wide climate adaptation plan for increasing temperatures and potential compound events such as smoke and hydrologically changes.

Sustainable travel

These comments also pertain to Terms of Reference point *h) the adequacy of parking and bike storage facilities*. Active travel offers a range of benefits to staff and students in additional sustainability outcomes

Opportunities

16. Ensure fit-for-purpose storage facilities for bikes, scooters and skateboards (secure, accessible, weather-proof, adequate space).
17. Consider future needs of charging points for electric vehicles in new developments and upgrades.

Thanks for your consideration. Please do not hesitate to contact me if you have any queries.

Yours sincerely

Dr Sophie Lewis
Commissioner for Sustainability and the Environment

13 May 2021