



Board Summary Report

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To: Board of County Commissioners

Through: Bryan Weimer, Director of Public Works and Development

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Subject:
LDC21-001, Landscape Land Development Code Amendment and Development Application Manual Amendment

Purpose and Request:

The Planning Division proposes amendments to the Landscape regulations as contained in the Arapahoe County Land Development Code (“LDC” or the “Code”) and the Development Application Manual (DAM).

Planning staff requests and recommends that the Board adopt two Resolutions, one to approve the proposed amendments to the Landscape regulations as proposed for the Land Development Code and the other to approve the related amendments to the Development Application Manual to incorporate the submittal requirements under the new Landscape Regulations if adopted.

Background and Discussion: The LDC requires landscaping for most land development applications reviewed through the Public Works and Development Department. Landscape regulations in the LDC first appeared in 1999 and have been modified through the years. The last modification to the landscape regulations occurred in 2003 to encourage, though not necessarily require, the use of water-conserving plant species in landscape designs. Due to increased drought conditions, higher water demands, limited access to central water systems in the eastern part of the County, and rising water costs, this amendment encourages the conservation of water through water-efficient landscapes. Also, portions of the existing landscape regulations are unclear and difficult for staff and applicants to understand. Some areas of confusion include what portion of a development needs to be landscaped, how to calculate the required number of trees and shrubs, and how to demonstrate plant count compliance with the Code. The update will also consider appropriate planting rates for varied uses and how landscape regulations may need to adjust for the East County environment in comparison to urban/suburban landscape standards. The Code also needs to be modified to include missing landscape processes or information such as a tree preservation plan and address new landscape techniques and products such as parking lot stormwater reuse and rain gardens. The DAM will also be amended to reflect the changes in the LDC. Amendments to the DAM include the addition of the tree preservation and irrigation plan requirements to specified applications, the creation of landscape charts, forms, and agreements, and an amended plant list.

Staff approached the Board of County Commissioners (BOCC) in March 2021 in a study session to request direction on amending the landscape regulations. The BOCC agreed to this amendment and directed staff to

proceed. With this approval, the staff took the following actions:

1. Sent out a survey to obtain comments from developers, professionals (landscape architects, land planners, and engineers), cities and county planning divisions, park districts, water districts, local plant nurseries, and other applicable agencies on what needed to be omitted, revised, or added to the existing Code (April - May 2021). See the attached survey.
2. Updated the BOCC on the results of the survey (June 2021).
3. Applied for and received a grant from the Sonoran Institute to hire a consultant to assist staff with landscape water saving and usage methods in the County (December 2021 - December 2022).
4. Sent out revised Code to County staff and SEMSWA for review and comment (March - April 2023, October - November 2022).
5. Sent out revised code. Staff used the same mailing list as the first survey (June - July 2023).
6. Sent out a survey and provided code on the County website for public review and comment (February - March 2024). See the attached survey.
7. Development Application Manual amendments sent to staff for review and comment (March 2024).
8. Study Session with the Planning Commission on May 21, 2024. Concerns at the meeting included:
 - a. Staff is requiring applicants to develop irrigation, landscape, and preservation plans, and tree preservation plans by qualified professionals. Planning Commissioners believed that requiring this would increase the cost of development and staff review time.

Staff response: Under the present code, only landscape plans are required. Staff researched what development plans are required by other cities and counties in the Denver Metropolitan Area and found that it has been and is presently the practice of many jurisdictions to require professionals to develop these plans for development applications. This requirement ensures that developments adhere to professional practices and are designed and installed properly. See the attached spreadsheet (Exhibit 1) of municipalities and counties requiring these documents. Presently, a development's landscaping is required to be irrigated, to ensure that this is done, irrigation plans are developed concurrently with the landscape plans. With these plans already created the cost to the applicant would be to insert the irrigation plans into the required plan set. There will be a cost to the applicant to develop a tree preservation plan and staff time to review it.

- b. How will the County oversee and enforce the new requirements?

Staff response: This amendment requires that when the project's landscaping and irrigation have been installed and the applicant wants a Certificate of Occupancy (CO), the applicant's landscape architect will conduct a site inspection to verify that the landscaping has been installed as per the approved plan and an irrigation auditor to ensure the irrigation system is working properly. This amendment requires these professionals to sign/stamp their drawings and provide County staff with a certificate of installation. If installed improperly these professionals could jeopardize their license or certification. After an applicant receives their CO, the Zoning Division is responsible for enforcement of violations. This division would inspect a defect or other issues on a property but typically these inspections are complaint driven.

- c. What applications require landscape, irrigation, and tree preservation plans?

Staff response: The proposed regulations would be applied to:

- i. Parks and Open space areas.

- ii. New development or redevelopment unless otherwise exempted. An exemption may be considered if a project can demonstrate it already meets the minimum water efficiency and landscape standards and a request for a determination of compliance may be made to the County in writing. The request shall contain: A description of the site, landscape, and irrigation system with supporting materials demonstrating compliance. A water-efficient irrigation audit performed by a certified third-party landscape irrigation

- auditor.
- iii. Expansions of existing sites:
 - 1. A non-residential project requiring a building permit that cumulatively increases a structure's square footage by 25 percent or more.
 - 2. A non-residential project that has previously increased square footage by less than 25 percent and applying for a new building permit that cumulatively triggers the 25 percent or more threshold.
 - iv. Expansion of a parking lot by 20 spaces or more.

The new development would include residential subdivisions, commercial, industrial, and parks. The new regulations would also apply to redevelopment projects that are considered major changes from the final approved plans (i.e. Final Development Plan). Generation of these plans would not be required for *individual residential lots*, accessory dwelling units, and Minor Subdivisions.

The following applications require the following plans.

Specific Development Plan (2 and 3 step): Tree Preservation Plan, Landscape Plan (conceptual);

Administrative Site Plan (PUD and Non-PUD): Tree Preservation Plan, Landscape Plan, Irrigation Plan; Use by Special Review*: Tree Preservation Plan, Landscape Plan, Irrigation Plan; Preliminary and Final Plat: Tree Preservation Plan; Location and Extent*: Tree Preservation Plan, Landscape Plan, Irrigation Plan.

*The Planning Division Manager will determine whether conceptual or detailed landscape/irrigation plans are required. The decision is dependent upon what's being proposed, location, and water source.

- d. Who manages the landscapes? Staff response: The property owners or homeowner associations.
- 9. BOCC Study Session on September 3, 2024. Planning Commission meeting comments were presented to the BOCC and research on landscape, irrigation, and tree preservation plans required by cities and counties in the Denver Metro area. No concerns were expressed except for the proposed prohibition on the use of artificial turf. Staff was directed to remove this section from the proposed code and conduct further research on this product. Staff will return to the BOCC in a study session once this research has been done.
 - 10. PC Public Hearing on October 15, 2024. Planning Commission's motion to recommend approval to the Board of County Commissioners failed on a 3-3 vote, with Miller, Mohrhaus, and Latsis opposed; the tie vote effectively forwards this item with a recommendation of denial. The reasons given for the "no" votes were that the amendment creates too many restrictions on landscape choices, additional requirements would add to development and housing costs, the detailed requirements for landscape plans, and whether the water savings were worth the additional administrative and design burden. Before the vote, several changes were discussed (allowance of vegetable gardens and clarifying timing and applicability of inspections/approvals) but weren't pursued with the recommendation. The Planning Commission also asked whether the proposed changes would prohibit new golf courses; staff responded that while the regulations do not explicitly prohibit new golf courses, it would be difficult for a golf course to meet water conservation standards.

During the hearing, staff explained the goals of the amendment, one being the reduction and more efficient use of water applied to the landscape. One way to accomplish this goal is by requiring professionals to develop landscape and irrigation plans, individuals with knowledge of plants and watering methods, and can produce a high-quality product. The amendment also requires a professional to inspect the landscape and irrigation to ensure that these plans have been implemented as approved by the County. Tree preservation plans are also required to encourage a developer to maintain existing trees on a property to preserve habitat and neighborhood character, and canopy cover for cooling. Having established vegetation can also give a development an

established feel. As indicated at the hearing, staff researched other municipalities and counties and found the majority of these jurisdictions have and are presently requiring these plans.

One individual from the public attended the meeting and was in favor of the amendment promoting the use of native plants. She also had a concern about how natural drainways would be affected by development and whether the regulations would prohibit vegetable gardening. Staff replied that the preservation of drainage ways is encouraged by staff and the Southeast Metro Stormwater Authority, and the landscape regulations do not prohibit vegetable gardens.

As stated above, three members of the Planning Commission felt that the amendments to the code were too restrictive. This amendment aligns with other jurisdictions and Senate Bill 24-005 (SB24-005) which prohibits the installation of nonfunctional turf and invasive plants on commercial and industrial property.

PROPOSED REGULATION SUMMARY AND ANALYSIS

The following amendments are to establish water-efficient landscape standards that will enhance the environmental, economic, aesthetic, and recreational resources of the County and to promote sustainable management of the County's water resources. All landscape plans shall be designed for optimum site accessibility and visibility; safe pedestrian and traffic circulation; compatibility with adjacent land uses; enhancement of outdoor recreational opportunities; protection of endangered and significant ecotypes, soils, and wildlife habitat; climate resilience; prevention of the spread of invasive species; and the reduction of water consumption. These amendments are also to clarify and simplify the code, add new landscape technologies and topics, and add professional requirements.

1. Adding a tree preservation section that includes policy and regulations, creation of a tree survey, tree removal and replacement, and tree protection.
2. Amending landscape applicability to clarify what applications trigger landscape requirements.
3. Amending general landscape requirements including the selection and installation of plant materials, plant size and installation, and ground cover treatments.
4. Adding turf limitation criteria to reduce allowable turf areas and prohibiting high water demand turf in the county.
5. Adding plant diversity requirements criteria to increase diversity and reduce disease.
6. Amending soil amendments and mulch requirements.
7. Adding irrigation requirements on what type of irrigation to use, where it should be applied, and how to reduce water waste through design.
8. Adding buffering and screening requirements between land uses.
9. Amending planting ratios for urban and rural landscapes.
10. Amending parking lot design criteria and planting ratios.
11. Adding stormwater runoff criteria to irrigate landscape areas.
12. Amending landscape median and rights-of-way design criteria and compliance with the County's Stormwater Management Manual.
13. Adding the separation distances between utilities and trees.
14. Amending weed control - what plant species are allowed and erosion control guidance.
15. Adding wildfire defensible space design criteria.
16. Adding qualifications and certifications of the professionals designing, installing, and inspecting projects.
17. Adding and amending definitions to correspond with proposed landscape amendments.
18. Amendments to the Development Application Manual to reflect changes to the Land Development Code.

REFERRALS AND PUBLIC COMMENTS

Staff conducted a survey in 2021 to obtain input on the existing landscape regulations. This survey was sent to developers, landscape, planning, and engineering professionals, water districts, cities and counties, and plant nurseries inquiring what Code sections should remain, removed, amended, or added. Based on the input received, a draft of landscape regulations was developed with the assistance of a water consultant and distributed for review and comment to County staff, Southeast Metro Stormwater Authority, and Mile High Flood District. In 2022 and 2023, several more draft Code amendments were sent to the same groups. In 2024, staff sent out another survey and posted the Code on the County website for public review and comment.

Overall, the comments received wanted to conserve water and implement water-efficient landscapes through turf reduction, planting in hydrozones, and revising the plant list to require xeric and native species. Mixed comments were received on artificial turf, tree preservation, and turf reduction and are as follows:

1. **Artificial Turf:** Some professionals wanted the flexibility of using artificial turf in their designs whereas SEMSWA, water districts, and other professionals expressed concerns about permeability and impacts on the environment by using this product. Due to the toxins and inability to recycle this product, staff initially proposed limiting the use of this product to sports fields. However, the BOCC directed staff to remove this provision until further research could be presented to them regarding the potential health impacts; the artificial turf prohibition is no longer in the code.
2. **Tree Preservation Plan:** Comments were received stating it may be difficult to fit all the replacement trees on a property and adjacent road rights-of-way. If this is the case, staff could recommend the placement of these trees on other County parcels. The Planning Division Manager may also grant a waiver if the Manager finds adding trees is not feasible. Other respondents were encouraged that existing trees could be preserved, and count towards the landscape requirements.
3. **Turf Reduction:** The concept of reducing turf wasn't questioned but the location, the square footage, and the percentage allowed on residential development was. The amendment proposes that turf shall be limited to 25 percent of the total combined yard area or a maximum of 500 square feet on a lot, whichever is less. The location of the turf isn't specified in this amendment. Those who commented recommended the Town of Castle Rock's requirements that prohibit turf in the front yard and limit backyard turf to no more than 500 square feet, or the City of Aurora's regulations which restrict the installation of turf in front or side yards of any single-family dwelling, installation of new turf in alley-loaded residential front yards where backyard size prohibits the installation of turf shall not exceed the lesser of 45 percent or 500 square feet backyard, or the installation of new turf in residential backyards shall not exceed the lesser of 45 percent of the backyard area or 500 square feet. The amendment that the County is proposing limits total turf like these jurisdictions but gives more flexibility in where the turf can be placed. The proposed regulations meet the requirements of SB24-005, which prohibits nonfunctional turf installation in parking lots, commercial areas, transportation corridors, and HOA property by January 1, 2026.

Fiscal Impact: There will be some added costs to an applicant and additional review time for staff with the introduction of the irrigation and tree preservation plans. However, under this amendment, there should be some offsetting cost savings as landscape inspections will be conducted by the applicant rather than County staff, as they are currently. The creation of standard landscape charts will also reduce the planner's review time.

Alternatives: The Board of County Commissioners has alternatives that include the following:

1. Approve the proposed Land Development Code and Development Application Manual Amendments with Conditions of Approval as recommended by staff or with changes.
2. Continue to a date certain for more information.

3. Deny the proposed Land Development Code and Development Application Manual Amendments.

Alignment with Strategic Plan:

- Be fiscally sustainable
- Provide essential and mandated service
- Be community focused

Staff Recommendation: The Public Works and Development, Planning Division staff recommends that the Board of County Commissioners approve the proposed amendments to the Land Development Code and Development Application Manual with the following recommended stipulation:

1. Staff is authorized to make minor corrections or revisions to the proposed language, with the approval of the County Attorney, if necessary to incorporate the approved amendment into the text of the Land Development Code and Development Application Manual.

Concurrence: Arapahoe County Public Works and the County Attorney have reviewed the proposed regulations. Planning Commission voted 3-3 to recommend approval, effectively forwarding this proposal with a recommendation of denial.

Suggestion Motion(s): Attached.

Resolution: Attached.