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REVIEW	Biennial. Next scheduled review 2013.

Part 1 POLICY OPERATION

Policy development

This Policy has been prepared under the provisions of clause 8.11 of the City of Wanneroo District Planning Scheme No. 2.

Application and purpose

This Policy applies to all planning proposals that facilitate residential, commercial, industrial or rural-residential zoning, subdivision or development within the City of Wanneroo.

The Policy articulates Council's position on urban water management and is to be considered by applicants, Administration, and Council in the design, assessment, and determination of:

- Scheme amendments;
- Structure plans;
- Subdivision applications;
- Development applications; and
- Landscaping and Engineering design.

Objective

To ensure planning and development within the City of Wanneroo optimises the use and management of urban water resources including rainwater, stormwater, groundwater, drinking water and wastewater, consistent with *State Planning Policy 2.9: Water Resources* (2006), *Better Urban Water Management* (WAPC, 2008), and the *City of Wanneroo City Water Management Strategy* (CoW, 2010).

Summary

The City of Wanneroo will not support development of strategic urban planning documents, subdivision or development applications unless in accordance with this Policy.

Structure

The Policy is divided into three parts:

- Part 1: Policy Operation, which includes the policy context and objectives.
- Part 2: General Policy Provisions, comprising general requirements that apply to all planning proposals.
- Part 3: Comprising Table 1, which details specific requirements relating to water documents to particular planning proposals and associated Schedule 1.

Part 2

GENERAL POLICY PROVISIONS

1. Definitions

For the purpose of interpreting this Policy, all terms shall have the same meaning given to them under the City of Wanneroo District Planning Scheme No 2.

2. Principles of Water Sensitive Urban Design

The following Water Sensitive Urban Design principles shall be applied when undertaking and assessing planning proposals within the City of Wanneroo.

- 2.1 Consider all water sources as early as possible in the process, to integrate water and land use planning, maximising the value and sustainable use of water resources.
- 2.2 Provide protection to life and property from flooding that would occur in a 100 year Average Recurrence Interval flood event and to provide a risk assessment for the critical 500 year Average Recurrence Interval event at trapped lows adjacent to human habitation, in high density zones, or adjacent to critical infrastructure.
- 2.3 Maximise water use efficiency and use of wastewater and harvested water.
- 2.4 Reduce potable water demand.
- 2.5 Manage rainfall events to minimise runoff as high in the catchment as possible. Use multiple low cost 'in-system' management measures to reduce runoff volumes and peak flows.
- 2.6 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, possibly through a multiple use corridor.
- 2.7 Minimise pollutant inputs through implementation of appropriate non-structural source controls (such as planning and development controls, pollution prevention procedures, education and participation programmes and regulatory controls) and structural controls (that manage the quantity and quality of stormwater runoff and prevent or treat stormwater pollution).
- 2.8 Enhance social amenity through multiple use corridors, lot landscaping and integrating water management measures into the landscape to enhance visual, recreational, cultural and ecological values, while minimising development costs.

(Modified from Department of Water's *Stormwater Management Manual for Western Australia, 2004 – 2007*).

3. General Policy Provisions

- 3.1 Water sensitive urban design outcomes shall be achieved through compliance with the principles of water sensitive urban design in Part 2, Section 2 of this Policy.
- 3.2 Planning and development proposals shall be assessed against relevant precinct information outlined in the City Water Management Strategy: Volume 1 (CWMS) (CoW, 2010).
- 3.3 Best practice water sensitive urban design principles shall be implemented to achieve the design criteria detailed for each precinct in the CWMS during land use change, subdivision and development.
- 3.4 The City Water Management Strategy: Volume 2 - Water Sensitive Urban Design Toolbox shall be used to guide the approach taken to achieve water sensitive urban design.
- 3.5 Application of this Policy, including monitoring, investigations and information required, shall be practical and appropriate to the planning decision being made and the characteristics of the site (described by precinct in the CWMS). Guidance on the level of information required is contained within Part 3, Table 1 of the Policy.
- 3.6 Water sensitive urban design practices prescribed in strategic planning documents, such as a Local Structure Plan, shall be linked to a planning mechanism that ensures implementation and requires performance monitoring; and
- 3.7 Appropriate investigations shall be performed and documented to support the assessment and approval of planning proposals, consistent with *Better Urban Water Management* (WAPC, 2008).

Part 3

PLANNING PROPOSALS

4. Water Planning Document Requirements (Table 1)

- 4.1 The City of Wanneroo will not support development of strategic urban planning documents, subdivision or development applications unless the information required and the process detailed in Table 1 has been complied with.

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Table 1: Water Planning Document Requirements

Hierarchy	Detail required	Timing	Conditions/ Compliance	Monitoring
District Water Management Strategy (DWMS)	<p>The DWMS shall be consistent with the requirements detailed in:</p> <ul style="list-style-type: none"> <i>Better Urban Water Management</i> (WAPC, 2008); The <i>City Water Management Strategy</i> (CoW, 2010); and Any relevant Drainage and Water Management Plan prepared by the Department of Water. <p>Due to limited water resources within the City, the DWMS shall discuss the potential for large-scale use of alternative water sources.</p>	<p>A DWMS shall be prepared to support any District Structure Plan or scheme amendment involving Urban rezoning or lifting of an Urban Deferred zone unless, in the City's opinion the development size does not warrant such high level water planning.</p> <p>In lieu of the DWMS, the City may at its discretion request alternative information or additional supporting information such as an arterial drainage network.</p>	<p>Sub-regional Structure Plans shall include provision for the preparation of a DWMS.</p> <p>If a DWMS, or alternative information, is not supplied with the District Structure Plan (DSP) or to support an Urban scheme amendment, the City will defer assessment until the DWMS is lodged unless a DWMS has already been endorsed for the subject area.</p> <p>Approval of the DWMS will run concurrently with the approval of the DSP or scheme amendment. A DWMS will be approved prior to final sign-off of the DSP or scheme amendment.</p>	<p>Sampling and monitoring will be required to describe the site appropriately in the DWMS and is the responsibility of the developer.</p> <p>The information provided will identify risk and this will determine the monitoring required. Further detail is provided by Schedule 1.</p>
Local Water Management Strategy (LWMS)	<p>The LWMS shall be consistent with the requirements detailed in:</p> <ul style="list-style-type: none"> <i>Better Urban Water Management</i> (WAPC, 2008); The <i>City Water Management Strategy</i> (CoW, 2010); The <i>Interim: Developing a Local Water Management Strategy</i> (DoW, 2008); and The DWMS. 	<p>The LWMS shall be submitted:</p> <ul style="list-style-type: none"> With any Local Structure Plan for an area greater than 8-10 hectares or 100-150 lots¹; Where a scheme amendment involving urban rezoning is proposed and an endorsed DWMS exists or where a DWMS is not warranted; or As otherwise directed by the City of Wanneroo. 	<p>The District Structure Plan shall include the following statutory provision to support the development of the LWMS:</p> <p><i>Local Structure Plans shall include a Local Water Management Strategy that incorporates best practice water sensitive urban design principles and is consistent with the district water management design objectives and standards provided by the District Water Management Strategy.</i></p> <p>The LWMS shall be lodged with the Local Structure Plan. The following provisions will be included in Part 1 of the Local Structure Plan to ensure compliance with the LWMS at later development stages:</p> <p><i>The Local Water Management Plan shall be approved prior to the lodgement of any subdivision application.</i></p> <p>Where rezoning to urban is proposed within the MRS or City's local planning scheme, and an endorsed DWMS exists or where a DWMS is not warranted, a LWMS shall be prepared to support the amendment.</p> <p>If the LWMS is not supplied with the Local Structure Plan or where necessary to support a scheme amendment, the City will defer or refuse assessment until it is lodged. If the LWMS is not approved prior to the lodgement of subdivisions, the City will recommend the refusal or deferral of the subdivision approval until the LWMS is approved.</p>	<p>The LWMS will include predevelopment monitoring to demonstrate an understanding of the local site conditions that affect or influence water management. This information will be used to determine risk and the monitoring required as described in Schedule 1.</p> <p>Where sensitive environments² exist, monitoring should be for at least 18 months prior to lodgement of the LWMS. Where this is not the case, the City will defer assessment of the Local Structure Plan until enough monitoring information has been supplied.</p> <p>Collection of monitoring data is the responsibility of the developer.</p>
Urban Water Management Plan (UWMP)	<p>The UWMP shall be consistent with:</p> <ul style="list-style-type: none"> The <i>Urban Water Management Plans: Guidelines for preparing plans for complying with subdivision conditions</i> (DoW, 2008); and Any higher order DWMS or LWMS. 	<p>Where a LWMS exists, the UWMP will be required as a condition of subdivision.</p> <p>Where a LWMS does not exist, a draft UWMP should be lodged with the subdivision application</p>	<p>UWMPs will be required at subdivision as a statutory provision of the Local Structure Plan.</p> <p>The following conditions should be applied to subdivisions where an LWMS exist:</p> <ul style="list-style-type: none"> <i>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 WAPC on advice of the Department of Water; and</i> <i>The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified wastewater, stormwater and groundwater management systems, to the satisfaction of the WAPC on advice of the Local Government.</i> <p>The following conditions should be applied to subdivisions where an LWMS does not exist:</p> <ul style="list-style-type: none"> <i>An Urban Water Management Plan is to be approved prior to the commencement of ground disturbing activities to the satisfaction of the WAPC on advice of the Department of Water; and</i> <i>The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified wastewater, stormwater and groundwater management systems, to the satisfaction of the WAPC on advice of the Local Government.</i> <p>Generally the City and the Department of Water will request UWMPs for the same development with the same conditions. However, should the City request an UWMP where the Department of Water has not, the following conditions should be applied:</p> <ul style="list-style-type: none"> <i>An Urban Water Management Plan is to be approved prior to the commencement of ground disturbing activities to the satisfaction of the WAPC on advice of the City of Wanneroo; and</i> 	<p>The UWMP should provide monitoring results to date and make further monitoring commitments based on the identified risk as described by Schedule 1.</p> <p>Sites should be monitored until clearance of subdivision conditions for clearance of titles. Results of the monitoring should be supplied to the City of Wanneroo and Department of Water on a quarterly basis or as otherwise agreed in the UWMP.</p> <p>Collection of monitoring data is the responsibility of the developer.</p>

¹ This criteria is a guide only and shall not be used to define precincts for local planning

² Sensitive environments in the City of Wanneroo include Public Drinking Water Source Areas, land including or adjacent to wetlands and groundwater dependent ecosystems.

Hierarchy	Detail required	Timing	Conditions/ Compliance	Monitoring
			<ul style="list-style-type: none"> The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified wastewater, stormwater and groundwater management systems, to the satisfaction of the WAPC on advice of the Local Government. <p>If, where a LWMS does not exist, and the 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 above conditions. If this is not demonstrated, the City will not clear the conditions until such time as it has been adequately demonstrated.</p>	
Development Approval (UWMP potentially required)	<p>The UWMP shall be consistent with:</p> <ul style="list-style-type: none"> The Urban Water Management Plans: Guidelines for preparing plans for complying with subdivision conditions (DoW, 2008); and Any higher order DWMS or LWMS. 	<p>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 will be prepared prior to development approval.</p> <p>Development that may trigger the requirement of a UWMP includes, but is not limited to the following:</p> <ul style="list-style-type: none"> Large factory unit developments; Grouped dwellings; Lifestyle villages; and Showrooms. 	<p>Should a UWMP be required at the development approval stage, the applicant will submit it and the City approve it prior to the approval being given. The development approval will then include the following condition:</p> <ul style="list-style-type: none"> An Urban Water Management Plan is to be approved prior to the commencement of ground disturbing activities to the satisfaction of the City of Wanneroo on the advice of the Department of Water; and The approved Urban Water Management Plan shall be implemented by the landowner, including construction of the identified wastewater, stormwater and groundwater management systems, to the satisfaction of the City of Wanneroo. <p>The following conditions may be applied to development approvals to manage sediment and erosion and the impacts on drainage infrastructure:</p> <ul style="list-style-type: none"> No discharge of dust or sediment (either wind or waterborne) is permitted to leave the site and enter the drainage system during construction activities; 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); The owner ensuring the land is not laid bare of vegetation resulting in loose erodible conditions. 	<p>The UWMP should provide monitoring results to date and make further monitoring commitments based on the identified risk as described by Schedule 1.</p> <p>Collection of monitoring data is the responsibility of the developer</p> <p>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.</p>
Detailed Engineering Design	Detailed design drawings will be submitted to comply with conditions of subdivision.	Detailed design drawings will be submitted to comply with conditions of subdivision.	<p>The City will recommend the following conditions of subdivision where relevant:</p> <ul style="list-style-type: none"> The drainage infiltration basin(s) shown in Public Open Space area 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. The subdivider shall prepare and implement a landscape and drainage management plan for the proposed public open space and drainage areas consistent with Local Planning Policy 4.3: Public Open Space, including the provision of parking bay embankments in the road reserve adjoining the public open space, bollards (or other edge treatments requested by the City) and the maintenance of the proposed public open space and drainage areas, to the satisfaction of the City of Wanneroo. <p>The City of Wanneroo will ensure the location, design and construction of the drainage infrastructure is compliant with the UWMP and final ground contours achieve water sensitive urban design principles.</p> <p>The City of Wanneroo should sign-off detailed design drawings prior to any on-site construction occurring. Landscaping and drainage infrastructure should be complimentary and result in a usable open space that incorporates drainage. The developer will be responsible for undertaking any maintenance to drainage infrastructure required due to construction activities prior to handover to the City of Wanneroo.</p> <p>The City will not approve the earthworks until the related subdivision has conditional approval.</p> <p>Earthworks approvals will include the following condition:</p> <ul style="list-style-type: none"> All stormwater runoff shall be contained on-site to the satisfaction of the City. Erosion control measures shall be implemented to ensure no sand runoff into the road reserve. <p>To comply with the above condition, the earthworks design will comply with the UWMP. The City will inspect the earthworks prior to clearance of the earthworks approval conditions to ensure the built form is as approved.</p>	<p>The subdivider will be responsible for ensuring drainage infrastructure is maintained and functional prior to handover. The City will inspect the drainage infrastructure prior to handover and will if required provide detail of non-compliance to the subdivider. Non-compliance issues shall be rectified prior to handover.</p>
Earthworks Approval	Earthworks drawings will be submitted to comply with subdivision conditions and to receive earthworks approval from the City of Wanneroo.			
Landscaping	Landscaping Plans required as a condition of other approvals, e.g. subdivisions or development approvals shall consider the requirements of the water planning documents.	Landscaping Plans shall be required and implemented as conditions of subdivision and/or development approval.	<p>Where landscaping is required as a condition of subdivision or development approval, the plan shall include water minimisation mechanisms such as, but not limited to the following:</p> <ul style="list-style-type: none"> Soil improvers and mulching to retain moisture; Use of indigenous, native and waterwise species/ tubestock planted during winter to minimise irrigation requirements; Hydrozoning 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; and Retention of native bushland. <p>The City will check compliance with the Landscaping Plan prior to clearance of subdivision conditions. Conditions will not be cleared until compliance with the Plan is demonstrated. The City will at its discretion check compliance with development conditions.</p> <p>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.</p>	<p>Landscaping will be inspected during clearance of subdivision conditions. Handover of infrastructure and public open space will not occur until landscaping complies with the approved plan.</p>

Schedule 1

EXTENT OF INVESTIGATIONS REQUIRED (GUIDE ONLY)

The following table should be used to guide the provision of information based on the conditions of the site. The “higher” level of risk should be identified based on the presence of one or more site condition aspects.

Risk	Site conditions	Information requirements
Low	<ul style="list-style-type: none"> ○ Depth to groundwater > 3m ○ No sensitive environmental assets within the sub-catchment of the site ○ Ability to infiltrate all rainfall events on site ○ No offsite discharge required or regional drainage issues ○ Low acid sulphate soils (ASS) risk 	Minimum <ul style="list-style-type: none"> ○ Clearly identify site conditions relevant to water management including existing infrastructure ○ Demonstrate that planning and development will meet total water cycle objectives, consistent with City of Wanneroo <i>City Water Management Strategy</i>.
Medium	<ul style="list-style-type: none"> ○ Depth to groundwater between 3m and 1.2m ○ Offsite discharge to local &/or regional system; ○ No regional bushland or significant wetland issues (ie MU or RE) within the site or its subcatchment ○ Medium ASS risk 	Limited <ul style="list-style-type: none"> ○ Site investigation and assessment to determine management responses in terms of the site and capacity of the drainage system; ○ On site monitoring and demonstration of representative sampling (to be agreed with CoW)
High	<ul style="list-style-type: none"> ○ Depth to groundwater < than 1.2m; ○ Proposed off-site drainage with potential for adverse impacts to wetlands/waterways; ○ Contains a floodplain; ○ 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 <ul style="list-style-type: none"> ○ Detailed site investigations and modelling to determine management responses in terms of the site and the surrounding (sub) catchment; ○ Full <i>Better Urban Water Management</i> checklist to be addressed in detail