

Director, Planning Frameworks
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

31 January 2018

Dear Sir or Madam

**Submission on the State Environmental Planning Policy
(Environment) 2017 Explanation of Intended Effect**

Stormwater NSW is the preeminent professional urban water management association in the state. We are a peak industry associated with membership including the majority of councils in the Greater Sydney Region, as well as numerous consulting and manufacturing companies.

We have over 500 corporate, institutional, government and individual members drawn from the engineering, planning, landscape architecture, environmental management, economic management, water resource management, education and community engagement sectors.

Stormwater NSW is supported by the national association Stormwater Australia and a strong network of state associations in Queensland, Victoria, South Australia and Western Australia.

Stormwater NSW welcomes this opportunity to contribute to the *State Environmental Planning Policy (Environment) Explanation of Intended Effect* (referred to as SEPP (Environment) hereafter). This submission focuses on issues of greatest concern to Stormwater NSW and its members and is not a comprehensive review of all elements of the proposed SEPP (Environment). Lack of comment on other elements of the proposed SEPP (Environment) does not imply support of those elements by Stormwater NSW.

The opportunity to comment on the SEPP (Environment) must be the first step of the consultative process. This same consultative process should also be followed when the actual SEPP (Environment) policy and accompanying documentation, specifically the Ministerial Directions are drafted.

The stated purpose of the SEPP (Environment) is to promote the protection and improvement of key environmental assets for their intrinsic value and the social and economic benefits they provide. When combined with the NSW government's "commitment to delivering sustainable growth and balancing the need for economic growth, employment opportunities and investment in infrastructure to support social and community wellbeing" as stated in the purpose of the SEPP (Environment) (page 7), the purpose of the SEPP (Environment) is to be delivered within the paradigm of ecologically sustainable development.

The stated aims of the new SEPP include to not just to maintain, but to **improve** environmental protections. Objective 25 of the SEPP currently states that "the coast and waterways are protected and healthier". We believe that this is a significant opportunity to seize with regards to improving stormwater management outcomes in NSW through key changes to the SEPP.

Stormwater transports the majority of gross pollutants, suspended solids, nutrient, heavy metals to receiving waters, impacting on the health and ecology of these waterways. Urbanisation converts natural land use to land use with impervious surfaces, which increases the volume and velocity of runoff. Impervious surfaces, particularly those with direct piped connection to streams, are a dominant factor

that causes the hydrology of waterways to dramatically change. (Jones and MacDonald 2007, Perryman, Rees et al. 2011)

Urban streams are stressed physically, chemically and biologically because the hydrology has changed from the natural state. The risks posed by stormwater to aquatic ecosystems include: shortening lag time resulting in floods that peak more rapidly, shorter duration of floods, increases in frequency and magnitude of peak flows, channel deepening, widening, straightening from erosion, simplification of stream habitat, reduced water quality and biotic diversity, increased nutrient and pollutant inputs, sedimentation problems, increased export of nitrogen from urban streams, and lower biotic production. (Walsh, Roy et al. 2005, Paul and Meyer 2008, Perryman, Rees et al. 2011, Chin 2013, Roni, Pess et al. 2013)

Drafting the SEPP (Environment) is a landmark opportunity for the New South Wales Government to include stormwater quality and quantity targets in a state planning policy. Out of the five mainland Australian State Capitals, Sydney (NSW) is the only one that has not developed planning policy at the state level supporting WSUD. (Choi and McIlrath 2017).

This opportunity is consistent with the Greater Sydney Commission's whole of city approach to government planning for the growth of Sydney. The Commission has identified a series of Sustainability Priorities within its Regional and District Plan, including:

- Sustainability Priority 1: Maintain and improve water quality and waterway health.*
- Sustainability Priority 2: Protect and conserve the values of Sydney Harbour.*
- Sustainability Priority 3: Enhance access to Sydney Harbour foreshore and waterways.*
- Sustainability Priority 4: Managing coastal landscapes*
- Sustainability Priority 5: Protecting and enhancing biodiversity*
- Sustainability Priority 6: Avoid and minimise impacts on biodiversity.*

Priority one “**Maintain and improve water quality and waterway health**”, specifically advocates the adoption of a risk based approach to target an objective setting for waterways. Specifically, the Draft Central District Plan, states:

The Office of Environment and Heritage and the Environment Protection Authority have developed a risk-based framework to assist decisions that maintain, improve or restore water quality in the strategic planning process to help meet the NSW Water Quality and River Flow Objectives.

Despite the lack of leadership from the New South Wales Government in managing diffuse source pollution, the majority of councils in Sydney have stormwater quality and quantity targets within their Development Control Plans. As a result, the implementation of WSUD in New South Wales is inconsistent.

As stated in the Gazetted Georges River Estuary Coastal Zone Management Plan (Georges River Estuary CZMP), changes to the hydrological flow regime of the estuary (through increased runoff due to urbanisation of the catchment) are likely to have led to a morphological response by the river channel. The water quality of the Georges River has been affected notably by a range of anthropogenic factors, for example, urbanisation of the catchment has contributed greatly to pollutant loadings and poor water quality in the estuary. This is particularly important in areas where urban stormwater flows into sensitive and/or natural waterways. Flow regimes are considered to be equally important to water quality in determining the level of ecosystem health of streams and wetlands in urban areas. Georges River Estuary CZMP estimates that 95% of the total contaminant load to the Georges River and Botany Bay

estuary is now derived from stormwater runoff. (SMCMA 2011, GRCCC Inc. 2013) These impacts are exacerbated in the more highly urbanised Parramatta and Cooks River catchments.

The Botany Bay Water Quality Improvement Plan (BBWQIP), written by the Sydney Metropolitan Catchment Management Authority (SMCMA), is an agreed Plan that builds on research and engagement undertaken as part of the Botany Bay Water Quality Improvement Program, to provide direction to future land use and water quality management decisions in the Botany Bay Catchment. (SMCMA 2011) The BBWQIP makes specific stormwater recommendations for the New South Wales Government to take, and has defined stormwater targets for new urban developments within the Botany Bay catchment (Table 1).

Table 1: Stormwater reduction targets for urban development from the BBWQIP

Stormwater Pollutant	Greenfield development and large redevelopment	Multi-unit, commercial industrial and small redevelopment
Gross Pollutant	90%	90%
Total Suspended Solids	85%	80%
Total Phosphorus	60%	55%
Total Nitrogen	45%	40%

(SMCMA 2011)

The New South Wales Government has the opportunity when drafting the SEPP (Environment) to improve the waterways in New South Wales to set the overarching WSUD standards with a mandatory framework and to create improved synergies between the SEPP (Environment), SEPP (Vegetation), SEPP (Coastal Management) and SEPP (Bushland). (Choi and McIlrath 2017) This should recognise that urban stormwater runoff is a key impact degrading the quality of urban bushland.

If you have any questions on the above comments, please contact Stormwater NSW on 9744 5252.

Yours sincerely



Rebecca Bell

President – Stormwater NSW

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