

AGENDA ITEM SUMMARY

City Council



STAFF

Katie Collins, Water Conservation Specialist
Kathryne Marko, Environmental Regulatory Affairs Manager

SUBJECT

Items Relating to Adopting Landscaping Amendments to the City Code and Land Use Code.

EXECUTIVE SUMMARY

A. First Reading of Ordinance No. 007, 2025, Amending Chapter 12 of the Code of the City of Fort Collins to Revise Soil Loosening and Amendment Requirements.

B. First Reading of Ordinance No. 008, 2025, Repealing and Reenacting Section 5.10.1 of the Land Use Code and Amending Definitions in Section 7.2.2 of the Land Use Code to Advance Adopted City Policy Goals to Reduce Water Usage in Landscapes to Comply with State Law and to Clarify and Reorganize Landscaping, Tree Protection, and Irrigation Standards.

The purpose of this item is to adopt City Code and Land Use Code amendments related to landscape and soil that help to address Council's adopted priorities for 2021-2023.

The proposed amendments to the Land Use Code are designed to minimize water consumption in landscaping for most new and redeveloped properties; they would not apply to single-unit, duplex, and accessory dwelling unit housing types. The code amendments ensure compliance with Colorado Senate Bill 24-005 (SB 24-005), which prohibits specific landscaping practices.

The proposed City Code amendments on soil amendment and soil loosening requirements aim to enhance clarity for applicability and allow soil amendments to be tailored to specific site conditions, which will support successful vegetation establishment and long-term growth.

STAFF RECOMMENDATION

Staff recommends adoption of the Ordinances on First Reading.

BACKGROUND / DISCUSSION

Since 2021, Utilities Environmental Regulatory Affairs, Utilities Water Conservation, Planning, and Forestry staff have collaborated to draft amendments to the Land Use Code and City Code that respond to three 2021-2023 Council priorities:

- #14 Effective soil amendment policies and compliance (water usage)
- #19 Xeriscape installations – Increase rebates and education, fewer green lawns with new development

- #28 Improving tree policies

The goal of this work has been to develop codes that contribute to the development of landscapes well-equipped to survive, even thrive, despite a changing climate and finite resources.

When paired with community education and outreach, codes in support of resilient landscaping practices ensure that both our community and our landscapes are better equipped to face challenges such as rising water costs, rising temperatures, and water restrictions during periods of water shortage. This approach aligns with community values and the following strategies outlined in City Plan and Our Climate Future.

City Plan: Principal LIV 9: Encourage development that reduces impacts on natural ecosystems and promotes sustainability and resilience.

- Efficiency And Resource Conservation
- Outdoor Water Use
- Urban Heat Island Effect

City Plan: Principle ENV 6: Manage water resources in a manner that enhances and protects water quality, supply and reliability.

- Water Conservation and Efficiency
- Droughts and Vulnerability

City Plan: Principle ENV 8: Create and maintain a safe, healthy and resilient urban forest.

- Health of the Urban Forest

Our Climate Future: BIG MOVE 3 Climate Resilient Community: People, buildings, watersheds and ecosystems are prepared for the threats of climate change.

- Expand and enhance water efficiency programs and incentives
- Integrate climate resilience considerations into city strategic and operational plans

Two near-term projects will have direct ties to this project. These project relationships are summarized below.

- **Fort Collins Streetscape Standards Update (expected by January 1, 2026):** Updates to include compliance with SB 24-005, which restricts high-water grass in streetscapes, and refinement of existing standards that reflect lessons learned since standards were first introduced 11 years ago.
- **Land Use Code Phase 2 (expected 2025):** Additional amendments in Land Use Code Section 5.10.1 are likely to include updates to tree mitigation and preservation.

Proposed Code Amendments

Staff researched industry standards and practices in comparable communities to develop Land Use Code and City Code amendments that promote sustainable, water-wise landscape practices well-suited to Fort Collins. The final set of proposed amendments complies with SB 24-005 and reflects engagement with community, industry partners, staff, Boards and Commissions, and Council. Amendments in Land Use Code Section 5.10.1 also reflect reorganization for improved readability. Ordinance No. 008, 2025, contains a clean version of the reenacted Land Use Code Section 5.10.1 and the amended definitions in Section 7.2.2. Also attached to this AIS is a redlined version of Section 5.10.1 to show the changes to existing Code and the reorganization.

SB 24-005 was signed into law on March 15, 2024, and prohibits installation of “nonfunctional” high-water turfgrass, artificial turf, and invasive species on commercial development after January 1, 2026. Environmental Planning, Utilities, and Planning staff, in consultation with the City Attorneys’ office, have evaluated the proposed code changes for compliance with the new statute and have concluded that the changes conform code to the statutory requirements. The following summarizes sections of the proposed Land Use Code amendments that meet the minimum requirement of the law.

- **LUC 5.10.1 (D)(2) and (2)(c)** Irrigated turf grass with a high-water requirement, such as Kentucky bluegrass may only be planted in areas of high use or traffic. This may include areas or spaces used for recreation, civic, or community purposes such as playgrounds, sports fields, picnic grounds, amphitheaters, active portions of parks, and golf course playing areas. All other areas, including parking lots and medians, are prohibited.
- **LUC 5.10.1 (D)(2)(d)** No artificial turf may be included in any landscape plan except for athletic fields of play where athletes practice or compete in a sport or game.
- **LUC 5.10.1 (D)(2)(i)** In addition to parkways, which were already included in this section, rights-of-way and transportation corridors also are required to be landscaped in accordance with the *Larimer County Urban Area Street Standards*.
- **LUC 5.10.1 (E)(2)(a)** No invasive plant species may be included in any landscape plan.

Considering Council’s stated priorities, Fort Collins community values and sense of place, and the building of landscapes that are “smart from the start,” staff recommend additional code amendments to minimize unintended consequences from SB 24-005. These additional amendments are summarized below.

- **LUC 5.10.1 (D)(2)(a)** More than 50% of a landscape area must be covered with living plants at maturity. A minimum plant coverage requirement limits large expanses of unplanted landscaping to provide environmental benefits such as habitat and cooling and to avoid landscaping that does not fit the aesthetic of Fort Collins.
- **LUC 5.10.1 (D)(2)(c)** In addition to the limitation on high-water requirement turf grass, turf grass species with a moderate-water requirement, such as turf-type tall fescue, may only be planted in areas of high use or traffic. Plant water requirements are defined by the City of Fort Collins Plant List.
- **LUC 5.10.1 (D)(2)(c)** Low-water requirement irrigated turf grass that is native grasses or grasses that have been hybridized for arid conditions may be planted in any space, as appropriate, and not contingent on use.
- **LUC 5.10.1 (D)(3)(a)** The maximum water budget for a landscape may not exceed 11 gallons/square foot (GPSF) once landscaping is established. The water budget chart, as mandated by the Land Use Code to be included as part of all landscape plans, provides reviewers with a clear overview of the expected water usage categorized by hydrozone and gives greater flexibility to landscape plan development vs. restricting Kentucky Blue Grass to a certain percentage of area. This standard further supports lower water-use landscapes, which may not be achieved with SB 24-005 alone; interpreting post-occupancy use of turf at the time of development review is challenging and could be inaccurate, resulting in non-functional areas that were previously designated as functional uses. The current standard limits a water budget to 15 GPSF.
- **City Code 12-132 (a)** Proper soil treatment is the first and most crucial step in establishing healthy vegetation and ensuring long-term landscape success and sustainability of water-efficient landscapes. The proposed amendments to City Code for soil amendment and loosening increase general clarity for easier understanding and implementation. A key clarification is the exemption for very small projects (less than 1,000 square feet), ensuring the requirements are appropriately applied.
- **City Code 12-34** The proposed soil amendment standard introduces greater flexibility and improved outcomes by considering the specific plant types and native soil characteristics. The existing City Code terms mandate a basic soil amendment in all situations, which can sometimes be unnecessary or even harmful to plant establishment.

- **City Code 12-132 (a)** Currently, vegetation establishment and maintenance in Natural Habitat Buffer Zones (NHBZ) are governed by a 3-year adaptive management and restoration plan outlined in development agreements. This existing framework provides adequate detail and oversight. To enhance clarity in program responsibilities, under the proposed amendments to City Code, NHBZs would be exempt from the soil amendment and loosening requirements.
- **LUC 5.10.1 (D)(1)(c)** For the short-term and long-term survivability of trees, tree watering during development, dedicated non-overhead irrigation, and a limit to the consecutive planting of trees of the same cultivar are all proposed. Additional amendments aimed at enhancing tree mitigation and preservation will be introduced during Land Use Code Phase 2. These updates will align with ongoing evaluations and the upcoming adoption of the Urban Forest Strategic Plan, titled “Rooted in Community.”

Impact Analysis

The following sections provide an assessment of estimated impacts that the proposed code amendments will have on projects and development activities.

Landscape and Water

To assess the potential impact of the amendment on landscape trends and water demand, staff reviewed plans for 21 recent development projects.

Based on review of the 21 projects, most designs are already limiting use of high-water grass to functional areas in the landscape, such as in common spaces for recreating within a multi-family complex, which would be in alignment with the proposed code. Four of the projects did not incorporate high-water use grass in the landscape design at all. High-water grass was found in the street parkways of all landscape plans with detached sidewalks. According to SB24-005, such grass in parkways is deemed nonfunctional. The Land Use Code refers all streetscape landscaping standards to an appendix in the *Larimer County Urban Area Street Standards* which will be updated in 2025 to comply with the requirements of SB24-005.

Landscape water budgets are calculated by multiplying the area of each landscape hydrozone by the gallons per square foot (GPSF) assumptions provided in the Water Budget Chart in Land Use Code 5.10.1. The current Land Use Code mandates a landscape water budget of 15 GPSF averaged across the entire landscape. The proposed amendment seeks to reduce the cap to 11 GPSF. Plant selection is what influences the water budget. The majority of native, and many and non-native, grasses, perennials and shrubs are considered to have a very low or low water need, requiring just 3 – 8 GPSF of supplemental irrigation per season. Kentucky bluegrass is considered a high hydrozone plant, needing 18 GPSF of supplemental irrigation per season. An 11 GPSF water budget can be achieved, and even include a large total area of functional bluegrass, by balancing the high hydrozone landscape areas with lower water use hydrozone areas. Review of project water budgets indicated a noticeable trend toward lower water demand with nearly half of the projects – 9 out of 21 – already meeting the proposed 11 GPSF limit.

Aesthetic appeal is an important factor to consider. While the Land Use Code and City Code amendments must comply with SB 24-005 landscaping restrictions, the bill provides flexibility in finding alternatives. Incorporating best practices, such as requiring living landscapes, may preserve the unique character and curb appeal of Fort Collins, ensuring continuity and compatibility between new and existing landscapes. Without these measures, there is a risk of extensive hardscaping, which lacks climate resilience and could exacerbate environmental challenges.

Cost

Implementing landscape standards that reduce water use may entail higher initial installation costs depending on design. However, these investments can yield significant financial benefits that include both immediate returns through reduced water development fees, such as water supply requirements or plant

investment fees depending on the water district, and long-term paybacks through lower water bills. Ultimately, the financial advantages of these standards can outweigh the initial investment, leading to more sustainable and economically viable development practices.

Staff engaged two local landscape architecture firms – BHA Design and Norris Design - to assess the cost implications of proposed amendments to the landscape code. Each firm conducted a case study on one local commercial property currently in compliance with existing landscape code. For each property, two three-alternative landscape designs were developed to meet the proposed code amendments. Under these alternatives, most areas previously suitable for high-water grass were replaced with a combination of native grass and low water use planting beds. Some areas remained high-water grass if they served a function. The cost analyses include installation costs, plant investment fees, water supply requirement fees, long-term maintenance expenses, and water bills to determine the overall financial impact of the proposed changes. Per unit costs were provided by local contractors. Table 1 summarizes the comparison of cost estimates for landscape treatments that comply with the proposed amended code versus those that comply with the current code. These estimates were calculated using the average of all installation and maintenance cost figures provided by professionals, and 2024 Fort Collins Utilities water rates and fees.

Table 1. Cost Comparison, Fort Collins Utilities Rates and Fees

Landscape Design	Average gallons per square foot (GPSF)	Annual Water Demand (gallons)	Installation & Water fees	Annual Maintenance & Water Cost
Small Commercial Landscape (20,000 sq.ft.)				
Current code-compliant plan	15	309,890	\$195K	\$3,900
Alternative 1: Shrub Heavy	10.7	222,500	+ \$39K	(\$270)
Alternative 2: Shrubs and Native Grass	10.4	215,020	(\$2K)	(\$290)
Alternative 3: Native Grass Heavy	7.8	161,755	(\$43K)	(\$460)
Multi-Family Landscape (200,000 sq.ft.)				
Current code-compliant plan	12.9	2.6M	\$1.8M	\$37K
Alternative 1: More Shrubs	10.9	2.2M	(\$37K)	(\$1,200)
Alternative 2: More Native Grass	10.5	2.1M	(\$174K)	(\$1,500)

The upfront cost of a landscape is largely influenced by landscape design. Planting beds are most expensive to install, followed by high-water grass, then native grass areas. In cases when developers choose to install more planting bed areas in place of what historically may have been planted with high-water grass, the total installation cost will be greater. The added cost of planting beds may be balanced by the lower cost to install native grass when including both in a landscape design. The added expense of more planting bed area may also be mitigated by reduced development fees that may be dependent on the calculated water demand of the property, depending on the water district. Certain water development fees in service areas of Fort Collins Utilities and the East Larimer County Water District (ELCO) are influenced by landscape water demand. Fort Collins Loveland Water District (FCLWD) development fees are not impacted by water demand. The impact of this is illustrated in Table 2.

Trees are significant investments in both human health and environmental value. Ensuring their proper establishment and growth is crucial. As landscapes transition away from irrigated turf that historically provided supplemental water to trees, dedicated drip irrigation systems are necessary to ensure tree health and longevity. Without this supplemental watering, trees are at greater risk of stress, decline, and potential

loss—an outcome that carries both environmental and financial costs. Drip irrigation systems offer targeted water delivery directly to the root zone, encouraging a deep and healthy root structure, reducing water waste and increasing water efficiency compared to traditional irrigation methods. While this is an added upfront cost of approximately a couple thousand dollars per zone (where you may have a few trees to tens of trees on a given zone), it mitigates the long-term expenses associated with tree removal and replacement, which can be thousands of dollars per tree. A dedicated drip irrigation system can also protect and preserve trees as valuable green infrastructure during periods of drought or water shortages where overhead irrigation is required to be extremely reduced or turned off and trees reliant on overhead irrigation must be hand watered to keep alive, if drip irrigation isn't provided. The return on investment of each irrigated tree is obtained within a few years, especially when trees are kept healthy and thriving into the future - omitting the costs of removal and replacement.

Long-term costs are also influenced by landscape design. Overall, data and feedback from landscape contractors and site managers indicate there may be little net difference in maintenance cost of landscapes with far less high-water grass compared to similar sites with significant area of high-water grass. This may be attributed to the high variability of tasks required to maintain the different types of landscape area, as well as the frequency of visits for the different areas. For example, high-water grass areas require weekly visits for mowing during the growing season. A shrub bed area requires fewer visits per year, but warrants expensive, infrequent maintenance, such as replenishing mulch and weeding. As for annual water costs, regardless of water provider, landscapes that require less water have lower annual water costs. The cost savings becomes more significant overtime as water rates increase.

Table 2. Fort Collins Water Providers Cost Estimates Compared to Baseline Landscape (2024 Rates)

Landscape Design	Installation & Water Development Fees			Annual Water & Maintenance Cost		
	Fort Collins Utilities	ELCO	FCLWD	Fort Collins Utilities	ELCO	FCLWD
Small Commercial Landscape (20,000 sq.ft.)						
Current code-compliant plan	\$195K	\$224K	\$211K	\$3,900	\$5,000	\$4,200
Alternative 1: Shrub Heavy	+ \$39K	+ \$30K	+ \$57K	(\$270)	(\$600)	(\$370)
Alternative 2: Shrubs and Native Grass	(\$2K)	(\$10K)	+ \$18K	(\$290)	(\$650)	(\$400)
Alternative 3: Native Grass Heavy	(\$43K)	(\$53K)	(\$12K)	(\$460)	(\$1,000)	(\$630)
Multi-Family Landscape (200,000 sq.ft.)						
Current code-compliant plan	\$1.8M	\$1.9M	\$1.9M	\$37K	\$45K	\$38K
Alternative 1: More Shrubs	(\$37K)	(\$140K)	+ \$46K	(\$1,200)	(\$2,800)	(\$1,700)
Alternative 2: More Native Grass	(\$174K)	(\$268K)	(\$76K)	(\$1,500)	(\$3,200)	(\$2,000)

Soil amendment and loosening requirements already exist in the City Code, and the proposed amendments does not significantly alter these requirements, so no widespread impact is expected. A change in the proposed City Code amendments allows for alternative soil amendments that consider site characteristics. However, choosing this option is not mandatory. Other proposed amendments clarify existing City Code language and are beneficial for ensuring proper soil preparation, which is essential for the success and growth of the installed vegetation.

Implementation

Code amendments are just one aspect of the overall program improvements. Equally important is the need to verify and enforce compliance with the new standards and requirements, as well as to provide education and outreach to the community and industry partners.

Staff conducted an evaluation of resource needs by analyzing historical development application data to estimate the time required for key activities, including education and outreach, plan review, site inspections, and enforcement of the new standards. While no additional resources are being requested in conjunction with these code amendments at this time, it is anticipated that future budget proposals—whether mid-cycle or as part of the regular budget process—will include requests for funding to support two full-time employees (FTEs). One FTE will be dedicated to landscaping, while the other FTE will focus on soil amendments and soil loosening.

Staff will continue to implement existing processes, monitor progress, and explore opportunities to improve efficiency. The current level of service includes the following oversight activities to ensure conformance with the proposed requirements:

- **Plan Review:** Review of all irrigation plans, water budget tables, and landscape plans before construction.
- **Soil Documentation:** Collection of soil certificates and amendment receipts and infrequent investigative field inspections performed if indicated by the submittal documents.
- **Irrigation Audit:** Post-construction inspection to ensure the irrigation system aligns with approved plans and standards.
- **Zoning Inspection:** Verification of plant counts and other landscaping elements after construction is complete.

Approving the code amendments, even without additional FTEs, is a critical step toward advancing Council priorities and meeting State law requirements. Staff remains committed to optimizing current processes to ensure progress while planning for necessary future resource allocation.

CITY FINANCIAL IMPACTS

No additional resources are being requested with these code amendments, but future budget proposals may include funding requests for two full-time employees.

BOARD / COMMISSION / COMMITTEE RECOMMENDATION

The August 15, 2024, regular meeting, the Water Commission recommended Council approve the code amendments.

At the December 19, 2024, hearing, Planning and Zoning Commission voted 6-1 in support of the proposal and recommended Council approval. The Commission expressed that the Commission believes the proposal meets State requirements and is consistent with the water conservation goals of the City and for that reason, the Commission supports the proposal and recommends City Council approval. In making this recommendation, the Commission suggested Council consider the following:

1. Proposal not to omit landscape requirements specific to vehicle display lots, as they are different than a regular parking lot. **Staff Response:** Landscape requirements specific to vehicle display lots have now been retained in the proposed Code amendments.
2. Impact of requiring dedicated irrigation zones for trees, particularly on affordable housing projects. **Staff Response:** Dedicated irrigation to trees remains as a proposed code amendment. The rationale for this recommendation is included in the Impact Analysis section of this report.

3. Landscape escrow requirements contained in the proposed Code language should be carefully reviewed for clarity and reasonableness. **Staff Response:** The proposed Code amendments now include clarification and a description of how the escrow works.

The Planning and Zoning Commission passed motions with additional recommendations as follows:

- That the Fort Collins Planning and Zoning Commission in its capacity as an advisor on planning matters to City Council express support for the adoption of City Code amendments regarding soil amendment and soil loosening; and
- That the Fort Collins Planning and Zoning Commission in its capacity as an advisor on planning matters to City Council advise that the proposed Land Use Code amendments may require augmented staff to fully implement the proposed changes. The Planning and Zoning Commission encourages City Council to examine opportunities to fully implement the proposal. **Staff Response:** Two positions were considered in the '25 - '26 Budget and were not funded.

PUBLIC OUTREACH

From the end of 2021 throughout 2024, staff hosted several engagement opportunities, communicated through email and social media, targeting the public and industry partners. Staff sought and received feedback from developers, homebuilders, landscape professionals, landscape architects, real estate professionals, property managers, nurseries and wholesalers, and sod growers. Some notable engagement milestones include the following:

- Online survey: 929 completed surveys, 5,878 comments
- Social media: 37 comments on boosted posts
- 166 unique visits on OurCity webpage
- Focus groups, workshops, and one-on-ones with industry partners
 - 56 total attendees at 14 virtual events
 - 20+ one-on-one requests

Staff visited and kept up communication with several Boards and Commissions including Water Commission, Planning and Zoning Commission, Natural Resources Advisory Board, Downtown Development Authority, and Parks and Recreation Board.

Overall, the feedback was in support of reducing the occurrence of high-water grass in new development, limiting barren landscaping, and promoting best practices for soil preparation. Feedback also reflected overwhelming support and encouragement of more community education and engagement opportunities, and incentives for resilient landscaping for new development and existing properties.

This proposal initially included provisions to regulate single-unit residential landscapes and a limit on turf area by percentage. However, based on feedback primarily from landscape industry professionals, both provisions have been removed from the current proposal. Concerns persist regarding the restriction on artificial turf, particularly regarding suitable alternatives for high-traffic areas. There are also concerns about the aesthetic impact of increased native grass areas, including the variable success and potentially lengthy establishment period of native grasses in some landscapes.

Engagement with internal departments and industry partners – including landscape contractors, designers, architects, and developers – has been a priority in the update of commercial landscape standards. These stakeholders have demonstrated strong support for this initiative. Their detailed reviews and feedback have been essential in developing language that is both clear and implementable. Contributions were made through various channels including focus groups, workshops, individual consultations, mock development review sessions, and polling.

Following adoption, staff will continue to work with internal and community partners to communicate the amendments and work through implementation strategies. Departments and applicants involved in the development review process will be most impacted by these amendments. Utilities Community Engagement and Education teams will continue to be a critical partner to supporting new regulations. Existing water demand management programs, such as the Xeriscape Incentive Program, will continue to educate and support current residential and commercial property owners in converting high-water use grass to more resilient landscaping. New or reimagined projects and programs that educate, incentivize, or regulate resilient landscape practices from conceptual review all the way to long-term landscape maintenance are currently being evaluated as part of the ongoing Water Efficiency Plan update.

ATTACHMENTS

1. Ordinance A for Consideration – City Code
2. Ordinance B for Consideration - Land Use Code
3. Section 5.10.1 Landscaping and Tree Protection Amendments (redlined)
4. Consultant Alternatives and Impact Analysis
5. Consultant 2023 Landscape Code Audit
6. Consultant 2022 Landscape Best Practices Report
7. Previous Council Memos
8. Colorado Senate Bill 24-005
9. Water Commission Meeting Minutes, August 15, 2024
10. Presentation