

PART 1. Subsection (F) of City Code Section 25-2-1007 (*Parking Lots*) is amended to read:

(F) A landscaped area that is required by this section:

- (1) may consist of non-contiguous portions, and may be in the form of features commonly referred to as medians, peninsulas, and islands;
- (2) must be evenly distributed throughout a parking lot, except that the distribution and location of landscaped area may accommodate existing trees or other natural features if the total area requirement is satisfied; ~~and~~
- (3) may count toward compliance with Section 25-2-1003(A) (*General Requirements*); and
- (4) must have an edge-of-pavement treatment that allows overland flow of stormwater runoff across the landscape area except:
 - (a) perimeter landscape areas that are not required to drain to a stormwater control measure;
 - (b) impervious areas on which the land use or activity may generate highly contaminated runoff, as prescribed by the Environmental Criteria Manual; and
 - (c) sites located within the Edwards Aquifer recharge zone.

PART 2. City Code Section 25-2-1008 (*Irrigation Requirements*) is amended to read:

§ 25-2-1008 IRRIGATION REQUIREMENTS.

~~[(A) An area equal to at least 50% of the total required landscaped area on a project must:~~

- ~~(1) be undisturbed natural area(s) or undisturbed existing trees with no potable irrigation; or~~

(2) ~~be irrigated by stormwater runoff conveyed from impervious surfaces on the site using one or more of the following methods:~~

(a) ~~overland flow;~~

(b) ~~storm drains;~~

(c) ~~downspouts;~~

(d) ~~rainwater harvesting;~~

(e) ~~retention irrigation; or~~

(f) ~~other methods of conveyance as prescribed by rule.~~

~~(B) The drainage area used to irrigate under Subsection (A) must be calculated to provide sufficient water for the landscaped area, as prescribed by rule.~~

~~(C) Unless the landscaped area under Subsection (A) is being designed as a water quality control under Section 25-8-211, the drainage area used to irrigate the landscaped area:~~

~~(1) may not include impervious areas on which the land use or activities may generate highly contaminated runoff, as prescribed by rule; and~~

~~(2) may not include impervious areas used for parking or driving of vehicles if located within the Edwards Aquifer Recharge Zone as defined in Section 25-8-2.]~~

(A)~~(D)~~ No permanent irrigation is required for all or a portion of a required landscaped area that consists of:

(1) undisturbed natural area; or

(2) undisturbed existing trees;

52 ~~(B)~~~~(E)~~ [In addition to irrigation meeting the requirements of
53 ~~Subsection (A), supplemental~~ Supplemental irrigation using
54 irrigation methods described in Subsection ~~(C)~~~~(F)~~ is required:

- 55 (1) for the first two growing seasons for all or a portion of a newly
56 planted required landscaped area without permanent irrigation;
- 57 (2) permanently for all newly planted trees in a required landscape
58 area; and
- 59 (3) as prescribed by rule for all newly planted required landscaping
60 located in medians, islands, or peninsulas.

61 ~~(C)~~~~(F)~~ Irrigation required under Subsection (B) [~~subsection (E)~~] may
62 be provided only by one or more of the methods described below:

- 63 (1) an automatic irrigation system;
- 64 (2) a hose attachment, if:
 - 65 (a) the hose attachment is within 100 feet of the landscaped
66 area or plant; and
 - 67 (b) there is not a road or parking pavement between the hose
68 attachment and the landscaped area or plant; or
- 69 (3) a temporary, above ground automatic irrigation system, if the
70 system complies with the water conservation requirements in the
71 Environmental Criteria Manual.

72 ~~(D)~~~~(G)~~ An irrigation method must:

- 73 (1) provide a moisture level adequate to sustain growth of the plant
74 materials on a permanent basis;
- 75 (2) unless fiscal security is provided to the City for the installation
76 of the system, be operational at the time of the final landscape
77 inspection; and

(3) be maintained and kept operational.

(E)~~(H)~~ A site plan must show:

(1) the drainage area(s) used to irrigate under Subsection B~~(A)~~, including notation of the land uses on impervious areas within the drainage area(s);

(2) the nature and location of an irrigation system; and

(3) that there is no disturbance to the critical root zone of an existing tree.

(F)~~(H)~~ The director may grant an administrative variance to the requirements in this section ~~[Section]~~. An applicant for a variance must demonstrate that:

(1) strict compliance with this section ~~[Section]~~ is infeasible due to unique site conditions including but not limited to topography, size, shape, and location of existing features such as trees or previous development; and

(2) the proposed irrigation plan is the minimal departure from the requirements of this section ~~[Section]~~.

PART 3. Subsection (B) of City Code Section 25-2-1179 (*Environmental Protection*) is repealed. The remaining subsections are renumbered accordingly.

PART 4. Subsection (B) of City Code Section 25-5-3 (*Small Projects*) is amended to read:

(B) The following are small projects:

(1) construction of a building or parking area if the proposed construction:

(a) does not require a variance from a water quality regulation;

104 (b) does not exceed 5,000 square feet of impervious cover;
105 and

106 (c) the construction site does not exceed 10,000 square feet,
107 including the following areas:

108 (i) construction;

109 (ii) clearing;

110 (iii) grading;

111 (iv) construction equipment access;

112 (v) driveway reconstruction;

113 (vi) temporary installations, including portable
114 buildings, construction trailers, storage areas for
115 building materials, spoil disposal areas, erosion
116 and sedimentation controls, and construction
117 entrances;

118 (vii) landscaping; and

119 (viii) other areas that the director determines are part of
120 the construction site;

121 (2) construction of a storm sewer not more than 30 inches in
122 diameter that is entirely in a public right-of-way or an easement;

123 (3) construction of a utility line not more than eight inches in
124 diameter that is entirely in a public right-of-way;

125 (4) construction of a left turn lane on a divided arterial street;

126 (5) construction of street intersection improvements;

127 (6) widening a public street to provide a deceleration lane if
128 additional right-of-way is not required;

- (7) depositing less than two feet of earth fill, if the site is not in a 100 year floodplain and the fill is not to be deposited within the dripline of a protected tree;
- (8) construction of a boat dock as an accessory use to a single-family residential use, duplex residential use, two-family residential use, or secondary apartment special use if shoreline modification or dredging of not more than 25 cubic yards is not required; or
- (9) construction of a retaining wall, if the wall is less than 100 feet in length and less than eight feet in height, and the back fill does not reclaim a substantial amount of land except land that has eroded because of the failure of an existing retaining wall;
- (10) minor development that the director determines is similar to that described in Subsections (B)(1) through (9) of this section;
- (11) the replacement of development that is removed as a result of right-of-way condemnation; ~~and~~
- (12) the construction of a telecommunications tower described in Subsection 25-2-839(F) or (G) (*Telecommunication Towers*); and
- (13) construction of a multi-family residential project that:
- (a) does not exceed 11 units, unless an additional number of units is allowed for a qualifying development under Chapter 25-1, Article 15, Division 4 (*Affordability Unlocked Bonus Program*);
- (b) is located on a platted residential lot that:
- (i) is not located within the Barton Springs Zone;
- (ii) does not exceed 55% impervious cover; and
- (iii) was originally part of a single family residential subdivision; and

(c) is located on a site of less than half an acre.

PART 5. Subsection (A) of City Code Section 25-7-32 (*Director Authorized to Require Erosion Hazard Zone Analysis*) is amended to read:

(A) The director may require the owner of real property to provide, at the owner's expense and as a condition for development application approval, an analysis to establish the erosion hazard zone if the proposed development is:

- (1) within 100 feet of the centerline of a waterway with a drainage area of 64 acres or greater; or
- (2) within 400 [400] feet of the ordinary high water mark of the Colorado River downstream from Longhorn Dam, as defined by Code of Federal Regulations Title 33, Section 328.3 (*Definitions*); or
- (3) located where significant erosion is present as determined by the director.

PART 6. The definition of DIRECTOR in City Code Section 25-8-1 (*Definitions*) is amended to read:

- (7) DIRECTOR, when used without a qualifier, means the director of the Watershed Protection [Planning and Development Review] Department, or the director's designee.

PART 7. Subsections (A), (B), and (C) of City Code Section 25-8-2 (*Descriptions of Regulated Areas*) are amended to read:

(A) This section describes the watersheds, aquifers, and other water quality protection zones that are regulated by this subchapter. A map of these areas shall be [is] maintained by the Watershed Protection Department and made available for reference online and [inspection] at the offices of the Development Services [Planning and Development Review] Department.

(B) The director [~~of the Watershed Protection Department~~] shall determine the boundaries of the areas described in Subsection (D).

(C) The director [~~of the Watershed Protection Department~~] may require an applicant to verify the boundary of an area described in Subsection (D). For property within 1,500 feet of an Edwards Aquifer recharge zone boundary, the director [~~of the Watershed Protection Department~~] may require that an applicant provide a certified report from a geologist or hydrologist verifying the boundary location.

PART 8. City Code Section 25-8-21 (*Applicability*) is amended to read:

§ 25-8-21 APPLICABILITY.

(A) Except as provided in Subsection (B), this subchapter applies in the planning jurisdiction.

(B) For a preliminary plan, final plat, or subdivision construction plan in the portion of the city's extraterritorial jurisdiction that is within Travis County:

(1) this subchapter does not apply; and

(2) Title 30 (*Austin/Travis County Subdivision Regulations*) governs.

(C) This subsection specifies regulations of this subchapter applicable to residential construction.

(1) Within the planning jurisdiction, the following regulations apply to multi-family development that is eligible for approval under Subsection 25-5-3(B)(13) (*Small Projects*):

(a) Section 25-8-63 (*Impervious Cover Calculations*);

(b) Article 2 (*Waterways Classified; Zones Established*) for a legal tract or a lot platted on or after May 18, 1986, and for

- 212 development associated with boat docks, shoreline access,
213 or shoreline modifications including bulkheads and bank
214 stabilization;
- 215
216 (c) Article 5 (Erosion and Sedimentation Control; Overland
217 Flow);
- 218 (d) Section 25-8-261 (Critical Water Quality Zone
219 Restrictions), for a legal tract or a lot platted on or after
220 May 18, 1986, and for development associated with boat
221 docks, shoreline access, or shoreline modifications
222 including bulkheads and bank stabilization;
- 223
224 (e) Section 25-8-321 (Clearing of Vegetation);
- 225 (f) Section 25-8-323 (Temporary Storage Areas; Topsoil
226 Protection);
- 227 (g) Section 25-8-341 (Cut Requirements);
- 228 (h) Section 25-8-342 (Fill Requirements);
- 229 (i) Section 25-8-364 (Floodplain Modifications), for a legal
230 tract or a lot platted on or after May 18, 1986, and for
231 development associated with boat docks, shoreline access,
232 or shoreline modifications including bulkheads and bank
233 stabilization;
- 234
235 (j) Section 25-8-368 (Restrictions on Development
236 Impacting Lake Austin, Lady Bird Lake, and Lake Walter
237 E Long);
- 238 (k) Article 13 (Save Our Springs Initiative); and
- 239 (l) Municipal regulatory restrictions on a recorded plat or
240 covenant, unless the restrictions are determined to be
241 inapplicable under Chapter 25-1, Article 12 (Vested
242 Rights).

(2) Within the planning jurisdiction, multi-family development that is not eligible for approval under Subsection 25-5-3(B)(13) (*Small Projects*) is subject to all requirements of this subchapter.

(3) Within the zoning jurisdiction, one- and two-family residential development is subject to the regulations specified in Subsection (C)(1).

PART 9. City Code Section 25-8-25 (*Redevelopment Exception in Urban and Suburban Watersheds*) is amended to read:

§ 25-8-25 REDEVELOPMENT EXCEPTION IN URBAN AND SUBURBAN WATERSHEDS.

(A) This section applies to property located in an urban or suburban watershed that has existing development if:

(1) any development constructed without a permit after January 1, 1992, will be removed from the site and the area restored to pre-development conditions; [no unpermitted development occurred on the site after January 1, 1992,] and

(2) the applicant files a site plan application or concurrent subdivision and site plan applications and elects [the property owner files a site plan application and an election for the property] to be governed by this section.

~~[(B) The requirements of this subchapter do not apply to the subdivision of property if at the time of redevelopment under this section subdivision and site plan applications are filed concurrently.]~~

(B) ~~[(C)]~~ The requirements of this subchapter do not apply to the redevelopment of the property if the redevelopment:

(1) does not increase the existing amount of impervious cover on the site;

(2) removes existing impervious cover from within 50 feet of a classified waterway, 50 feet from the shoreline of a lake, or 100 feet from the ordinary high water mark of the Colorado River; and revegetates the area as prescribed by the Environmental Criteria Manual;

(3)(2) provides the level of water quality treatment prescribed by current regulations for the redeveloped area or an equivalent area on the site;

~~[(3) does not generate more than 2,000 vehicle trips a day above the estimated traffic level based on the most recent authorized use on the property;~~

~~(4) is consistent with the neighborhood plan adopted by council, if any;]~~

(4)(5) does not increase non-compliance, if any, with Article 7, Division 1 (*Critical Water Quality Zone Restrictions*), Section 25-8-281 (*Critical Environmental Features*), or Section 25-8-282 (*Wetland Protection*);

(5) complies with Article 3 (*Environmental Resource Inventory; Pollutant Attenuation Plan*) and all construction phase environmental standards in effect at the time of construction, including Article 5 (*Erosion and Sedimentation Control; Overland Flow*); and

(6) does not place redevelopment within the Erosion Hazard Zone, unless protective works are provided as prescribed in the Drainage Criteria Manual.

~~[(D) The redevelopment must comply with Section 25-8-121 (*Environmental Resource Inventory Requirement*) and all construction phase environmental requirements in effect at the time of construction, including Chapter 25-8, Article 5 (*Erosion and Sedimentation Control; Overland Flow*).]~~

PART 10. Subsections (C) and (E) of City Code Section 25-8-26 (*Redevelopment Exception in the Barton Springs Zone*) are amended to read:

(C) In this section:

(1) STANDARD POND [~~SEDIMENTATION/FILTRATION POND~~] means water quality controls that comply with Section 25-8-213 (*Water Quality Control Standards*) or are approved under Section 25-8-151 (*Innovative Management Practices*); and

(2) SOS POND means water quality controls that comply with all requirements of Section 25-8-213 (*Water Quality Control Standards*) and the pollutant removal requirements of Section 25-8-514(A) (*Pollution Prevention Required*).

(E) The requirements of this subchapter do not apply to the redevelopment of property if the redevelopment meets all of the following conditions:

(1) The redevelopment may not increase the existing amount of impervious cover on the site.

(2) The redevelopment may not increase non-compliance, if any, with Article 7, Division 1 (*Critical Water Quality Zone Restrictions*), Section 25-8-281 (*Critical Environmental Features*), Section 25-8-282 (*Wetland Protection*), or Section 25-8-482 (*Water Quality Transition Zone*).

(3) The redevelopment must comply with Section 25-8-121 (*Environmental Resource Inventory Requirement*) and all construction phase environmental requirements in effect at the time of construction, including Chapter 25-8, Article 5 (*Erosion and Sedimentation Control; Overland Flow*) and Section 25-8-234 (*Fiscal Security in the Barton Springs Zone*).

- (4) The water quality controls on the redevelopment site must provide a level of water quality treatment that is equal to or greater than that which was previously provided.
- (5) For a commercial or multifamily redevelopment, the owner or operator must obtain a permit under Section 25-8-233 (*Barton Springs Zone Operating Permit*) for both standard [~~sedimentation/filtration~~] ponds and SOS ponds.
- (6) For a site with more than 40 percent net site area impervious cover, the redevelopment must have:
- (a) standard [~~sedimentation/filtration~~] ponds for the entire site; or
- (b) SOS ponds for a portion of the site, and standard [~~sedimentation/filtration~~] ponds for the remainder of the redeveloped site.
- (7) For a site with 40 percent or less net site area impervious cover, the redevelopment must have SOS ponds for the entire site.
- (8) The property owner must mitigate the effects of the redevelopment, if required by and in accordance with Subsection (H).
- (9) Redevelopment may not be located within the Erosion Hazard Zone, unless protective works are provided as prescribed in the Drainage Criteria Manual.

PART 11. City Code Section 25-8-27 (*Redevelopment Exception in the Water Supply Rural and Water Supply Suburban Watersheds*) is amended to read:

§ 25-8-27 REDEVELOPMENT EXCEPTION IN THE WATER SUPPLY RURAL AND WATER SUPPLY SUBURBAN WATERSHEDS.

- (A) This section applies to property located in a water supply rural or water supply suburban watershed that has existing commercial

development or existing residential development with greater than two dwelling units per lot if:

(1) any development constructed without a permit after January 1, 1992, will be removed from the site and the area restored to pre-development conditions; ~~[no unpermitted development occurred on the site after January 1, 1992,]~~ and

(2) the applicant files a site plan application or concurrent subdivision and site plan applications and elects ~~[the property owner files a site plan application and an election for the property]~~ to be governed by this section.

(B) In this section, STANDARD ~~[SEDIMENTATION/FILTRATION]~~ POND means water quality controls that comply with Section 25-8-213 (*Water Quality Control Standards*) or are approved under Section 25-8-151 (*Innovative Management Practices*).

~~[(C) The requirements of this subchapter do not apply to the subdivision of property if at the time of redevelopment under this section subdivision and site plan applications are filed concurrently.]~~

(C)~~(D)~~ The requirements of this subchapter do not apply to the redevelopment of property if the redevelopment meets all of the following conditions:

(1) The redevelopment may not increase the existing amount of impervious cover on the site.

(2) The redevelopment may not increase non-compliance, if any, with Article 7, Division 1 (*Critical Water Quality Zone Restrictions*), Section 25-8-281 (*Critical Environmental Features*), Section 25-8-282 (*Wetland Protection*), Section 25-8-422 (*Water Quality Transition Zone*), or Section 25-8-452 (*Water Quality Transition Zone*).

(3) The redevelopment must remove any existing impervious cover from within 50 feet of the centerline of a classified waterway or

50 feet from the shoreline of a lake and revegetate the area as prescribed in the Environmental Criteria Manual.

(4)[(3)] The redevelopment must comply with Article 3 (Environmental Resource Inventory; Pollutant Attenuation Plan) [Section 25-8-121 (*Environmental Resource Inventory Requirement*)] and all construction phase environmental requirements in effect at the time of construction, including Chapter 25-8, Article 5 (*Erosion and Sedimentation Control; Overland Flow*).

(5)[(4)] The water quality controls for the redeveloped areas or an equivalent area on the site must provide a level of water quality treatment that is equal to or greater than that which was previously provided. At a minimum, the site must provide standard [sedimentation/filtration] ponds for the redeveloped area or an equivalent area on the site.

(6)[(5)] The applicant [property owner] must mitigate the effects of the redevelopment, if required by and in accordance with Subsection (D)[(G)].

(7)[(6)] Redevelopment may not be located within the Erosion Hazard Zone, unless protective works are provided as prescribed in the Drainage Criteria Manual.

~~[(E) City Council approval of a redevelopment in accordance with Subsection (F) is required if the redevelopment:~~

~~(1) includes more than 25 additional dwelling units;~~

~~(2) is located outside the City's zoning jurisdiction;~~

~~(3) is proposed on property with an existing industrial use;~~

~~(4) is inconsistent with a neighborhood plan; or~~

415 (5) ~~will generate more than 2,000 vehicle trips a day above the~~
416 ~~estimated traffic level based on the most recent authorized use~~
417 ~~on the property.~~

418 (F) ~~City Council shall consider the following factors in determining~~
419 ~~whether to approve a proposed redevelopment:~~

420 (1) ~~benefits of the redevelopment to the community;~~

421 (2) ~~whether the proposed mitigation or manner of development~~
422 ~~offsets the potential environmental impact of the~~
423 ~~redevelopment;~~

424 (3) ~~the effects of off-site infrastructure requirements of the~~
425 ~~redevelopment; and~~

426 (4) ~~compatibility with the City's comprehensive plan.]~~

427 (D)[(G)] Redevelopment of property under this section requires the
428 purchase or restriction of mitigation land.

429 (1) The combined impervious cover of the mitigation land and the
430 portion of the redevelopment treated by sedimentation/filtration
431 ponds may not exceed 20 percent of gross site area if in a water
432 supply rural watershed or 40 percent of gross site area if in a
433 water supply suburban watershed.

434 (2) The mitigation requirement may be satisfied by:

435 (a) paying into the Water Supply Mitigation Fund a
436 nonrefundable amount established by ordinance;

437 (b) transferring to the City in accordance with Paragraph (3)
438 mitigation land approved by the director [of the
439 ~~Watershed Protection Department~~] within a water supply
440 rural or water supply suburban watershed, either inside or
441 outside the City's jurisdiction;

442 (c) placing restrictions in accordance with Paragraph (3) on
443 mitigation land approved by the director [~~of the~~
444 ~~Watershed Protection Department~~] within a water supply
445 rural or water supply suburban watershed, either inside or
446 outside the City's jurisdiction; or

447 (d) a combination of the mitigation methods described in
448 Subparagraphs (a)—(c), if approved by the director [~~of~~
449 ~~the Watershed Protection Department~~].

450 (3) An applicant [~~A person~~] redeveloping under this section shall
451 pay all costs of restricting the mitigation land or transferring the
452 mitigation land to the City, including the costs of:

453 (a) an environmental site assessment without any
454 recommendations for further clean-up, certified to the
455 City not earlier than the 120th day before the closing date
456 transferring land to the City;

457 (b) a category 1(a) land title survey, certified to the City and
458 the title company not earlier than the 120th day before
459 the closing date transferring land to the City;

460 (c) a title commitment with copies of all Schedule B and C
461 documents, and an owner's title policy;

462 (d) a fee simple deed, or, for a restriction, a restrictive
463 covenant approved as to form by the City Attorney;

464 (e) taxes prorated to the closing date;

465 (f) recording fees; and

466 (g) charges or fees collected by the title company.

467 (H) The Watershed Protection Department shall adopt rules to identify
468 criteria [~~for director approval~~] under this section to ensure that the
469 proposed mitigation, manner of development, and water quality

controls offset the potential environmental impact of the redevelopment.

PART 12. Section 25-8-42 (*Administrative Variances*) is amended to read:

§ 25-8-42 ADMINISTRATIVE VARIANCES.

(A) A variance under this section may not vary the requirements of Article 13 (*Save Our Springs Initiative*) ~~[and may not be granted for development of a property if any portion of the property abuts or is within 500 feet of the shoreline of Lake Austin, measured horizontally].~~

(B) The director ~~[of the Watershed Protection Department]~~ may grant a variance from a requirement of:

(1) Subsection 25-8-213(C) (*Water Quality Control Standards*)

~~(2)[(4)]~~ Section 25-8-261 (*Critical Water Quality Zone Development*), only if:

(a) necessary to protect public health and safety, or if the type of development requiring the variance directly contributes to ~~[it would provide]~~ a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health as prescribed by the Environmental Criteria Manual; ~~[7]~~

(b) necessary to allow an athletic field in existence on October 28, 2013, to be maintained, improved, or replaced; ~~[7]~~

(c) necessary to allow an athletic field to be located in an area not otherwise allowed under Subsection ~~[Section]~~ 25-8-261(B)(5); ~~[7, or]~~

- 496 (d) necessary to allow a hard surfaced trail to be located in
497 an area not otherwise allowed under Subsection ~~[Section]~~
498 25-8-261(B)(3);
- 499 (e) necessary to allow the specified green stormwater
500 infrastructure to be located in an area not otherwise
501 allowed under Subsection 25-8-261(H);
- 502 (f) except in the Barton Springs Zone, necessary to allow a
503 private driveway or private street to cross a critical water
504 quality zone if the crossing is necessary to provide
505 primary access to the right-of-way or the crossing is
506 required to comply with public health and safety
507 requirements; or
- 508 (g) necessary to allow residential use of up to 11 units
509 located on an existing single family platted lot.
- 510 (3)~~(2)~~ Section 25-8-261 (*Critical Water Quality Zone*
511 *Development*), for development within an urban watershed,
512 only if the proposed development:
- 513 (a) is located not less than 25 feet from the centerline of a
514 waterway,
- 515 (b) is located outside the erosion hazard zone, unless
516 protective works are provided as prescribed in the
517 Drainage Criteria Manual,
- 518 (c) does not increase non-compliance, if any, with Article 7,
519 Division 1 (*Critical Water Quality Zone Restrictions*),
520 Section 25-8-281 (*Critical Environmental Features*) or
521 Section 25-8-282 (*Wetland Protection*), and
- 522 (d) restores native vegetation and soils if development is
523 removed from the Critical Water Quality Zone;

(4)~~(3)~~ Subsection 25-8-262(B) (*Critical Water Quality Zone Street Crossings*), only outside the Barton Springs Zone;

(5)~~(4)~~ Section 25-8-281 (*Critical Environmental Features*);

(6)~~(5)~~ Section 25-8-322 (*Clearing for a Roadway*);

(7)~~(6)~~ Section 25-8-341 (*Cut Requirements*) or Section 25-8-342 (*Fill Requirements*), for a cut or fill of not more than eight feet:

(a) in the desired development zone; ~~and,~~

(b) for a public primary or secondary educational facility[; ~~within the desired development zone or the drinking water protection zone~~]; or

(c) for residential construction of up to 11 units located on an existing single family platted lot.

~~(8)~~ Subsection 25-8-343(A) (*Spoil Disposal*);

(9)~~(8)~~ Section 25-8-365 (*Interbasin Diversion*); or

~~(10)~~~~(9)~~ Subsection 25-8-392(B)(6) (*Uplands Zone*), Subsection 25-8-392(C)(6) (*Uplands Zone*), Subsection 25-8-423(D) (*Uplands Zone*), or Subsection 25-8-453(E) (*Uplands Zone*).

(C) It is the applicant's burden to establish that the findings described in this Section have been met.

(D) The director ~~[of the Watershed Protection Department]~~ may grant a variance described in Subsection (B) only after determining that development in accordance with the variance meets the objective of the requirement for which the variance is requested and:

- (1) for property in the Barton Springs Zone, the variance will result in water quality that is at least equal to the water quality achievable without the variance;

- (2) for a variance from Subsection 25-8-213(C), that the proposed water quality control is necessitated by unique site conditions, excluding any potential loss of impervious cover entitlements resulting from full compliance;
- (3) for a variance from Section 25-8-261, that the development is necessary to allow a private driveway or private street to cross a critical water quality zone; The applicant must also demonstrate compliance with the following:
- (a) The crossing must span the active channel or use open bottom culverts as determined by the director;
 - (b) In suburban watersheds, critical water quality zone buffer averaging must be applied to the extent feasible in order to minimize the area of the private driveway within the critical water quality zone impacted by the crossing.
 - (c) The location of the crossing must minimize impacts to critical environmental features, protected and heritage trees, and slopes greater than 15%, and must minimize the amount of cut or fill necessary for construction.
 - (d) The construction is not located in the Barton Springs Zone.
- (4) for a variance from Section 25-8-261, the development is necessary to allow residential construction of up to 11 units located on an existing single family platted lot if:
- (a) the modification is the minimum deviation necessary to ensure reasonable use and maintenance of the property for an existing nonconforming structure;
 - (b) for new development, the director determines that:
 - (i) the usable lot area cannot accommodate the assumed square footage of impervious cover

established under Section 25-8-64 (*Impervious Cover Assumptions*), after accounting for all applicable regulations;

(ii) the total proposed impervious cover does not exceed the assumed square footage of impervious cover established under Section 25-8-64; and

(iii) the development is the minimum deviation necessary to accommodate the development.

~~(5)~~~~(2)~~ for a variance from Subsection ~~[Section]~~ 25-8-261(B)(5), that the proposed work on or placement of the athletic field will have no adverse environmental impacts;

(6) for a variance from Subsection 25-8-261(H), that the green stormwater infrastructure is:

(a) not required for regulatory compliance with 25-8-211 (*Water Quality Control Requirement*);

(b) designed to capture runoff from existing, untreated impervious cover; and

(c) proposed in a location that is the minimum necessary departure from the code requirement;

~~(7)~~~~(3)~~ for a variance from Section 25-8-281, that the proposed measures preserve all characteristics of the critical environmental feature;

~~(8)~~~~(4)~~ for a variance from Section 25-8-341 or Section 25-8-342, the cut or fill is not located on a slope with a gradient of more than 15 percent or within 100 feet of a classified waterway;

(9) for a variance from Section 25-8-341 or Section 25-8-342 necessary to allow residential construction of up to 11 units located on an existing single family platted lot, if:

(a) for an existing nonconforming structure, the modification is the minimum deviation necessary to ensure reasonable use and maintenance of the property; or

(b) for new development, the director determines that:

(i) the usable lot area cannot accommodate the assumed square footage of impervious cover established under 25-8-64 (*Impervious Cover Assumptions*), after accounting for all applicable regulations;

(ii) the total proposed impervious cover does not exceed the assumed square footage of impervious cover established under 25-8-64; and

(iii) the development is the minimum deviation necessary to accommodate the development.

(10)[(5)] for a variance from Subsection [Section] 25-8-343(A), use of the spoil provides a necessary public benefit. Necessary public benefits include:

(a) roadways;

(b) stormwater detention facilities;

(c) public or private park sites; and

(d) building sites that comply with Section 25-8-341 (*Cut Requirements*), Section 25-8-342 (*Fill Requirements*), and Chapter 25-7 (*Drainage*); [and]

(11)[(6)] for a variance from Section 25-8-365, there are no adverse environmental or drainage impacts; and

(12)[(7)] a variance from Subsection 25-8-392(B)(6), Subsection 25-8-392(C)(6), Subsection 25-8-423(D), or Subsection 25-8-453(E), the variance:

(a) is the minimum deviation needed to provide necessary improvements for a public mobility project in the right-of-way; and

(b) does not create significant adverse environmental impacts.

(E) The [~~Watershed Protection Department~~] director shall prepare written findings to support the grant or denial of a variance request under this section.

PART 13. Subsection (A) of City Code Section 25-8-62 (*Net Site Area*) is amended to read:

(A) Net site area includes only the portions of a site that lie in an uplands zone and have not been designated for surface or subsurface wastewater irrigation.

PART 14. Subsection (C) of Section 25-8-63 (*Impervious Cover Calculations*) is amended to read:

(C) Impervious cover calculations exclude:

(1) sidewalks in a public right-of-way or public easement;

(2) multi-use trails open to the public and located on public land or in a public easement;

(3) water quality controls, excluding subsurface water quality controls;

(4) detention basins, excluding subsurface detention basins;

(5) ground level rainwater harvesting cisterns, excluding subsurface cisterns;

- 661 (6)[~~(5)~~] drainage swales and conveyances;
- 662 (7)[~~(6)~~] the water surface area of ground level pools, fountains,
663 and ponds;
- 664 (8)[~~(7)~~] areas with gravel placed over pervious surfaces that are
665 used only for landscaping or by pedestrians and are not
666 constructed with compacted base;
- 667 (9)[~~(8)~~] porous pavement designed in accordance with the
668 Environmental Criteria Manual, limited to only pedestrian
669 walkways and multi-use trails, and located outside the Edwards
670 Aquifer Recharge Zone;
- 671 (10)[~~(9)~~] fire lanes designed as prescribed by the Environmental
672 Criteria Manual, that consist of interlocking pavers, and are
673 restricted from routine vehicle access;
- 674 (11)[~~(10)~~] an access ramp for an existing single-family and duplex
675 residential unit if:
- 676 (a) a person with a disability requires access to a dwelling
677 entrance that meets the requirements of the Residential
678 Code, Section R320.6 (*Visitable dwelling entrance*);
- 679 (b) the building official determines that the ramp will not
680 pose a threat to public health and safety;
- 681 (c) the ramp:
- 682 (i) is no wider than 48 inches, except that any portion
683 of a landing for the ramp required for turns may be
684 no wider than 60 inches; and
- 685 (ii) may have a hand railing, but may not have a roof
686 or walls; and
- 687 (d) the ramp is located in a manner that utilizes existing
688 impervious cover to the greatest extent possible if:

- 689 (i) impervious cover on the property is at or above the
690 maximum amount of impervious cover allowed by
691 this title; or
- 692 (ii) if placement of the ramp would result in the
693 property exceeding the maximum amount of
694 impervious cover allowed by this title; and
- 695 (12)[(11)] a subsurface portion of a parking structure if the director
696 [~~of the Watershed Protection Department~~] determines that:
- 697 (a) the subsurface portion of the structure:
- 698 (i) is located within an urban or suburban watershed;
- 699 (ii) is below the grade of the land that existed before
700 construction of the structure;
- 701 (iii) is covered by soil with a minimum depth of two
702 feet and an average depth of not less than four feet;
703 and
- 704 (iv) has an area not greater than fifteen percent of the
705 site;
- 706 (b) the structure is not associated with a use regulated by
707 Section 1.2.2 of Subchapter F of Chapter 25-2
708 (*Residential Design and Compatibility Standards*);
- 709 (c) the applicant submits an assessment of the presence and
710 depth of groundwater at the site sufficient to determine
711 whether groundwater will need to be discharged or
712 impounded; ~~and~~
- 713 (d) the applicant submits documentation that the discharge or
714 impoundment of groundwater from the structure, if any,
715 will be managed to avoid adverse effects on public health
716 and safety, the environment, and adjacent property; and

(13) for purposes of residential building permit review only, no more than two feet of elevated, projecting elements such as eaves, overhangs, cantilevered portions of structures, balconies, awnings, and bay windows. This exemption does not apply to site plans or the calculation of the drainage charge under Section 15-2-5 (Impervious Cover Calculation).

PART 15. City Code Section 25-8-64 (*Impervious Cover Assumptions*) is amended to add a new Subsection (E) to read:

(E) The applicant must demonstrate that all proposed one- and two-unit residential lots have usable lot area that can reasonably accommodate the assumed square footage of impervious cover established by Subsection (B). The usable lot area must account for all applicable waterway setbacks, floodplains, steep slopes, critical environmental features, protected trees, on-site sewage facilities, and other relevant code restrictions.

PART 16. Subsections (A), (B), (C), and (F) of City Code Section 25-8-92 (*Critical Water Quality Zones Established*) are amended to read:

(A) In the water supply rural watersheds, water supply suburban watersheds, and Barton Springs Zone, a critical water quality zone is established along each waterway classified under Section 25-8-91 (*Waterway Classifications*).

(1) The boundaries of a critical water quality zone coincide with the boundaries of the 100-year flood plain as determined under Section 25-7-6 (Determination of the 100-Year Floodplain), except:

- (a) for a minor waterway, the boundaries of the critical water quality zone are located not less than 50 feet and not more than 100 feet from the centerline of the waterway;
- (b) for an intermediate waterway, the boundaries of the critical water quality zone are located not less than 100

747 feet and not more than 200 feet from the centerline of the
748 waterway;

749 (c) for a major waterway, the boundaries of the critical water
750 quality zone are located not less than 200 feet and not
751 more than 400 feet from the centerline of the waterway;
752 and

753 (d) for the main channel of Barton Creek, the boundaries of
754 the critical water quality zone are located 400 feet from
755 the centerline of the creek.

756 (2) Notwithstanding the provisions of Subsections (A)(1)(a), (b),
757 and (c), a critical water quality zone does not apply to a
758 drainage ditch located parallel and adjacent to [previously
759 modified drainage feature serving] a railroad or public roadway
760 right-of-way if the ditch: [that does not possess any natural and
761 traditional character and cannot reasonably be restored to a
762 natural condition, as prescribed in the Environmental Criteria
763 Manual.]

764 (a) was designed and constructed primarily to serve the
765 adjacent railroad or public roadway;

766 (b) is not a segment or modification of a natural waterway;

767 (c) does not possess any natural and traditional character;
768 and

769 (d) cannot reasonably be restored to a natural condition due
770 to existing site constraints.

771 (B) In the suburban watersheds, a critical water quality zone is established
772 along each waterway classified under Section 25-8-91 (*Waterway*
773 *Classifications*).

- (1) For [for] a minor waterway, the boundaries of the critical water quality zone are located 100 feet from the centerline of the waterway.[;]
- (2) For [for] an intermediate waterway, the boundaries of the critical water quality zone are located 200 feet from the centerline of the waterway.[;]
- (3) For [for] a major waterway, the boundaries of the critical water quality zone are located 300 feet from the centerline of the waterway.[;]
- (4) The [the] critical water quality zone boundaries may be reduced to not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, [and] 150 feet from the centerline of a major waterway, and 200 feet from the ordinary high water mark of the Colorado River downstream of the Longhorn Dam if the overall surface area of the critical water quality zone is the same or greater than the surface area that would be provided without the reduction, as prescribed in the Environmental Criteria Manual.[; and]
- (5) Notwithstanding [notwithstanding] the provisions of Subsections (B)(1), (2), and (3), a critical water quality zone does not apply to a drainage ditch located parallel and adjacent to [previously modified drainage feature serving] a railroad or public roadway right-of-way if the ditch: [that does not possess any natural and traditional character and cannot reasonably be restored to a natural condition.]
- (a) was designed and constructed primarily to serve the adjacent railroad or public roadway;
- (b) is not a segment or modification of a natural waterway;
- (c) does not possess any natural and traditional character;
and

804 (d) cannot reasonably be restored to a natural condition due
805 to existing site constraints.

806 (C) In an urban watershed, a critical water quality zone is established
807 along each waterway with a drainage area of at least 64 acres. This
808 does not apply in the area bounded by IH-35, Riverside Drive, Barton
809 Springs Road, Lamar Boulevard, and 15th Street.

810 (1) The boundaries of the critical water quality zone coincide with
811 the boundaries of the 100-year floodplain as determined under
812 Section 25-7-6 (*Determination of the 100-Year Floodplain*),
813 provided that the boundary is not less than 50 feet and not more
814 than 400 feet from the centerline of the waterway.

815 (2) Notwithstanding the provisions of Subsection (C)(1), a critical
816 water quality zone does not apply to a drainage ditch located
817 parallel and adjacent to [~~previously modified drainage feature~~
818 ~~serving~~] a railroad or public roadway right-of-way if the ditch:
819 ~~[that does not possess any natural and traditional character and~~
820 ~~cannot reasonably be restored to a natural condition.]~~

821 (a) was designed and constructed primarily to serve the
822 adjacent railroad or public roadway;

823 (b) is not a segment or modification of a natural waterway;

824 (c) does not possess any natural and traditional character;
825 and

826 (d) cannot reasonably be restored to a natural condition due
827 to existing site constraints.

828 (F) Critical water quality zones are established along and parallel to the
829 shorelines of the Colorado River downstream of Lady Bird Lake.

830 (1) The shoreline boundary of a critical water quality zone
831 coincides with the river's ordinary high water mark, as defined

by Code of Federal Regulations Title 33, Section 328.3
(Definitions).

- (2) The width of a critical water quality zone, measured horizontally inland, is 400 feet. [The inland boundary of a critical water quality zone coincides with the boundary of the 100-year floodplain as determined under Section 25-7-6 (Determination of the 100-Year Floodplain) except that the width of the critical water quality zone, measured horizontally inland, is not less than 200 feet and not more than 400 feet.]

PART 17. Subsection (A) of City Code Section 25-8-121 (*Environmental Resource Inventory Requirement*) is amended to read:

- (A) An applicant shall file an environmental resource inventory with the director for proposed development located on a tract:

(1) within the Edwards Aquifer recharge [~~or contributing~~] zone;

~~[(2) within the Drinking Water Protection Zone;~~

~~[(3) containing a water quality transition zone;]~~

~~[(2)][(4)]~~ containing a critical water quality zone; [~~or~~]

~~[(3)][(5)]~~ with a gradient of more than 15 percent;

[(4)] containing, or within 150 feet of, a potential or verified wetland feature as identified in a map maintained by the Watershed Protection Department and made available for reference online and at the offices of the Development Services Department.

PART 18. Subsection (A) of City Code Section 25-8-182 (*Development Completion*) is amended to read:

- (A) Development is not completed until:

(1) permanent revegetation is established; and

(2) the director [~~Planning and Development Review Department~~]:

(a) receives the engineer's concurrence letter; and

(b) certifies installation of the vegetation for acceptance.

PART 19. Subsections (B) and (C) of City Code Section 25-8-184 (*Additional Erosion and Sedimentation Control Requirements in the Barton Springs Zone*) are amended to read:

(B) A temporary erosion and sedimentation control plan and a water quality plan certified by a registered professional engineer and approved by the director [~~Planning and Development Review Department~~] is required.

(1) The plans must describe the temporary structural controls, site management practices, or other approved methods that will be used to control off-site sedimentation until permanent revegetation is certified as completed under Section 25-8-182 (*Development Completion*).

(2) The temporary erosion control plan must be phased to be effective at all stages of construction. Each temporary erosion control method must be adjusted, maintained, and repaired as necessary.

(C) The director [~~Planning and Development Review Department~~] may require a modification of the temporary erosion control plan after determining that the plan does not adequately control off-site sedimentation from the development. Approval by the director [~~Planning and Development Review Department~~] and the engineer who certified the plan is required for a major modification of the plan.

PART 20. Subsection (A) of City Code Section 25-8-185 (*Overland Flow*) is amended to read:

(A) Drainage patterns must be designed to:

- 886 (1) prevent erosion;
- 887 (2) maintain infiltration and recharge of local seeps, ~~and~~ springs,
- 888 and waterways;
- 889 (3) attenuate the harm of contaminants collected and transported by
- 890 stormwater; ~~and~~
- 891 (4) where feasible ~~[possible]~~, maintain and restore overland sheet
- 892 flow, maintain natural drainage features and patterns, and
- 893 disperse runoff back to sheet flow; and
- 894 (5) where feasible, direct stormwater to landscape areas including
- 895 islands, medians, peninsulas, and other similar areas. Exceptions
- 896 to this requirement include:
- 897 (a) perimeter landscape areas that are not required to drain to
- 898 a stormwater control measure;
- 899 (b) impervious areas on which the land use or activity may
- 900 generate highly contaminated runoff, as prescribed by the
- 901 Environmental Criteria Manual; and
- 902 (c) impervious areas used for parking or driving of vehicles if
- 903 located within the Edwards Aquifer recharge zone.

904 **PART 21.** City Code Section 25-8-213 (*Water Quality Control Standards*) is

905 amended to read:

906 **§ 25-8-213 WATER QUALITY CONTROL STANDARDS.**

- 907 (A) A water quality control must be designed in accordance with the
- 908 Environmental Criteria Manual.
- 909 (1) The control must achieve the load reduction standards
- 910 prescribed in ~~[provide at least the treatment level of a~~
- 911 ~~sedimentation/filtration system under]~~ the Environmental
- 912 Criteria Manual.

(2) An impervious liner is required for structural water quality controls over the Edwards Aquifer recharge zone ~~[in an area where there is surface runoff to groundwater conductivity]~~. If a liner is required and there are multiple controls ~~[are located]~~ in series, liners are only required for the first control in the series ~~[not required for the second or later in the series following sedimentation, extended detention, or sedimentation/filtration]~~.

(3) The control must be accessible for maintenance and inspection as prescribed in the Environmental Criteria Manual.

(B) A water quality control must capture and treat the water draining to the control from the contributing area. The required capture volume is:

(1) the first one-half inch of runoff; and

(2) for each 10 percent increase in impervious cover over 20 percent of gross site area, an additional one-tenth of an inch of runoff.

(C) The required water quality treatment must be provided using green stormwater control measures, as prescribed in the Environmental Criteria Manual.

(D) Notwithstanding Subsection (C), all or part of the required water quality treatment may be provided using other water quality controls for:

(1) areas with land uses or activities that may generate highly contaminated runoff, as described in the Environmental Criteria Manual;

(2) a project that provides water quality treatment for currently untreated, developed off-site areas of at least ten acres in size;
or

941 (3) sites with impervious cover of greater than 90 percent gross site
942 area.

943 (E)(C) The location of a water quality control:

944 (1) must avoid recharge features to the greatest extent possible;

945 (2) must be shown on the slope map, preliminary plan, site plan, or
946 subdivision construction plan, as applicable; and

947 (3) in a water supply rural watershed, may not be in the 40 percent
948 buffer zone, unless the control disturbs less than 50% of the
949 buffer, and is located to maximize overland flow and recharge
950 in the undisturbed remainder of the 40 percent buffer zone.

951 (E)(D) This subsection provides additional requirements for the Barton
952 Springs Zone.

953 (1) Approval by the Watershed Protection Department is required
954 for a proposed water quality control that is not described in the
955 Environmental Criteria Manual. The applicant must substantiate
956 the pollutant removal efficiency of the proposed control with
957 published literature or a verifiable engineering study.

958 (2) Water quality controls must be placed in sequence if necessary
959 to remove the required amount of pollutant. The sequence of
960 controls must be:

961 (a) based on the Environmental Criteria Manual or generally
962 accepted engineering principles; and

963 (b) designed to minimize maintenance requirements.

964 **PART 22.** Subsection (A) of City Code Section 25-8-214 (*Optional Payment*
965 *Instead of Structural Controls in Urban Watersheds*) is amended to read as
966 follows:

967 (A) The director [~~of the Watershed Protection Department~~] shall identify
968 and prioritize water quality control facilities for the urban watersheds

in an Urban Watersheds Structural Control Plan. The Environmental Commission [Board] shall review the plan annually [~~in January of each year~~].

PART 23. Subsection (B) of City Code Section 25-8-232 (*Dedicated Fund*) is amended to read:

(B) An applicant shall pay the required fee into the fund:

(1) for development that does not require a site plan, when the applicant posts fiscal security for the subdivision or requests that the director of the Development Services Department record the subdivision plat, whichever occurs first; or

(2) for development that requires a site plan, when the site plan is approved.

PART 24. City Code Section 25-8-233 (*Barton Springs Zone Operating Permit*) is amended to read:

§ 25-8-233 BARTON SPRINGS ZONE OPERATING PERMIT.

(A) In the Barton Springs Zone, the owner or operator of a commercial or multifamily development is required to obtain an annual operating permit for the required water quality controls.

(B) To obtain an annual operating permit, an applicant must:

(1) provide the director [~~Planning and Development Review Department~~] with:

(a) a maintenance plan; and

(b) the information necessary to verify that the water quality controls are in proper operating condition; and

(2) pay the required, nonrefundable fee.

(C) The director [~~Planning and Development Review Department~~] may verify that a water quality control is in proper operating condition by either inspecting the water quality control or accepting a report from a registered engineer.

(D) The director [~~Planning and Development Review Department~~] shall issue an operating permit after determining that:

(1) the applicant has complied with the requirements of Subsection (B); and

(2) the water quality controls are in proper operating condition.

(E) The director [~~Planning and Development Review Department~~] shall transfer an operating permit to a new owner or operator if, not later than 30 days after a change in ownership or operation, the new owner or operator:

(1) signs the operating permit;

(2) accepts responsibility for the water quality controls; and

(3) documents the transfer on a form provided by the director [~~Planning and Development Review Department~~].

Part 25. Chapter 25-8, Article 7, Division 1 (*Critical Water Quality Zone Restrictions*) is renamed to read:

Division 1. Waterway and Floodplain Protection.

PART 26. City Code Section 25-8-261 (*Critical Water Quality Zone Development*) is amended to read:

§ 25-8-261 CRITICAL WATER QUALITY ZONE DEVELOPMENT.

In all watersheds, development is prohibited in a critical water quality zone except as provided in this Division. Development allowed in the critical water quality zone under this Division shall be revegetated and restored

1020 within the limits of construction as prescribed by the Environmental Criteria
1021 Manual.

1022 (A) A fence that does not obstruct flood flows is permitted in a
1023 critical water quality zone.

1024 (B) Open space is permitted in a critical water quality zone if a
1025 program of fertilizer, pesticide, and herbicide use is approved
1026 by the Watershed Protection Department, subject to the
1027 conditions in this Subsection.

1028 (1) In a water supply rural watershed, water supply
1029 suburban, or the Barton Springs Zone, open space is
1030 limited to sustainable urban agriculture or a community
1031 garden if the requirements in subsection (B)(4) are met,
1032 multi-use trails, picnic facilities, and outdoor facilities,
1033 excluding stables, corrals for animals and athletic fields.

1034 (2) A ~~[master planned]~~ park with a council-adopted plan
1035 ~~[that is approved by the council]~~ may include recreational
1036 development other than that described in Subsection
1037 (B)(1).

1038 (3) A hard surfaced trail may cross the critical water quality
1039 zone pursuant to Section 25-8-262 (*Critical Water*
1040 *Quality Zone Street Crossings*). A hard surfaced trail that
1041 does not cross the critical water quality zone may be
1042 located within the critical water quality zone only if:

1043 (a) designed in accordance with the Environmental
1044 Criteria Manual;

1045 (b) located outside the erosion hazard zone unless
1046 protective works are provided as prescribed in the
1047 Drainage Criteria Manual;

- 1048 (c) limited to 12 feet in width plus one-foot compacted
1049 sub-grade shoulders, unless a wider trail is
1050 designated in a Council-adopted plan;
- 1051 (d) located not less than 25 feet from the centerline of
1052 a waterway if within an urban watershed;
- 1053 (e) located not less than 50 feet from the centerline of
1054 a minor waterway, 100 feet from the centerline of
1055 an intermediate waterway, and 150 feet from the
1056 centerline of a major waterway if within a
1057 watershed other than an urban watershed;
- 1058 (f) located not less than 50 feet from the shoreline of
1059 Lake Travis, Lake Austin, Lady Bird Lake, and
1060 Lake Walter E. Long, as defined in Section 25-8-
1061 92; and
- 1062 (g) located not less than 200 [~~400~~] feet from the
1063 ordinary high water mark of the Colorado River
1064 downstream from Longhorn Dam.
- 1065 (4) Open space may include sustainable urban agriculture or
1066 a community garden only if:
- 1067 (a) in an urban watershed and located not less than 25
1068 feet from the centerline of a waterway, or in a
1069 watershed other than an urban watershed and
1070 located not less than 50 feet from the centerline of
1071 a minor waterway, 100 feet from the centerline of
1072 an intermediate waterway, and 150 feet from the
1073 centerline of a major waterway;
- 1074 (b) located not less than 50 feet from the shoreline of
1075 Lake Travis, Lake Austin, Lady Bird Lake, and
1076 Lake Walter E. Long, as defined in Section 25-8-
1077 92;

(c) located not less than 200 [~~400~~] feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam;

(d) designed in accordance with the Environmental Criteria Manual; and

(e) limited to garden plots and paths, with no storage facilities or other structures over 500 square feet.

(5) In a suburban or urban watershed, open space may include an athletic field only if:

(a) in an urban watershed and located not less than 25 feet from the centerline of a waterway, or in a suburban watershed and located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, and 150 feet from the centerline of a major waterway;

(b) located not less than 50 feet from the shoreline of Lady Bird Lake and Lake Walter E. Long, as defined in Section 25-8-92;

(c) located not less than 200 [~~400~~] feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam; and

(d) the owner of the athletic field submits to the Watershed Protection Department a maintenance plan to keep the athletic field well vegetated and minimize compaction, as prescribed in the Environmental Criteria Manual.

(C) The requirements of this subsection apply along Lake Travis, Lake Austin, Lake Walter E. Long, or Lady Bird Lake.

- 1107 (1) A dock, public boat ramp, bulkhead or marina, and
1108 necessary access and appurtenances, are permitted in a
1109 critical water quality zone subject to compliance with
1110 Chapter 25-2, Subchapter C, Article 12 (*Docks,*
1111 *Bulkheads, and Shoreline Access*). For a single-family
1112 residential use, necessary access may not exceed the
1113 minimum area of land disturbance required to construct a
1114 single means of access from the shoreline to a dock.
- 1115 (2) Disturbed areas must be restored in accordance with the
1116 Environmental Criteria Manual and the following
1117 requirements:
- 1118 (a) Within a lakefront critical water quality zone, or an
1119 equivalent area within 25 feet of a shoreline,
1120 restoration must include:
- 1121 (i) at least one native shade tree and one native
1122 understory tree, per 500 square feet of
1123 disturbed area; and
- 1124 (ii) one native shrub per 150 square feet of
1125 disturbed area; and
- 1126 (b) Remaining disturbed areas must be restored per
1127 standard specifications for native restoration.
- 1128 (3) Within the shoreline setback area defined by Section 25-
1129 2-551 (*Lake Austin (LA) District Regulations*) and within
1130 the overlay established by Section 25-2-180 (*Lake Austin*
1131 *(LA) Overlay District*), no more than 30 percent of the
1132 total number of shade trees of 8 inches or greater, as
1133 designated in the Environmental Criteria Manual, may be
1134 removed.
- 1135 (4) Before a building permit may be issued or a site plan
1136 released, approval by the Watershed Protection

Department is required for chemicals used to treat building materials that will be submerged in water.

(5) Bank erosion above the 100-year-flood plain may be stabilized within a lakefront critical water quality zone if the restoration meets the requirements of Subsection (B) (2) of this section.

(6) A retaining wall, bulkhead, or other erosion protection device must be designed and constructed to minimize wave return and wave action in compliance with the Environmental Criteria Manual. A shoreline modification within the wave action zone with a greater than 45 degree vertical slope for any portion greater than one foot in height is not allowed on or adjacent to the shoreline of a lake, unless the shoreline modification is located within an existing man-made channel.

(7) A retaining wall, bulkhead, or other erosion protection device may not capture or recapture land from a lake unless doing so is required to restore the shoreline to whichever of the following boundaries would encroach the least into the lake:

(a) the shoreline as it existed ten years prior to the date of application, with documentation as prescribed by the Environmental Criteria Manual; or

(b) the lakeside boundary of the subdivided lot line.

(8) A bulkhead may be replaced in front of an existing bulkhead once, if:

(a) the existing bulkhead was legally constructed;

(b) construction of the replacement bulkhead does not change the location of the shoreline by more than 6 inches; and

(c) the director determines that there is no reasonable alternative to replacement of the bulkhead in the location of the existing bulkhead.

(9) Dredging is prohibited unless:

(a) the area of dredging is less than 25 cubic yards; and

(b) the dredging is necessary for navigation safety.

(D) A new utility line or major replacement of an existing utility line, including a storm drain, or a utility easement associated with planned infrastructure, is prohibited in the critical water quality zone, except as provided in subsection (E) or for a necessary crossing. A necessary utility crossing may cross into or through a critical water quality zone only if:

(1) the utility line follows the most direct path into or across the critical water quality zone to minimize disturbance, unless boring or tunneling is the proposed method of installation for the entire crossing and all bore pits are located outside of the critical water quality zone;

(2) the depth of the utility line and location of associated access shafts are not located within an erosion hazard zone, unless protective works are provided as prescribed in the Drainage Criteria Manual;

(3) stormwater outfalls minimize disturbance to the bank of the Colorado River by locating outfalls in upstream drainages where feasible; and

1191 (4)~~(3)~~ in the Barton Springs Zone, the crossing is
1192 approved by the director [~~of the Watershed Protection~~
1193 Department].

1194 (E) In the urban and suburban watersheds, a new utility line or
1195 major replacement of an existing utility line, or a utility
1196 easement associated with planned infrastructure, may be located
1197 parallel to and within the critical water quality zone if:

1198 (1) in an urban watershed and located not less than 50 feet
1199 from the centerline of a waterway, or in a watershed
1200 other than urban and located not less than 50 feet from
1201 the centerline of a minor waterway, 100 feet from the
1202 centerline of an intermediate waterway, and 150 feet
1203 from the centerline of a major waterway;

1204 (2) located not less than 50 feet from the shoreline of Lady
1205 Bird Lake and Lake Walter E. Long, as defined in
1206 Section 25-8-92;

1207 (3) located not less than 200 [~~100~~] feet from the ordinary
1208 high water mark of the Colorado River downstream from
1209 Longhorn Dam;

1210 (4) designed in accordance with the Environmental Criteria
1211 Manual;

1212 (5) located outside the erosion hazard zone, unless protective
1213 works are provided as prescribed in the Drainage Criteria
1214 Manual; and

1215 (6) the project includes either riparian restoration of an area
1216 within the critical water quality zone equal in size to the
1217 area of disturbance in accordance with the Environmental
1218 Criteria Manual, or payment into the Riparian Zone
1219 Mitigation Fund of a non-refundable amount established
1220 by ordinance.

- 1221 (F) In-channel detention basins and in-channel wet ponds are
1222 allowed in the critical water quality zone only if:
- 1223 (1) proposed as part of a public capital improvement project
1224 or public private partnership;
- 1225 (2) no alternative location is feasible; and
- 1226 (3) designed in accordance with the Environmental Criteria
1227 Manual.
- 1228 (G) Floodplain modification is [~~modifications are~~] prohibited in the
1229 critical water quality zone unless the modification proposed:
- 1230 (1) is [~~the floodplain modifications proposed are~~] necessary
1231 to address an existing threat to public health and safety,
1232 as determined by the director [~~of the Watershed~~
1233 ~~Protection Department~~];
- 1234 (2) is designed solely to improve floodplain health [~~the~~
1235 ~~floodplain modifications proposed would provide a~~
1236 ~~significant, demonstrable environmental benefit,~~] as
1237 determined by a functional assessment of floodplain
1238 health as prescribed by the Environmental Criteria
1239 Manual; or
- 1240 (3) is the minimum [~~the floodplain modifications proposed~~
1241 ~~are~~] necessary for development allowed in the critical
1242 water quality zone under Section 25-8-261 (*Critical*
1243 *Water Quality Zone Development*), Section 25-8-262
1244 (*Critical Water Quality Zone Street Crossings*), or
1245 Section 25-8-367 (*Restrictions on Development*
1246 *Impacting Lake Austin, Lady Bird Lake, and Lake Walter*
1247 *E. Long*) as prescribed by the Environmental Criteria
1248 Manual.

- 1249 (H) In the urban and suburban watersheds, vegetative filter strips,
1250 rain gardens, biofiltration ponds, areas used for irrigation or
1251 infiltration of stormwater, or other controls as prescribed by
1252 rule are allowed in the critical water quality zone if:
- 1253 (1) in an urban watershed and located not less than 50 feet
1254 from the centerline of a waterway, or in a watershed
1255 other than urban and located no less than 50 feet from the
1256 centerline of a minor waterway, no less than 100 feet
1257 from the centerline of an intermediate waterway, and no
1258 less than 150 feet from the centerline of a major
1259 waterway;
- 1260 (2) located not less than 50 feet from the shoreline of Lady
1261 Bird Lake and Lake Walter E. Long, as defined in
1262 Section 25-8-92;
- 1263 (3) located not less than 200 [~~400~~] feet from the ordinary
1264 high water mark of the Colorado River downstream from
1265 Longhorn Dam;
- 1266 (4) located outside the 100-year floodplain; and
- 1267 (5) located outside the erosion hazard zone, unless protective
1268 works are provided as prescribed in the Drainage Criteria
1269 Manual.
- 1270 (I) Development associated with power generation, transmission,
1271 or distribution at the Decker Creek Power Station is allowed in
1272 the critical water quality zone.
- 1273 (J) A residential lot that is 5,750 square feet or less in size may not
1274 include any portion of a critical water quality zone.

1275 **PART 27.** Subsections (B) and (C) of City Code Section 25-8-262 (*Critical Water*
1276 *Quality Zone Mobility Crossings*) are amended to read:

- 1277 (B) This subsection applies in a watershed other than an urban watershed.

- 1278 (1) A major waterway critical water quality zone may be crossed
1279 by a Level 3, 4, or 5 [~~an arterial~~] street or rail line identified in
1280 the Transportation Plan.
- 1281 (2) An intermediate waterway critical water quality zone may be
1282 crossed by a Level 2, 3, 4, or 5 [~~an arterial street, collector~~]
1283 street or rail line, except:
- 1284 (a) a Level 2 [~~collector~~] street crossing must be at least 2,500
1285 feet, measured along the centerline of the waterway, from
1286 a Level 2, 3, 4, or 5 [~~collector or arterial~~] street crossing
1287 on the same waterway; or
- 1288 (b) in a water supply suburban or water supply rural
1289 watershed, or the Barton Springs Zone, a Level 2
1290 [~~collector~~] street crossing must be at least one mile,
1291 measured along the centerline of the waterway, from a
1292 Level 2, 3, 4, or 5 [~~collector or arterial~~] street crossing on
1293 the same waterway.
- 1294 (3) A minor waterway critical water quality zone may be crossed
1295 by a Level 2, 3, 4, or 5 [~~an arterial street, collector~~] street[, or
1296 rail line, except:
- 1297 (a) a Level 2 [~~collector~~] street crossing must be at least 900
1298 feet, measured along the centerline of the waterway, from
1299 a Level 2, 3, 4, or 5 [~~collector or arterial~~] street crossing
1300 on the same waterway; or
- 1301 (b) in a water supply suburban or water supply rural
1302 watershed, or the Barton Springs Zone, a Level 2
1303 [~~collector~~] street crossing must be at least 2,000 feet,
1304 measured along the centerline of the waterway, from a
1305 Level 2, 3, 4, or 5 [~~collector or arterial~~] street crossing on
1306 the same waterway.

1307 (4) A minor waterway critical water quality zone may be crossed
1308 by a Level 1 or 2 [~~residential or commercial~~] street if necessary
1309 to provide access to property that cannot otherwise be safely
1310 accessed.

1311 (C) In all watersheds, multi-use trails may cross a critical water quality
1312 zone of any waterway if:

1313 (1) designed in compliance with the Environmental Criteria
1314 Manual; and

1315 (2) the development demonstrates no additional adverse impact
1316 from flood or erosion potential.

1317 **Part 28.** City Code Chapter 25-8 (*Environment*) is amended to add a new Section
1318 25-8-263 to read:

1319 **§ 25-8-263 FLOODPLAIN MODIFICATION.**

1320 (A) All floodplain modifications must:

1321 (1) be designed to accommodate existing and fully-vegetated
1322 hydraulic conditions;

1323 (2) apply sound engineering and ecological practices, prevent and
1324 reduce degradation of water quality, and demonstrate the
1325 stability and integrity of floodplains and waterways, as
1326 prescribed in the Environmental Criteria Manual;

1327 (3) restore floodplain health, or provide mitigation if restoration is
1328 infeasible, to support natural functions and processes as
1329 prescribed in the floodplain modification criteria in the
1330 Environmental Criteria Manual; and

1331 (4) comply with the requirements of Chapter 25-7 (*Drainage*), the
1332 Drainage Criteria Manual, and the Environmental Criteria
1333 Manual.

- 1334 (B) Floodplain modification within a critical water quality zone is
1335 prohibited except as allowed under Section 25-8-261 (*Critical Water*
1336 *Quality Zone Development*).
- 1337 (C) Floodplain modification outside a critical water quality zone is
1338 allowed only if the modification proposed:
- 1339 (1) is necessary to protect public health and safety by addressing an
1340 existing threat, as determined by the director;
- 1341 (2) is designed solely to improve floodplain health, as determined by
1342 a functional assessment of floodplain health as prescribed by the
1343 Environmental Criteria Manual;
- 1344 (3) is located within a floodplain area classified as in fair or poor
1345 condition, as determined by a functional assessment of
1346 floodplain health, and provides restoration or mitigation in
1347 accordance with the ratios and specifications prescribed in the
1348 Environmental Criteria Manual; or
- 1349 (4) is the minimum modification necessary for development allowed
1350 under Section 25-8-261 (*Critical Water Quality Development*) or
1351 25-8-262 (*Critical Water Quality Zone Mobility Crossings*).
- 1352 (D) If on-site restoration, as prescribed in the Environmental Criteria
1353 Manual, is infeasible and mitigation is required under this section, it
1354 may be satisfied by:
- 1355 (1) paying into the Riparian Zone Mitigation Fund a nonrefundable
1356 amount established by ordinance;
- 1357 (2) transferring in fee simple or placing restrictions on mitigation
1358 land approved by the director and meeting the following
1359 conditions:
- 1360 (a) located within the same watershed classification;

- 1361 (b) in accordance with the procedures in Subsection (H)(3)
1362 of Section 25-8-26 (*Redevelopment Exception in the*
1363 *Barton Springs Zone*);
- 1364 (c) dedicated to or restricted for the benefit of the City or
1365 another entity approved by the director and which the
1366 City or other approved entity accepts; and
- 1367 (d) an amount proportionate to the amount of area within the
1368 existing floodplain that is proposed to be modified, as
1369 prescribed in the Environmental Criteria Manual; or
- 1370 (3) a combination of the mitigation methods described in
1371 Subsections (D)(1) and (D)(2), if approved by the director.

1372 **PART 29.** Subsections (B) and (C) of City Code Section 25-8-281 (*Critical*
1373 *Environmental Features*) are amended to read:

- 1374 (B) A residential lot may not include a critical environmental feature or a
1375 critical environmental feature buffer zone and may not be located
1376 within 50 feet of a critical environmental feature.
- 1377 (C) This subsection prescribes the requirements for critical environmental
1378 feature buffer zones.
- 1379 (1) A buffer zone is established around each critical environmental
1380 feature described in this subchapter.
- 1381 (a) Except as provided in Subsection (C)(1)(b), the width of
1382 the buffer zone is 150 feet from the edge of the critical
1383 environmental feature.
- 1384 (b) For a point recharge feature, the buffer zone coincides
1385 with the topographically defined catchment basin, except
1386 that the width of the buffer zone from the edge of the
1387 critical environmental feature is:
- 1388 (i) not less than 150 feet;

(ii) not more than 300 feet; and

(iii) calculated in accordance with the Environmental Criteria Manual.

(2) Within a buffer zone described in this subsection:

(a) the natural vegetative cover must be retained to the maximum extent practicable;

(b) construction is prohibited; and

(c) wastewater disposal or irrigation is prohibited.

(3) If located at least 50 feet from the edge of the critical environmental feature, the prohibition of Subsection (C)(2)(b) does not apply to:

(a) a ~~yard or~~ hiking trail; ~~or~~

(b) a recharge basin approved under Section 25-8-213 (*Water Quality Control Standards*) that discharges to a point recharge feature; or[-]

(c) an innovative runoff management practice approved under Section 25-8-151 (*Innovative Management Practices*) that is designed to address the standards of this section, enhance the recharge of groundwater and the discharge of springs, and maintain the function of critical environmental features.

(4) Perimeter fencing with not less than one access gate must be installed at the outer edge of the buffer zone for all point recharge features. The fencing must comply with the Standard Specifications Manual.

(5) The owner must maintain the buffer zone in accordance with standards in the Environmental Criteria Manual to preserve the water quality function of the buffer.

1417 (6) All critical environmental feature locations and required setbacks
1418 must be shown on preliminary subdivision plans, site plans, and
1419 other permits as determined by the director.

1420 (7) All critical environmental feature locations must be shown on
1421 final plats.

1422 **PART 30.** City Code Section 25-8-282 (*Wetland Protection*) is amended to read:

1423 **§ 25-8-282 WETLAND PROTECTION.**

1424 (A) Wetlands must be protected in all watersheds except for wetlands
1425 located within the area [in the] bounded by Interstate 35, Riverside
1426 Drive, Barton Springs Road, Lamar Boulevard, and 15th Street that
1427 are not associated with the critical water quality zone of Lady Bird
1428 Lake.

1429 (B) Protection methods for wetlands require the approval of the director,
1430 and may include:

1431 (1) appropriate setbacks that preserve the wetlands or wetland The
1432 functions;

1433 (2) wetland mitigation, including wetland replacement; or

1434 (3) wetland restoration or enhancement[; ~~or~~]

1435 [~~(4) — use of a wetlands for water quality controls.~~]

1436 ~~[(C) — The director of the Watershed Protection Department may approve:~~

1437 ~~(1) — the removal and replacement of a wetland; or~~

1438 ~~(2) — the elimination of setbacks from a wetland that is proposed to~~
1439 ~~be used as a water quality control.]~~

1440 **PART 31.** City Code Section 25-8-323 (*Temporary Storage Areas; Topsoil*
1441 *Protection*) is amended to add a new Subsection (C) to read:

1442 (C) For areas on the site that are to remain pervious after development,
1443 any soils that are compacted during site grading and construction
1444 operations must be decompacted in compliance with the
1445 Environmental Criteria Manual and the Standard Specifications
1446 Manual.

1447 **PART 32.** City Code Section 25-8-341 (*Cut Requirements*) is amended to read:

1448 **§ 25-8-341 CUT REQUIREMENTS.**

1449 (A) Cuts on a tract of land may not exceed four feet of depth, except:

1450 (1) in an urban watershed;

1451 (2) in a roadway right-of-way;

1452 (3) for construction of a building foundation or swimming pool;

1453 (4) for construction of a water quality control or detention facility
1454 and appurtenances for conveyance such as swales, drainage
1455 ditches, and diversion berms, if:

1456 (a) the design and location of the facility within the site
1457 minimize the amount of cut over four feet;

1458 (b) the cut is the minimum necessary for the appropriate
1459 functioning of the facility; and

1460 (c) the cut is not located on a slope with a gradient of more
1461 than 15 percent or within 100 feet of a classified
1462 waterway;

1463 (5) for utility construction or a wastewater drain field, if the area is
1464 restored to natural grade;

1465 (6) in a state-permitted sanitary landfill or a sand or gravel
1466 excavation located in the extraterritorial jurisdiction, if:

1467 (a) the cut is not in a critical water quality zone;

- 1468 (b) the cut does not alter a 100-year floodplain;
- 1469 (c) the landfill or excavation has an erosion and restoration
1470 plan approved by the City; and
- 1471 (d) all other applicable City Code provisions are met.
- 1472 (7) for any cut associated with construction of a multi-use trail, if:
- 1473 (a) the cut is not located on a slope with a gradient of more
1474 than 15 percent or within 100 feet of a classified
1475 waterway;
- 1476 (b) the cut is limited to no more than eight feet in depth;
- 1477 (c) the cut is located in a public right-of-way or public
1478 easement; and
- 1479 (d) the trail is designed in accordance with the
1480 Environmental Criteria Manual; or
- 1481 (8) for construction of a street or driveway necessary to provide
1482 primary access if:
- 1483 (a) the construction complies with Division 3 (*Construction*
1484 *on Slopes*) of this article;
- 1485 (b) the cut is not within a critical water quality zone;
- 1486 (c) the cut is limited to no more than eight feet in depth;
- 1487 (d) the cut over four feet is the minimum amount necessary
1488 to comply with safety access requirements and the
1489 horizontal and vertical curve requirements of the
1490 Transportation Criteria Manual; and
- 1491 (e) there is no other feasible alternative for the street or
1492 driveway location.

PART 33. Subsection (A) of City Code Section 25-8-342 (*Fill Requirements*) is amended to read:

(A) Fill on a tract of land may not exceed four feet of depth, except:

(1) in an urban watershed;

(2) in a roadway right-of-way;

(3) under a foundation with sides perpendicular to the ground, or with pier and beam construction;

(4) for construction of a water quality control or detention facility and appurtenances for conveyance such as swales, drainage ditches, and diversion berms, if:

(a) the design and location of the facility within the site minimize the amount of fill over four feet;

(b) the fill is the minimum necessary for the appropriate functioning of the facility; and

(c) the fill is not located on a slope with a gradient of more than 15 percent or within 100 feet of a classified waterway;

(5) for utility construction or a wastewater drain field;

(6) in a state-permitted sanitary landfill located in the extraterritorial jurisdiction, if:

(a) the fill is derived from the landfill operation;

(b) the fill is not placed in a critical water quality zone or a 100-year floodplain;

(c) the landfill operation has an erosion and restoration plan approved by the City; and

(d) all other applicable City Code provisions are met; [ø]

- 1519 (7) for fill associated with construction of a multi-use trail, if:
- 1520 (a) the fill is not located on a slope with a gradient of more
- 1521 than 15 percent or within 100 feet of a classified
- 1522 waterway;
- 1523 (b) the fill is limited to no more than eight feet in depth;
- 1524 (c) the fill is located in a public right-of-way or public
- 1525 easement; and
- 1526 (d) the trail is designed in accordance with the
- 1527 Environmental Criteria Manual; or[-]
- 1528 (8) for construction of a street or driveway necessary to provide
- 1529 primary access if:
- 1530 (a) the construction complies with Division 3 (*Construction*
- 1531 *on Slopes*) of this article;
- 1532 (b) the fill is not within a critical water quality zone;
- 1533 (c) the fill is limited to no more than eight feet in depth;
- 1534 (d) the fill over four feet is the minimum amount necessary
- 1535 to comply with safety access requirements and the
- 1536 horizontal and vertical curve requirements of the
- 1537 Transportation Criteria Manual; and
- 1538 (e) there is no other feasible alternative for the street or
- 1539 driveway location.

1540 **PART 34.** City Code § 25-8-364 (*Floodplain Modification*) is repealed.

1541 **PART 35.** City Code § 25-8-367 (*Relocation of Shoreline Between Tom Miller*

1542 *Dam and Longhorn Dam*) is repealed.

1543 **PART 36.** City Code § 25-8-368 (*Restrictions on Development Impacting Lake*

1544 *Austin, Lady Bird Lake, and Lake Walter E. Long*) is repealed.

PART 37. Subsection (A) of City Code Section 25-8-422 (*Water Quality Transition Zone*) is amended to read:

(A) Development is prohibited in a water quality transition zone that lies over the South Edwards Aquifer recharge zone, except for:

(1) development described in Article 7, Division 1 (*Critical Water Quality Zone Restrictions*); and

(2) minor drainage facilities or water quality controls that comply with Section 25-8-263 [~~25-8-364~~] (*Floodplain Modification*) and the floodplain modification criteria in the Environmental Criteria Manual.

PART 38. City Code Section 25-8-452 (*Water Quality Transition Zone*) is amended to read:

§ 25-8-452 WATER QUALITY TRANSITION ZONE.

(A) Development is prohibited in a water quality transition zone that lies over the South Edwards Aquifer recharge zone, except for:

(1) development described in Article 7, Division 1 (*Critical Water Quality Zone Restrictions*); and

(2) minor drainage facilities or water quality controls that comply with Section 25-8-263 [~~25-8-364~~] (*Floodplain Modification*) and the floodplain modification criteria in the Environmental Criteria Manual.

(B) Development is prohibited in a water quality transition zone that lies outside the South Edwards Aquifer recharge zone, except for:

(1) development described in Article 7, Division 1 (*Critical Water Quality Zone Restrictions*);

(2) streets;

1571 (3) minor drainage facilities or water quality controls that comply
1572 with Section 25-8-263 [~~25-8-364~~] (*Floodplain Modification*) and
1573 the floodplain modification guidelines of the Environmental
1574 Criteria Manual; and

1575 (4) duplex or single-family residential development with a minimum
1576 lot size of two acres and a density of not more than one unit for
1577 each three acres, excluding acreage in the 100 year flood plain.

1578 (C) A lot that lies within a critical water quality zone must also include at
1579 least two acres in a water quality transition zone or uplands zone.

1580 **PART 39.** City Code Section 25-8-482 (*Water Quality Transition Zone*) is
1581 amended to read:

1582 **§ 25-8-482 WATER QUALITY TRANSITION ZONE.**

1583 (A) Development is prohibited in a water quality transition zone that lies
1584 over the Edwards Aquifer recharge zone, except for:

1585 (1) development described in Article 7, Division 1 (*Critical Water*
1586 *Quality Zone Restrictions*); and

1587 (2) minor drainage facilities or water quality controls that comply
1588 with Section 25-8-263 [~~25-8-364~~] (*Floodplain Modification*) and
1589 the floodplain modification criteria of the Environmental Criteria
1590 Manual.

1591 (B) Development is prohibited in a water quality transition zone that lies
1592 outside the Edwards Aquifer recharge zone, except for:

1593 (1) development described in Article 7, Division 1 (*Critical Water*
1594 *Quality Zone Restrictions*);

1595 (2) minor drainage facilities or water quality controls that comply
1596 with Section 25-8-263 [~~25-8-364~~] (*Floodplain Modification*) and
1597 the floodplain modification guidelines of the Environmental
1598 Criteria Manual;

- 1599 (3) streets; and
- 1600 (4) duplex or single-family residential housing with a minimum lot
- 1601 size of two acres and a density of not more than one unit for each
- 1602 three acres, excluding acreage in the 100-year floodplain.

1603 **Part 40.** City Code Chapter 25-8, Subchapter B, Article 2 (*Endangered Species*) is

1604 repealed.

1605 **Part 41.** City Code Chapter 25-8, Subchapter B, is amended to add a new Article 2

1606 to read:

1607 ***ARTICLE 2. THREATENED OR ENDANGERED SPECIES NOTIFICATION***

1608 **§ 25-8-691 THREATENED OR ENDANGERED SPECIES NOTIFICATION.**

1609 (A) This section applies in areas of the planning jurisdiction that may

1610 contain habitat for federally listed threatened or endangered species

1611 identified in the map maintained by the City online or available for

1612 inspection in the office of the Development Services Department.

1613 (B) On submission of an application for a subdivision or site plan in an

1614 area described in Subsection (A), the applicant must give notice of the

1615 application to the appropriate authority, including:

1616 (1) United States Fish and Wildlife Service;

1617 (2) Balcones Canyonlands Conservation Plan Coordinating

1618 Committee Secretary; and

1619 (3) Travis or Williamson County, as applicable depending on

1620 project location.

1621 (C) The notice must include a statement that the development could cause

1622 the loss of threatened or endangered species habitat.

1623 **PART 42.** City Code Chapter 25-8 (*Environment*) is amended to add a new

1624 Subchapter C to read:

SUBCHAPTER C. FUNCTIONAL GREEN.

25-8-701 APPLICABILITY.

(A) This subchapter applies in the zoning jurisdiction.

(B) This subchapter applies to a site:

- (1) in an urban watershed as defined in Section 25-8-1 (*Definitions*), with a maximum impervious cover greater than 80% as determined under Chapter 25-2 (*Zoning*); and
- (2) in a watershed defined in Section 25-8-1 (*Definitions*) other than an urban watershed, with total allowable impervious cover greater than 80% gross site area as determined under Subchapter A.

25-8-702 FUNCTIONAL GREEN REQUIREMENTS.

A site plan for a site to which this subchapter applies shall:

- (A) meet or exceed a functional green score of 0.3 as calculated under Section 25-8-703 (*Functional Green Score*) and the Environmental Criteria Manual;
- (B) except for property zoned central business district or downtown mixed use district, comply with landscape requirements for a site plan per Chapter 25-2, Subchapter C, Article 9 (*Landscaping*) and the Environmental Criteria Manual; and
- (C) provide 100 percent of plant selections as prescribed by the Environmental Criteria Manual.

25-8-703 FUNCTIONAL GREEN SCORE.

A functional green score shall be calculated using the following steps:

- (A) Identify all proposed landscape elements, sorted into the categories in Table A.

- 1650 (B) Multiply the square feet, or equivalent square footage where
 1651 applicable, of each landscape element by the multiplier in Table A
 1652 and according to the following provisions:
- 1653 (1) If multiple elements listed in Table A occupy the same area,
 1654 groundcover under a tree for example, count the full square
 1655 footage or equivalent square footage of each element.
- 1656 (2) Landscaping elements in the right-of-way between the lot
 1657 line and the roadway may be counted.
- 1658 (3) Elements in Table A that are provided to satisfy other
 1659 regulations may be counted.
- 1660 (4) Provide a minimum of three different landscape elements
 1661 from Table A, of which at least two landscape elements must
 1662 be living elements; trees and shrubs or ornamental grasses of
 1663 different sizes may be counted as different landscape
 1664 elements.
- 1665 (C) Add together all the products calculated under Subsection (B) to
 1666 determine the functional green numerator.
- 1667 (D) Divide the functional green numerator by the lot area, excluding
 1668 public right-of-way, to determine the functional green score.

1669 **TABLE A.**

	Landscape element	Multiplier
	PLANTED AREA	
A	Existing tree	0.8
B.1	Large, newly planted tree (mature width 40' or greater)	0.6
B.2	Medium, newly planted tree (mature width 20-39')	0.5
B.3	Small, newly planted tree (mature width 10- 19')	0.4
C.1	Large shrubs, ornamental grasses, or perennial forbs	0.3
C.2	Small shrubs, ornamental grasses, or perennial forbs	0.3
D	Groundcover	0.2
E	Turf	0.1
F	Vegetated wall	0.5

	SPECIALIZED MEDIA	
G.1	Intensive vegetated (green) roof media (depth 12 inches or greater)	0.6
G.2	Extensive vegetated (green) roof media (depth 6-11.9 inches)	0.5
H	Rain garden Media	0.3
	ADDITIONAL ELEMENTS	
I	Irrigation with alternative water source	0.2
J	Porous pavement	0.2
K	Suspended pavement system	0.2
	BONUS OPTIONS	
L	Bonus: Pollinator resources	0.05
M	Bonus: Publicly Accessible Green	0.05

1670

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

City Staff: Liz Johnston, Deputy Environmental Officer, Watershed Protection Department

Phone: (512) 974-3217

Email: liz.johnston@austintexas.gov

Attachments:

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

RESOLUTION NO. 20220609-061

WHEREAS, protecting our environment is the foundation for sustaining our planet, community, and economy; and

WHEREAS, the City of Austin’s “State of Our Environment: 2020 Annual Report,” showed that creeks in the Desired Development Zone scored on average 10 points lower than those in the Drinking Water Protection Zone; and

WHEREAS, the Drinking Water Protection Zone designation located on the west side of Austin has restricted development through regulations creating positive environmental outcomes, while the Desired Development Zone, located in Central and East Austin, has more permissive regulations that have resulted in some negative outcomes; and

WHEREAS, properties located in the Desired Development Zone have more permissive development regulations with regard to the size of creek buffers, impervious cover limits, cut and fill, and construction on slopes; and

WHEREAS, extensive empirical literature links exposure to nature with better health, and creeks provide city-wide opportunities to experience nature; and

WHEREAS, current code allows for structures such as in-channel detention basins and concrete wastewater manholes to be placed in creeks, which can cause erosion and other severe, often long-lasting consequences that can be expensive to reverse; and

WHEREAS, the City is faced with the existing and growing threat of industrial discharges that can negatively impact creeks and communities located primarily on the east side of the City of Austin; and

WHEREAS, there has been a steady increase in the amount of land area in Austin covered by impervious surfaces and a corresponding steady decrease in the amount of pervious land area capable of absorbing rainfall; and

WHEREAS, one result of the historically high rates of development is a rise in the amount of runoff that flows off-site from developed properties and into older, undersized stormwater drain systems, creeks, rivers, and lakes, contributing to increases in flooding severity, damage to private property, loss of life, and water pollution; and

WHEREAS, currently City Code allows redeveloped sites to use existing impervious cover as a baseline for drainage calculations, resulting in increased runoff and contributing to flooding and erosive flows downstream; and

WHEREAS, increasing density reduces sprawl and thereby reduces traffic congestion, pollution, and development of open spaces and agricultural; and

WHEREAS, a U.S. Geological Survey study found that using green stormwater infrastructure for water quality provided enhanced mitigation of peak flows and run-off volumes compared to large, detention-based stormwater control practices; and

WHEREAS, the Watershed Protection Department “Master Plan” [sic] of 2016 notes that green stormwater infrastructure controls such as rain gardens, porous pavement, and rainwater harvesting help retain water in the soil before it has a chance to run off into storm drains and creeks thus restoring, to the greatest extent possible, natural hydrologic processes; and

WHEREAS, managing stormwater in this manner can provide multiple benefits to a watershed; and

WHEREAS, using green stormwater infrastructure practices such as bioswales, rain gardens, and permeable pavement can reduce stormwater pollution while also reducing the burden and demand on existing infrastructure by capturing rainfall onsite; and

WHEREAS, onsite infiltration is key to reducing the amount of stormwater flowing to the storm sewers, and using parking lot islands for rainfall capture would allow a code-required element to serve multiple purposes; and

WHEREAS, buildings, roads, and parking lots absorb and retain heat causing a “heat island effect” that can pose serious problems for our health and environment; and

WHEREAS, employing strategies to create cool spaces in areas with high impervious cover helps to mitigate the heat island effect and to cool the urban core; and

WHEREAS, current City Code landscape requirements are based on the land within a commercial property not covered by a building, leaving projects with 80% or more impervious cover with few requirements for greenspace; and

WHEREAS, rainwater harvesting and storage offer the potential for significant cumulative benefits across watersheds, including reducing the burden on and thus extending the utility life of existing stormwater infrastructure, improving water quality, and extending our potable water supply; and

WHEREAS, current City Code provisions require cisterns used for water quality to release harvested water after 72 hours to prepare for the next storm event, though calculations for a successful non-potable rainwater irrigation system rely on keeping all rain captured to be able to have water for dryer months; and

WHEREAS, wetlands help to stabilize the shoreline against heavy rains and floods; and

WHEREAS, current City Code provisions do not protect wetlands bounded by Interstate 35, Riverside Drive, Barton Springs Road, Lamar Boulevard, and 15th Street, though Lady Bird Lake experiences extreme periodic flooding; and

WHEREAS, Resolution No. 20170615-071 directed the City Manager to assess the City's progress toward achieving the vision, goals, policies, and actions relating to green infrastructure, as defined in the Imagine Austin Comprehensive Plan, and to evaluate opportunities to further expand the City's green infrastructure-related programs and projects; and

WHEREAS, City staff's recommended updates and clarifications to portions of Chapters 25-7 (*Drainage*) and 25-8 (*Environment*) that relate to watershed protection did not move forward due to termination of the Land Development Code revision process; and

WHEREAS, staff across several departments spent considerable effort developing draft ordinances for Planning Commission and Council consideration to further the City's goals of substantially increasing infiltration of stormwater on-site, including ordinances in the last proposed revision of the Land Development Code such as:

1. requiring green infrastructure in urban settings where traditional landscape requirements are not possible ("Functional Green" 23-3D-3110);

2. requiring surface parking lots to include tree islands, landscaped medians, and perimeter landscapes and require that pavement be graded to allow runoff to enter planting areas (23-3D-3050, 3060 and 3070);
3. removing an exception to flood mitigation requirements for redevelopments that are not increasing impervious cover (23-9E-3010); and
4. requiring all subdivisions and site plans in Urban Watersheds meet steep slope protections (23-4D-8030); and

WHEREAS, small-scale missing middle housing projects (projects ranging from approximately 3 to 12 units) are required to comply with the same water quality, drainage, and site plan requirements as large scale multifamily residential project, while single-family homes are not subject to those requirements, creating an incentive for developers to build single-family homes over missing middle housing to avoid water quality regulations, contributing to urban sprawl and the housing affordability crisis; and

WHEREAS, a large single-family home can actually have more impervious cover than a multi-unit development, and the amount of impervious cover for a project is one of the key factors affecting drainage regardless of project type and should be taken into account when evaluating water quality and drainage requirements for site plans; and

WHEREAS, such procedures may create an incentive for developers to build single family homes instead of missing middle housing; **NOW, THEREFORE**,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

The City Council directs the City Manager to address the equitable protection of the environment throughout the City of Austin as part of the Watershed Protection Strategic Plan, with emphasis on the protection of Blackland Prairie. Regulations related to cut and fill and creek protection shall be among the considerations. The City Council directs the City Manager to provide a plan to achieve this direction on or before November 1, 2022.

BE IT FURTHER RESOLVED:

The City Council directs the City Manager to create procedures that achieve:

1. an appropriate monitoring approach that would assess potential watershed threats from higher risk facilities such as quarterly sampling of creeks located immediately downstream from semiconductor manufacturing plants, concrete batch plants, automobile manufacturers, battery manufacturing plants, fuel storage tanks, and other industrial businesses staff would recommend for inclusion; and
2. a documented and transparent process that would address high levels of communication with the Austin Water Utility when high levels of E.coli are found in particular creeks so that Austin Water can investigate and repair any leaking wastewater pipes located within creeks in a timely manner.

The City Council directs the City Manager to create these procedures on or before September 15, 2022.

BE IT FURTHER RESOLVED:

The City Council initiates code amendments, including amendments to Title 25, that:

1. Establish criteria that prioritize when green stormwater methods should be required or incentivized over conventional stormwater controls;
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;
3. Implement Functional Green requirements for properties with more than 80% allowable impervious cover;
4. Require that all subdivisions and site plans in Urban Watersheds meet steep slope protections;
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;
6. Require new and redeveloped projects to use greenfield conditions as a baseline when calculating drainage requirements;
7. Prohibit in-channel detention ponds, except for capital projects or private/public partnerships where no other alternative is feasible;
8. Require projects to relocate replaced or upsized wastewater pipes outside of the inner half of the critical water quality zone;
9. Provide wetland protections and buffers equally along Lady Bird Lake to help to stabilize and prevent erosion along the shoreline;

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

The City Council initiates other code amendments, as necessary, to accomplish the goals of this Resolution. The City Council expects that these code amendments will use the previous staff work and, where appropriate, adhere as closely as possible to the language and intent of the ordinances previously drafted and reviewed through the proposed revision of the Land Development Code.

The City Manager shall present these code amendments for Council consideration no later than September 15, 2022, except for amendments regarding the greenfield conditions as a baseline for redevelopments and steep slope protections.

The City Council directs the City Manager to engage stakeholders and develop recommendations that would seek to offset the impact on affordability and capacity of requiring greenfield conditions as a baseline and steep slope protections on properties where there are not currently required. Offsets could include additional entitlements or waivers for impacted tracts. The City Manager shall present these recommended code amendments for Council consideration no later than November 3, 2022.

BE IT FURTHER RESOLVED:

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.

BE IT FURTHER RESOLVED:

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.

BE IT FURTHER RESOLVED:

The City Council directs the City Manager to conduct an Affordability Impact Analysis and a Fiscal Impact Analysis for each proposed code or process change resulting from this resolution. The City Council directs the City Manager to provide the results of these analyses to Council at least two weeks prior to the implementation of any process change or the presentation of code amendments for Council consideration. The City Council directs the City Manager to include these analyses as part of the Council agenda back up when an item resulting from this resolution is presented to Council for its consideration. Additionally, the City Council directs the City Manager to address the estimated costs of doing nothing to further protect against water pollution, localized flooding, and the heat island effect; of stabilizing creeks and shorelines after scouring and erosive floods; mitigating algae and bacteria in creeks and lakes; and increasing stormwater


infrastructure throughout the City. If additional construction costs result from these code amendments, the City Manager shall provide information for the costs of compliance for single family homes, small scale missing middle projects, and larger multifamily projects.

BE IT FURTHER RESOLVED:

The City Manager is directed to provide a memorandum of projected required city staff hours to complete this resolution within two weeks. The memorandum should differentiate the hours required to complete each part of this resolution.

ADOPTED: June 9, 2022

ATTEST:



Myrna Rios
City Clerk



2022 Environmental Code Amendments Phase 1

Planning Commission

September 13, 2022



Objective

- **Respond to portion of Resolution 20220609-061 that requires staff to bring forth an ordinance amending Title 25 related to environmental protection.**
- **Due September 15, 2022**
- **Key subject areas**
 - **Stormwater**
 - **Landscape**
 - **Water Resource Protection**
 - **Colorado River Protections**
 - **Previously identified minor code amendments and other amendments that meet the objectives of the resolution**
 - **Don't Disincentivize Missing Middle**



Progress So Far

- **Internal Watershed Protection Dept (WPD) technical staff**
- **Input from other departments including**
 - **Development Services Department**
 - **Austin Water**
 - **Austin Transportation**
 - **CoA Project Connect Office**
 - **Housing and Planning**
 - **Law**
- **Environmental Commission Workgroup 7/25/2022**
- **Environmental Commission Update 8/3/2022**
- **Codes and Ordinances Joint Committee 8/18/2022**
- **Planning Commission Briefing 8/23/2022**
- **Zoning and Platting 9/6/2022**
- **Environmental Commission 9/7/2022**



Next Steps

- **9/13/2022 – Planning Commission**
- **9/20/2022 – Zoning and Platting Commission**
- **9/20/2022 – Environmental Commission**
- **9/27/2022 – Planning Commission**
- **9/29/2022 – City Council**

Phase 2: Greenfield Detention Requirements and Urban Slope Protection

- **September & October Commissions**
- **November City Council**



Stormwater

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



Rain garden



Conventional Stormwater Control
(Sedimentation & Filtration Pond)



Benefits of Green Stormwater Infrastructure (GSI)

- Improved ecosystem services
- Improved stormwater infiltration
- Soil health
- Wildlife habitat
- Heat island mitigation
- Water conservation
- Aesthetic value





GSI Timeline

- **2012: Imagine Austin approved**
- **2013: Watershed Protection Ordinance approved**
- **2014: Phase 2 of the Watershed Protection Ordinance
Austin Water Resource Planning Task Force**
- **2015: Green Infrastructure Working Group
WPD CodeNEXT Team**
- **2016: Development and approval of draft code language
Natural & Built Environment Prescription Paper**
- **2017: GSI proposal included in CodeNEXT**

Cistern at Reilly Elementary





GSI Timeline



Rain garden along Butler Trail

- **2017: Original GSI proposal include in Draft 1 and 2 of CodeNEXT**
 - Revised GSI proposal developed for inclusion in Draft 3**
 - Council Resolution for Green Infrastructure/GSI**
- **2018: CodeNEXT process ended by City Council**
- **2019: Council adopts policy direction to guide LDC Revision**
 - GSI proposal revised for inclusion in public draft**
- **2020: LDC Revision halted after District Court ruling**
- **2022: New Council Resolution from City Council (20220609-061)**



Stormwater

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

Draft Recommendation

- **Adopt LDC Rewrite 2nd Reading Recommendation**
- **Code Amendments**
 - **Require GSI for sites with less than 90% impervious cover**
 - **Carve outs for sites that treat existing impervious cover with an area greater than 10 acres or for sites that may generate highly contaminated runoff**
 - **Allow administrative variance with conditions**
- **Future Environmental Criteria Manual (ECM) amendments to more clearly define GSI**
- **Consider improvement to sedimentation/filtration pond design standards**



Stormwater

“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”

Draft Recommendation

- **Staff do not recommend requiring all landscape areas to serve as water quality controls for water quality treatment requirements**
- **Remove requirement that all parking lot landscape areas be protected by a 6” curb (LDC 25-2-1007 Parking Lots)**
- **Remove stormwater irrigation requirement (LDC 25-2-1008 Irrigation Requirements)**
- **Require applicants to drain stormwater to landscape areas where possible (LDC 25-8-185 Overland Flow)**



Stormwater

“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”

Draft Recommendation

- **Land Development Code and Environmental Criteria Manual already allow cisterns to be sized beyond required storm capture amount = no code amendment necessary**
- **ECM update to continue investigating emerging technology, including smart controls, to determine release requirements for water quality**
- **Continued close collaboration between Austin Water and WPD staff**

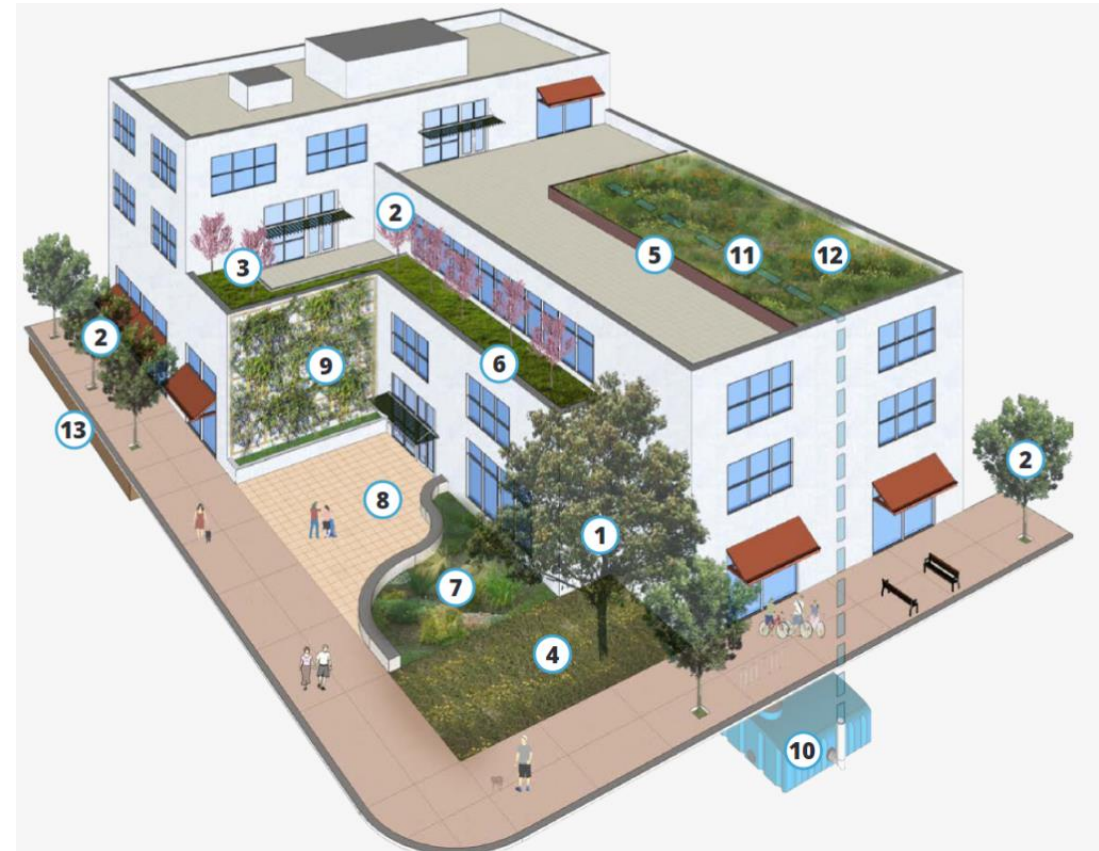


What is Functional Green?

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

Functional Green Landscape is based on the ecosystem service value created by landscape. It is intended to improve ecological balance, replenish native vegetation, and enhance public health, safety, and welfare.

The Functional Green Score measures the total amount of ecosystem services provided by the landscape elements proposed for a development site. Landscape plans are required to reach a total target Functional Green Score based on the assigned value per square foot area of each landscape element in relation to the area of the site.





What is Functional Green?

Required number of points based on site area for high impervious sites.

Landscape elements may include:

- Existing or newly planted trees
- Shrubs, ornamental grasses, perennial forbs, groundcovers
- Turf areas maintained for aesthetic or athletic uses
- Vegetated wall
- Irrigation with alternative water sources
- Vegetated roof
- Rain gardens
- Porous pavement
- Suspended pavement system (for improved urban tree health)
- Pollinator resources
- Publicly accessible green space adjacent to ROW or public sidewalk





Functional Green

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

Draft Recommendation

- **Uphold previous recommendation from LDC rewrite 2nd reading with minor edits**
- **New Landscape Section in LDC 25-8 Subchapter C**
- **Applies to Central Business District and Downtown Mixed-Use zoning districts and other sites with greater than 80% allowable impervious cover**



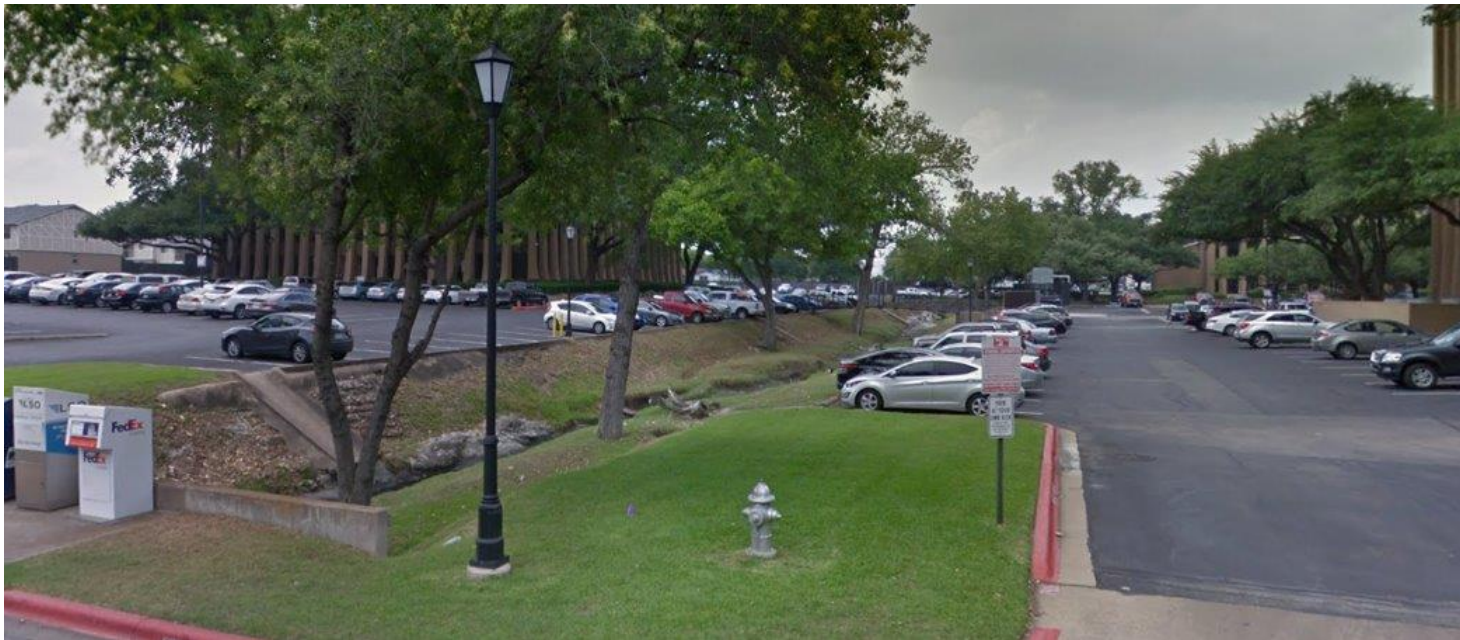
Water Resource Protection



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

Draft Recommendation

- **LDC code amendment to 25-8-261(F) which allows in-channel detention and wet ponds**



Example of existing in-channel detention pond



Water Resource Protection



“8. Require projects to relocate replaced or upsized wastewater pipes outside of the inner half of the critical water quality Zone...”

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

Draft Recommendation

- **Code amendment to LDC 25-8-261(D) relating to utility lines in Critical Water Quality Zones**
- **Code amendment to LDC 25-8-261(E) relating to utility lines running parallel to Critical Water Quality Zones in urban and suburban watersheds**

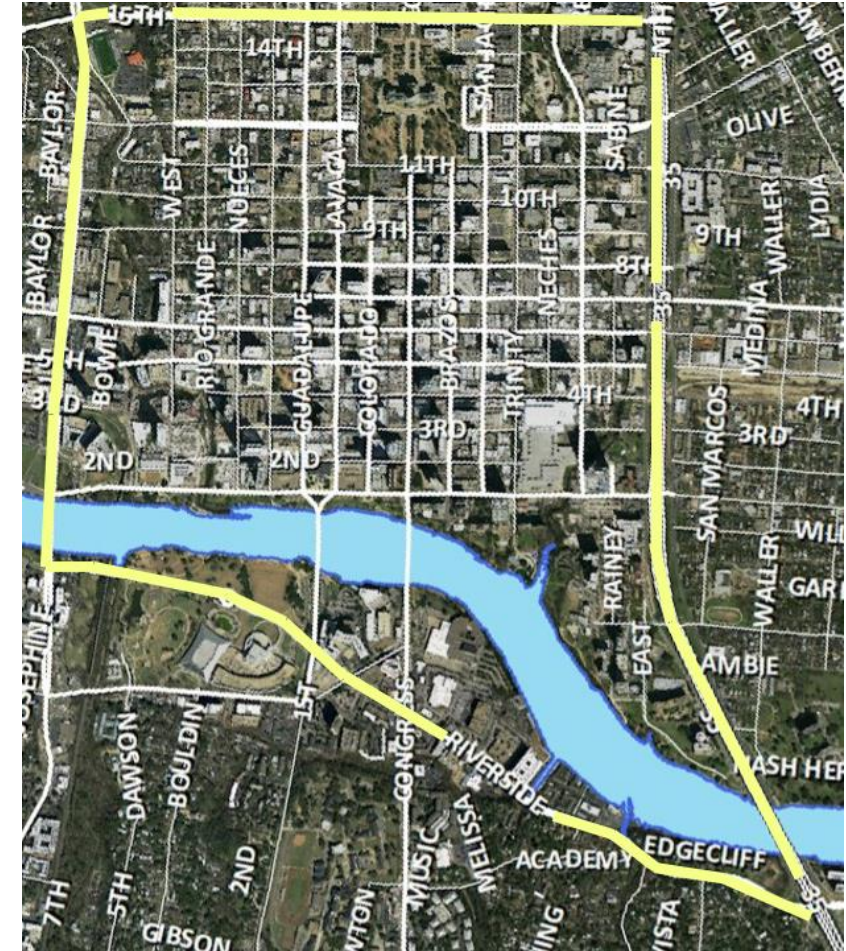


Water Resource Protection

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

Draft Recommendation

- **Code amendment to LDC 25-8-282(A) Wetland Protection**
- **Retain existing exemptions for wetlands bounded by I-35, Riverside Dr, Barton Springs Rd, Lamar, and 15th Street but carve out the wetlands associated with Lady Bird Lake.**





Colorado River Protections

“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”

Existing LDC requirements include:

- Erosion Hazard Zone analysis within 100' of the Ordinary High Water Mark (OHWM)**
- Critical Water Quality Zone (CWQZ) established at 200'-400' feet depending on 100-year floodplain**
- No special consideration for stormwater discharge on highly erodible bank of the Colorado River**



Colorado River Protections

“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”

Draft Recommendation

- **Code amendment to LDC 25-7-32 Director Authorized to Require Erosion Hazard Zone Analysis – expanded to 400’ from Ordinary High Water Mark (OHWM)**
- **Code amendment to LDC 25-8-92 Critical Water Quality Zones Established to expand CWQZ to 400’ from OHWM**
- **Code amendment to LDC 25-8-261(E) to require new stormwater outfalls to discharge in drainages located upstream of the Colorado River**
- **Update City of Austin Property Profile viewer to show estimated location of OHWM**



Other code amendments

“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 process.

The City Council initiates other code amendments, as necessary, to accomplish the goals of this Resolution. The City Council expects that these code amendments will use the previous staff work and, where appropriate, adhere as closely as possible to the language and intent of the ordinances previously drafted and reviewed through the proposed revision of the Land Development Code.”



Other code amendments

Draft Recommendation

- **Update to correct department names and accountable officials**
- **Minor reorganization of certain sections**
 - **Minor revisions to titles to improve readability**
 - **25-8 Division 1 Critical Water Quality Zone Restrictions renamed Waterway and Floodplain**
 - **25-8 Floodplain modification criteria moved directly after Critical Water Quality Zone**
 - **25-2-1179(B) Bulkhead wave abatement requirements moved to 25-8-261(C)**
 - **Move lake fill/land capture & lake dredge requirements to 25-8-261(C)**
- **Minor edits to improve clarity without changing intent**
 - **Edits to floodplain modification language**
 - **Edits to roadside ditch exemption**
- **Exempt rainwater harvesting cisterns from impervious cover calculations**



Other code amendments

Draft Recommendation

- **Streamline and clarify process for redevelopment exceptions in Urban, Suburban, Water Supply Suburban, and Water Supply Rural watersheds**
- **Minor edits to Barton Springs Zone redevelopment exception to allow GSI when sedimentation/filtration ponds are currently required**
- **Update Environmental Resource Inventory requirement to remove certain (WQTZ, EA Contributing Zone, DWPZ) triggers and add requirement for upland ponded areas previously identified in GIS**
- **Update street crossing requirements to use language consistent with ASMP**



Other code amendments

Draft Recommendation

- **Allow Critical Environmental Feature (CEF) variances to be approved at staff level except when mechanized pedestrian access (aka trams) is proposed within 500' of Lake Austin**
- **Allow Stormwater Control Measures (SCM) retrofits in floodplain and within 50' of a CEF to address existing drainage issues**
- **Clarify existing subdivision requirements related to CEFs**
- **Remove code language that explicitly allows wetlands to serve as water quality controls**



Other code amendments

Draft Recommendation

- **Update cut/fill restrictions to allow cut/fill in excess of 4' for construction of street or driveway necessary to provide primary access with conditions**
- **Remove 25-8-367 Relocation of Shoreline Between Tom Miller Dam and Longhorn Dam**
- **Simplify Endangered Species Notification**



Don't Disincentivize Missing Middle



“WHEREAS, small-scale missing middle housing projects (projects ranging from approximately 3 to 12 units) are required to comply with the same water quality, drainage, and site plan requirements as large scale multifamily residential project, while single-family homes are not subject to those requirements, creating an incentive for developers to build single-family homes over missing middle housing to avoid water quality regulations, contributing to urban sprawl and the housing affordability crisis; and

WHEREAS, a large single-family home can actually have more impervious cover than a multi-unit development, and the amount of impervious cover for a project is one of the key factors affecting drainage regardless of project type and should be taken into account when evaluating water quality and drainage requirements for site plans;...

“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”



Don't Disincentivize Missing Middle

Draft Recommendation

- **Clarify which elements apply to single family residential**
ex: impervious cover definitions, erosion/sedimentation control, waterway protections for lots platted after May 18, 1986, clearing of vegetation, cut, fill, Save Our Springs (SOS)
- **Adopt similar process requirements as proposed in LDC Rewrite**



Don't Disincentivize Missing Middle

Draft Recommendation

- **Allow up to 11 units (unless more allowable via Affordability Unlocked program) on existing single family lots to qualify as small project site plans**
- **Same environmental requirements as those that apply to single family residential**
- **Impervious cover limit of 55%**
- **Site limit of half acre or less**
- **Administrative variance option for lots with waterway setbacks that were established after platting**



Don't Disincentivize Missing Middle

Draft Recommendation

- **Require Small Project Site Plan Applications for qualifying projects**
 - **Established review process with existing fee structure for partnering departments**
 - **No notice**
 - **Faster review time**



Staff Report and Analysis



Staff Report Overview

- **Ordinance Amendment Review Sheet**
- **Attachment A: Summary of Proposed Code Amendments**
- **Attachment B: Fiscal Impact Analysis**
- **Attachment C: WPD Equity Review**



Ordinance Amendment Review Sheet

- Summary of initiated code amendments and staff proposal
- Next steps
 - ECM updates
 - Basic updates to implement amendments
 - Comprehensive updates of GSI criteria
 - Policy guidance
 - Work with AW to define “major replacement” of a utility line, conditions that would support a variance
- Staff recommendation
 - Recommend approval of proposed amendments
 - Request that Council or Planning Commission initiate amendments to relocate Landscaping to Chapter 25-8(C)
- Summary of Commission and Council actions

C20-2022-005a

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. 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.

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 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.



Attachment A: Summary of Proposed Code Amendments



- Code Section
- Type of change
- Current status/concern
- Proposed improvement
- Benefits

Attachment B
Summary of Proposed Code Amendments Related to Resolution No. 20220609-061

8/17/2022

Code Section	Type of Change	Current Status/Concern	Proposed Improvement	Benefits
Chapter 25-2, Zoning - Article 9, Landscaping				
1 25-2-981 Applicability; Exceptions	Policy	Existing landscaping requirements do not apply to lots zoned Central Business District (CBD) or Downtown Mixed Use (DMU).	Require that lots zoned CBD or DMU meet the new Functional Green requirements (described below).	Additional ecosystem services brought to downtown projects.
2 25-2-1007 Parking Lots	Policy	Parking lot islands are typically surrounded by a 6" curb that prevents stormwater from flowing into the landscape area.	Require parking lot islands to have an edge-of-pavement treatment that allows overland flow of stormwater into the landscape area. Allow exceptions for areas that are not required to drain to a stormwater control and sites located in the Edwards Aquifer Recharge Zone.	Increases beneficial use of stormwater and reduces irrigation needs by directing stormwater into areas that are typically required to provide on-site irrigation.
3 25-2-1008 Irrigation Requirements	Policy	The existing requirement to irrigate 50% of the required landscape area with stormwater has proven problematic and difficult to implement.	Remove existing irrigation requirements and replace with simplified requirement to remove barriers to overland flow into parking lot islands (described above).	Simplified design requirements and reduced cost.
4 Functional Green	Policy	Sites with high impervious cover have few landscape requirements and therefore provide minimal ecosystem services.	Create a new approach to landscape requirements to provide ecosystem services in highly urbanized locations.	Landscape requirements are calibrated to provide ecosystem services in highly urbanized locations.



Attachment B: Fiscal Impact Analysis

- Impacts to City staffing & City projects
- GSI
 - **Assumption: private development will use biofiltration systems to comply; scenario with distributed controls**
 - **WPD staff impacts**
 - FOD: 1 new FTE to train internal and external stakeholders on best maintenance practices
 - Pond Inspection & Dam Safety: minimal impact from biofiltration (inspection time); moderate impact from distributed controls (more controls)
 - Pond Maintenance & Vegetation Crews: minimal impact from biofiltration with turf/groundcover; recommend 1 new crew to address existing capacity issues, maintain CIP projects, maybe provide flexibility for planting requirements

Attachment D
Fiscal Impact Analysis

Fiscal Impact Analysis of Proposed Code Amendments

Background

City Council Resolution No. 20220609-061 initiated Land Development Code amendments related to environmental, drainage, and landscape requirements. The resolution also directed staff to conduct a Fiscal Impact Analysis for each proposed code or process change and to address the potential costs of taking no action, or not adopting the proposed code amendments.

The potential fiscal impact and cost of taking no action for each initiated code amendment is provided below. (For a summary of the proposed amendments, please see the Ordinance Amendment Review Sheet and Attachment B.)

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

Fiscal Impact Analysis

The proposed code amendments would require most sites to use green stormwater infrastructure, or GSI, to meet water quality treatment requirements. The controls that constitute GSI are listed in Section 1.6.7 of the Environmental Criteria Manual, which includes biofiltration systems. This analysis assumes that most private development will choose to comply with the GSI requirement using biofiltration systems, as they are the most cost-effective and space-efficient of the green controls.

Biofiltration systems are similar to sedimentation/filtration systems in design and footprint area, with the primary difference being the inclusion of plants in the filtration basin of the control. These plants enhance the removal of pollutants and provide valuable ecosystem services such as climate change resilience, carbon sequestration, improved air quality, enhanced biodiversity, and urban heat island mitigation. The projected fiscal impact is primarily driven by the need to review, inspect, and maintain these planted systems.

Impact to City Staffing

Stormwater ponds that serve residential subdivisions are inspected and maintained by the City of Austin Watershed Protection Department (WPD). Ponds that serve multifamily and commercial development are inspected by WPD and maintained by the property owner. All ponds maintained by the City of Austin must comply with criteria requiring turf grass or groundcover instead of more intensely planted systems. Residential subdivisions have the option to install more intense plantings but are responsible for all additional vegetation maintenance. This provision limits the impact on WPD Field Operations directly resulting from this proposed code change.

There is, however, a need for WPD to hire at least one additional vegetation maintenance crew, which is comprised of a supervisor and four full-time employees. WPD currently has one vegetation maintenance crew; adding a second is necessary to address existing capacity issues, support future criteria updates, and ensure the continued success of the City's overall GSI program. WPD uses its capital improvement projects as an opportunity to learn best practices about how to build and maintain GSI in a cost-effective manner, which then informs criteria updates for private development. A second vegetation maintenance crew will allow WPD to provide a higher level of service to the GSI controls that the department does maintain, which will help sustain the benefits provided by GSI. Adding a second crew might also enable WPD to support more densely planted controls for residential subdivisions, which would increase the benefits provided by the controls.



Attachment B: Fiscal Impact Analysis

- **GSI, cont.**

- **DSD staff impacts**

- Water Quality Review: minimal impact from biofiltration (review time); moderate impact from distributed controls (more controls)
 - Inspections: no impact from biofiltration; moderate impact from distributed controls (more controls)

- **Impacts to City projects**

- Minimal impacts to project cost because most City projects already use GSI (2007 Council resolution, Complete Streets Policy, WPD CIP projects)

- **Functional Green**

- **Increase review and inspection time for DSD staff**
 - **1 FTE in Environmental Review, 1/3 FTE in Environmental Inspection**



Attachment B: Fiscal Impact Analysis

- **Prohibiting in-channel ponds**
 - **Neutral to positive impact on staffing (decreased review times)**
 - **No impact to City projects; in-channel ponds still allowed if no alternative**
- **New utility lines, major replacements, and easements in CWQZ**
 - **Clarification of current code; neutral to positive impact on staffing**
 - **Holding easements to the same standard as utility lines reduces risk by eliminating the need for a variance**
 - **Acquiring compliant easements might be more costly; increase in cost for projects that would have acquired a non-compliant easement**



Attachment B: Fiscal Impact Analysis

- **Wetland protections along Lake Bird Lake**
 - **Minimal impact on staffing (increased reviews)**
 - **Potential increase in permitting time and construction cost for City parkland projects that require wetland mitigation**
- **Other minor amendments**
 - **Clarifications: neutral to positive impact on staffing (decreased review times), no impact to project cost**
 - **Code changes: neutral to positive impact on staffing and project cost**
- **Not disincentivizing missing middle**
 - **Increase in review time for some 1- and 2-unit projects; decrease in review time for qualifying 3- to 11-unit projects**



Attachment B: Fiscal Impact Analysis

- **Expanded CWQZ and EHZ analysis buffer on Colorado River downstream of Longhorn Dam**
 - **Expanded EHZ analysis buffer likely to increase staff review time because development in the outer half of the CWQZ will trigger analysis**
 - **Expanded CWQZ limits the type of development that can be located outside of the floodplain between 200-400 feet of the OHWM**
 - **More City projects may require EHZ analysis and either be relocated or provide protective works for proposed development**
 - **However, protecting public infrastructure from erosion saves the City money in the long run**



Attachment C: Equity Response, Summary, and Recommendations



- **Key findings of Technical Assistance Group**
 - **Amendments offer potentially positive community impacts with unknown affordability concerns that could pose potential unintended consequences**
 - **Supported moving forward with the amendments with conditions**
- **Recommendations**
 - **Recommend immediate development of a WPD program to provide funding to cost share deeply affordable housing developments to meet existing water quality and drainage requirements as well as the proposed code amendments related to “green” infrastructure**

Attachment E
WPD Equity Response

Equity Response, Summary, and Recommendations 2022 Environmental Code Amendments

A Technical Assistance Group (TAG) was assembled with a diverse staff including members from the Equity Coordination Team, cross-organizational Equity and Inclusion Program Managers from within and outside of the Watershed Protection Department, City of Austin Environmental Officer and Deputy, and Watershed Protection Department (WPD) planning and policy staff. This TAG was tasked to engage in evaluation and discussion regarding the proposed environmental code amendments requested from City council. Given the time constraints provided for this evaluation, a thorough equity assessment was not feasible to complete using the Government Alliance for Racial Equity (GARE) model; however, through workshop discussions, this document will present discussion points, recommendations, and points of consideration for additional evaluation.

The code amendments, while subject to many reviews and revisions, had previously elicited feedback and received positive support from community and environmental stakeholders. This was a supportive factor to the discussion and continued pro-active transparency and engagement with community, as well as internal equity assessments, would be recommended and supported for future amendment requests. The consensus of the work group was that the amendments offered potentially positive community impacts with unknown affordability concerns that could pose potential unintended consequences. Based on information provided in the working sessions, the TAG supported moving forward with the amendments with conditions. Details of these recommendations are listed below.

Throughout the workshop discussion, many concerns were raised regarding unknown cost burdens of many of the amendments in alignment with affordability and displacement. TAG members were advised that an affordability impact statement as well as a fiscal impact analysis were being developed concurrently. To explore the potential unintended burdens and negative impacts to community, further collaborative analysis of equity and affordability should be done. This analysis should also distinguish between costs to deeply affordable housing that are meant to increase permanence to vulnerable communities versus market rate developments. Lastly, consideration should be given to how to quantify displacement risk as a cost.

Planning staff indicated that the proposal includes amendments that promote environmental improvements, including those related to green stormwater infrastructure and wastewater line location requirements, that provide probable community health benefits. A summary of the potential benefits to human and environmental health is included in the WPD Fiscal Impact Analysis, underway at the time of this review. In order to meaningfully evaluate for equity impacts it is imperative to include any potential health-related impacts. Communities of color and low-income communities have been shown to have disproportionately worse physical, mental, and environmental health outcomes compared to other communities. It will be important to promote strategies that can improve health-related quality of life outcomes while identifying mitigation strategies to meaningfully reduce any negative impacts, such as affordability or displacement risk.

In understanding the critical impact that policies and regulations have on our most vulnerable communities, future equity assessments should be thoroughly conducted as amendments are proposed

Page 1 of 2



Attachment C: Equity Response, Summary, and Recommendations



- **Recommendations, cont.**

- **Recommend immediate attention to potential internal equity impacts within WPD, specifically to FOD, in coordination with findings in the Fiscal Impact Analysis**
 - Evaluate potential impacts to workload and allocate immediate resources for staffing, training, facilities, and equipment to ensure there is abundant capacity to meet the anticipated increases that may result from this proposal
 - Ensure Field Operations Division is a primary stakeholder in developing and implementing related future recommendations such that design standards are oriented towards long term maintenance needs
- **Recommend tracking for staff administrative variances in proposal to ensure accountability in internal equitable decision-making**



Attachment C: Equity Response, Summary, and Recommendations



- **Recommendations, cont.**

- **Recommend the TAG continue to coordinate with the project team on the Phase 2 deliverable and conduct a more in-depth assessment of equity impacts for the specific components of the proposal. This work may include development of a proposed framework and process for evaluating code amendments for equity impacts going forward.**
- **Develop scope for a full equity assessment of all environmental code to be conducted in 2023 with recommendations for potential code changes presented to Council by Fall of 2023**

A scenic view of a pond surrounded by trees with autumn foliage. The water is calm, reflecting the surrounding greenery and the sky. A large tree with reddish-brown leaves stands prominently on the right side of the frame. The overall atmosphere is peaceful and serene.

Questions?



ENVIRONMENTAL COMMISSION MOTION 20220921-002

Date: September 21, 2022

Subject: Ordinance Amendment to Title 25 related to environmental protection, landscape requirements, and site plan requirements

Motion by: Jennifer L. Bristol

Seconded by: Kevin Ramberg

WHEREAS, the Environmental Commission has considered the ordinance amendments to Title 25 related to environmental protection and landscape requirements, and

WHEREAS, the Environmental Commission recognizes 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.

THEREFORE, the Environmental Commission recommends the amendments to Title 25 with the following Environmental Commission recommendations.

1. Require small-scale missing middle projects to send out zoning and building notifications to adjacent neighbors within 500 ft. Notices should be, at a minimum in English and Spanish.
2. Require landscaping and functional green infrastructure to have a long-term maintenance plan to ensure plant survival, reduce heat island effects, and increase tree canopy.
3. Bring affected neighborhood drainage up to code to improve capacity and reduce environmental impact due to leakage.
4. Remove “grandfathered” development projects before May 18, 1986, so everyone receives equitable review and protections.
5. Consider slopes in urban and suburban watersheds as the same.
6. Consider the environmental and economic impact on adjacent landowners of small-scale missing middle projects.
7. Review SF-3 and above for equitable application of the proposed code changes.
8. Review watersheds across the city to create similar or equitable water quality standards similar to the Barton Creek Watersheds to improve the downstream impact to the Colorado River.
9. Include increased traffic and its environmental impact in neighborhoods where small-scale missing middle projects will occur.
10. Require all new code or improved code to comply with Atlas-14 standards.
11. Require public notification and review of in-channel flood variances.
12. Incentivize electric car charging stations in small-scale missing middle projects and commercial development.

13. Incentivize use of solar capturing technology in small-scale missing middle projects and single-family homes.
14. Encourage public input to all code changes.
 - a. Environmental Commission wishes to voice their concern that the public was not included in this code rewrite.
15. Encourage water catchment systems in commercial development for landscaping and functional green maintenance.
16. Reinstate that the public is notified of Section 25-8-25(b)(4) changes regarding neighborhood plans adopted by Council.
17. Require the environmental staff to work with Austin's Equity Office to address inequities created by different rules for the Desired Development Zone and Critical Water Quality Zones such as Barton Springs.
18. Delay proposed development/redevelopment changes in response to small-scale missing middle housing projects within the desired development zone.

VOTE: 10-0

For: Aguirre, Barrett Bixler, Bedford, Bristol, Brimer, Ramberg, Schiera, Scott, Thompson, and Qureshi

Against: None

Abstain: Nickells

Recuse: None

Absent: None

Approved By:

A handwritten signature in dark ink that reads "KEVIN RAMBERG". The signature is written in a cursive, slightly slanted style.

Kevin Ramberg, Environmental Commission Chair

Zoning and Platting Commission Resolution

Whereas, the Austin City Council passed Resolution [20220609-061](#) “relating to environmental protections and water quality”; and

Whereas, the City Council directed the City Manager “to address the equitable protection of the environment throughout the City of Austin as part of the Watershed Protection Strategic Plan”; and

Whereas, the proposed regulations include green stormwater infrastructure and functional green to lessen the heat island effect and provide other benefits; and

Whereas, the proposed regulations lessen environmental reviews for some projects including water quality controls, critical environmental features, construction on slopes and watershed impervious cover limits; and

Whereas, the City of Austin Zoning and Platting Commission welcomes improved environmental protections and water quality throughout the entire City.

Now, therefore, be it resolved that the Zoning and Platting Commission encourages the Austin City Council to approve C20-2022-005a, Land Development Code Amendments with the following changes:

- Implementation of Functional Green requirements will be deferred until such time as the Emergency Rules for the Environmental Criteria Manual is adopted to reflect the appropriate Criteria;
- Allow boat dock access to remain within 50’ of the Lake as it relates to items 25-8-25 (B)(2), 25-8-27 (D)(2)
- Under Section 25-8-64(E) for lots that cannot meet this criteria a mechanism to allow smaller units will be developed
- Remove 25-8-213(A)(1) proposed changes
- Clarify that the impervious cover limit in § 25-5-3 (B)(13)(b) is the impervious cover allowed by the zoning not to exceed 55%,

Be it further resolved as Part of Phase 2 of Council initiated code updates that the following directions from the Council resolution be completed as soon as possible:

- Require the environmental staff to work with Austin’s Equity Office to address inequities created by different rules for the Desired Development Zone and Critical Water Quality Zones such as Barton Springs;
- Once the Affordability impact is determined any negative aspects will be counter balanced with incentives to ensure that there is no negative financial impact of these new requirements;
- Recommend that all subdivisions and site plans in Urban Watersheds meet steep slope protections; and
- Recommend new and redeveloped projects to use greenfield conditions as a baseline when calculating drainage requirements