

CodeNEXT Policy Table for Drainage and Environmental Proposals

Subtopic	Code Citation	Proposed Code Changes	Rationale	Policy Considerations for Proposed Changes			Key Criteria Changes
				Advantages	Challenges	Policy Alternatives	
<b>Article 23-3D: General Planning Requirements, Water Quality Division</b>							
Green Stormwater Infrastructure and Beneficial Use of Stormwater	23-3D-6 <i>Water Quality Control and Beneficial Use Standards</i>	<p><b>NEW PROPOSAL</b></p> <ul style="list-style-type: none"> <li>Require the use of green stormwater infrastructure (GSI) on commercial and multi-family development to address water quality, water conservation, and ecological functions.</li> <li>Allow use of conventional controls on commercial sites with more than 80% impervious cover if irrigation demands are met using rainwater harvesting.</li> <li>Offer incentives for rainwater harvesting for projects at all impervious cover levels by crediting stored rainwater up to 25% of water quality volume.</li> <li>Exceptions offered for residential subdivisions, regional ponds, difficult site conditions, and "hot-spot" land uses with highly contaminated runoff (e.g., auto repair facilities).</li> </ul>	<p>Current water quality requirements are typically met with sedimentation/filtration controls, which are effective at filtering polluted runoff and mitigating the impacts of impervious cover on stream channel erosion, but they do not significantly address other important ancillary goals such as supporting on-site vegetation, increasing rainwater infiltration, and reducing potable water consumption. The use of green stormwater controls can offer additional benefits to the more traditional controls (see list at right).</p> <p>☛ Recommended by the Green Infrastructure Working Group. Implements Actions CFS A38, CFS A42, LUT A37, LUT A39, and CE A6 in Imagine Austin.</p>	<ul style="list-style-type: none"> <li>Green controls have been used and tested across the US and allowed (but not required) in Austin for water quality compliance since 2007.</li> <li>Where infiltration practices are adopted, improves hydrology (increased creek baseflow, reduced runoff).</li> <li>Conserves water, reduces potable irrigation.</li> <li>Rainwater harvesting credit addresses traditional conflict between water quality and conservation goals.</li> <li>Provides green function / ecosystem services (resilience in heat and drought, natural habitat, ambient cooling).</li> <li>Provides human and cultural benefits (health, well-being, green oasis, lowered stress).</li> <li>Smaller scale enables simple, familiar routine maintenance (landscaping, irrigation operation, etc.).</li> <li>Typically can double up GSI location with other site elements (e.g., landscaping).</li> </ul>	<ul style="list-style-type: none"> <li>GSI controls can require more detailed attention during design and construction than conventional controls.</li> <li>Potentially higher initial and ongoing maintenance cost for some GSI applications compared to more traditional methods (e.g., complex plantings, pumps, etc.).</li> <li>Require more frequent routine, light maintenance (trash removal, sediment buildup, etc.).</li> <li>Small scale increases number of controls and may require additional review and inspection.</li> <li>Some GSI types have larger footprint than grey equivalents (e.g., rain gardens vs. sand filters).</li> <li>Proposal allows for reduced average annual rainfall treatment for systems that use a 25% rainwater harvesting conservation component.</li> <li>Lack of local data on long-term maintenance (e.g., how to re-construct green controls in the landscape when water quality volume needs to be re-established).</li> </ul>	<ul style="list-style-type: none"> <li>Maintain or expand current toolbox of engineering alternatives (traditional and GSI) and allow owner to select their preferred approach to meet WQ requirements based on site conditions.</li> <li>Adjust the rainwater harvesting system to provide more or less conservation vs. standard water quality storage volume.</li> <li>Require 100% use of green controls even on sites with more than 80% impervious cover (may require indoor use of rainwater).</li> <li>Require use of GSI on all residential development, including building permits (1 - 2 units), residential heavy (3 - 6 unit), and subdivisions.</li> </ul>	<ul style="list-style-type: none"> <li>Describe new requirements and exceptions for using GSI.</li> <li>Refine design criteria for some options.</li> <li>Clarify eligibility for payment-in-lieu of on-site controls.</li> </ul>
Water Quality Protection	23-3D <i>Water Quality</i>	<p><b>NO SUBSTANTIAL CHANGES</b></p> <p>Key historical water quality protection standards, including watershed impervious cover limits, stream and lake buffers, floodplain protections, cut and fill limits, steep slope protections, erosion and sedimentation control requirements, and protections for critical environmental features are all carried forward.</p>	The major provisions of this Article were revised entirely in the 2013 Watershed Protection Ordinance.	N/A	N/A	N/A	N/A

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<b>Article 23-10E: Drainage Infrastructure</b>							
Flood Mitigation for Redevelopment	23-10E-3 <i>Standards for Approval</i>	<b>SIGNIFICANT CODE REVISION</b> Require all development--both new and redevelopment--to provide flood mitigation through on- or off-site controls, conveyance improvements, and/or payment-in-lieu. The level of mitigation required is based on the reduction of post-development peak flow rates of discharge to match those for undeveloped conditions (zero impervious cover). Only applies to the area developed / limits of construction. Existing impervious cover associated with City of Austin roadway redevelopment projects will not be considered in determining compliance.	Since 1974, development has been required to provide stormwater detention to ensure that post-development stormwater peak flows not exceed those that exist from the site at the time of application. This helps minimize adverse flood impacts downstream that the new development would contribute to. This current code does not account for impervious cover on a site that existed before 1974 that impacts existing flood hazards. By requiring all sites to either match the peak runoff rates generated by undeveloped conditions or provide a payment-in-lieu of detention, this proposal asks that redevelopment account for its proportionate share of downstream flooding by either constructing on-site controls, downstream conveyance improvements, or providing funding for the City to address other citywide flood hazards. <ul style="list-style-type: none"> <li>Recommended by the Flood Mitigation Task Force. Implements Action CFS A42 and CFS A45 in Imagine Austin.</li> </ul> Public roadways provide a public benefit and provide conveyance infrastructure for adjacent private properties as well as the roadway itself; compliance with no adverse impact and conveyance standards represents a significant improvement to existing drainage infrastructure.	<ul style="list-style-type: none"> <li>Helps reduce existing flooding and erosion hazards created by existing development--not just hold the line on existing problems.</li> <li>Each development addresses its proportional share of the problem.</li> <li>Establishes consistent stormwater detention requirements for greenfield and redeveloped sites.</li> <li>Many options for compliance, including onsite detention, improving downstream conveyance, and payment-in-lieu which would be determined based on drainage conditions at and downstream of each development.</li> <li>Redevelopment with existing, compliant detention and conveyance are not affected.</li> <li>Exception for existing impervious cover associated with public roadway redevelopment enables the maximization of funds for mobility purposes while ensuring that roadway projects do not cause any additional adverse flooding impact.</li> </ul>	<ul style="list-style-type: none"> <li>May add cost to many redevelopment projects.</li> <li>Some types of detention facilities require additional land area.</li> <li>May discourage redevelopment, which would prevent other benefits of such redevelopment from being realized.</li> <li>Incremental benefits may take a long time to show results.</li> <li>Exception for existing impervious cover associated with public roadway redevelopment does not fully capture the opportunity to reduce flood risks.</li> </ul>	<ul style="list-style-type: none"> <li>Apply only to larger sites and exempt smaller sites.</li> <li>Require the stormwater detention, but at a lower level of control (e.g., 10-year control rather than full 100-year control).</li> <li>Exempt areas that do not have known flooding or drainage problems.</li> <li>Maintain status quo and continue to address existing flood hazards primarily via public capital projects.</li> <li>Allow payment-in-lieu as an option for existing impervious cover associated with public roadway redevelopment at discretion of WPD.</li> </ul>	<ul style="list-style-type: none"> <li>Update to include new proposal for redevelopment sites.</li> <li>Define "undeveloped conditions."</li> </ul>
Regional Stormwater Management Program (RSMP)	23-10E-3 <i>Standards for Approval</i>	<b>NEW TO CODE   Existing Program</b> Add a code reference to the RSMP, which is currently outlined in the Drainage Criteria Manual (DCM).	Providing a reference to this program in the code will codify its existence and promote its use.	Ease of use; clarity.	None.	N/A	<ul style="list-style-type: none"> <li>Revise to describe process.</li> </ul>