

## **1.14.0 Critical Environmental Feature Buffer Maintenance and Inspection**

### **1.14.1 Statement of Intent**

The City of Austin has determined that Critical Environmental Feature buffers require ongoing maintenance to preserve their water quality function. This section describes the requirements for maintaining and inspecting buffers that are established by Sections 25-8-281 and 25-8-282 of the Land Development Code. Periodic inspections are necessary in order to verify that the vegetation, other natural characteristics, and protective infrastructure remain intact within the buffer area.

Additional guidelines for establishing the buffer and protection of point recharge features are in Section 1.10.0, Point Recharge Identification Criteria, of the Environmental Criteria Manual.

This section applies to all Critical Environmental Feature buffers, as defined below.

### **1.14.2 Requirements**

#### **(A) Definitions**

- (1) CATCHMENT AREA. The land area that drains to a point recharge feature. The upslope limits extend to the highest topographic contour above and around the feature, irrespective of the degree of slope. A sharp slope break present at the perimeter of a well-defined, bowl-shaped depression is the rim of the sinkhole and is within the catchment area.
- (2) CRITICAL ENVIRONMENTAL FEATURE BUFFER. A land area established to protect or mitigate for the impacts to a Critical Environmental Feature (CEF). The natural vegetative cover must be retained to the maximum extent practicable. Construction disturbance must preserve all characteristics of the CEF and is limited to low-impact, minor modifications such as trails and protective structures.
- (3) DRAINAGE WAY. The land surface that conveys surface flow to a larger body of water. This includes any channel that concentrates stormwater runoff.
- (4) NATIVE VEGETATION. A native, or indigenous, species of Central Texas known to this region to exist as a result of only natural processes, with no human intervention. Once established, native species do not require irrigation, fertilization, or other chemical support when located in appropriate habitat. Native species of trees, shrubs, grasses, and wildflowers are listed in the Native Plant database of the Lady Bird Johnson Wildflower Center website.
- (5) NUISANCE VEGETATION. Vegetation that is of an invasive or detrimental nature and may be harmful to the functioning or water quality protection of a Critical Environmental Feature. This may include terrestrial or aquatic plants such as kudzu (*Pueraria lobata*), Bermuda grass (*Cynodon dactylon*), elephant ear (*Colocasia*), arundo cane (*Arundo donax*), hydrilla (*Hydrilla verticillata*), and greenbriar (*Smilax bona-nox* L.). Refer to the City of Austin Invasive Species Management Plan for additional plant species.

- (6) NON-MECHANIZED EQUIPMENT. Equipment that is operated by hand and may include the use of hand-held motorized tools, such as chain saws.
- (B) The protection of a Critical Environmental Feature buffer may require perimeter controls such as a perimeter fence, physical barrier, or other structure. Fencing must meet the specifications of the City of Austin Standard Specifications Manual or a standard approved by the Watershed Protection Department. If a fence is constructed, then at least one access gate with a lockable latch must be installed. Fencing is recommended for the following conditions:
- (1) The buffer is located adjacent to industrial, commercial, multi-family, or single-family residences.
  - (2) The buffer contains the catchment area of a cave or sinkhole.
  - (3) The buffer area contains an ecological community that is sensitive to disturbances that may impact water quality or alter the natural characteristics of the Critical Environmental Feature.
  - (4) The buffer area contains steep slopes and is located outside of a Critical Water Quality Zone.
  - (5) The buffer area is potentially hazardous or dangerous to individuals.
  - (6) The buffer area contains State or Federally protected species.
- (C) Cave gates may be required. The materials and construction method must be approved by the Watershed Protection Department.
- (D) Other proposed structures, such as diversion berms or recharge enhancement structures, within the buffer must retain the functionality and integrity of the Critical Environmental Feature. Generally diversion berms would only be allowed inside a buffer to direct clean or treated runoff toward recharge features. Otherwise, diversion berms outside the buffer would direct untreated runoff away from a recharge features. The materials and construction method must be approved by the Watershed Protection Department.
- (E) Native vegetation within the buffer must be maintained such that it provides water quality benefits such as filtering sediment, allowing infiltration, promoting sheetflow of stormwater runoff, and preventing erosion. This maintenance does not include the requirement to provide supplemental irrigation for upland vegetation. Removal is to be conducted with non-mechanized equipment and without the use of herbicides. Removal of nuisance vegetation including seedling ash junipers may be conducted with prior approval and documentation from the Watershed Protection Department.
- (F) Inspection of a Critical Environmental Feature buffer should occur at least every 6 months. The vegetation within the buffer area and associated infrastructure (fences, gates, berms, signs, trails, etc.) should be inspected. Additional conditions, such as red-imported fire ant activity, should be noted within cave buffers. Inspection records must be retained for three years by the land management entity for the City of Austin review.

(G) The owner must maintain the area within the buffer in a natural, vegetated state and preserve the natural characteristics of the Critical Environmental Feature. Maintenance activities shall utilize non-mechanized equipment. Mowing of ground cover is specifically not allowed. The following activities must be conducted:

- (1) Trash must be removed from the buffer area on an as needed basis.
- (2) Herbicide and pesticide use is prohibited within Critical Environmental Feature buffers on sites that are subject to the Save Our Springs Ordinance, per ECM 1.6.9.2 D.
- (3) Upland vegetation must be replaced under the following conditions:
  - (a) A contiguous area greater than 10% total area of the buffer has dead, native vegetation. The type of vegetation may be an area of dead forbs and grasses or shrubs or trees. If Austin Water Utility has implemented Stage 2 or greater water restrictions, then revegetation may be postponed until watering is allowed twice per week.
  - (b) The area must be stabilized immediately if bare soil greater than 10 square feet in area results from vegetation death. Stabilization shall comply with other applicable sections of the Environmental Criteria Manual.
- (4) Wetland vegetation located outside of a drainage way must be replaced under the following conditions:
  - (a) A contiguous area greater than 10% total area of the buffer consists of dead obligate, wetland vegetation; or
  - (b) Wetland vegetation was removed for infrastructure repair. Re-establish the hydrophytic wetland plant community per original, approved site or construction plans or as approved by the Watershed Protection Department.
- (5) Routine preventive maintenance for gates, fences and trails should occur at least annually. If infrastructure damage exists, then repair must occur within two (2) months.
- (6) Any observed condition that represents an immediate threat to water quality or public health must be remedied as soon as possible.

(H) Additional maintenance activities may be required. These activities may include:

- (1) Trail surfaces that have eroded should be repaired within two (2) months.
- (2) Missing or damaged signs should be replaced within six (6) months.

- (3) Recharge enhancement structures should be maintained per the design recommendations. This may require clearing debris and sediment on a periodic basis.
- (I) Any other conditions required by a legal document, such as a restrictive covenant or conservation easement, shall be followed.
- (J) Failure to maintain a Critical Environmental Feature buffer that results in water quality degradation is considered to be a violation of City Code Chapter 6-5, Water Quality. Penalties may be imposed.