

Stormwater Scheme Principles

Sydney Water’s Operating Licence sets out what services can be delivered and how they are to be charged. For monopoly services, fees and charges are determined by the Independent Pricing and Regulatory Tribunal (IPART). IPART’s determinations can set fixed fees or a methodology for setting charges. They can also specify associated procedural requirements associated with those charges.

Sydney Water’s Development Servicing Plans (DSP) provide the details of infrastructure and costs of the Stormwater Scheme, and the contributions required to deliver these works. The method and process to estimate and levy these contributions is set in accordance with the most recent IPART determination - *Developer charges and backlog sewerage charges for metropolitan water agencies Sydney Water, Hunter Water and Central Coast Council, Final Determination, IPART October 2018*. This determination sets out how Sydney Water must develop, calculate, publicly exhibit, and register infrastructure contributions in a DSP before charging for connection to services. The determination methodology and process relate to all new connections to Sydney Water systems, not just trunk drainage.

Infrastructure charges for local and state government who deliver growth area drainage along with other community infrastructure, have been under review by the Department of Planning and Environment (DPE), IPART and the NSW Productivity Commission. IPART as part of its review included a principles approach, shown below at Figure 4, for infrastructure contributions based on the principles of: **Reasonableness, Nexus and Accountability**. In addition, IPART recommended objectives to underpin the infrastructure contributions system to ensure that they deliver the public infrastructure required to support development, by striving to be: **Certain, Consistent, Efficient, Transparent, Simple**. Sydney Water’s principles for Stormwater Schemes have been developed with consideration of IPART’s Infrastructure Charges recommendations.

Policy requirements

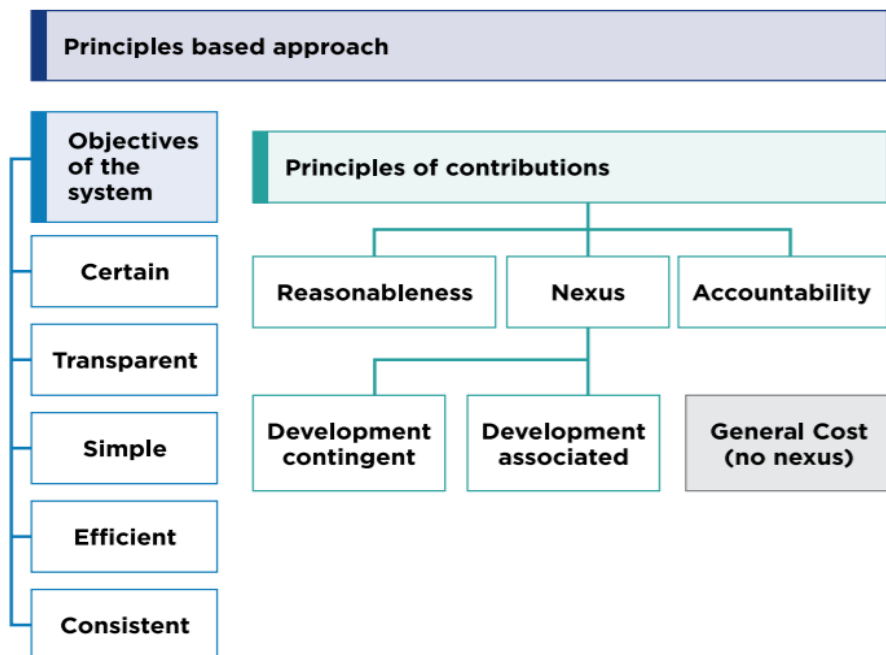


Figure 4 IPART policy requirements (DPIE, 2021). Source: *Infrastructure Contributions Practice Note Review*.

In addition to IPART's review, Sydney Water has considered several other stormwater specific sources to develop principles:

- Infrastructure Contributions Practice Note Review Policy Paper, Department of Planning, Industry and Environment, October 2021
- Review of the essential works list, nexus, efficient design and benchmark costs for local infrastructure, Draft Report, IPART October 2021
- Draft Benchmarking Items and Costing Methodology - Benchmark Costs for Local Infrastructure prepared for IPART, Cardno, October 2021
- Review of Infrastructure Contributions in New South Wales, NSW Productivity Commission, November 2020
- Principles for Provision of Waterway and Drainage Services for Urban Growth, Melbourne Water, 2005

In considering drainage within Integrated Water Cycle Management Strategies for the Aerotropolis and Mamre Road Precincts, Sydney Water has developed the following principles to assist the development industry with understanding Sydney Water's role and application of stormwater schemes. The principles are designed to provide an integrated solution to drainage, waterway and stormwater quality works including:

- Adoption of an integrated catchment approach to stormwater management.
- User based pricing, full cost recovery and removal of cross subsidies that are not consistent with efficient and effective services.
- Environmental requirements based on the best available scientific information.
- Protection of waterway health and biodiversity values.
- Recognition, respect, and protection of cultural values along waterways.

The principles are designed to meet the IPART principles approach described earlier in a way that leads to positive social, economic, and environmental outcomes.

In June-July 2022, Sydney Water undertook a public exhibition of a draft version of the principles to government agencies, councils, development industry, landholders, first nations representatives and the general public. Feedback has been incorporated into the current principles.

Sydney Water's principles for Stormwater Schemes within the precincts and ultimately DSP must be considered in the context of the following definitions.

Definitions

Stormwater Scheme: details the level of planning of the regional stormwater and drainage network within the declared stormwater drainage areas and is the basis for determining DSP contributions. It consists of functional designs for Sydney Water drainage assets, including pipelines, overland flow paths, retarding basins, waterways, wetlands, and gross pollution traps (GPT) and identification of land to be set aside for these purposes. It ensures that appropriate standards for flood protection and environmental performance are met, including protection and enhancement of waterway, biodiversity, and cultural values.

Development Servicing Plan (DSP): provides the details of infrastructure and costs of the Stormwater scheme and the contributions required. The method and process to estimate and levy these contributions are set in accordance with *Developer charges and backlog sewerage charges for metropolitan water agencies Sydney Water, Hunter Water and Central Coast Council*, Final Determination, IPART October 2018.

Declared Stormwater Drainage Area: this is the area where Sydney Water can charge customers a stormwater charge, and developers a contribution under the DSP. In the Aerotropolis area, the declared catchments are aligned to the precinct borders and were declared 18 March 2022 under the Sydney Water (Stormwater Drainage Areas) Order 2011. The maps can be viewed on the [NSW legislation website](#).

Trunk Drainage: Stormwater assets, typically open natural trunk drainage channels, wetlands and storage ponds. In the precincts, these assets commence where stormwater catchments are equal to or greater than 15 hectares within a declared area. The purpose of a trunk drainage system is to collect, control and convey stormwater runoff resulting from development. A trunk drainage system is sized adequately to receive stormwater run-off from a catchment area, prevent overflowing and causing damage to property or loss of life.

State Environmental Planning Policy (SEPP): A SEPP is a statutory planning instrument made by the Minister for Planning and which can be issues-based or place-based. SEPPs may contain provisions for structure planning or precinct planning – a type of planning applied to a specific geographic area, as well as core development controls, including requirements for integrated water cycle management.

Development Control Plan (DCP): provides detailed planning and design guidelines to support the planning controls in the relevant SEPP or local environmental plan.

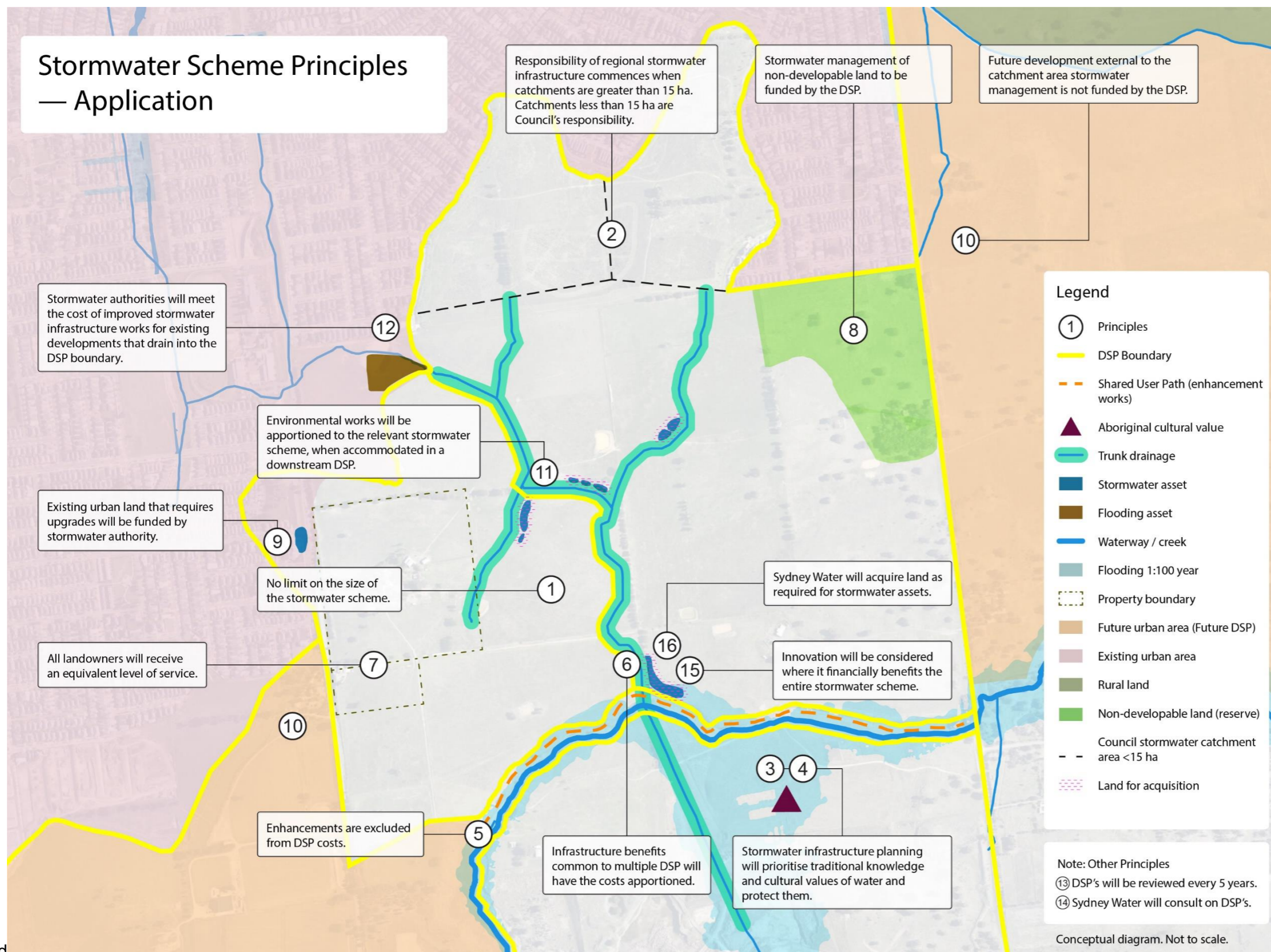
Local Infrastructure Contributions (LIC): are developer contributions charged by councils for local infrastructure such as drainage, roads, open space and community facilities. Contributions may be applied as a charge per dwelling or per square metre of gross floor area or as a percentage levy of the capital cost of the proposed development. There is no overlap or duplication between LICs and Sydney Water DSP charges.

Western Parkland City Stormwater Scheme Principles

Principle	Description/Comments	Application – ‘how to’
<p>1 There shall be no formal limit on the size of the stormwater scheme.</p> <p><i>Nexus, Simple</i> (Principle, Objective)</p>	<p>The size of stormwater schemes will vary and should be directly related to the drainage characteristics of all the land being considered for development.</p> <p>The stormwater scheme and design are informed by the engineering requirements and any waterway health targets to help facilitate development in an economical manner.</p> <p>The stormwater schemes are governed by nexus between contributing properties. infrastructure provision and sufficient scale to maintain simplicity in administration (not too many DSPs to administer) and stability in the charges (the larger the stormwater scheme, the more stable the charges).</p>	<p>Each stormwater scheme must have clear catchment boundaries, so the application to land and cost (including infrastructure) is defined in DSPs.</p>
<p>2 Stormwater schemes will be planned to service all land within the declared catchment and provide trunk drainage to service catchments greater than 15ha.</p> <p><i>Accountability, Transparent</i></p>	<p>Stormwater infrastructure will be identified by Sydney Water to service catchments greater than approximately 15ha. Sydney Water will develop Development Servicing Plans (DSP) in consultation with developers and landowners to administer the proposed stormwater scheme.</p> <p>Council will remain responsible for drainage infrastructure within catchments less than 15 ha and local network feeding into trunk drainage within the declared catchment.</p> <p>The catchment boundary is the proposed interface between Sydney Water DSP funding and Council LIC (or other) funding of infrastructure and is defined in the stormwater scheme.</p>	<p>Drainage is a network and requires Council and Sydney Water to work together.</p> <p>Clear boundaries to drainage infrastructure between Council and Sydney Water should be agreed across both parties for construction, operation, and maintenance.</p> <p>Infrastructure that Council requires to be completed and funded as part of LIC will not be included in the DSP (and vice versa).</p>
<p>3 Stormwater schemes will be planned to recognise and celebrate water on Country.</p> <p><i>Reasonableness, Transparent</i></p>	<p>Sydney Water will prioritise traditional knowledge and values of water within drainage infrastructure planning.</p>	<p>Work with First Peoples Traditional Custodians to understand needs relating to access and cultural connections to water, and opportunities to care for and revitalise Country. This work will help to build a system wide approach that contributes to a site-based approach in principle 4.</p>
<p>4 Stormwater schemes will be planned to consider, respect, and protect cultural values, along trunk drainage and within waterways.</p> <p><i>Reasonableness, Consistent</i></p>	<p>Sydney Water will include protection and interpretation of cultural values within the stormwater schemes.</p>	<p>Work with First Peoples Traditional Custodians and Registered Aboriginal Parties to identify cultural values of Country as they relate to drainage systems/works within stormwater schemes to ensure they are respected and protected.</p> <p>Cultural values must be managed across design, construction, and maintenance stages so Sydney Water and developers can deliver appropriate infrastructure.</p>
<p>5 Stormwater schemes should propose infrastructure to service development that is efficient in terms of cost and performance.</p> <p><i>Accountability, Efficient</i></p>	<p>Stormwater scheme design should propose infrastructure that achieve the minimum standards and are efficient in terms of cost and performance, while protecting cultural, environmental, and other waterway values.</p> <p>Ensuring infrastructure is efficient is a central part of any precinct planning process. Capital construction costs and operation and maintenance costs are considered in this. Efficient infrastructure not only reflects minimum applicable standards, but also meets community needs and provides value for money.</p> <p>All lots within the stormwater scheme are required to comply for the DSP to be cost effective.</p> <p>Stormwater scheme costs include allowances for design, delivery management and administration.</p>	<p>Requirements for minimum standards for the stormwater scheme will be established through the DSP, DCP and guidance material from Sydney Water.</p> <p>Stormwater scheme costs and reimbursement of infrastructure works will be based on the minimum standards. This may be moderated by actual costs to deliver compliance works.</p> <p>Enhancement works (recreation improvement works e.g., shared user path) beyond the required minimum standards undertaken by developers will not be funded by the DSP.</p>

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<p>6 Infrastructure benefits common to more than one stormwater scheme will have the cost apportioned.</p> <p><i>Nexus, Transparent</i></p>	<p>The cost of infrastructure servicing multiple DSP’s will be apportioned based on capacity share. This infrastructure may be sited in different locations but will be apportioned according to the benefits derived across the stormwater scheme.</p> <p>Recycled water capture system costs should be apportioned between stormwater schemes.</p>	<p>Where infrastructure works (recycled water, drainage water collection and treatment) are to be funded by the DSP, clarity on how costs are being apportioned must be provided and shared appropriately.</p>
<p>7 All landowners will receive an equivalent level of service.</p> <p><i>Reasonableness, Consistent</i></p>	<p>Sydney Water are committed to productive engagement with landowners within stormwater schemes regarding drainage.</p> <p>Owners of large lots will receive an equivalent level of service to smaller lots with appropriate drainage works based on engineering judgement.</p>	<p>Sydney Water acknowledges that there are many authorities involved in the drainage infrastructure planning process. We are committed to working with other authorities to resolve matters as they arise, where appropriate.</p> <p>The adopted Level of Service which stormwater schemes are operating within must be defined by DPE (for waterway health and requirements achieved).</p>
<p>8 Infrastructure designed to accommodate run-off from non-developable land within the stormwater scheme boundary will be funded by Development Services Plan</p> <p><i>Reasonableness, Transparent</i></p>	<p>Non-developable land includes:</p> <ul style="list-style-type: none"> – Existing reserves and conservation areas – Flood plains – Existing roads – Other land types not zoned for development. <p>As non-developable land forms part of the drainage system, costs associated with upgrades for the purpose of the stormwater scheme can be included in a DSP.</p>	<p>Stormwater schemes must consider infrastructure works required to service whole of catchment, with costs spread over the developed or developable area, only. Non developable land will not be required to pay contributions associated with the DSP.</p>
<p>9 Stormwater scheme infrastructure required to service existing urban land within the scheme will not be funded by the Development Services Plan.</p> <p><i>General cost (no nexus), Consistent</i></p>	<p>Sydney Water or Council will meet costs related to existing urban land based on area of responsibility.</p>	<p>Mapping out existing developed areas, regardless of their current level of required drainage, should be undertaken to inform decision making. Existing development has already funded drainage infrastructure works. Improvements or change to achieve current standards is the responsibly of the stormwater authority.</p> <p>DSP contributions should not be used to fund work to service existing urban land.</p>
<p>10 Infrastructure to service future development external to the stormwater scheme will not be funded by the Development Services Plan.</p> <p><i>Nexus, Consistent</i></p>	<p>Upstream modified existing or future flows, outside the stormwater scheme do not have a nexus to development and therefore are not required to be funded by the DSP.</p> <p>Upsizing to cater for upstream modified flows should be funded as part of existing development or future DSPs, as appropriate.</p>	<p>The cost of servicing upstream conditions should be determined by Sydney Water and allocated to the upstream DSP.</p> <p>Future urban development will prepare a DSP at the time of development.</p>

Stormwater Scheme Principles — Application



Principle	Description/Comments	Application – ‘how to’
<p>11 Environmental works downstream of stormwater schemes will be funded where upstream development is the cause of the problem.</p> <p><i>Nexus, Transparent</i></p>	<p>The cost of environmental works downstream of a stormwater scheme that has a nexus with the upstream stormwater scheme, will be apportioned to the upstream DSP.</p> <p>Environmental improvement works of downstream waterways ‘declared drainage areas’, will be apportioned the impact of development not general improvement.</p>	<p>The cost of servicing an upstream catchment in a downstream DSP must be determined and allocated to the appropriate DSP or stormwater authority.</p> <p>General environmental management of waterways is not included in the DSP.</p>
<p>12 Sydney Water or the local council will meet the cost of improved stormwater infrastructure works for existing development.</p> <p><i>General cost (no nexus), Consistent</i></p>	<p>Sydney Water or the local council will meet the additional costs incurred in the DSP to increase the standard of drainage protection, water quality and waterway values for existing development (where DSP doesn’t apply), to the required minimum standard within the DSP.</p> <p>These costs will not be included in the DSP.</p>	<p>The DSP will be costed to achieve the minimum standard. In partially developed areas if standards change, which increase costs, the DSP must only cover the cost to achieve the new standard for future development. The developed areas are regarded as ‘existing development’ in accordance with Principle 9.</p>
<p>13 Development Servicing Plans and associated stormwater schemes will be reviewed at least once every five years.</p> <p><i>Accountability, Transparent</i></p>	<p>DSP’s will be reviewed to ensure the contribution rate reflects the actual costs of servicing development. This is required of Sydney Water in accordance with their Operating Licence as they must review levy charges according to IPART’s pricing and infrastructure contributions determinations at least once every five years.</p> <p>Stormwater schemes will have engineering and environmental reviews at least once every five years, to ensure current standards are being met.</p>	<p>DSP reviews will be initiated by Sydney Water as part of a program of regular technical review.</p> <p>Sydney Water will engage with the development industry as part of each DSP review.</p>
<p>14 A robust consultation process will govern the creation of stormwater schemes.</p> <p><i>Accountability, Transparent</i></p>	<p>Sydney Water will consult with industry, landowners, and other interested parties, and public exhibition prior to registering infrastructure contributions in DSP’s.</p> <p>Consultation will be done in accordance with their obligations set by IPART.</p>	<p>The drainage infrastructure planning should include engagement with all landowners, council, and other interested parties.</p> <p>Key issues relate to the location of major infrastructure assets within each stormwater scheme which will impact developable land and yield of various landowners.</p>
<p>15 Development Servicing Plans may be adjusted for innovative works that benefit the entire stormwater scheme.</p> <p><i>Reasonableness, Efficient</i></p>	<p>Sydney Water will reward innovation by developers or proponents that financially benefit the stormwater scheme (capital and operational costs).</p> <p>The reward or reduction in DSP contribution may be based on the saving to the entire stormwater scheme.</p>	<p>All innovation proposals are subject to assessment and approval by Sydney Water. This includes the feasibility of any solutions on a long-term operating perspective as well as the integration to existing decision making for a stormwater scheme.</p> <p>Where a developer creates an integrated solution, which is more efficient than the stormwater scheme and achieves beyond the minimum standards, the benefits may be shared with the developer.</p> <p>This benefit should consist of the proportion of savings divided over the external area serviced by the infrastructure works and costed in the DSP.</p> <p>Sydney Water are working to develop guidance on this Principle.</p>
<p>16 Stormwater schemes will include property acquisition costs consistent with NSW Government standards and practices.</p> <p><i>Reasonableness, Simple</i></p>	<p>For a consistent and predictable approach to property acquisition for stormwater scheme pricing purposes Sydney Water will:</p> <ul style="list-style-type: none"> – Include acquisition costs in DSP’s where the land is required for Sydney Water stormwater infrastructure. – Assess the property acquisition requirements on a site-by-site basis to determine suitable outcomes for all parties (i.e. not all land for infrastructure works may be acquired). - Value the land in line with the Australian Property Institute valuations standards. 	<p>Sydney Water will comply with NSW Government Property acquisition standards and principles.</p> <p>Property valuations will be completed by a qualified, registered valuer and in line with the Australian Property Institute valuation standards.</p> <p>The basis on which land may be gifted to Sydney Water as the regional stormwater authority must be clearly defined and captured in the approval process under the <i>Sydney Water Act 1994</i>.</p>