

ENVIRONMENTAL CRITERIA MANUAL

1.2.2.1 - Submittal Requirements for Projects in the Barton Springs Zone

B. Water Quality Engineering Report.

Section 25-8-514 of the Land Development Code (LDC) requires water quality controls and/or other onsite pollution prevention and assimilation techniques so that no increase occurs in the respective average annual pollutant load of suspended solids, total phosphorous, total nitrogen, chemical oxygen demand, biochemical oxygen demand, total lead, cadmium, fecal coliform, fecal streptococci, E. Coli, volatile organic compounds, total organic carbon, pesticides, and herbicides from the site. To demonstrate compliance with these requirements, the applicant must submit the following additional information in the Engineering Report: [...]

1.3.0 - ENVIRONMENTAL RESOURCE INVENTORY

- (A) Pursuant to the City of Austin's Land Development Code (LDC), Section 25-8-121(A), and Title 30-5, an Environmental Resource Inventory (ERI) report is required for all sites that are proposed development located on a tract: within the Edwards Aquifer recharge or contributing zone over a karst aquifer; within the Drinking Water Protection Zone a contributing zone of a karst aquifer; in-containing a water quality transition zone (WQTZ); in-containing a critical water quality zone (CWQZ); in-containing the 100 year floodplain; or on a tract that has slopes with a gradient of more than 15 percent. ERI reports are valid for 7 years after their completion date. A standardized ERI report template is available from the Watershed Protection Department (WPD) or in ECM 1.3.1. Applicants requesting a waiver to exclude information required in the ERI report pursuant to LDC Section 25-8-121(D) or Title 30-5 shall complete an ERI Waiver Request Form and submit the form to the appropriate WPD reviewer prior to submittal of the development application. The ERI Waiver Request Form is available in ECM 1.3.2.

1.3.4.3 - Pollutant Attenuation Plan Report

Describe the phasing of site development or use, operations, water quality best management practices, and reclamation plans.

A. Submit the following in report format:

1. Engineering Report. Describe the industrial activities occurring outdoors. If operations are to be phased over several years, then describe the areas of the site and anticipated activities during each phase.

[...]

- (C) Development proposed within 100 feet of the centerline of a waterway with a drainage area of 64 acres or greater, within 100 feet of the ordinary high water mark of the Colorado River downstream from Longhorn Dam, or located where significant erosion is present should perform an erosion hazard zone analysis in accordance with the Drainage Criteria Manual.

1.5.2 - Buffer Geometry

B. Buffer Width

Critical Water Quality Zone

[...]

Critical Water Quality Zones along the shorelines of Lake Travis, Lake Austin, and Lady Bird Lake, and Lake Walter E. Long are measured from the shoreline boundary. The buffer width is 100 feet or 75 feet for a detached single-family residential use.

[...]

C. Exemptions

A Critical Water Quality Zone does not apply to:

- a previously modified drainage feature constructed primarily to serve a railroad or public roadway right-of-way if staff from the Watershed Protection Department determine that the feature does not possess any natural and traditional character and cannot be reasonably restored to a natural condition;

[...]

1.5.3 - Development Allowed in the Critical Water Quality Zone

In all watersheds, development is prohibited in the Critical Water Quality Zone except as provided by sections 25-8-261 (Critical Water Quality Zone Development) and 25-8-262 (Critical Water Quality Zone Street Crossings) of the Land Development Code. The uses allowed in the Critical Water Quality Zone are described in more detail below. Any development allowed within the Critical Water Quality Zone shall be revegetated and restored within the limits of construction in accordance with the vegetative stabilization requirements of 1.4.0 (Erosion and Sedimentation Control Criteria) and Standard Specification 609S (Native Grassland Seeding and Planting for Erosion Control).

B. Open Space

[...]

- Trails

Requirements

In all watersheds, multi-use trails—including hard-surfaced trails—may cross a Critical Water Quality Zone of any waterway. A trail with an earthen surface or soft surface (e.g. mulch, decomposed granite) is allowed anywhere within the Critical Water Quality Zone, provided that the trail follows the basic guidance for placement and design provided below. A trail with an earthen or soft surface should not exceed 6 feet in width if located closer to the waterway than the requirements for hard-surfaced trails. Otherwise, the maximum width shall be 12 feet, unless a wider trail is designated in the Urban Trails Master Plan. A hard surface (e.g. concrete) of less than or equal to 100 square feet may be installed for a limited length of what is otherwise an earthen surface or soft surface trail to avoid drainage or erosion problems.

A hard-surfaced trail includes a trail constructed using concrete or asphalt. A hard-surfaced trail is allowed within the Critical Water Quality Zone if:

1. Located outside of the erosion hazard zone, unless protective works are provided in accordance with the Drainage Criteria Manual;
A maximum of 12 feet wide, unless a wider trail is designated in the Urban Trails Master Plan;
3. In an urban watershed, located not less than 25 feet from the centerline of a waterway;
4. In a watershed other than urban, located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, or 150 feet from the centerline of a major waterway;

5. Located not less than 50 feet from the shoreline of Lake Travis, Lake Austin, Lady Bird Lake, and Lake Water E. Long; and

6. Located not less than 100 feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam.

In addition to these conditions, hard-surfaced trails should also follow the basic guidance for placement and design provided below.

Placement and Design

Avoid Sensitive Environmental Areas. A natural surface trail for hiking may be located within 50 feet of a critical environmental feature (CEF). Otherwise, multi-use trails are prohibited within CEF setbacks. The trail should avoid other environmentally sensitive areas where possible or take sufficient steps to minimize impacts on these systems. Other environmentally sensitive areas include priority or other significant woodlands and prairies as identified by the Environmental Resource Inventory. The trail should not be located along the sideslope of an embankment or in other areas with high erosion potential. If the applicant is proposing a hard-surfaced trail within 100 feet of the centerline of the waterway, within 100 feet of the ordinary high water mark of the Colorado River downstream from Longhorn Dam, or in a location where significant erosion is present, they will need to perform an erosion hazard zone analysis.

[...]

- Sustainable Urban Agriculture

[...]

Sustainable urban agriculture is allowed in the Critical Water Quality Zone if:

1. In an urban watershed, the area is located not less than 25 feet from the centerline of a waterway.

In a watershed other than urban, the area is located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, or 150 feet from the centerline of a major waterway.

3. The area is located not less than 50 feet from the shoreline of Lake Travis, Lake Austin, Lady Bird Lake, and Lake Water E. Long.

4. The area is located not less than 100 feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam.

- 35.** The area is limited to garden plots and paths, with no storage facilities or other structures over 500 square feet. Raised beds and garden plots shall not be considered structures. The square footage of all storage facilities and other structures (e.g., toolsheds) shall be totaled for the area and shall not exceed 500 square feet on a cumulative basis. A single storage facility or structure should comply with the general open space requirements above for connected impervious cover (100 or 250 square feet depending on distance from the waterway).

[...]

- Athletic Fields

[...]

Athletic fields are allowed in the Critical Water Quality Zone if:

1. In an urban watershed, the area is located not less than 25 feet from the centerline of a waterway.

In a suburban watershed, the area is located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, or 150 feet from the centerline of a major waterway.

3. The area is located not less than 50 feet from the shoreline of Lady Bird Lake and Lake Water E. Long.

4. The area is located not less than 100 feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam.

35. The owner of the athletic field submits a maintenance plan to keep the athletic field well vegetated and minimize compaction. The plan must be approved by the Watershed Protection Department.

[...]

E. Parallel Utilities

In addition to necessary crossings, utility lines may be located parallel to and within the Critical Water Quality Zone in urban and suburban watersheds if:

1. In an urban watershed, the area is located not less than 50 feet from the centerline of a waterway.
2. In a suburban watershed, the area is located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, or 150 feet from the centerline of a major waterway.

3. The area is located not less than 50 feet from the shoreline of Lady Bird Lake and Lake Water E. Long.

4. The area is located not less than 100 feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam.

35. The utility line is located outside of the erosion hazard zone, unless protective works are provided.

46. In addition to restoring within the limits of construction in accordance with the vegetative stabilization requirements of 1.4.0 (Erosion and Sedimentation Control Criteria), the project restores an area within the Critical Water Quality Zone equal in size to the area of disturbance. In other words, for every square foot disturbed, the applicant shall restore an additional square foot within the Critical Water Quality Zone outside of the area of disturbance.

[...]

F. Detention Basins and Wet Ponds

In-channel detention basins and in-channel wet ponds can be located within the Critical Water Quality Zone if the requirements of Sections 25-8-364 (Floodplain Modification), 25-7 (Drainage), and other provisions 25-8 Subchapter A are met. For guidance on how to demonstrate compliance with these requirements, see Section 1.7.3.C (Development Allowed within the Critical Water Quality Zone) of the Floodplain Modification Criteria in this manual.

G. Floodplain Modification

Floodplain modifications are prohibited in the Critical Water Quality Zone unless:

1. the floodplain modifications proposed are necessary to address an existing threat to protect the public health and safety, as determined by the director of the Watershed Protection Department;
the floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health; or
3. the floodplain modifications proposed are necessary for development allowed in the Critical Water Quality Zone under section 25-8-261 (Critical Water Quality Zone Development) or 25-8-262 (Critical Water Quality Zone Street Crossings).

For additional guidance on floodplain modification within the Critical Water Quality Zone, see Section 1.7.0 (Floodplain Modification Criteria) of this manual.

H. Green Water Quality Controls

In urban and suburban watersheds, vegetative filter strips, rain gardens, biofiltration ponds, and areas used for irrigation or infiltration of stormwater are allowed within the Critical Water Quality Zone if:

1. In an urban watershed, located not less than 50 feet from the centerline of a waterway;
2. In a suburban watershed, located not less than 50 feet from the centerline of a minor waterway, 100 feet from the centerline of an intermediate waterway, or 150 feet from the centerline of a major waterway;
3. Located not less than 50 feet from the shoreline of Lady Bird Lake and Lake Water E. Long;
4. Located not less than 100 feet from the ordinary high water mark of the Colorado River downstream from Longhorn Dam;
35. Located outside the 100-year floodplain; and
46. Located outside the erosion hazard zone, unless protective works are provided as prescribed in the Drainage Criteria Manual.

[...]

J. Street Crossings

In all watersheds, multi-use trails may cross a Critical Water Quality Zone of any waterway. In an urban watershed, an arterial, collector, or residential street may cross a Critical Water Quality Zone of any waterway. In a watershed other than urban, the following restrictions apply to street crossings:

- a major waterway may be crossed by an arterial street identified in the Transportation Plan.
- an intermediate waterway may be crossed by an arterial or collector street, except:
 - a collector street crossing must be at least 2,500 feet from a collector or arterial street crossing on the same waterway; or
 - in a water supply suburban or water supply rural watershed, or the Barton Springs Zone, a collector street crossing must be at least one mile from a collector or arterial street crossing on the same waterway.
- a minor waterway may be crossed by an arterial and collector streets, except:
 - a collector street crossing must be at least ~~1,000~~900 feet from a collector or arterial street crossing on the same waterway; or
 - in a water supply suburban or water supply rural watershed, or the Barton Springs Zone, a collector street crossing must be at least 2,000 feet from a collector or arterial street crossing on the same waterway.
- a minor waterway may be crossed by a residential or commercial street if necessary to provide access to property that cannot otherwise be safely accessed.

[...]

1.6.9.3 - Control Measure Design

B. Calculating Pollutant Load for Existing Conditions.

1. Pollutants. Existing and developed pollutant loads shall be calculated for the following pollutant species:

Chemical Oxygen Demand (COD)

Escherichia coli (EC)

Total Lead (Pb)

Total Nitrogen (TN)

Total Organic Carbon (TOC)

Total Phosphorus (TP)

Total Suspended Solids (TSS)

Total Zinc (Zn)

Although cadmium (Cd) is also a pollutant of concern, cadmium levels are typically lower than City of Austin monitoring detection limits. Therefore there is insufficient monitoring data to publish cadmium runoff concentrations. Zinc is more easily detected, therefore zinc (Zn) concentrations are calculated to determine compliance. See Section 1.6.9.2.B for additional cadmium requirements.

1.7.1 - Introduction

These guidelines set out standards for evaluating and processing proposed modifications of the 100-year floodplain with the following objectives:

- preserving the natural and traditional character of the land and waterway;
- encouraging sound engineering and ecological practices;
- preventing and reducing degradation of water quality;
- encouraging the stability and integrity of floodplains and waterways; and
- restoring floodplain health to support natural functions and processes.

The guidelines apply to development ~~proposed~~ that results in any vertical or horizontal change in the cross section within of the 100-year floodplain, both inside and outside of the Critical Water Quality Zone. A vertical change in the cross section includes any change to the land elevation within the floodplain, such as cut, fill, or construction of a structure. A horizontal change in the cross section includes any change that widens or narrows the floodplain, such as channelization. Floodplain modification is defined as any change in the cross section, so compensatory cut and fill that does not change the surface water elevation is still considered a floodplain modification. However, development that consists solely of the addition or removal of vegetation is not considered a floodplain modification.

[...]

1.7.2 - Code Requirements

A. Critical Water Quality Zone

[...]

A Critical Water Quality Zone does not apply to a previously modified drainage feature serving a railroad or located within a public roadway right-of-way that does not possess any natural and traditional character and cannot be reasonably restored to a natural condition. As a Critical Water Quality Zone would not be applied, the requirements outlined in this section do not apply to a drainage feature determined to meet these conditions.

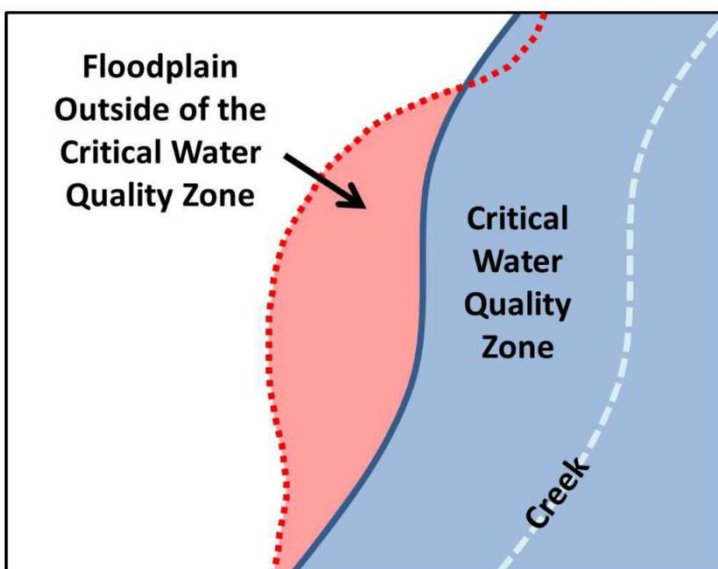
[...]

Floodplain modifications are prohibited in the Critical Water Quality Zone unless:

- (1) the floodplain modifications proposed are necessary to protect the address an existing threat to public health and safety, as determined by the director of the Watershed Protection Department;
- (2) the floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health; or
- (3) the floodplain modifications proposed are necessary for development allowed in the Critical Water Quality Zone under section 25-8-261 (Critical Water Quality Zone Development) or 25-8-262 (Critical Water Quality Zone Street Crossings).

If the proposed modification does not qualify for one of the three exemptions listed above in accordance with Section 1.7.3 (Exemptions), then the applicant must seek a variance from the land use commission.

B. Outside of the Critical Water Quality Zone



In some areas, especially in the flatter topography of the eastern watersheds, the width of the 100-year floodplain can extend beyond the Critical Water Quality Zone (see figure). Floodplain modification is permitted outside of the Critical Water Quality Zone if:

- (1) the floodplain modifications proposed are necessary to protect the address an existing threat to public health and safety, as determined by the director of the Watershed Protection Department;
- (2) the floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health;
- (3) the floodplain modifications proposed are necessary for development allowed in the Critical Water Quality Zone under section 25-8-261 (Critical Water Quality Zone Development) or 25-8-262 (Critical Water Quality Zone Street Crossings); or

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- (4) the proposed modification is located in an area determined to be in poor or fair condition by a functional assessment of floodplain health (see Section 1.7.4).

1.7.3 - Exemptions

- A. Necessary to ~~Protect~~ Address an Existing Threat to the Public Health and Safety

Floodplain modification is permitted when necessary to ~~relieve a clear and present or reasonably foreseeable~~ address an existing threat to human life from flooding or erosion of existing occupied structures or public rights of way and private property, as determined by the director of the Watershed Protection Department. This shall include the stabilization of eroding creek banks where existing structures are threatened or where there is a recognizable threat to public recreation and safety. The applicant shall perform an environmental assessment of alternatives to determine the least environmentally damaging feasible alternative. These projects shall improve floodplain and riparian zone function using stream restoration techniques that limit the use of hard armor except as needed at key erosive locations. The project shall retain the natural stable creek plan, profile, and dimension with natural function, to the greatest extent practicable, using the following techniques: graded slopes with soil retention blankets; vegetated mechanically stabilized earth; native riparian vegetation; natural materials such as native limestone (instead of gabions or concrete); toe wood; and constructed riffles that double as grade control where required for vertical channel stability. These projects do not need to comply with the restoration or mitigation ratios outlined in Sections 1.7.5 and 1.7.6. Any disturbed areas will need to comply with the vegetative stabilization requirements of 1.4.0 (Erosion and Sedimentation Control Criteria).

1.8.1 - Calculations

- C. Impervious cover calculations exclude:

- sidewalks in a public right-of-way or public easement;
- multi-use trails open to the public and located on public land or in a public easement;
- water quality controls, excluding subsurface water quality controls;
- detention basins, excluding subsurface detention basins;
- drainage swales and conveyances;
- the water surface area of ground level (including in ground and above ground) ~~ponds, pools, and~~ fountains, and ponds;
- areas with gravel placed over pervious surfaces that are used only for landscaping or by pedestrians and are not constructed with compacted base;
- weed screens;
- solar screen tents.
- porous pavement designed in accordance with Section 1.6.7 of this manual, limited to only pedestrian walkways and multi-use trails, and located outside the Edwards Aquifer Recharge Zone;
- fire lanes that consist of interlocking pavers, are designed in accordance with Section 1.6.7 of this manual, are restricted from routine vehicle access, and are approved by the Austin Fire Department; and
- a subsurface portion of a parking structure if the director of the Watershed Protection department determines that:

- the subsurface portion of the structure is located within an urban or suburban watershed; is below the grade of the land that existed before construction of the structure; is covered by soil with a minimum depth of two feet and an average depth of not less than four feet; and has an area not greater than fifteen percent of the site;
- the structure is not associated with a use regulated by Section 1.2.2 of Subchapter F of Chapter 25-2 (Residential Design and Compatibility Standards);
- the applicant submits an assessment of the presence and depth of groundwater at the site sufficient to determine whether groundwater will need to be discharged or impounded; and
- the applicant submits documentation that the discharge or impoundment of groundwater from the structure, if any, will be managed to avoid adverse effects on public health and safety, the environment, and adjacent property.

[...]

- F. Impervious cover limitations do not apply to an application for a ~~commercial site development, including a roadway project, which will not exceed~~ roadway improvement with less than 8,000 square feet of new impervious cover. Roadway improvements are limited to intersections upgrades, low-water crossing upgrades, additions for bicycle lanes, and additions for mass transit stops.

1.9.1 - General Requirements

Section 25-8-211 of the Land Development Code establishes the need for water quality controls for subdivisions and site plans. Water quality controls are not required on a single-family or duplex lot but apply to the residential subdivision as a whole. In all watersheds, water quality controls are not required for a roadway ~~project~~ improvement with less than 8,000 square feet of new impervious cover, as defined below. Roadway improvements are limited to intersection upgrades, low-water crossing upgrades, additions for bicycle lanes, and additions for mass transit stops.

[...]

Appendix Q-4: Redevelopment Exception in the Barton Springs Zone

Section 25-8-26 of the Land Development Code (*Redevelopment Exception in the Barton Springs Zone*) allows for redevelopment of existing commercial properties in the Barton Springs Zone that do not comply with current watershed regulations. This section cannot be applied to existing residential uses (as defined in LDC 25-2-3 *Residential Uses Described*). In addition, this section cannot be applied if unpermitted development occurred on the site after January 1, 1992. The owner can elect for a property to be governed by this section when a site plan application is filed or if subdivision and site plan applications are filed concurrently. Properties may redevelop under this section provided the following conditions are met:

1. The redevelopment may not increase the existing amount of impervious cover on the site.
The redevelopment may not further encroach into the Critical Water Quality Zone, the Water Quality Transition Zone, or setbacks for Critical Environmental Features and wetlands.
3. The project must comply with [Section 25-8-121 \(Environmental Resource Inventory Requirement\)](#) and all the construction phase environmental requirements (i.e. erosion and sedimentation controls) in effect at the time of construction.
4. 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 an Operating Permit for all on-site water quality controls.
6. Properties with more than 40 percent net site area impervious cover must provide at least a sedimentation/filtration level of on-site water quality controls for the entire site or a combination of SOS ponds and sedimentation/filtration ponds for the entire site.
7. Properties with 40 percent or less net site area impervious cover must provide on-site water quality controls compliant with the SOS Ordinance for the entire site. No mitigation land is required.
8. The property owner must provide mitigation land if the redevelopment site has a sedimentation/filtration level of on-site water quality control. The combined gross site area impervious cover of the mitigation land and the portion of the redevelopment site treated by sedimentation/filtration ponds may not exceed 20 percent. No mitigation land is required for portions of the redevelopment site treated by SOS ponds.
9. The redevelopment may not be located within the Erosion Hazard Zone unless protective works are provided.

Project approval by a simple majority of the City Council is required if the redevelopment:

1. Includes more than 25 dwelling units;
Is located outside the City's zoning jurisdiction;
3. Is proposed on property with an existing industrial or civic use (as defined in LDC 25-2-5 *Industrial Uses Described* and 25-2-6 *Civic Uses Described*);
4. Is inconsistent with a neighborhood plan; or
5. Will generate more than 2,000 vehicle trips a day above the estimated traffic level based on the most recent authorized use on the property.

The mitigation requirement may be satisfied by:

1. Paying into the Barton Springs Zone Mitigation Fund (see Option 1 Worksheet);
Transferring mitigation land to the City of Austin or placing restrictions on mitigation land through a conservation easement (see Option 2 Worksheet); or

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3. A combination of these mitigation methods (see Option 1 and Option 2 Worksheets).
If the applicant chooses to provide mitigation land in lieu of paying into the Barton Springs Zone Mitigation Fund, the person redeveloping shall pay all costs of restricting the mitigation land or transferring the mitigation land to the City, including the costs of:

1. An environmental site assessment without any recommendations for further clean-up, certified to the City not earlier than the 120th day before the closing date transferring land to the City;
A category 1(a) land title survey, certified to the City and the title company not earlier than the 120th day before the closing date transferring land to the City;
3. A title commitment with copies of all Schedule B and C documents, and an owner's title policy;
4. A fee simple deed, or, for a restriction, a restrictive covenant approved as to form by the city attorney;
5. Taxes prorated to the closing date;
6. Recording fees; and
7. Charges or fees collected by the title company.

The mitigation land provided by the applicant must be either greater than 100 acres in size or directly adjacent to existing protected land. The mitigation land must also have acceptable operating & maintenance (O&M) conditions, as approved by the proposed land manager. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval from the Director of the Watershed Protection Department. If the applicant is placing restrictions on the mitigation land, the conservation easement must be approved and recorded prior to the issuance of a development permit.

**OPTION 1 WORKSHEET
CALCULATION FOR PAYMENT INTO THE BARTON SPRINGS ZONE MITIGATION FUND**

A. OWNER/AGENT INFORMATION:

Name: _____
 Company: _____
 Telephone: _____ Fax: _____

B. PROJECT INFORMATION:

Name: _____
 Location or Address: _____
 Permit Number: _____
 Case Manager: _____

Total Gross Site Area (GSA): _____ (ac.)
 Total Net Site Area (NSA): _____ (ac.)
 Total Acres Impervious Cover: _____ (ac.)
 Percent Impervious Cover of NSA = Total Acres Impervious Cover / Total Net Site Area
 Percent Impervious Cover of NSA: _____ %

If the percent impervious cover is less than or equal to 40% of the net site area, then the site must use non-degradation controls and no mitigation land is required. For a list of non-degradation structural control options, please see ECM Section 1.6.9-3.

C. MITIGATION CALCULATION:

1. OVERALL MITIGATION

Overall Mitigation Required (ac.) = (Total Acres Impervious Cover / 0.20) - Acres Gross Site Area
 Overall Mitigation Required: _____ (ac.)

If the entire site is treated with sedimentation/sand filtration or an equivalent level of water quality control, skip to section 3. Final Mitigation Required is equal to Overall Mitigation Required.

2. NON-DEGRADATION (ND) REDUCTION

Total Site Area Treated with ND Controls (including Treatment Area): _____ (ac.)
 Total Acres Impervious Cover Treated with ND Controls: _____ (ac.)
 Non-Degradation Reduction (ac.) = (Acres of ND Impervious Cover / 0.20) - Acres of ND Site Area
 Non-Degradation Reduction: _____ (ac.)

3. FINAL MITIGATION

Final Mitigation Required (ac.) = Overall Mitigation - Non-Degradation Reduction
 Final Mitigation Required: _____ (ac.)

D. PAYMENT CALCULATION:

Mitigation Land Provided by Applicant: _____ (ac.)

Mitigation land provided by the applicant must be approved by the Director of the Watershed Protection Department and the Proposed Land Manager (Option 2 Worksheet).

Mitigation by Payment (ac.) = Final Mitigation Required - Mitigation Land Provided by Applicant

Mitigation by Payment: _____ (ac.)

Base Fee: \$15,000 per acre

Annual Adjustment Factor: 7% beginning October 1, 2008

Adjusted Fee: \$ _____

Total Fee: Mitigation by Payment (ac.) x Adjusted Fee = \$ _____

E. AUTHORIZATION:

Owner/Agent: _____

Reviewed by: _____
For the Director of the ~~Planning and Development Review~~ Development Services Department

**INSTRUCTIONS FOR COMPLETING OPTION 1 WORKSHEET
CALCULATION FOR PAYMENT INTO THE BARTON SPRINGS ZONE MITIGATION FUND**

PART A. OWNER/AGENT INFORMATION

Provide the name of the owner or agent, the name of the company, and the telephone and fax number.

PART B. PROJECT INFORMATION

Provide the name of the project, the location or address, the site development or site plan number, and the name of the case manager in the ~~Planning and Development Review~~ Development Services Department.

Provide the Gross Site Area in acres of the entire site.

Provide the Net Site Area in acres of the entire site. See Land Development Code Section 25-8-62 (*Net Site Area*)

Provide the total proposed impervious cover in acres. Total proposed impervious cover should also include existing impervious cover on the site that will remain after redevelopment. Impervious cover shall be measured to the nearest 0.01 acre.

Calculate the percent of impervious cover for the Net Site Area by dividing the acres of impervious cover (Total Acres Impervious Cover) by the acres of net site area (Total Net Site Area). If the percent impervious cover is less than or equal to 40% of the Net Site Area, then the site must use non-degradation controls and no mitigation land is required.

PART C. MITIGATION CALCULATION

1. OVERALL MITIGATION

Calculate the acres of Overall Mitigation Required by dividing the acres of impervious cover (Total Acres Impervious Cover) by 0.20 and subtracting the acres of gross site area (Total Gross Site Area).

If the entire site is treated with sedimentation/sand filtration or an equivalent level of water quality control, skip to Section 3 – Final Mitigation. Final Mitigation Required is equal to Overall Mitigation Required.

2. NON-DEGRADATION (ND) REDUCTION

If a portion of the site is treated with non-degradation controls, mitigation land is not required for that portion of the site. The Non-Degradation Reduction will be deducted from the Overall Mitigation Required to determine the Final Mitigation Required. Non-degradation controls (or "SOS Ponds") are 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) (*Pollutant Prevention Required*). The design of these controls is further outlined in ECM 1.6.9-3.

Calculate the total site area treated with non-degradation controls. This includes the site area treated by the control as well as the pervious treatment areas used for irrigation or infiltration.

Calculate the total impervious cover in acres that will be treated with non-degradation controls.

Calculate the Non-Degradation Reduction by dividing the total acres of impervious cover treated with non-degradation controls (Acres of ND Impervious Cover) by 0.20 and subtracting the total site area treated with non-degradation controls (Acres of ND Site Area).

3. FINAL MITIGATION

Calculate the Final Mitigation Required by subtracting the Non-Degradation Reduction (if applicable) from the Overall Mitigation Required. If no portion of the site is being treated with non-degradation controls, the Final Mitigation Required is the same as the Overall Mitigation Required.

PART D. PAYMENT CALCULATION

Provide, if applicable, the amount of mitigation land in acres provided by the applicant. The mitigation land must be approved by the Director of the Watershed Protection Department and the Proposed Land Manager (Option 2 Worksheet).

Calculate the amount of mitigation land in acres that will be satisfied through payment into the Barton Springs Zone Mitigation Fund (Mitigation by Payment) by subtracting the mitigation land provided by the applicant from the Final Mitigation Required. If all mitigation requirements will be satisfied through payment into the fund, Mitigation by Payment is equal to Final Mitigation Required.

The base fee (\$15,000/acre) and annual adjustment factor (7% beginning October 1, 2008) were established by Ordinance No. 20071108-121. Both the base fee and the annual increase shall be reviewed and adjusted by Council every three years based on current market data.

Use the base fee and annual adjustment factor to determine the Adjusted Fee.

Calculate the Total Fee by multiplying the acres of Mitigation by Payment by the Adjusted Fee.

PART E. AUTHORIZATION

The owner or agent for the project must sign and date the form. Upon review and approval of the payment, the Director of the ~~Planning and Development Review~~ Development Services Department or their designee will sign and date the form indicating approval of the proposed payment.

**OPTION 2 WORKSHEET
EVALUATION OF MITIGATION LAND IN LIEU OF PAYMENT
INTO BARTON SPRINGS ZONE MITIGATION FUND**

A. OWNER/AGENT INFORMATION:

Name: _____
Company: _____
Telephone: _____ Fax: _____

B. PROJECT INFORMATION:

Name: _____
Location or Address: _____
Permit Number: _____
Case Manager: _____

C. PROPOSED MITIGATION LAND INFORMATION:

Titleholder: _____
Location or Address: _____
Tax Parcel ID: _____

Total Gross Site Area (GSA) to be Transferred: _____ (ac.)

Total Gross Site Area (GSA) to be Restricted: _____ (ac.)

Total Proposed Mitigation Land (ac.) = Total GSA to be Transferred + Total GSA to be Restricted

Total Proposed Mitigation Land: _____ (ac.)

D. MITIGATION CRITERIA:

- 1. Must be greater than 100 acres (gross site area) unless directly adjacent to existing protected land. The protected land does not have to be owned by the City of Austin.**

Greater than 100 Acres (Gross Site Area)	Yes	No
--	-----	----

Directly Adjacent to Existing Protected Land	Yes	No
--	-----	----

If Directly Adjacent to Existing Protected Land:

Name: _____
Owner: _____
Location or Address: _____

Must have acceptable operations and maintenance (O&M) conditions, as approved by the receiving department. The land may also be managed by a not-for-profit land trust.

Proposed Land Manager: _____

- 3. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval by the director of the Watershed Protection Department.**

Description of Environmental Feature or Attribute: _____

E. AUTHORIZATION:

Owner/Agent: _____

Reviewed by: _____
For the Director of the Watershed Protection Department

Reviewed by: _____
For the Proposed Land Manager

**INSTRUCTIONS FOR COMPLETING OPTION 2 WORKSHEET
EVALUATION OF MITIGATION LAND IN LIEU OF PAYMENT
INTO BARTON SPRINGS ZONE MITIGATION FUND**

PART A. OWNER/AGENT INFORMATION

Provide the name of the owner or agent, the name of the company, and the telephone and fax number.

PART B. PROJECT INFORMATION

Provide the name of the project, the location or address, the site development or site plan number, and the name of the case manager in the ~~Planning and Development Review~~ Development Services Department.

PART C. PROPOSED MITIGATION LAND INFORMATION

Redevelopment of property in the Barton Springs Zone under Section 25-8-26 requires the purchase or restriction of mitigation land if the site has a sedimentation/filtration pond or an equivalent level of treatment. The mitigation requirement can be satisfied by:

- Paying into the Barton Springs Zone Mitigation Fund (Option 1 Worksheet);
- Transferring mitigation land to the City;
- Placing restrictions on mitigation land through a conservation easement; or
- A combination of these mitigation methods.

The combined gross site area impervious cover of the mitigation land and the portion of the redevelopment site treated by sedimentation/filtration ponds may not exceed 20 percent. The mitigation land must be within a watershed that contributes recharge to Barton Springs, either inside or outside the City's jurisdiction.

In lieu of paying into the Barton Springs Zone Mitigation Fund, Section 25-8-26(H) of the Land Development Code requires the Director of the Watershed Protection Department to evaluate and accept or deny the proposed mitigation land.

Provide the titleholder of the proposed mitigation land.

Provide the location or address of the proposed mitigation land.

Provide the tax parcel identification number of the proposed mitigation land.

Provide the Gross Site Area in acres of the mitigation land proposed for transfer to the City of Austin.

Provide the Gross Site Area in acres of the mitigation land proposed for restriction by conservation easement.

Calculate the Total Proposed Mitigation Land by adding the mitigation land proposed for transfer (Total GSA to be Transferred) to the mitigation land proposed for restriction (Total GSA to be Restricted).

PART D. MITIGATION CRITERIA

1. Must be greater than 100 acres (gross site area) unless directly adjacent to existing protected land. The protected land does not have to be owned by the City of Austin.

Indicate whether the gross site area of the proposed mitigation land is greater than 100 acres.

Indicate whether the proposed mitigation land is directly adjacent to existing protected land.

If the proposed mitigation land is directly adjacent to existing protected land, provide the name of the protected land, the owner of the land, and the location or address.

2. Must have acceptable operations and maintenance (O&M) conditions, as approved by the receiving department. The land may also be managed by a not-for-profit land trust.

Provide the name of the proposed land manager, if known.

If the land is fee simple and directly adjacent to City of Austin parkland, the assumed land manager is the Parks and Recreation Department (PARD). Any land being transferred to PARD must be for passive use only and cannot be used to satisfy parkland dedication requirements. If the land is fee simple and not directly adjacent to City of Austin parkland, the assumed land manager is the Wildland Conservation Division of the Austin Water Utility. If the land is being placed under restriction through a conservation easement, the assumed land manager is the Wildland Conservation Division or a not-for-profit land trust. The conservation easement must be approved and recorded prior to the issuance of a development permit.

3. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval.

Provide a brief description of any outstanding environmental features or attributes present on the proposed mitigation land. Attach any other relevant information, such as maps, photos, and/or an environmental resource inventory.

PART E. AUTHORIZATION

The owner or agent for the project must sign and date the form. Upon evaluation and approval of the mitigation land, the Director of the Watershed Protection Department or their designee will sign and date the form indicating approval of the mitigation land. The proposed land manager responsible for maintaining the land or their designee must also sign and date the form indicating approval of the mitigation land.

Appendix Q-6: Redevelopment Exception in the Water Supply Rural and Water Supply Suburban Watersheds

Section 25-8-27 of the Land Development Code (*Redevelopment Exception in the Water Supply Rural and Water Supply Suburban Watersheds*) allows for redevelopment of existing properties in the Water Supply Rural and Water Supply Suburban watersheds that do not comply with current watershed regulations. This section cannot be applied to existing residential development with two dwelling units or less per lot. In addition, this section cannot be applied if unpermitted development occurred on the site after January 1, 1992. The owner can elect for a property to be governed by this section when a site plan application is filed or if subdivision and site plan applications are filed concurrently. Properties may redevelop under this section provided the following conditions are met:

1. The redevelopment may not increase the existing amount of impervious cover on the site.
The redevelopment may not further encroach into the Critical Water Quality Zone, the Water Quality Transition Zone, or setbacks for Critical Environmental Features and wetlands.
3. The project must comply with [Section 25-8-121 \(Environmental Resource Inventory Requirement\)](#) and the all construction phase environmental requirements (i.e. erosion and sedimentation controls) in effect at the time of construction.
4. The redevelopment 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 sedimentation/filtration ponds for the redeveloped area or an equivalent area on the site.
5. The property owner must provide mitigation land. The combined gross site area impervious cover of the mitigation land and the portion of the redevelopment site treated by sedimentation/filtration ponds may not exceed 20 percent of gross site area if in a water supply rural watershed or 40 percent of gross site area if in a water supply suburban watershed.
6. The redevelopment may not be located within the Erosion Hazard Zone unless protective works are provided.

Project approval by a simple majority of the City Council is required if the redevelopment:

1. Includes more than 25 additional dwelling units;
Is located outside the City's zoning jurisdiction;
3. Is proposed on property with an existing industrial use (as defined in LDC 25-2-5 *Industrial Uses Described*);
4. Is inconsistent with a neighborhood plan; or
5. Will generate more than 2,000 vehicle trips a day above the estimated traffic level based on the most recent authorized use on the property.

The mitigation requirement may be satisfied by:

1. Paying into the Water Supply Mitigation Fund (see Option 1 Worksheet);
Transferring mitigation land to the City of Austin or placing restrictions on mitigation land through a conservation easement (see Option 2 Worksheet); or
3. A combination of these mitigation methods (see Option 1 and Option 2 Worksheets).

If the applicant chooses to provide mitigation land in lieu of paying into the Water Supply Mitigation Fund, the person redeveloping shall pay all costs of restricting the mitigation land or transferring the mitigation land to the City, including the costs of:

1. An environmental site assessment without any recommendations for further clean-up, certified to the City not earlier than the 120th day before the closing date transferring land to the City;

- A category 1(a) land title survey, certified to the City and the title company not earlier than the 120th day before the closing date transferring land to the City;
3. A title commitment with copies of all Schedule B and C documents, and an owner's title policy;
 4. A fee simple deed, or, for a restriction, a restrictive covenant approved as to form by the city attorney;
 5. Taxes prorated to the closing date;
 6. Recording fees; and
 7. Charges or fees collected by the title company.

The mitigation land provided by the applicant must be either greater than 100 acres in size or directly adjacent to existing protected land. The mitigation land must also have acceptable operating & maintenance (O&M) conditions, as approved by the proposed land manager. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval from the Director of the Watershed Protection Department. If the applicant is placing restrictions on the mitigation land, the conservation easement must be approved and recorded prior to the issuance of a development permit.

**OPTION 1 WORKSHEET
CALCULATION FOR PAYMENT INTO THE WATER SUPPLY MITIGATION FUND**

A. OWNER/AGENT INFORMATION:

Name: _____
Company: _____
Telephone: _____ Fax: _____

B. PROJECT INFORMATION:

Name: _____
Location or Address: _____
Permit Number: _____
Case Manager: _____

Total Gross Site Area (GSA): _____ (ac.)

Total Net Site Area (NSA): _____ (ac.)

Total Acres Impervious Cover: _____ (ac.)

Percent Impervious Cover of NSA = Total Acres Impervious Cover / Total Net Site Area

Percent Impervious Cover of NSA: _____ %

C. MITIGATION CALCULATION:

1. WATER SUPPLY RURAL (WSR)

WSR Mitigation Required (ac.) = (Total Acres Impervious Cover / 0.20) - Acres Gross Site Area

WSR Mitigation Required: _____ (ac.)

2. WATER SUPPLY SUBURBAN (WSS)

WSS Mitigation Required (ac.) = (Total Acres Impervious Cover / 0.40) - Acres Gross Site Area

WSS Mitigation Required: _____ (ac.)

D. PAYMENT CALCULATION:

Mitigation Land Provided by Applicant: _____ (ac.)

Mitigation land provided by the applicant must be approved by the Director of the Watershed Protection Department and the Proposed Land Manager (Option 2 Worksheet).

Mitigation by Payment (ac.) = Mitigation Required - Mitigation Land Provided by Applicant

Mitigation by Payment: _____ (ac.)

Base Fee: \$15,000 per acre

Annual Adjustment Factor: 7% beginning October 1, 2008

Adjusted Fee: \$ _____

Total Fee: Mitigation by Payment (ac.) x Adjusted Fee = \$ _____

E. AUTHORIZATION:

Owner/Agent: _____

Reviewed by: _____
For the Director of the ~~Planning and Development Review~~ Development Services
Department

**INSTRUCTIONS FOR COMPLETING OPTION 1 WORKSHEET
CALCULATION FOR PAYMENT INTO THE WATER SUPPLY MITIGATION FUND**

PART A. OWNER/AGENT INFORMATION

Provide the name of the owner or agent, the name of the company, and the telephone and fax number.

PART B. PROJECT INFORMATION

Provide the name of the project, the location or address, the site development or site plan number, and the name of the case manager in the ~~Planning and Development Review~~ Development Services Department.

Provide the Gross Site Area in acres of the entire site.

Provide the Net Site Area in acres of the entire site. See Land Development Code Section 25-8-62 (*Net Site Area*).

Provide the total proposed impervious cover in acres. Total proposed impervious cover should also include existing impervious cover on the site that will remain after redevelopment. Impervious cover shall be measured to the nearest 0.01 acre.

Calculate the percent of impervious cover for the Net Site Area by dividing the acres of impervious cover (Total Acres Impervious Cover) by the acres of net site area (Total Net Site Area).

PART C. MITIGATION CALCULATION

1. WATER SUPPLY RURAL (WSR) MITIGATION

If the site is located within a water supply rural watershed, calculate the acres of WSR Mitigation Required by dividing the acres of impervious cover (Total Acres Impervious Cover) by 0.20 and subtracting the acres of gross site area (Total Gross Site Area).

2. WATER SUPPLY SUBURBAN (WSS) MITIGATION

If the site is located within a water supply suburban watershed, calculate the acres of WSS Mitigation Required by dividing the acres of impervious cover (Total Acres Impervious Cover) by 0.40 and subtracting the acres of gross site area (Total Gross Site Area).

PART D. PAYMENT CALCULATION

Provide, if applicable, the amount of mitigation land in acres provided by the applicant. The mitigation land must be approved by the Director of the Watershed Protection Department and the Proposed Land Manager (Option 2 Worksheet).

Calculate the amount of mitigation land in acres that will be satisfied through payment into the Water Supply Mitigation Fund (Mitigation by Payment) by subtracting the mitigation land provided by the applicant from the Mitigation Required. If all mitigation requirements will be satisfied through payment into the fund, Mitigation by Payment is equal to Mitigation Required.

The base fee (\$15,000/acre) and annual adjustment factor (7% beginning October 1, 2008) were established by Ordinance No. 20071108-121. Both the base fee and the annual increase shall be reviewed and adjusted by Council every three years based on current market data.

Use the base fee and annual adjustment factor to determine the Adjusted Fee.

Calculate the Total Fee by multiplying the acres of Mitigation by Payment by the Adjusted Fee.

PART E. AUTHORIZATION

The owner or agent for the project must sign and date the form. Upon review and approval of the payment, the Director of the ~~Planning and Development Review~~ Development Services Department or their designee will sign and date the form indicating approval of the proposed payment.

**OPTION 2 WORKSHEET
EVALUATION OF MITIGATION LAND IN LIEU OF PAYMENT
INTO WATER SUPPLY MITIGATION FUND**

A. OWNER/AGENT INFORMATION:

Name: _____
Company: _____
Telephone: _____ Fax: _____

B. PROJECT INFORMATION:

Name: _____
Location or Address: _____
Permit Number: _____
Case Manager: _____

C. PROPOSED MITIGATION LAND INFORMATION:

Titleholder: _____
Location or Address: _____
Tax Parcel ID: _____

Total Gross Site Area (GSA) to be Transferred: _____ (ac.)

Total Gross Site Area (GSA) to be Restricted: _____ (ac.)

Total Proposed Mitigation Land (ac.) = Total GSA to be Transferred + Total GSA to be Restricted

Total Proposed Mitigation Land: _____ (ac.)

D. MITIGATION CRITERIA:

- 1. Must be greater than 100 acres (gross site area) unless directly adjacent to existing protected land. The protected land does not have to be owned by the City of Austin.**

Greater than 100 Acres (Gross Site Area)	Yes	No
--	-----	----

Directly Adjacent to Existing Protected Land	Yes	No
--	-----	----

If Directly Adjacent to Existing Protected Land:

Name: _____
Owner: _____
Location or Address: _____

Must have acceptable operations and maintenance (O&M) conditions, as approved by the receiving department. The land may also be managed by a not-for-profit land trust.

Proposed Land Manager: _____

- 3. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval by the director of the Watershed Protection Department.**

Description of Environmental Feature or Attribute: _____

E. AUTHORIZATION:

Owner/Agent: _____

Reviewed by: _____
For the Director of the Watershed Protection Department

Reviewed by: _____
For the Proposed Land Manager

**INSTRUCTIONS FOR COMPLETING OPTION 2 WORKSHEET
EVALUATION OF MITIGATION LAND IN LIEU OF PAYMENT
INTO WATER SUPPLY MITIGATION FUND**

PART A. OWNER/AGENT INFORMATION

Provide the name of the owner or agent, the name of the company, and the telephone and fax number.

PART B. PROJECT INFORMATION

Provide the name of the project, the location or address, the site development or site plan number, and the name of the case manager in the ~~Planning and Development Review~~ Development Services Department.

PART C. PROPOSED MITIGATION LAND INFORMATION

Redevelopment of property in the Water Supply Rural and Water Supply Suburban watersheds under Section 25-8-27 requires the purchase or restriction of mitigation land if the site has a sedimentation/filtration pond or an equivalent level of treatment. The mitigation requirement can be satisfied by:

- Paying into the Water Supply Mitigation Fund (Option 1 Worksheet);
- Transferring mitigation land to the City;
- Placing restrictions on mitigation land through a conservation easement; or
- A combination of these mitigation methods.

The combined gross site area impervious cover of the mitigation land and the portion of the redevelopment site treated by sedimentation/filtration ponds may not exceed 20 percent of gross site area if in a water supply rural watershed or 40 percent of gross site area if in a water supply suburban watershed. The mitigation land must be within a water supply rural or water supply suburban watershed, either inside or outside the City's jurisdiction.

In lieu of paying into the Water Supply Mitigation Fund, Section 25-8-27(G) of the Land Development Code requires the Director of the Watershed Protection Department to evaluate and accept or deny the proposed mitigation land.

Provide the titleholder of the proposed mitigation land.

Provide the location or address of the proposed mitigation land.

Provide the tax parcel identification number of the proposed mitigation land.

Provide the Gross Site Area in acres of the mitigation land proposed for transfer to the City of Austin.

Provide the Gross Site Area in acres of the mitigation land proposed for restriction by conservation easement.

Calculate the Total Proposed Mitigation Land by adding the mitigation land proposed for transfer (Total GSA to be Transferred) to the mitigation land proposed for restriction (Total GSA to be Restricted).

PART D. MITIGATION CRITERIA

1. Must be greater than 100 acres (gross site area) unless directly adjacent to existing protected land. The protected land does not have to be owned by the City of Austin.

Indicate whether the gross site area of the proposed mitigation land is greater than 100 acres.

Indicate whether the proposed mitigation land is directly adjacent to existing protected land.

If the proposed mitigation land is directly adjacent to existing protected land, provide the name of the protected land, the owner of the land, and the location or address.

2. Must have acceptable operations and maintenance (O&M) conditions, as approved by the receiving department. The land may also be managed by a not-for-profit land trust.

Provide the name of the proposed land manager, if known.

If the land is fee simple and directly adjacent to City of Austin parkland, the assumed land manager is the Parks and Recreation Department (PARD). Any land being transferred to PARD must be for passive use only and cannot be used to satisfy parkland dedication requirements. If the land is fee simple and not directly adjacent to City of Austin parkland, the assumed land manager is the Wildland Conservation Division of the Austin Water Utility. If the land is being placed under restriction through a conservation easement, the assumed land manager is the Wildland Conservation Division or a not-for-profit land trust. The conservation easement must be approved and recorded prior to the issuance of a development permit.

3. The presence of an outstanding environmental feature or attribute may allow the mitigation land to deviate slightly from the two previous criteria where desirable and appropriate, pending approval by the Director of the Watershed Protection Department.

Provide a brief description of any outstanding environmental features or attributes present on the proposed mitigation land. Attach any other relevant information, such as maps, photos, and/or an environmental resource inventory.

PART E. AUTHORIZATION

The owner or agent for the project must sign and date the form. Upon evaluation and approval of the mitigation land, the Director of the Watershed Protection Department or their designee will sign and date the form indicating approval of the mitigation land. The proposed land manager responsible for maintaining the land or their designee must also sign and date the form indicating approval of the mitigation land.