OWNER	Planning & Sustainability
IMPLEMENTATION	Adopted 5 May 2020 (PS04-05/20)
REVIEWED	Quadrennial
REVIEW	5 May 2027

STRUCTURE

The Policy is divided into two parts, with an attached Schedule:

Part 1: Policy Operation, which includes the policy context and objectives.
Part 2: Policy Provisions, outlining the requirements that apply to planning proposals at each stage in the planning and development process.
Schedule 1: Outlines the extent of investigations required for sites with low, medium and high risk site conditions.
Schedule 2: Outlines the policies and documents that relate to this LPP.

PART 1

POLICY OPERATION

Policy Development

This Policy has been prepared under Part 2 (Division 2) of the City of Wanneroo District Planning Scheme No. 2 (DPS 2) Deemed Provisions.

Purpose and Application

The purpose of this Policy is to ensure planning and development within the City of Wanneroo optimises the use and management of water resources (including rainwater, stormwater, groundwater, drinking water and wastewater) consistent with *State Planning Policy 2.9: Water Resources* (WAPC, 2006) and *Better Urban Water Management* (WAPC, 2008).

The Policy sets out the water related documentation required at each stage in the planning and development process, including:

- Scheme Amendments;
- District Structure Plans;
- Local Structure Plans;
- Subdivision Applications; and
- Development Applications.

This Policy applies to all planning proposals for Residential, Commercial, Industrial or Rural zoning, subdivision or development within the City of Wanneroo. This policy shall also apply to activities, works, services and programs conducted by the City.

Definitions

For the purpose of interpreting this Policy, all terms shall have the same meaning given to them under DPS 2.

Ground disturbing activities means land clearing, stockpiling and sand extraction (i.e. cut and fill).

Useable Public Open Space means areas that are not subject to regular stormwater inundation and are defined by the top water levels for key critical storm events in accordance with City of Wanneroo's *Local Planning Policy 4.3 Public Open Space* and *Liveable Neighbourhoods* (WAPC, 2009).

Objectives

The Policy Objectives are to:-

1. Integrate water and land use planning by considering water sources early in the planning and development process.

2. Achieve catchment specific environmental criteria, and thereby deliver better water management outcomes for the catchments within the City.

3. Achieve total water cycle management outcomes via the structure plan, subdivision and development approvals processes.

4. Implement Water Sensitive Urban Design (WSUD) principles and best management practices for all planning proposals and City operations. The following WSUD principles (in order of priority) adapted from *Stormwater Management Manual for Western Australia* (DoW, 2004 – 2007) must be applied for all new development proposals as well as City operational projects and activities:

    a) Provide protection to life and property from flooding that would occur in events up to a 1% Annual Exceedance Probability (AEP) event.
    b) Manage runoff from small rainfall events on-site or as close to the source as possible.
    c) Retain and restore existing elements of the natural drainage system, including waterway, wetland and groundwater features, regimes and processes, and integrate these elements into the urban landscape.
    d) Protect and enhance sensitive receiving environments.
    e) Minimise pollutant inputs.
    f) Increase water use efficiency and reduce potable water demand.
    g) Achieve good urban liveability and amenity.

h) Reduce urban temperatures, runoff volumes, and peak flow rates and improve water quality, biodiversity and aesthetics by managing stormwater through the retention and planting of vegetation and mimicking natural hydrological processes.

5. Improve water quality within the City and ensure the protection and management of sensitive environments.

6. Ensure all development connects to scheme water and reticulated sewerage (if available) and is in accordance with the *Government Sewerage Policy* (Department of Health, 2019).

7. Assess the practical and appropriate level of risk related to the proposal (guidance on level of risk is contained in Schedule 1).

Part 2

POLICY PROVISIONS

1. Operation of Table 1

1.1. **Table** 1 outlines the planning information required, acceptable standards and provisions/conditions for each stage in the planning and development process. Each section of the Table is colour coded to correspond with the various stages of the planning and development process, as depicted below:

- Section 1 deals with District Structure Plans;
- Section 2 deals with Local Structure Plans;
- Section 3 deals with DPS 2 amendments;
- Section 4 deals with Subdivision Applications; and
- Section 5 deals with Local Area Plans and Development Applications.

1.2. Column A of **Table 1** outlines information required in relation to water planning documentation for each stage in the planning and development process.

1.3. Column B of **Table 1** sets out standards that are considered acceptable to satisfy the relevant information requirement.

1.4. Column C of **Table 1** states provisions to be included in structure plans and conditions that will be applied to the relevant approval for each stage in the planning and development process.

Table 1: Structure Plan, Scheme Amendment, Subdivision and Development Standards

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 1: DISTRICT STRUCTURE PLAN		
	A1 A District Water Management Strategy (DWMS) shall be prepared to support any district structure plan. A2 A DWMS shall not be required where, in the City's opinion, the land area of the proposal does not warrant such high level water planning. A3 The City may require alternative or additional information in lieu of the DWMS, such as an arterial drainage network.	B1 DWMS's shall be consistent with the requirements in: • Better Urban Water Management (BUWM) (WAPC, 2008). B2 DWMS's shall address: • Water allocation issues and requirements for public open space and school oval irrigation and implications of this for the Gnangara Groundwater Areas Allocation Plan; and • Accessing of water resources outside the City through the Integrated Water Supply Scheme, particularly for drinking water supply requirements. B3 DWMS's shall include sampling and monitoring data, provided by the developer, to describe the site appropriately. The data provided will identify risk and determine the extent of ongoing monitoring required. Further detail is provided in **Schedule 1**.	C1 District structure plans shall include the following wording as a provision to support the development of a Local Water Management Strategy (LWMS): • "Local structure plans shall include a Local Water Management Strategy that incorporates best practice water sensitive urban design principles and is consistent with the design objectives and standards provided by the District Water Management Strategy."
	SECTION 2: LOCAL STRUCTURE PLAN		
	A1 A LWMS shall be prepared to support any local structure plan. A2 The City of Wanneroo may require a LWMS in other circumstances.	B1 LWMS's shall be consistent with the requirements detailed in: • BUWM (WAPC, 2008); • The Interim: Developing a Local Water Management Strategy (Department of Water, 2008); and • The relevant DWMS. B2 LWMS's shall address water allocation issues and requirements for public open space and school oval irrigation. B3 LWMS's shall include predevelopment monitoring data and results, provided by the developer, to demonstrate an understanding of the local site conditions that affect or influence water management. The data provided will identify risk and determine the extent of ongoing monitoring required. Further detail is provided in **Schedule 1**. Where sensitive environments[1] exist, monitoring should be for at least 18 months prior to lodgement of the LWMS. Where this timeframe has not been met the City shall defer assessment of the local structure plan until sufficient monitoring information has been supplied. Monitoring shall be in accordance with the *Water Monitoring Guidelines for Better Urban Water Management Strategies and Plans* (Department of Water, 2012).	C1 Local structure plans shall include the following wording as a provision to support the development of an Urban Water Management Plan (UWMP) at the subdivision stage: • "Subdivision proposals shall include an Urban Water Management Plan that incorporates best practice water sensitive urban design principles and is consistent with the design objectives and standards provided by the District Water Management Strategy and Local Water Management Strategy." C2 Local structure plans shall include the following wording as a provision to ensure compliance with the LWMS at later development stages: • "The Local Water Management Strategy shall be approved prior to the lodgement of any subdivision application."

[1] Sensitive environments in the City of Wanneroo include Public Drinking Water Source Areas and land including or adjacent to wetlands and groundwater dependent ecosystems.

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 3: DISTRICT PLANNING SCHEME NO. 2 AMENDMENTS		
	A1 A DWMS shall not be required where: • In the City's opinion, the land area of the proposal does not warrant such high level water planning; or • A DWMS has already been endorsed for the subject area.	B1 Any DWMS prepared in support of a scheme amendment shall be in accordance with the Acceptable Standards set out in Section 1, B1 – B3 of this Table.	C1 The City will recommend that a DWMS shall be prepared to support any scheme amendment involving rezoning to 'Urban' or lifting of an 'Urban Deferred' zone under the Metropolitan Region Scheme (MRS).
	A2 A LWMS shall be prepared to support any scheme amendment involving rezoning to 'Urban Development' under DPS 2 where: • An endorsed DWMS exists; or • A DWMS is not required.	B2 Any LWMS prepared in support of a scheme amendment shall be in accordance with the Acceptable Standards set out in Section 2, B1 – B3 of this Table.	C2 The City will recommend that a LWMS shall be prepared to support any scheme amendment involving rezoning to 'Urban' or lifting of an 'Urban Deferred' zone under the MRS.

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 4: SUBDIVISION		
	A1 An UWMP shall be prepared to support any subdivision.	B1 UWMP's shall be consistent with: • *Urban Water Management Plans: Guidelines for Preparing Plans for Complying with Subdivision Conditions* (Department of Water, 2008); and • Any existing DWMS or LWMS. B2 UWMP's shall include monitoring data and results, provided by the developer. The data provided will identify risk and determine the extent of ongoing monitoring required. Further detail is provided in **Schedule 1**. Sites shall be monitored until clearance of subdivision conditions. Monitoring shall be in accordance with the *Water Monitoring Guidelines for Better Urban Water Management Strategies and Plans* (Department of Water, 2012) and as agreed in the UWMP.	C1 If the LWMS is not approved prior to the lodgement of subdivisions, the City will recommend that the WAPC refuse or defer the subdivision approval until the LWMS is approved. C2 If a LWMS does not exist, and an UWMP is not lodged with the subdivision application, the City will recommend that the WAPC refuse or defer the application until the UWMP is lodged. Conditions of subdivision will not be cleared without adequate demonstration that the UWMP has been implemented (including agreed monitoring) as per the conditions in Section 4, C3 of this Table. C3 For subdivision proposals where a LWMS is in place the following conditions shall be applied: • "An Urban Water Management Plan is to be prepared and approved prior to the commencement of ground disturbing activities, consistent with the Local Water Management Strategy, to the satisfaction of the Western Australian Planning Commission on advice of the Local Government"; and • "The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified stormwater and groundwater management systems, to the satisfaction of the Western Australian Planning Commission on advice of the Local Government".
	A2 Detailed engineering design drawings shall be submitted to comply with the conditions of subdivision.	B3 The location, design and construction of drainage infrastructure shall be compliant with the UWMP and final ground contours shall achieve WSUD principles. B4 Landscaping and drainage infrastructure shall be complimentary and result in usable public open space that incorporates drainage where appropriate. B5 Developers shall be responsible for undertaking any maintenance to drainage infrastructure required due to construction activities prior to handover to the City of Wanneroo. B6 The subdivider shall be responsible for ensuring drainage infrastructure is maintained and functional prior to handover. The City shall inspect drainage infrastructure prior to handover and if required provide detail of non-compliance to the subdivider. Non-compliance issues shall be rectified prior to handover.	C5 The City of Wanneroo shall sign-off detailed design drawings prior to any on-site construction occurring. C6 The City shall recommend the following conditions of subdivision where relevant: • "The drainage infiltration basin(s) shown in public open space areas are to be located, designed and constructed to the satisfaction of the City of Wanneroo"; and • "The land being filled and/or drained at the subdividers cost to the specification and satisfaction of the City of Wanneroo".
	A3 Landscaping Plans shall be required as conditions of subdivision and/or development	B7 Landscaping Plans required as a condition of other approvals, e.g. subdivision or development approvals, shall consider the requirements of the higher level water planning documents. B8 Where landscaping is required as a condition of subdivision or development approval, the plan	C7 The City will check compliance with the approved Landscaping Plan prior to handover of public open space.

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 4: SUBDIVISION		
	approval. A4 Landscaping Plans shall be submitted with civil engineering design drawings.	shall include information such as, but not limited to the following: • Measures to be taken to ensure implementation of the plan; • Soil improvers and mulching to retain moisture; • Use of local native and Western Australian waterwise species/tube stock planted during winter to minimise irrigation requirements; • Appropriate non-endemic tree species for passive solar or shading outcomes to be assessed on a case-by-case basis; • Hydro zoning and installation of smart irrigation systems in accordance with the City's irrigation specifications; • Buffer and filter strips and use of appropriate areas and species of turf, possibly restricted to active spaces only; • Drainage infrastructure designs (to ensure its function is not compromised by the proposed landscaping); • A plan detailing the public open space landscaping and the drainage infrastructure to show how they complement each other; • Public open space schedule; • Water balance calculations; • Water requirements and allocations; and • Retention of native bushland. B9 High Phosphorous Retention Index (PRI) soils may be required to be incorporated into bio-retention swales and public open space (where it is not to be used for the purpose of conservation) to reduce phosphorous export via leaching, while also meeting soil permeability and soil compaction criteria specified by the City of Wanneroo (subject to site specific conditions). Filter media shall be in accordance with the *Adoption Guidelines for Stormwater Biofiltration Systems* (Cooperative Research Centre for Water Sensitive Cities, 2015). B10 Where landscaping is related to public open space or drainage infrastructure, the City will not accept handover until compliance with the Landscaping Plan is demonstrated and it is demonstrated that the landscaping does not compromise the drainage design. B11 Where irrigation is required, the City will not accept handover until the licence transfer has been approved by Department of Water. B12 Landscaping will be inspected and compared to approved Landscaping Plans. Handover of infrastructure and public open space will not occur until landscaping complies with the approved plan. B13 Monitoring data should be included in the information supplied during handover of public open	

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 4: SUBDIVISION		
		space or drainage infrastructure. The City may not accept handover if contingency measures are required as specified in the UWMP.	
	A5 Earthworks drawings shall be submitted to comply with subdivision conditions and to receive earthworks approval from the City of Wanneroo.	B14 To comply with the condition in C8, the earthworks design shall comply with the UWMP. B15 The City's standard position, as outlined in LPP 4.2, is that the City will not approve earthworks until the related subdivision has conditional approval. The City may, however, approve earthworks where a Structure Plan has been adopted and endorsed by the City and WAPC and the earthworks will not prejudice future development outcomes.	C8 Earthworks approvals shall include the following condition: • "All stormwater runoff shall be retained onsite and erosion shall be managed so that sand is not deposited on road reserves or in drainage systems."

	COLUMN A	COLUMN B	COLUMN C
	Planning Information	**Acceptable Standards** (unless otherwise stated, all standards must be met)	**Provisions / Conditions**
	SECTION 5: LOCAL AREA PLANS AND DEVELOPMENT APPLICATIONS		
	A1 Development that may trigger the requirement of an UWMP includes, but is not limited to the following: • Commercial developments; • Factory unit developments; • Grouped dwellings; • Lifestyle villages; and • Showrooms. A2 Where an UWMP has not previously been prepared as part of a separate approval and a development is proposed that will significantly alter the natural hydrology and drainage of a site, a UWMP shall be prepared prior to development approval. A3 If a Construction Management Plan is required, it should be approved prior to development approval being issued.	B1 Any UWMP prepared in support of a Local Area Plan or Development Application shall be in accordance with the Acceptable Standards set out in Section 4, B1 – B2 of this Table. B2 UWMP's shall include sampling and monitoring data and results to describe the site appropriately. This is the responsibility of the developer. The information provided will identify risk and this will determine the extent of ongoing monitoring required. Further detail is provided by **Schedule 1**. B3 The City will not take over responsibility for drainage infrastructure that is affected by sediment build up until maintenance of the infrastructure has occurred and it is confirmed to be completely functional. The City is not responsible for drainage infrastructure within private lots.	C1 Where an UWMP is required at the development approval stage, it shall be submitted and approved by the City prior to the development approval being given. The development approval will then include the following conditions: • "The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified stormwater and groundwater management systems, to the satisfaction of the City of Wanneroo". C2 Where an UWMP is required as a condition of development approval, the development approval will then include the following conditions: • "An Urban Water Management Plan is to be prepared and approved prior to the commencement of ground disturbing activities to the satisfaction of the City of Wanneroo"; and • "The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified stormwater and groundwater management systems, to the satisfaction of the City of Wanneroo". C3 The following conditions may be applied to development approvals to manage the impacts of sediment and erosion on drainage infrastructure: • "Stormwater runoff shall be appropriately managed onsite to deposition of sand onto existing road reserves or drainage systems"; • "A Construction Management Plan shall be implemented to the satisfaction of the City of Wanneroo" (Note: If a Construction Management Plan is required, it should be approved prior to development approval being issued); and/or • "The owner to ensure the land is managed / stabilised to minimise erodible conditions".

Schedule 1
RISK CLASSIFICATION FOR SUBDIVISION AND DEVELOPMENT

The following table should be used to guide the provision of information within water management plans to support planning proposals based on the conditions of the site. The risk level will move from low to medium or medium to high where one or more Site Conditions in the next highest risk level are present.

Risk	Site Conditions	Information Requirements
Low	Depth to groundwater > 5m. No sensitive environmental assets within the sub-catchment of the site. Can manage all stormwater onsite with no offsite discharge or regional drainage issues. Residential development connected to reticulated sewerage. Commercial or industrial use connected to reticulated sewerage or licenced under Part V of the Environmental Protection Act. Low acid sulphate soils (ASS) risk.	***Minimum*** Demonstrate the management of water will be consistent with: • State Planning Policy 2.9: Water resource • Stormwater Management Manual for Western Australia • Decision Process for Stormwater Management in WA.
Medium	Depth to groundwater between 1.2 and 5m. Offsite discharge to local &/or regional system. Residential, commercial and industrial development not connected to reticulated sewerage. No regional bushland or significant wetland issues (i.e. MU or RE) within the site or its sub catchment. Medium ASS risk.	***Limited*** Site investigation and assessment to determine management responses in terms of the site and surrounding (sub) catchment. On site monitoring and demonstration of representative sampling (to be agreed with City of Wanneroo). Standard modelling and investigations. BUWM checklist to be addressed, where applicable.

High	Maximum Depth to Groundwater (MGL) less than 1.2m below the natural ground surface; Any proposed off-site drainage with potential for adverse impacts on sensitive environmental assets such as wetlands or waterways; Located in a floodplain and/or a major arterial drainage system. Contains, or adjacent to, regionally significant bushland; Known contaminated site; High ASS risk; or Contains any part of a significant groundwater dependent ecosystem such as a Conservation Category Wetland or its buffer or karst system.	***Comprehensive*** Detailed site investigations and modelling to determine management responses in terms of the site and the surrounding (sub) catchment. Full BUWM checklist to be addressed in detail.

Schedule 2

Related Policies and Documents

The related policies and documents listed below should be used to guide planning proposals, noting they may be subject to change and future updates:

- State Planning Policy 2.9: Water Resources (WAPC, 2006)
- Better Urban Water Management (WAPC, 2008)
- Liveable Neighbourhoods (WAPC, 2009)
- Decision Process for Stormwater Management in WA (DWER, 2017)
- Stormwater Management Manual for Western Australia (DoW, 2004-2007)
- Government Sewerage Policy (DPLH, 2019)
- Guidance on Site-and-soil evaluation for Onsite Sewage Management (Department of Health, 2019)
- Guidelines for District Water Management Strategies (DoW, 2013)
- Interim: Developing a Local Water Management Strategy (DoW, 2008)
- Urban Water Management Plans: Guidelines for Preparing Plans and for Complying with Subdivision Conditions (DoW, 2008)
- City of Wanneroo Water Sensitive Urban Design Engineering Toolbox (GHD, 2010)
- Water Monitoring Guidelines for Better Urban Water Management Strategies and Plans (DoW, 2012)
- Water Resource Considerations when Controlling Groundwater Levels in Urban Development (DWER, 2013)
- Specification Separation Distances for Groundwater Controlled Urban Development (IPWEA, 2016)
- Australian Rainfall and Runoff: A Guide to Flood Estimation (Geoscience Australia, 2016)
- Local Government Guidelines for Subdivisional Development (IPWEA, 2017)
- Adoption Guidelines for Stormwater Biofiltration Systems (CRC for Water Sensitive Cities, 2015)
- Vegetation Guidelines for Stormwater Biofilters in the South-West of Western Australia (Monash University, 2014)
- Local Planning Policy 4.1: Wetlands (CoW, 2010)
- Local Planning Policy 4.3: Public Open Space (CoW, 2016)
- Development Design Specification WD5 – Stormwater Drainage Design (CoW, 2015)
- Environmental Management Plan Guidelines (CoW, 2018)