

ORDINANCE AMENDMENT REVIEW SHEET

Amendment: C20-2022-005a, Land Development Code Amendments

Description: Consider an ordinance regarding amendments to Title 25 related to environmental protection and landscape requirements.

Proposed Language: Draft language is included as Attachment A.

Summary of proposed code changes: A summary of the proposed code changes is included as Attachment B.

Background: This ordinance responds to Council Resolution No. 20220609-061, which initiated Land Development Code amendments related to environmental, drainage, and landscape requirements. The resolution directed staff to present most of the initiated amendments to Council for consideration by September 15, 2022. The initiated code amendments and a summary of the staff proposal is provided below:

1. Establish criteria that prioritize when green stormwater methods should be required or incentivized over conventional stormwater controls;

The proposed code amendments would require most sites to use green stormwater infrastructure, or GSI, to meet water quality treatment requirements. This amendment was previously proposed and reviewed as part of the Land Development Code (LDC) Revision.

Under current code, many sites meet water quality treatment requirements by building a sedimentation/filtration pond. Sedimentation/filtration devices provide some water quality benefits by filtering polluted runoff and helping control 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. Requiring most sites to use GSI instead of conventional grey stormwater infrastructure will provide myriad benefits, including stormwater infiltration, soil health, wildlife habitat, urban heat island mitigation, water conservation, aesthetic value, and other ecosystem services.¹ GSI also provides enhanced water quality benefits compared to sedimentation/filtration devices, including better removal of nutrients from stormwater and further reductions in erosive flows.²

The proposed code amendments would allow developments to choose from a variety of green stormwater controls, including biofiltration ponds, rain gardens, rainwater harvesting systems, porous pavement, and retention-irrigation systems (which can be built in conjunction with green roofs). All of these systems beneficially use rainwater to infiltrate and/or offset potable

¹ Christman et al. 2022. Stormwater Control Measure Audit. City of Austin, Unpublished.

² Richter, A. 2018. Structural Stormwater Control Measure Performance Update 2018. City of Austin, SR-18-08.

water. Staff also proposes to increase the beneficial use benefits of these controls over time through improvements to the design criteria in the Environmental Criteria Manual.

The proposed code amendments provide some exceptions from the GSI requirement, allowing conventional controls to be used for sites with more than 90 percent impervious cover, regional ponds, difficult site conditions, and “hot-spot” land uses with highly contaminated runoff (e.g., auto repair facilities).

In addition to the requirement that most sites to provide water quality treatment using GSI, the ordinance includes several additional provisions that encourage or enable the use of green stormwater controls. First, rain gardens and biofiltration ponds can be integrated into landscaped areas to simultaneously meet water quality and Functional Green landscaping requirements. Second, the ordinance includes a new administrative variance to allow voluntary green stormwater infrastructure retrofits within the inner half of the critical water quality zone. Third, the ordinance exempts rainwater harvesting tanks from impervious cover calculations to promote greater use.

2. Require surface parking lot stormwater to enter pervious parking lot islands, landscaped medians, and perimeter landscapes as a method of water quality and require that pavement be graded to allow runoff to enter planting areas;

The proposed amendments would allow stormwater to enter parking lot landscape areas by removing an existing requirement that all parking lot landscape areas be protected by a 6-inch curb and requiring applicants to drain stormwater to landscape areas where possible. Staff do not recommend requiring that all parking lot landscape areas serve as water quality controls that comply with water quality treatment requirements. However, these amendments would increase the infiltration and beneficial use of stormwater and provide an incentive for sites to integrate rain gardens into landscaped areas. Staff is also proposing that the amendments replace an existing requirement to irrigate 50 percent of a site’s required landscape area with stormwater, which has proven difficult to implement and can be cumbersome to demonstrate compliance with on landscape plans.

3. Implement Functional Green requirements for properties with more than 80% allowable impervious cover;

The proposed amendments implement the Functional Green Landscape requirements previously proposed in the LDC Revision, with minor formatting edits to improve clarity and fit the requirements into the appropriate location within Title 25. Functional Green Landscape is based on the ecosystem service value created by landscape areas. It is intended to improve ecological balance, replenish native vegetation, and enhance public health, safety, and welfare for development projects that are more urban in context rather than the suburban or greenfield development projects to which the existing landscape code is more applicable.

Functional Green Landscape requirements would apply to sites with total allowable impervious cover greater than 80 percent gross site area, including downtown properties zoned Central

Business District (CBD) and Downtown Mixed-Use (DMU). Sites would be required to provide landscaping elements that achieve a Functional Green Score of at least 0.3. The Functional Green Score measures the total amount of ecosystem services provided by the landscape elements proposed on a site. The scoring is based on the assigned value per square foot of each landscape element in relation to the area of the site.

4. Require that all subdivisions and site plans in Urban Watersheds meet steep slope protections;

The Council resolution directed staff to engage stakeholders about this proposed amendment and to return to Council for consideration in November. Therefore, no code amendments are proposed at this time and will instead be proposed at a later date.

5. Allow cisterns to be sized beyond the required storm capture amount and remove requirement for stormwater release so that they can supply irrigation needs throughout the year;

The Land Development Code and Environmental Criteria Manual currently allow cisterns to be sized beyond the required storm capture amount, and there is no requirement that the additional volume be released in 48 to 72 hours. The additional volume can therefore supply irrigation needs throughout the year.

Since code currently allows for rainwater harvesting systems that provide redundant functions, staff does not recommend code amendments at this time. However, the recommended next step is to move towards allowing systems that can use one volume to take credit for providing dual functions (potable water offset and stormwater quality treatment). To this end, Austin Water and the Watershed Protection Department will work together to update the Environmental Criteria Manual to provide technical guidance on the design of rainwater harvesting systems that can provide potable water offset and receive a credit towards the stormwater quality volume. This change will be enacted by December 2023, when the rainwater harvesting mandate for large developments will go into effect.

6. Require new and redeveloped projects to use greenfield conditions as a baseline when calculating drainage requirements;

The Council resolution directed staff to engage stakeholders about this proposed amendment and to return to Council for consideration in November. Therefore, no code amendments are proposed at this time and will instead be proposed at a later date.

7. Prohibit in-channel detention ponds, except for capital projects or private/public partnerships where no other alternative is feasible;

Under current code, in-channel detention basins and in-channel wet ponds are only allowed in the critical water quality zone if they do not create additional erosion or sedimentation downstream. A development must perform complex modeling to prove that it meets this standard, so in-channel detention ponds and in-channel wet ponds are relatively rare. However,

the in-channel ponds that have been built have had significant negative impacts on the creek and riparian habitat. The proposed amendment prohibits in-channel detention ponds and in-channel wet ponds unless they are proposed as part of a public capital improvement project or public-private partnership and no alternative location outside of the channel is feasible. This preserves the ability for Watershed Protection Department to achieve its regional flood reduction goals by allowing in-channel detention ponds when no alternative is feasible.

8. Require projects to relocate replaced or upsized wastewater pipes outside of the inner half of the critical water quality zone;

The proposed code amendments clarify that the requirements for utility lines also apply to major replacements of existing utility lines. New lines and major replacements that cross into or through the critical water quality zone must follow the most direct path to minimize disturbance, unless the line will be installed by boring or tunneling. New utility lines and major replacements that run parallel to a creek must be located in the outer half of the critical water quality zone. This code change is a clarification of existing policy; however, further conversations will be necessary to ensure that there is interdepartmental clarity between the Watershed Protection Department and Austin Water so that the determination of what constitutes a major replacement is clear.

9. Provide wetland protections and buffers equally along Lady Bird Lake to help to stabilize and prevent erosion along the shoreline;

Under current code, wetlands associated with the shores of Lake Bird Lake are not protected in the downtown area, between Lamar Boulevard and I-35. The proposed amendments remove this exception and ensure that all wetlands along the shores of Lady Bird Lake are protected. (The proposed amendments retain the existing exemption for any wetlands located along creeks within the downtown area, which are also exempt from critical water quality zone requirements.)

10. Require utility easements to meet the same standards as utility pipes within the creeks and creek buffers; and

The proposed code amendments clarify that the requirements for utility lines also apply to utility easements. Utility easements that cross into or through the critical water quality zone must follow the most direct path to minimize disturbance, unless the utility line will be installed by boring or tunneling. Utility easements that run parallel to a creek must be located in the outer half of the critical water quality zone.

11. Address current environmental code inconsistencies and other minor code revisions in Chapters 25-7 and 25-8 that staff have previously identified and reviewed as part of the Code Next and the Land Development Code revision processes.

Staff are proposing a variety of minor code amendments that were previously included in the LDC Revision. A summary of all the proposed code amendments is included in Attachment B.

In addition to initiating the above code amendments, Council Resolution No. 20220609-061 provided the following direction:

The initiated ordinances will ensure that, for the same environmental impact as a single-family home, the City does not disincentivize small-scale missing middle housing projects.

Under the current code, most of the existing water quality regulations in Chapter 25-8, Subchapter A are written such that they apply to all types of development, whether that be a single-family house, a downtown tower, or a 500-acre residential subdivision. However, in practice there has long been a significant difference in review process between residential building permits and site plans or subdivisions. This has created two problems for small-scale residential development. First, one- to two-unit residential projects are not reviewed for all environmental/water quality regulations, which leads to confusion about code applicability, inconsistent enforcement, and occasionally poor environmental outcomes. Second, the development cost, submittal requirements, and review time needed to comply with all the existing regulations are a deterrent for small-scale missing middle housing. While new residential subdivisions are reviewed for environmental requirements, and therefore single-family residential building permits should in theory not need any additional environmental review, there is significant gray area for previously platted single-family homes that fall under previous regulations. Additionally, some environmental regulations are enforced with single-family residential permits in the field, including erosion and sedimentation controls.

To address these issues and respond to Council's direction to not disincentivize small-scale missing middle housing, this ordinance establishes a set of scaled and streamlined water quality requirements that apply to all one- to two-unit residential development and some small-scale missing middle development. To qualify for the modified regulations, the missing middle development must meet the following requirements:

- It can only include a maximum of 11 units. If the project is participating in the Affordability Unlocked program, the unit cap is raised to 12 or 16 units for Type 1 or Type 2 projects, respectively.
- It must be located on a platted residential lot (i.e., a lot that was originally part of a single-family residential subdivision). This requirement does not supersede any zoning requirements and does not change the number of units that can be constructed on a lot; see the explanation below for additional information.
- It must comply with the lot's zoning impervious cover limit, but may not exceed 55 percent impervious cover.
- It is not subject to Article 13, Save Our Springs Initiative.

The unit cap and impervious cover limit ensure that the missing middle development that is eligible for the streamlined regulations resembles one- to two-unit projects in scale. Limiting the eligibility to projects on residentially platted lots is important because applicable water quality requirements would have been applied at the time of subdivision. It establishes regulatory parity between the missing middle development and the one- to two-unit residential

development that would otherwise be located on the lot. Establishing a uniform set of regulations that apply to both single-family and small-scale missing middle development ensures that projects of very similar scale, with the same potential for environmental and drainage impacts, are subject to the same requirements. This level playing field helps eliminate an incentive to build one or two large units on a residentially platted lot instead of several smaller units.

One- and two-unit residential development and three- to 11-unit residential development (or 12–16-unit Affordability Unlocked projects) that meets the above conditions will be required to comply with the following water quality regulations in Chapter 25-8, Subchapter A:

- Critical Water Quality Zone and floodplain modification requirements, for legal tracts or lots platted on or after May 18, 1986 and for development associated with boat docks, shoreline access, or shoreline modifications;
- Erosion and sedimentation control and overland flow standards;
- Cut and fill standards (applicable to properties outside of Urban watersheds);
- Requirements for clearing of vegetation, temporary storage, and topsoil protection;
- Requirements for development along Lake Austin, Lady Bird Lake, and Lake Water E. Long;
- Save Our Springs (SOS) requirements, as applicable (SOS applies in the Barton Springs Zone but includes some existing exemptions for one- and two-unit development); and
- Applicable municipal regulatory restrictions on a recorded plat or covenant.

The proposed amendments only modify the applicability of requirements in Chapter 25-8, Subchapter A, Water Quality. All other requirements that currently apply to one- and two-unit development or three- to 11-unit development would continue to apply, including drainage requirements in Chapter 25-7 and tree protection standards in Chapter 25-8, Subchapter B. However, the proposed amendments would allow qualifying three- to 11-unit development to go through a more streamlined review process as a “small project” site plan. The small project site plan designation allows the Development Services Department to waive submittal requirements, does not require notice to be sent to neighboring properties, and has lower fees and a faster review time than a standard site plan. Additionally, the “small project” site plan already exists as a process and therefore review disciplines can already be included in the review as needed without inventing a new process that does not have an existing application or established review fees.

The proposed code amendments are similar to the residential development regulations included in the LDC Revision. The maximum number of units (11, or 12/16 for Affordability Unlocked projects) is the same, but the maximum impervious cover is slightly lower (55 percent instead of 60 percent). The most significant difference is that this ordinance does not modify any drainage regulations for three to 11-unit development.

The City Council directs the City Manager to evaluate the effectiveness of existing Critical Water Quality Zone and Erosion Hazard Zone buffers on the Colorado River downstream of the Longhorn Dam and to propose protections that will provide adequate protections to the river that will ensure a healthy riparian corridor to stabilize the riverbank and protect property from erosion.

Under current code, the critical water quality zone (CWQZ) for the Colorado River is 200 to 400 feet wide, depending on the width of the 100-year floodplain. Erosion hazard zone analysis is required for any development within 100 feet of the Ordinary High Water Mark (OHWM) of the river. However, the banks of the Colorado River downstream of Longhorn Dam are very sandy and erosive. The critical water quality zone and erosion hazard zone analysis buffer are therefore not sufficiently protective to stabilize the riverbank and protect property from erosion.

Staff proposes to expand the CWQZ to a consistent width of 400 feet from the OHWM of the Colorado River downstream of Longhorn Dam. Staff also proposes to expand the erosion hazard zone analysis buffer to 400 feet from the OHWM. This means that if any development is proposed within the CWQZ, the applicant will also need to analyze the erosive potential of the banks and either relocate the proposed development or provide protective works if needed to ensure that it is protected from erosion. Additionally, staff proposes to limit the amount of stormwater discharge points directly to the Colorado River by requiring applicants to locate drainage outfalls upstream of the main stem of the Colorado River whenever possible.

Next Steps

If Council adopts the proposed code amendments, staff will make any necessary updates to the supporting technical criteria in the Environmental Criteria Manual. The only criteria changes that must go into effect immediately are the criteria for Functional Green, which are proposed to be adopted as an emergency rule concurrently with the code amendments. Most of the other criteria changes will either repeat or provide additional detail about how to apply the adopted code amendments. However, as mentioned above, staff plans to undertake a more comprehensive update of the criteria for green stormwater controls currently located in section 1.6.7 of the Environmental Criteria Manual. Examples of potential updates including requiring a saturated zone for biofiltration ponds and filtration-only rain gardens, which would increase stormwater infiltration, and modifying the planting requirements to increase plant survival and reduce maintenance costs. As mentioned above, the Watershed Protection Department (WPD) and Austin Water will also work together to develop criteria to allow a dual-function rainwater harvesting system that can provide potable water offset and receive a credit towards the water quality treatment volume.

In addition to criteria updates, WPD staff will work with partner departments on policy guidance for some of the code amendments. For example, WPD will work with Austin Water to formalize a shared understanding of what constitutes a “major replacement” of a water or wastewater line, and under what conditions WPD staff could support a variance to allow a new

or major replacement of a water or wastewater line in the inner half of the critical water quality zone.

Staff have also identified the need for additional clean up edits to the Landscape requirements, which are located in LDC Chapter 25-2 - Zoning. The recommendation from Law Department staff is that ultimately all Landscape requirements should be moved from Zoning into a new subchapter located in Chapter 25-8 - Environment. Staff propose that the new Functional Green requirements be located in this new subchapter and request direction from Council to return with a future code amendment to consolidate the remainder of the landscape code into the new subchapter.

Finally, staff will also be returning to Council with the additional items requested in Resolution No. 20220609-061. First, staff is preparing a memo to Mayor and Council regarding a proposed approach for the water quality monitoring and coordination on the repair of leaking wastewater pipes. This memo is scheduled to be released by September 15, as directed in the resolution. Second, staff is currently working on two additional code amendments initiated by the resolution – relating to drainage requirements for redevelopment and steep slope protections in Urban watersheds – which will return to Council at a later date. Finally, WPD is currently in the process of creating *Rain to River*, our department’s new strategic plan. Staff will prepare a memo to Mayor and Council in November with information about the planning process and how *Rain to River* will address the equitable protection of the environmental throughout Austin.

Staff Recommendation: Staff recommends approval of the proposed code amendments. Staff also recommends that either Planning Commission or City Council initiate code amendments that would allow staff to bring forth an ordinance to remove existing landscape requirements from Chapter 25-2 - Zoning and consolidate those requirements in a new Subchapter C in Chapter 25-8 - Environment along with the new Functional Green requirements. Additionally, Tier 2 Planned Unit Development superiority elements that are outlined in Title 25 Chapter 2 - Zoning should be updated in the near future to reflect updated GSI requirements and current best practices related to innovative design, climate resiliency, environmental justice, and other potential superiority elements that provide a more wholistic view of environmental superiority.

Board and Commission Actions:

August 17, 2022: The Codes and Ordinances Joint Committee discussed the proposed ordinance and took no action.

September 6, 2022: The Zoning and Platting Commission discussed the proposed ordinance and took no action.

September 7, 2022: The Environmental Commission discussed the proposed ordinance and postponed consideration until September 21, 2022.

September 13, 2022: Scheduled to go before the Planning Commission.

September 20, 2022: Scheduled to return to the Zoning and Platting Commission.

September 21, 2022: Scheduled to return to the Environmental Commission.

Council Action:

June 9, 2022: City Council approved Resolution No. 20220609-061, initiating amendments to Title 25 related to environmental, drainage, and landscape requirements.

Ordinance Number: N/A

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Attachments:

- A Summary of Proposed Code Amendments
- B Fiscal Impact Analysis
- C Watershed Protection Department Equity Review, Summary, and Recommendations