

EXHIBIT 2

Subchapter 17 – Environmentally Sensitive Areas.

Sections:

- 35.17.1 Purpose.
- 35.17.2 Application.
- 35.17.3 Environmentally Sensitive Areas Review.
- 35.17.4 Environmentally Sensitive Area Classifications.
- 35.17.5 Official Maps.
- 35.17.6 Developed Floodplain Development Standards.
- 35.17.7 Undeveloped Floodplain Development Standards.
- 35.17.8 Riparian Buffer and Water Related Habitat Development Standards.
- 35.17.9 Upland Habitat Development Standards.
- 35.17.10 General Design and Improvement Standards.
- 35.17.11 Clustering Standards
- 35.17.12 Alternative Environmentally Sensitive Area Plans.

35.17.1 Purpose.

This Subchapter is adopted for the following purposes:

- A. Manage and protect environmentally sensitive areas within the City as well as detail such areas that have been previously identified in The Denton Plan.
- B. Protect the natural and ecological resources that are essential elements of the City's health and community character and which provide irreplaceable plant and wildlife habitat;
- C. Establish a development framework for the City that is respectful of private property rights, while encouraging them to be used responsibly for the benefit of the entire community;
- D. Preserve and enhance the City's distinctive community character and quality of life by ensuring that its natural and built environments are consistent with the community vision and values embodied in The Denton Plan.
- E. Establish regulations that conform to the requirements of the state and federal government regarding air quality, water quality and environmental protection.
- F. This Subchapter is adopted pursuant to authority vested under the City's charter, and Texas Local Government Code, Chapters 211, 212, and 551.

35.17.2 Application.

- A. The standards of this Subchapter shall apply to all land and all development within the corporate limits of the City, except as otherwise specifically provided for in this Subchapter.
- B. The floodplain standards of this Subchapter shall apply to all land and all development within the extraterritorial jurisdiction of the City.
- C. The type of regulation applicable to the land depends upon the classification in which the land is placed, as provided in this Chapter. If those regulations conflict with other regulations of this Subchapter, the more stringent of the two regulations shall apply.

35.17.3 Environmentally Sensitive Areas Review.

A. Review Required.

Environmentally Sensitive Area reviews for residential and non-residential developments must be performed as part of final plat applications and site plan applications, respectively. An Environmentally Sensitive Areas review is required for all development except for the following.

1. Property that does not contain any Environmentally Sensitive Areas as depicted on the City's Environmentally Sensitive Areas Map.
2. Grading, filling, cutting or other earth-moving activity on any lot involving less than 25 cubic yards for residential projects or 50 cubic yards for non-residential projects;
3. Activities such as ordinary maintenance and landscaping operations, individual home gardens, repairs, and additions or minor modifications of a single-family dwelling, except as prohibited by the Development Code.
4. The applicant can demonstrate through an Environmentally Sensitive Areas field assessment application that the subject property contains no Environmentally Sensitive Areas.

B. Information Required.

Information as required on the final plat and site plan checklists must be provided. Additional information deemed appropriate and necessary to process the application may also be required.

C. Criteria for Approval.

The requirements of an Environmentally Sensitive Areas review shall be deemed met when the Applicant demonstrates:

- a. The land development activity complies with the requirements of this Subchapter for Floodplains, Riparian Buffers, Water Related Habitat, and Upland Habitat and all other federal, state or local laws as part of the final plat or site plan.
- b. The land disturbing activity will not cause damage to Environmentally Sensitive Areas located on property adjacent to the areas of disturbance.
- c. The land disturbing activity complies with the requirements of Subchapter 18.
- d. A Section 404 Nationwide Permit or a Letter of Permission from the U.S. Army Corps of Engineers has been obtained, or a wetland delineation by a certified wildlife biologist has been performed if encroachments into jurisdictional wetlands are proposed.
- e. An Environmentally Sensitive Areas field assessment has provided evidence the subject property contains no ESAs.
- f. An alternative Environmentally Sensitive Areas plan has been approved for the subject development.

D. Expiration.

The Environmentally Sensitive Area review shall expire when the final plat for a residential development approval expires, or when the site plan for a non-residential development approval expires.

E. Credit.

Any Environmentally Sensitive Area that is protected may be used towards meeting the Landscape and Tree Canopy requirements contained in Subchapter 13, the Parkland Dedication and Subchapter 19 drainage requirements.

35.17.4 Environmentally Sensitive Area Classifications.

The following are used to define the classifications of Environmentally Sensitive Areas comprising the Environmentally Sensitive Areas Map:

A. Developed Floodplain.

Area within the FEMA 100-year floodplain for which the natural stream has been redesigned and no longer exhibits characteristics of a natural channel and/or its floodplain has been significantly modified, graded, filled, or otherwise disturbed.

B. Undeveloped Floodplain.

Areas within the FEMA 100-year floodplain that is undeveloped and in their natural state.

C. Riparian Buffer

Areas within 100 feet from both sides of the stream centerline with drainage areas greater than one square mile, and 50 feet from both sides of any streams centerline that drain areas of one square mile or less. This also applies to the outer edges of water bodies.

D. Water Related Habitat.

Areas designated as wetland including trees and understory, and containing significant stands of predominately native water related habitat. It also includes any areas identified as special aquatic sites through any Army Corps of Engineers Section 404 Permit Process.

E. Upland Habitat.

Areas, of a minimum of ten acres in size, that contain remnants of the Eastern Cross Timbers Habitat.

35.17.5 Official Map.

A. Environmentally Sensitive Areas Map.

The official map that identifies areas designated as Environmentally Sensitive Areas (ESAs).

B. Environmentally Sensitive Areas Map Amendments.

The map may be updated administratively when an ESA field assessment is conducted for a property and approved by the Director of Development Services. Revisions and amendments to FEMA 100-year floodplain maps shall cause the boundaries of Floodplain ESAs to be readjusted accordingly. Substantial amendments of the map shall follow the Zoning Amendment Procedure detailed in Subchapter 3.

C. Environmentally Sensitive Areas Field Assessments.

Field assessments are required prior to platting of property when there is reasonable evidence that Environmentally Sensitive Areas, as depicted on the official Environmentally Sensitive Areas (ESA) Map, may not be accurate. ESA field assessments, as approved by the Director of Development Services, shall supersede the official ESA Map in determining what areas are subject to the requirements of this Subchapter as applied to a proposed development. .

1. Information Required

Information as required on the Environmentally Sensitive Area Assessment application and checklist must be provided. Additional information deemed appropriate and necessary to process the application may be required.

2. Expiration

Environmentally Sensitive Areas field assessments shall expire after two years of its approval, or if the natural conditions of the ESA have been significantly altered.

3. Appeals

Appeals to staff determinations shall follow the Staff Review Procedure detailed in Section 35.3.7.

D. Text Applicability.

The text of this Subchapter, including definitions, describes and regulates the protected areas shown on the City Environmentally Sensitive Areas Map as a reference.

E. Field Boundary Delineation.

The boundaries of all Environmental Sensitive Areas shall be clearly marked in the field for the duration of the land disturbing activities on the property.

35.17.6 Developed Floodplain Development Standards.

Development within the Developed floodplains as identified on the Environmentally Sensitive Areas Map shall comply with Subchapter 35.19 Drainage Standards. Section 35.17.8 applies when Riparian buffers and Water-related habitats are nested, partially or wholly, inside

Developed floodplain ESAs. Gas well drilling and production within Developed floodplains shall comply with Subchapter 35.22 Gas Well Drilling and Production.

35.17.7 Undeveloped Floodplain Development Standards.

The following uses and activities are regulated in Undeveloped floodplains. Restrictions listed below are in addition to the restrictions for development of floodplains contained in this Subchapter.

A. Permitted Uses and Activities.

The following permitted uses and activities are allowed if in compliance with Subchapter 19 Drainage Standards and Chapter 30 of the Code of Ordinances:

1. The planting of any new trees or vegetation.
2. Restoration or enhancement of floodplains, riparian buffers, water related habitats, upland habitats, wetlands and streams as required by federal and state standards.
3. The placement of public or private utility facilities such as sewer, storm water, water, electricity, gas, or other utilities as long as the disturbed area is restored to minimized erosion and promote the recovery of the Environmentally Sensitive Areas and when adequately flood proofed.
4. Measures to remove or abate nuisances, the removal of invasive plant species, or any other violation of federal, state or local law with the approval of the Director of Environmental Services.
5. Parking lots, subject to the limitations on fill as specified in Section 35.17.7.C and constructed of pervious materials.
6. Parks, open space, recreational uses, trails, walkways and bike paths.
7. Storm water quality controls.
8. Routine repair and maintenance of existing structures, roadways, driveways, utilities, and accessory uses.
9. Agricultural activity permitted through Nationwide Permit 40 (NWP 40), Agricultural Activities pursuant Section 404 of the Clean Water Act, or any other permit as required by FEMA.
10. Any action taken by federal, state, or local officials in an emergency to mitigate an existing or potential hazard.
11. The construction of a private driveway.
12. Gas well drilling and production shall comply with Subchapter 35.22 Gas Well Drilling and Production.
13. Fill activities subject to limitations as outlined in Section 35.17.7.C.
14. Culverts and bridges as long as the disturbed areas are restored to minimize erosion and promote the recovery of the Environmentally Sensitive Area and subject to the Director of Environmental Services approval, and requirements outlined in Section 35.17.7.D.

B. Prohibited Uses and Activities.

The following prohibited uses and activities are not allowed in Undeveloped floodplains:

1. Placement, handling, processing areas, and storage of hazardous waste. Hazardous waste and solid waste landfills.
2. Land disturbing activity not authorized by a U.S. Army Corps of Engineers Section 404 Permit Letter of Permission.
3. Any new structures or additions, including garages and carports, and storage sheds located within the area mapped as Undeveloped Floodplain.
4. Tree and understory vegetation removal, except as allowed by Subsection 35.22.9.
5. Septic tanks, septic tank drain fields, and other forms of on-site wastewater treatment shall not be built within the Environmentally Sensitive Areas.

C. Standards for Fill in Undeveloped Floodplains.

The following are standards for fill in the Undeveloped floodplain:

1. Filling of any floodplain of a stream that drains more than one square mile is prohibited unless the fill on any lot is less than 50 cubic yards or 300 cubic feet per acre, whichever is greater. Up to 15% of the floodplain valley storage may be filled if the stream drains less than one square mile in area pursuant to this Subchapter, Subchapter 19 Drainage Standards, and federal law.
2. If additional fill is necessary beyond the permitted amounts in (1) above for sites with streams that drain an area greater than one square mile, then fill materials must be obtained from cutting or excavation only to the extent allowed to create an elevated site for permitted land disturbing activity.
3. Excavation to balance fill shall be located on the same parcel as the fill unless it is not reasonable or practicable to do so. In such cases, the excavation shall be located in the same drainage basin and as close as possible to the fill site, so long as the proposed excavation and fill will not increase flood impacts for surrounding properties as determined through hydrologic and hydraulic analysis.
4. Fill and other material imported to the lot shall be limited to the following:
 - a. Poured concrete and other materials necessary to build permitted structures on the lot.
 - b. Aggregate base and paving materials.
 - c. Pervious materials as allowed in Subchapter 13, Site Design Standards.
 - d. Plants and other landscaping material.
5. Adequate drainage shall be provided for the stability of the fill.
6. Any fill necessary for elevating a building pad site per Subchapter 19 Drainage Standards shall be located as far as possible from the Environmentally Sensitive Areas in order to reduce the impact of that fill on the adjacent areas.
7. All disturbances to floodplains from permitted fill activities shall be revegetated using appropriate native vegetation as listed in the City of Denton's Native Plant List

D. Culverts and Bridges.

Culverts or bridges of any waterway or creek identified on the official maps adopted pursuant to this Subchapter must be designed by an engineer. Stream crossings shall be designed to the standards of the Subchapter 19 Drainage Standards, or where no floodway has been identified, to pass a one-hundred (100) year flood without any increase in the upstream flood height elevation. The engineer shall consider in the design the probability that the culvert will be blocked by debris in a severe flood and accommodate expected overflow. Fill for culverts and bridges shall be kept to the minimum allowed, but is exempt from the limitations in Section 35.17.7.Cr.

35.17.8 Riparian Buffer and Water Related Habitat Development Standards.

The following uses and activities are regulated in the Riparian buffers and Water Related habitats and are in addition to the restrictions for development in this Subchapter,

A. Permitted Uses and Activities.

1. Placement of private residential yard structures, including but not limited to: gardens, yards, trails, and clearings, that would result in disturbing up to 10% of the area, but in no instance shall the protective buffer width be decreased below 25 feet measured each direction from the centerline of the existing channel or the outer edge of water bodies. No disturbance is permitted in delineated wetlands.
2. Riparian buffers nested, partially or wholly, inside Developed floodplains may be disturbed up to 10% of the area but in no instance shall the protective buffer width be decreased below 25 feet measured each direction from the centerline of

the existing channel or the outer edge of water bodies. No disturbance is permitted in delineated wetlands.

3. Repair, replacement or improvement of public utility facilities where:
 - a. The disturbed portion of the Environmentally Sensitive Area is restored; and,
 - b. Vegetation listed as invasive is removed from the Environmentally Sensitive Area and replaced with vegetation from the City Native Plant List.
4. Additions, alterations, rehabilitation, or replacement of existing structures that do not increase the existing structural footprint in the Riparian Buffer or Water Related Habitat Area where the disturbed portion of the area is restored using native vegetative cover.
5. Stream, wetland, riparian enhancement or restoration projects as approved by the Director of Environmental Services;
6. Agricultural activities, including buildings and structures, are permitted outside of the Environmentally Sensitive Areas, unless otherwise permitted through a Nationwide Permit 40 (NWP 40), Agricultural Activities pursuant Section 404 of the Clean Water Act, or any other permit as required by FEMA.
7. Routine repair and maintenance of existing structures, roadways, driveways, public utility facilities, accessory uses.
8. Measures to remove or abate nuisances, or any other violation of State statute, administrative rule, or City Code of Ordinances.
9. Any action taken by the City in an emergency to mitigate an existing or potential hazard.
10. Gas well drilling and production within riparian buffers and water related habitats shall comply with Subchapter 35.22 Gas Well Drilling and Production.

B. Prohibited Uses and Activities.

The following uses and activities are not allowed in Riparian Buffers and Water Related Habitats:

1. Land disturbing activity not authorized by a U.S. Army Corps of Engineers Section 404 Permit of Letter of Permission.
2. Uncontained and contained areas of hazardous materials handling areas for the receiving and storage of hazardous waste.
3. Any structures, including storage sheds, garages and carports, located within the area mapped as Riparian Buffer and Water Related Habitats.
4. Septic tanks, septic tank drain fields, and other forms of on-site wastewater treatment shall not be built within the Environmentally Sensitive Areas.

35.17.9 Upland Habitat Development Standards.

The following uses and activities are regulated in the Upland Habitat and are in addition to the restrictions for development within this Subchapter.

A. Permitted Uses and Activities.

1. Residential development shall be designed to retain a contiguous fifty percent (50%) tree canopy, which shall remain predominantly in its natural state. Preservation of upland habitat contiguous to forested areas on adjacent properties or parcels is strongly encouraged. Non-residential development is not subject to the preservation of Upland Habitat.

2. Selective pruning conducted by or under the supervision of an **International Society of Arboriculture (ISA) Certified Arborist** is allowed to remove up to one-quarter of the canopy for the purposes of a trees health.
3. Enhancement or restoration projects as approved by the Director of Environmental Services.
4. Septic tanks, septic tank drain fields, and other forms of on-site wastewater treatment shall not be built within the Environmentally Sensitive Areas.

35.17.10 General Design and Improvement Standards.

The design and improvement of environmentally sensitive areas shall be in accordance with the following standards:

- A. These areas shall be linked to existing or planned open space or conserved areas to provide an overall open space system.
- B. These developments shall be arranged in order to maximize access and utilization of the Environmentally Sensitive Areas by residents of the development and the City.
- C. These developments shall comply with the open space plans and requirements of the City.
- D. The unbuildable site area shall be placed either in a lot or lots that incorporate a permanent conservation easement, restrictive covenants, or such other legal mechanism to allow for the long term conservation of said areas. Such legal mechanism shall limit any future land disturbing activity or construction within the environmentally sensitive areas and shall run with the land and be binding upon all successors and assigns of the current owner. The unbuildable site area may be incorporated into lots of over half (1/2) acre in size.

35.17.11 Reserved for Clustering Design Standards.

35.17.12 Alternative Environmentally Sensitive Area Plans.

The Alternative Environmentally Sensitive Area Plan provides the option to address the regulations through a flexible discretionary process utilizing the Zoning Amendment Procedure outlined in Subchapter 35.3.4. The Alternative Environmentally Sensitive Area Plan shall demonstrate that the developer's alternative proposal results in a high quality development meeting the intent of the standards in the Denton Development Code.

(Amended Ord. No. 2004-059, 03/02/2004)

(Amended Ord. No. 2005-366, 12/06/2005)