

CHAPTER 4: WATERSHED DEVELOPMENT

Division 4.1: General Provisions

Sec. 4.100 Authority, Applicability of Land Development Code Chapter 1, Division 1.6 (Amended 02/07/06)

- (a) This Chapter is adopted under the authority of the Constitution and laws of the State of Texas, including particularly, but not limited to Chapters 231, Acts of the 40th Legislature, Regular Session, 1927, as heretofore or hereafter amended (compiled as Article 974a, V.T.C.S.), and the provisions of Chapter 212 of the Texas Local Government Code. This Chapter is adopted pursuant to the provisions of the general law of the city.
- (b) In addition to the requirements of this Chapter, the provisions of Land Development Code Chapter 1, Division 1.6 apply to applications required by this Chapter.

Sec. 4.101 Purpose

The purpose of this Chapter is to provide for the orderly, safe and healthful development of the area within the corporate limits of Sunset Valley and the City's extraterritorial jurisdiction and to promote the health, safety, morals and general welfare of the community.

Sec. 4.102 Permit Required (Amended 5-14-08)

- (a) No land in the City of Sunset Valley or its extraterritorial jurisdiction shall be developed and no improvement shall be constructed or installed thereon until such proposed development, construction or installation is in compliance with all applicable provisions of this Code and any other ordinance or City Code and has been approved, as applicable, in accordance with this Code.
- (b) Except as otherwise expressly provided in this Chapter, no permit of any kind shall be issued pursuant to this Code for the construction, repair, or modification of any structure, or improvement or for the installation of a Public or Private Sewage Facility unless a watershed development permit for such construction, repair or modification or installation has been approved and filed with the City of Sunset Valley and all applicable standards contained herein or referred to in this Chapter have been complied with in full.
- (c) Any right, privilege or remedy granted by this Chapter to the person obtaining or holding permit approval shall also run in favor of such person's successors in interest and assigns. Any duty or obligation of or remedy against such person arising from this Chapter shall also inure to such person's successors in interest, assigns, agents, employees, representatives, or any person acting pursuant to the direction of any the foregoing, or under color of the same.
- (d) The City shall neither seel nor supply any water or sewage service nor authorize natural gas or electricity service for use on: (i) improved property either developed or improved without an approved watershed development permit at a time when such permit was required by applicable law; or (ii) improved property which is not in compliance with any standard or regulation applicable to the property pursuant to approval of a watershed development permit for the property. **(Amended 03/06/01)**
- (e) In behalf of the City, the City attorney, shall when directed by the City Council, institute appropriate action in a court of competent jurisdiction to enforce the provisions of this Chapter or the standards referred to

herein with respect to any violation thereof which occurs within the City, within the extraterritorial jurisdiction of the City, or within any area subject to all or a part of the provisions of this Chapter.

- (f) Provided, however, that the provisions of this Section shall not be construed to prohibit the issuance of a permit for any parcel of land that meets the following conditions:
 - (1) The parcel had a residential building and the building was in existence and in use as a residence prior to the passage of Ordinance 920519 of the City of Sunset Valley; and
 - (2) The last conveyance of the parcel prior to the passage of Ordinance 920519 was either by metes and bounds or by lot and block if within a subdivision and said conveyance was filed of record with the property records of Travis County, Texas prior to the passage of Ordinance 920519.
- (g) The provisions of this Chapter shall not be construed to prohibit the issuance of permits for repair or maintenance.
- (h) Section 4.102 is subject to and limited by Section 1.500 of this Land Development Code. ***(Adopted 03/06/01)***

Sec. 4.103 Variances and Administrative Approvals *(Amended 5-14-08)*

- (a) Except as provided in the provisions of this Section authorizing variances or administrative approvals in connection with single family developments, the City Council may authorize a variance from these regulations when, in its opinion, undue hardship will result from requiring strict compliance. In making the findings herein required, Council shall take into account the nature of the proposed use of the land involved, existing uses of land in the vicinity, and the probable effect of such variance upon traffic conditions and upon the public health, safety, convenience, and the welfare in the vicinity. No variance shall be approved unless the City Council finds:
 - (1) That there are special circumstances or conditions affecting the land involved such that the strict application of the provisions of this Chapter would deprive the applicant of the reasonable and economic use of his land; and
 - (2) That the variance is necessary for the preservation and enjoyment of a substantial property right of the applicant; and
 - (3) That the granting of the variance will not be detrimental to the public health, safety, or welfare, or injurious to other property in the area; and
 - (4) That the granting of the variance will not have the effect of preventing the orderly development of other land in the area in accordance with the provisions of this Chapter; and
 - (5) That the proposal demonstrates water quality will be equal to or better than would have resulted had development proceeded without the variance.
- (b) Such findings described in subsection (a) together with the specific facts upon which such findings are based, shall be incorporated into the official minutes of the City Council meeting at which such variance is recommended. Variances may be recommended only when in harmony with the general purposes and intent

of this Chapter so that the public health, safety, and welfare may be secured and substantial justice done. Pecuniary hardships to a person or developer standing alone, shall not be deemed to constitute undue hardship.

- (c) The City Council may grant a variance, pursuant to subsection (a), from the terms referring to the Development Free Zone within a proposed plan when the strict compliance will result in an unreasonable and unwarranted taking or an undue hardship. Where such conditions are found, the variance permitted shall be the minimum departure from the terms of this Chapter necessary to avoid such deprivation of privileges enjoyed by such other property to facilitate a reasonable use, and which will not create significant probabilities of harmful environmental consequences. The City Council may not grant a variance if it would provide the applicant with any special privileges not enjoyed by other similarly situated property with the similarly timed development.
- (d) Any application for a variance shall be accompanied by the fees set by the Council in the fee schedules adopted by ordinance or resolution.
- (e) Section 4.103 is subject to and limited by Section 1.500 of this Land Development Code. **(Adopted 03/06/01)**
- (f) Except as provided in subsection (g) of this Section in connection with administrative approval of certain incidental improvements, for a single legal lot or two adjacent existing legal lots that are zoned and used or proposed to be used for single family residential purposes, a variance, administrative approval, or modified administrative approval is required, as applicable, as provided in this subsection (f), to develop any portion of the lot that lies within the Water Quality Transition Zone ("WQTZ") or Critical Water Quality Zone ("CWQZ"). **(Amended 9-8-09)**

In connection with any such variance, administrative approval, or modified administrative approval, all development shall, to the greatest extent practicable, be located first in the Uplands Zone, then in the WQTZ, and lastly, in the CWQZ located on such legal lot (such zones being listed in order from least protected to most protected). For purposes of this subsection 4.103(f), the development in a less protected zone shall be deemed not to be practicable: (I) where a restrictive covenant recorded before April 1, 2009 that is enforceable by one or more third parties other than the City prohibits development in a manner that precludes the location of a proposed additional development in the less protected zone; (II) for a residential home constructed before April 1, 2009, the requirement of developing first in the least protected zone would necessitate a new front entrance, or reconstruction of the front of such residence; and (III) for a residential home constructed before April 1, 2009, the requirement of developing first in the least protected zone would result in the location in the front or side yard of a swimming pool, accessory structure or other improvement typically located in the backyard of a residence.

- (1) If so much of the legal lot lies within the WQTZ that applicable regulations restricting development in the WQTZ would restrict the developer to less impervious cover than otherwise would be permitted if the legal lot lay wholly in the Uplands Zone, the developer may be granted administrative approval, to be issued by the City Administrator or his/her designee, to include impervious cover of up to 14% of the area in the WQTZ on the terms and conditions provided in this subsection (f)(1):

(A) The allowable improvement (not including the mitigation measure required by subsection (f)(1)(E)) does not require the addition of any fill;

(B) The improvement is in compliance with all applicable provisions of this Code, including

but not limited to Chapter 2 and Chapter 5, and complies with other City codes, rules and regulations;

(C) The improvement does not impede surface water runoff or drainage patterns and does not increase flooding on upstream or downstream properties; and

(D) The improvement is not used for the storage or processing of hazardous materials or substances other than those normally associated with household or residential use and only in small quantities (e.g., small quantities of gasoline and oil used for the operation of landscape equipment).

(E) One of the three mitigation measures described in subsection 4.103(j) as a rain garden, natural vegetative filter strip, or engineered vegetative filter strip will be provided and maintained at all times to the standard described or referred in subsection 4.103(j) to minimize degradation of water quality, and the owner of the legal lot agrees, as a condition of administrative approval, to impose the requirement on the owner of such legal lot to provide and maintain such measures on the legal lot as a restrictive covenant, to run with the land, in favor of the City, in a form approved by the City Attorney, and to be recorded in the Official Records of Travis County, Texas;

(F) The percentage of impervious cover on the legal lot as a whole does not exceed 18%;

(G) In the event that a transfer of development rights from the affected legal lot has occurred, the amount of impervious cover so transferred shall be deemed to be located on the affected legal lot in determining the amount of impervious cover available, if any, with an administrative approval pursuant to this subsection.

(H) For the purpose of calculating whether the total maximum impervious cover of 18% is reached, items identified as excluded in Section 4.301(e) shall be treated as impervious cover includable in the resulting total amount of impervious cover. **(Amended 9-8-09)**

(I) A minimum setback of at least 75 feet shall be maintained between the critical water quality zone and developed, impervious, or pollutant source areas, or areas of disturbed vegetation or soil in the water quality transition zone. Within the aquifer recharge zone, a 100 foot minimum setback shall also be preserved between developed, impervious, or pollutant source areas, or areas with disturbed vegetation or soil in the water quality transition zone and any identified recharge features. **(Amended 9-8-09)**

- (2)** Subject to any rights pursuant to an administrative approval for development in the WQTZ, if so much of the legal lot lies within either the WQTZ or the Critical Water Quality Zone ("CWQZ") that the developer cannot reasonably develop the lot without encroaching into the WQTZ or the CWQZ, or if disallowing development in either the WQTZ or CWQZ located on the legal lot would restrict the developer to less impervious cover than otherwise would be permitted if the legal lot lay wholly in the Uplands Zone, and an administrative approval for development in the WQTZ pursuant to this subsection (f) is insufficient to allow a total of 18% impervious cover on the legal lot, a variance may be approved for development of up to 18% impervious cover in either the WQTZ or CWQZ on the terms and conditions provided in subsections (a) - (d).

- (3) For lots developed as part of a subdivision of land of ten (10) or more lots that are restricted, as a result of an allocation of development rights among such lots, to less than 18% impervious cover, the provisions of this subsection (f) shall apply to an administrative approval or modified administrative approval regarding impervious cover on such lot, except that the following shall apply: (i) the requirements of subsections (f)(1)(G) shall not apply; (ii) the requirement of subsection (f)(1)(E) shall apply regardless whether the lot is located wholly or partially in the Uplands Zone or where on the lot the development is proposed; and (iii) the restriction to no more than 14% impervious cover in the WQTZ on the lot will apply, but an administrative approval or modified administrative approval may be granted for up to a total of 18% impervious cover to the extent that any impervious cover that exceeds 14% is located in the Uplands Zone on the lot.
- (4) In the event that a restrictive covenant affecting a legal lot provides for a limitation on impervious cover less than that allowed pursuant to this subsection (f) that is enforceable by the City, the Mayor shall, at the request of the affected legal lot owner, execute an instrument amending such restriction in a manner that limits the amount of impervious cover on the affected lot to the amount allowed pursuant to an administrative approval, modified administrative approval, or variance granted pursuant to this subsection (f). For convenience, any restrictive covenant required by the terms of this subsection (f) in connection with an administrative approval or variance may be combined in one instrument with an amendment of any then existing restrictions regarding impervious cover. In the event that the term of any restrictive covenant, whether or not enforceable by the City, that is applicable to a legal lot provides for a limitation on impervious cover less than allowed pursuant to this subsection (f) but provides for modification or termination in the event that the City's regulations are altered to allow for increased impervious cover on affected property, this subsection (f)(4) shall be effective to automatically terminate or modify such restrictive covenant to the extent of development permitted by this subsection (f) and as provided by the terms of such restrictive covenant. In particular, this subsection (f)(4) shall apply as an action taken by Council to allow the amount of impervious cover on any lot to exceed the amount shown for such lot on Exhibit "A" as stated in Section 3.12 of the Declaration of Covenants, Conditions and Restrictions for Sunset Valley Meadows Subdivision recorded in Document No. 1999032885 of the Official Public Records of Travis County, Texas, provided that the total amount of impervious cover on any such lot does not exceed 18%.
- (5) A modified administrative approval may be given for development to which subsection (f)(1) applies on the following basis: An applicant may submit a request for such development with a proposal to provide another means of mitigation not listed in subsection 4.103(j). Such application will be subject to City Council approval, which approval may be given if: (i) the City Council determines that the alternative means of mitigation provides water quality protection equal to or better than the means listed in subsection 4.103(j); (ii) such alternative means does not, as determined by the City Council, require excessive maintenance and/or is not more likely to be subject to equipment malfunction or deterioration; (iii) such alternative means is not unsightly and does not create excessive noise or other conditions that are incompatible with surrounding

residential uses, as determined by the City Council; (iv) all conditions and obligations set forth in subsection 4.103(f)(1)(A) - (H) are met; and (v) applicant agrees to comply with any other condition imposed by the City Council in connection with such an approval.

- (g) (1) **Water Quality Transition Zone Small Structures** - Subject to subsections (g)(1)(A) - (D), below, the City Administrator or his/her designee shall grant Administrative Approval of an application to construct, operate, and maintain in the WQTZ on a legal lot zoned and used for single-family residential purposes improvements described in Section 4.301(e), provided the Applicant demonstrates that the following conditions are met:
- (A) The allowable improvement does not require the addition of any fill;
 - (B) The improvement is in compliance with all applicable provisions of this Code, including but not limited to Chapter 2 and Chapter 5, and complies with other City codes, rules and regulations;
 - (C) The improvement does not impede surface water runoff or drainage patterns and does not increase flooding on upstream or downstream properties; and
 - (D) The improvement is not used for the storage or processing of hazardous materials or substances other than those normally associated with household or residential use and only in small quantities (e.g., small quantities of gasoline and oil used for the operation of landscape equipment).
- (2) In addition to the requirements of subsection (g)(1), an Applicant seeking to construct any structures or buildings described in 4.301(e) other than those described in 4.301(e) (1)[sidewalks],(2)[uncovered decks],(4)[swimming pools, hot tubs, wading ponds, fountains, birdbaths, fish ponds] must, as a condition of the approval, implement and maintain on the property on which the proposed improvement will be located at least two (2) of the Pollution Reduction Practices described in subsection (i) of this Section 4.103, which are more fully described in the CSV Pollution Reduction Manual. The obligation to implement and maintain Pollution Reduction Practices shall be specified in a duly recorded restrictive covenant affecting the property which shall be enforceable by the City. Such obligation to implement and maintain shall remain effective so long as such improvements remain on the property.
- (3) An Applicant may receive credit for any existing Pollution Reduction Practice maintained on the property for which an Administrative Approval is requested unless: (i) the Applicant has previously received credit for the Pollution Reduction Practice pursuant to this subsection or other approval by the City Council; and (ii) the improvement, the structure or building for which the previous approval was granted still exists on the property.
- (4) If the Applicant objects to a determination on his or her request for Administrative Approval under this subsection, he or she may appeal the determination to the City Council by submitting a written notice of appeal setting forth the bases on which the applicant believes the determination was incorrect. Such written appeal must be addressed to the City Administrator and submitted on or before twenty (21) days after the date of the determination from which an appeal is sought. The City Council may affirm, modify, or reverse the determination based on the criteria set forth in this Section.
- (5) An applicant seeking an administrative approval for the improvements described or referred in this subsection (g) is not required to satisfy any other variance provisions of Section 4.103.

(h) (Subsection deleted in entirety 9-8-09)

(i). **POLLUTION REDUCTION MEASURES.** The residential pollution reduction practices are described in detail in the CSV Pollution Reduction Manual as amended and approved by the City Council, which Manual shall be applicable to any pollution reduction practice required by this Section 4.103. The following is a list of such pollution reduction practices:

ITEM NO.	METHOD	PURPOSE
NATURAL AREA CONSERVATION		
1	Utilize on a continual basis only City approved <u>Organics First</u> herbicides, pesticides, and fertilizers on the entire lot or property	Improves water quality by preventing the use of harmful chemicals, compounds, and substances
2	Utilize on a continual basis City approved <u>Livestock Pollution Management Plan</u> on the entire lot or property	Improves water quality by reducing livestock waste loads
3	Utilize on a continual basis City approved Domestic Animal Waste Management Plan on the entire lot or property	Improves water quality by reducing small animal waste loads
4	Install or retrofit and maintain a City approved <u>Water-Wise (Xeriscape) Landscape Plan</u> having an area equal to or greater than the aggregate amount of impervious cover located on the property or lot	Improves water quality by reducing the need for the use of harmful chemicals, herbicides, and insecticides
5	Install or retrofit and maintain City approved <u>Soil Amendment and Conservation Landscaping Program</u> having an area equal to or greater than the aggregate amount of impervious cover located on the property	Improves water quality by promoting vegetative growth on the property – Reduces runoff and need for supplemental irrigation
6	Obtain and maintain a “ <u>Certificate of Backyard Habitat</u> ” issued by the National Wildlife Federation for the lot or property	Improves water quality by maintaining a natural/native habitat
CAPTURE ROOFTOP RUNOFF WITH RAINWATER HARVESTING		
7	Equip any roofed structure for which an Administrative Approval is being requested and/or install on an existing roof structure located on the property a <u>Rainwater Collection System</u> – The Rainwater Collection System must gather water from roof areas of a sufficient size to harvest the required Water Quality Mitigation Volume. Collected rain water must be temporarily stored on-site in approved storages providing for Water Quality Mitigation of 720 gallons per 300 square feet of exempted impervious cover being permitted, with a minimum capacity of 720 gallons.	Improves water quality by reducing the amount of runoff being discharged from the property
8	Direct rooftop runoff captured by rainwater harvesting techniques over a City approved <u>Natural Vegetative Filter Strip</u> where it can either infiltrate into the soil or filter over it and/or direct rooftop runoff to a City approved <u>Dry Well</u> or <u>Rain Garden</u> . Natural Vegetative Filter Strip, Dry Well or Rain Garden must be sized for Water Quality Mitigation of 720	Improves water quality by reducing the amount of runoff being discharged from the property

	gallons per 300 square feet of exempted impervious cover being permitted, with a minimum capacity of 720 gallons.	
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CAPTURE NON-ROOFTOP RUNOFF FROM IMPERVIOUS COVER		
9	Install and maintain, downstream of the improvement for which an Administrative Approval is being requested, a City approved Natural Vegetative Filter Strip – The Natural Vegetative Filter Strip must have Water Quality Mitigation of 720 gallons of runoff per 300 square feet of exempted impervious cover being permitted, with a minimum capacity of 720 gallons.	Improves water quality by providing treatment of surface water runoff before leaving the property
10	Install and maintain, downstream of the improvement for which an Administrative Approval is being requested, a City approved Engineered Vegetative Filter Strip – The Engineered Vegetative Filter Strip must have Water Quality Mitigation of 360 gallons of runoff per 300 square feet of exempted impervious cover being permitted, with a minimum capacity of 360 gallons.	Improves water quality by providing treatment of surface water runoff before leaving the property
11	Install and maintain, downstream of the improvement for which an Administrative Approval is being requested a Rain Garden sized for Water Quality Mitigation of 720 gallons per 300 square feet of exempted impervious cover being permitted, with a minimum capacity of 720 gallons.	Improves water quality by providing treatment of surface water runoff before leaving the property
12	Install and maintain, downstream of the improvement for which an Administrative Approval is being requested, a Natural Buffer having a minimum area of 1,125 square feet (length to width ratio of about 1.8 to 1) for Water Quality Mitigation of 360 gallons per 300 square feet of exempted improvement being permitted, with a minimum capacity of 360 gallons.	Improves water quality by providing treatment of surface water runoff before leaving the property
13	Install and maintain a Pollution Reduction Measure proposed by the Applicant, provided such measure meets or exceeds the Water Quality Mitigation of 720 gallons per 300 square feet of exempted impervious cover for non-engineered pollution reduction measures or 360 gallons per 300 square feet of exempted impervious cover for engineered pollution reduction measures	

(j) The mitigation measures required for an administrative approval pursuant to subsection (f)(1) of this Section 4.103 shall be comprised of (i) a vegetated filter strip; (ii) an engineered filter strip; or (iii) a rain garden. Each such mitigation measure shall be designed and shall perform to the standards for such measure provided in the standards applicable to the particular mitigation measure as provided in the City of Sunset Valley Pollution Reduction Manual appended to this Chapter 4 as periodically amended.

Sec. 4.104 Exemptions

(a) **General.** Except as expressly authorized in this Section, no development, as that term is defined in this Code, can occur or be undertaken within the City of Sunset Valley or its extraterritorial jurisdiction unless a watershed development permit has been issued in conformity with the provisions of this Chapter.

(b) Residential Construction. ***(Amended February 18, 2003)***

(1) For the construction of a single family development that proposes residential lots of no less than five acres per lot and is appropriately restricted to that residential density, a watershed development permit is required, however, no Water Quality Controls are required, provided the owner and/or developer of the property complies with the impervious cover requirements set forth in this Chapter and with the building and site development requirements imposed by this or other applicable provisions of this Code and City ordinances.

(c) Capital Improvement Projects. For the construction of Capital Improvement Projects for roadways, a watershed development permit is required, however, the impervious cover calculations addressed in this Chapter do not apply.

(d) Minor Fill Activities.

(d) Minor Fill Activities. ***(amended 2-20-2018)***

(1) No watershed development permit shall be required for minor fill activities involving the deposit of no more than 10 cubic yards of fill on property within the City or its extraterritorial jurisdiction, provided that no part of such fill shall be or is to be deposited on land located within the critical water quality zone, the water quality transition zone or a drainage easement. If any part of such fill is to be deposited on any land so located, a watershed development permit must be applied for and issued and the requirements of this Chapter must be complied with in full.

(2) If the City has reason to believe that more than 10 cubic yards of fill is being deposited within the critical water quality zone, water quality transition zone or a drainage easement, without a permit therefore, the City shall issue a stop work order to both the property owner and the person depositing the fill. No additional fill shall be deposited or further work done in connection with the project until either a development fill permit is obtained pursuant to subsection (d)(3) of this section, or a watershed development permit is obtained in accordance with and as required by the provisions of this Chapter.

(3) Any developer, property owner or other person wishing to deposit more than 10 but fewer than 50 cubic yards of fill on a lot or legal lot that is one acre or less within the City or its extraterritorial jurisdiction shall first secure a development minor fill permit. The application for the development minor fill permit shall be on such form as may be provided by the City, and shall be reviewed by the City Administrator or his/her designee, who shall determine whether the proposed project qualifies as a minor fill activity. Such determination shall be based upon the information contained in the application and such other information as the City may reasonably require. Due consideration shall be given to such factors as the use and proposed location of the fill, the nature, number, location and frequency of prior deposits of fill on the property, the location and topography of property on which the fill is proposed to be deposited, and the impact of the deposit on the environment and the public health, safety and welfare. If the proposed project is found to qualify as a minor fill activity, a development minor fill permit shall be issued, subject to

such conditions as the City may reasonably impose. No permit fees and no City inspections shall be required in connection with the issuance of the permit.

- (4) For lot or legal lot larger than one acre, a developer, property owner or other person wishing to deposit more than 10 but fewer than 50 cubic yards of fill per acre included in such lot or legal lot within the City or its extraterritorial jurisdiction shall first secure a development minor fill permit. The application for the development minor fill permit shall be on such form as may be provided by the City, and shall be reviewed by the City Administrator or his/her designee, who shall determine whether the proposed project qualifies as a minor fill activity. Such determination shall be based upon the information contained in the application and such other information as the City may reasonably require. Due consideration shall be given to such factors as the use and proposed location of the fill, the nature, number, location and frequency of prior deposits of fill on the property, the location and topography of property on which the fill is proposed to be deposited, and the impact of the deposit on the environment and the public health, safety and welfare. If the proposed project is found to qualify as a minor fill activity, a development minor fill permit shall be issued, subject to such conditions as the City may reasonably impose. No permit fees and no City inspections shall be required in connection with the issuance of the permit.
- (5) If the City Administrator determines, in accordance with the guidelines set forth in subsections (d)(3) or (4) of this section, that the proposed project does not qualify as a minor fill activity, the permit applicant shall be notified of such determination in writing, and advised that he or she may not engage in or proceed with the proposed fill activity without first complying with all provisions of this Chapter relevant to the securing of watershed development permits and the requirements for the issuance of said permits.
- (6) The applicant may appeal the determination of the City Administrator that the proposed project does not qualify as a minor fill activity by filing written notice of appeal with the City Secretary within ten business days of receipt of the notice referred to in subsection (d)(5) of this section. The City Council shall consider the appeal as soon as practicable, and shall either affirm, modify or overrule the determination. The decision of the City Council shall be based on the maximum volume of fill allowed pursuant to this section, and the factors to be considered pursuant to subsections (d)(3) or (4), as applicable.
- (7) With respect to any minor fill proposed to be deposited pursuant to this section, the applicant shall submit to the City the identity of the source of any fill material to be deposited and the certification of the owner of such fill that same does not contain any hazardous or toxic substances or materials.

(e) Signage ***(Adopted 03/06/01)***

Signs or three-dimensional lettering, logos, designs or symbols that contribute less than eight square feet of impervious cover and that do not collect or divert significant amounts of rainfall or runoff or contribute in any significant way to water pollution or degradation are wholly exempt from the operation of this Chapter.

(f) Mailboxes **(Adopted 03/06/01)**

Structures devoted entirely for use as mailboxes are wholly exempt from the operation of this chapter provided the structure does not significantly affect drainage or contribute in any significant way to water pollution or degradation.

(g) Fences **(Adopted 03/06/01)**

Fences are wholly exempt from the operation of this chapter provided the fence does not significantly affect drainage or contribute in any significant way to water pollution or degradation.

(h) Pre-existing structures **(Adopted 03/06/01)**

- (1) Gardening and landscaping of lots containing pre-existing structures are wholly exempt from the operation of this Chapter so long as such activities do not have significant impacts on drainage and do not contribute in any significant way to water pollution or degradation.
- (2) Remodeling, alteration, or repair of existing structures is not subject to the operation of this Chapter so long as such remodeling, alteration or repair does not increase impervious cover and so long as such activities do not have significant impacts on drainage and do not contribute in any significant way to water pollution or degradation.
- (3) Demolition activities are not subject to the operation of this Chapter so long as such demolition does not involve sinkholes or other critical environmental features, have significant impacts on drainage and does not contribute in any significant way to water pollution or degradation.
- (4) The extension of water or wastewater lines to single family homes is not subject to this chapter so long as such extensions do not extend through creeks, sinkholes or other critical environmental features or do not contribute in any significant way to water pollution or degradation.

(i) Sprinkler system **(Adopted 03/06/01)**

No watershed permit is required for the installation or repair of residential irrigation or sprinkler systems so long as such installation or repair does not have significant impacts on drainage and does not contribute in any significant way to water pollution or degradation.

Sec. 4.105 Site Plan Submittals (Amended 02/07/06)

(a) General. Prior to issuance of a Watershed Development Permit, the following information shall be submitted to the City for review and approval. The applicant shall also file a "Site Plan Fair Notice" or similar form promulgated and in use by the City of Sunset Valley at the time the applicant files the application or request for a permit under this Chapter.

(b) Standard Preliminary Requirements.

- (1) Preliminary Site Plan Submittals shall include the following:
 - (A) Six (6) copies of a preliminary site plan showing the following information shall be submitted with the development permit application.

- (B) Legal description of the property;
- (C) Name and address of the Owner/Developer;
- (D) Name and address of the company or individual who prepared the site plan;
- (E) A topographic map with two (2) foot contours based upon City of Austin data showing;
 - (i) Location of all classified waterways showing the limits of each classification;
 - (ii) The horizontal limits and elevations of the one-hundred (100) and twenty-five (25) year flood plains with a citation of the source of the information;
 - (iii) Locations of the Critical Water Quality Zone (CWQZ) and the Water Quality Transition Zone (WQTZ);
 - (iv) Location of trees having a trunk with a four (4) inch diameter or greater as measured 4½ feet above the ground; *(Amended 2/19/2013)*
 - (v) Existing geologic features including but not limited to faults and fractures along waterways and other critical environmental features (CEF) as defined herein;
 - (vi) Location of all proposed improvements including buildings, streets, driveways, storm drainage systems, water supply and distribution systems, wastewater collection systems or wastewater treatment and disposal systems;
 - (vii) Location of all temporary erosion/sedimentation controls and permanent water quality controls;
- (F) Location of the city limits line, the outer boundary of the City's extraterritorial jurisdiction, and the boundaries of the zoning districts, both on the subject property and on adjacent properties;
- (G) Tabulations for the entire site and each individual lot showing total area of the site or lot, area of the CWQZ, area of the WQTZ, area of the 25-year flood plain, net site area, allowable impervious cover, impervious cover transfers, area of proposed impervious cover separated into buildings, streets, driveways, parking lots, sidewalks, and other impervious cover as appropriate; and
- (H) With respect to any fill proposed to be deposited, the identity of the source of any fill material to be deposited, and the certification of the owner of such fill that same does not contain any hazardous or toxic substances or materials.
- (I) Tree protection and tree replacement plans as required by Chapter 16 of this code.
- (J) Other information as the City may reasonably require.

- (2) A map or maps showing soil map units, surface and subsurface geology, faults, sinkholes and other geologic units. Maps may be based on compiled data available from the Soil Conservation Service, U.T. Bureau of Economic Geology, City of Austin Environmental Resource Management Department and U.S. Geological Survey, and shall be complimented by an on-site geological survey conducted by a professional geologist.
- (3) A report that includes the following:
 - (A) A description of existing topography of the site;
 - (B) A description of the geologic, soil, and vegetation characteristics of the site;
 - (C) A general description of the proposed changes to the site;
 - (D) A general description of the temporary measures to be utilized for the control of erosion/sedimentation during construction;
 - (E) General sequencing of construction;
 - (F) A description of the proposed permanent water quality controls and the basis of design;
 - (G) A description of the methods proposed for site restoration; and
 - (H) An analysis of the impact of the development project on sedimentation in creek bottoms, on ground and surface water quality, on the quantity and quality of recharge, and the extent to which the proposed project will alter natural drainage patterns and the impact of any such changes.
 - (I) A Traffic Impact Analysis, if required as a condition of approval of the preliminary site plan.
- (4) Preliminary landscape plan prepared in compliance with the requirements of the Landscape provisions of this Code.
- (c) The preliminary site plan submittal shall be approved if the City Council finds that the proposed development as specified in the preliminary site plan submittal is in compliance with all applicable provisions of this Code and any other ordinance or City Code.
- (d) Standard Final Site Requirements. Within six (6) months of approval of the preliminary site plan, a final site plan shall be submitted. A preliminary site plan shall expire if a final site plan is not submitted within this time frame.

A final site plan shall contain the following information:

- (1) Detailed construction plans bearing the seal and signature of a professional engineer, containing the following information.
 - (A) Cover sheet with appropriate signature block;
 - (B) General construction notes;

- (C) Final grading plans where appropriate drawn at a scale of 1"=50' (max.);
 - (D) Plans and profiles for streets, storm sewers, drainage channels, wastewater lines, water lines 12 inches in diameter and larger, water quality control facilities, driveways, curbcuts and access points to public streets, alleys and rights of way drawn at a scale of 1"=50' (max.) horizontal and 1"=5' (max.) vertically;
 - (E) Construction details and typical sections;
 - (F) Temporary erosion/sedimentation control plans drawn at a scale of 1"=100' (max.) and appropriate details;
 - (G) Tree protection plan drawn at a scale of 1"=100' (max.) and appropriate details; and
 - (H) Final restoration plan drawn at a scale of 1"=100' (max.) including any appropriate specifications, details, and application rates for seeding, fertilizing, and mulching.
 - (I) Any change or deviation from the Preliminary Site Plan submittal for the affected property.
- (2) Engineering Design Report bearing the seal and signature of a professional engineer certifying to the accuracy and completeness of the report containing the following information:
- (A) Description of the basis for design of each element of the project;
 - (B) Detailed design calculations in conformance with the provisions of this Chapter on "Standards and Specifications" and other referenced design manuals;
 - (C) Printouts of computer models used in the design of the proposed improvements;
 - (D) Subsurface investigation reports where appropriate to justify basis of design;
 - (E) Traffic Impact Analysis if required as a condition of the approval of the preliminary site plan;
 - (F) Itemized estimated cost of all proposed improvements.
 - (G) Such other information as the City may reasonably require; and,
 - (H) The signature of the owner of the property to be developed and, if someone other than the owner, the developer of the project.

(3) Final Landscape Plan

- (e) The final site plan shall be approved and a Watershed Development Permit shall be issued if the City Council finds that the proposed development as specified in the final site plan is in compliance with all applicable provisions of this Code and any other ordinance or City Code. Any site plan approval, watershed development permit, and any variance approved in connection therewith shall expire eighteen (18) months after the issuance or approval thereof if construction of the project or improvement that is the subject of

such site plan, watershed development permit, or variance has not then been commenced. *(Amended May 18, 1999)*

Sec. 4.106 Additional Requirements for Issuance of Watershed Development Permit for Deposits of Fill Unrelated to Onsite Construction Activities

- (a) General Provisions. This Section sets forth requirements applicable to watershed development applications and permits for deposits of fill unrelated to on-site construction activities. For purposes of this Section, the deposit of fill is unrelated to on-site construction activities if the construction or substantial modification of the building, structure, roadway or utility in connection with which the fill is deposited is not sequenced to begin within 60 days prior to or after the deposit of the fill.
- (b) Application Requirements.
 - (1) designate where the fill is proposed to be deposited;
 - (2) identify the quantity of the fill to be deposited;
 - (3) identify the source and type of the fill to be deposited;
 - (4) be signed by the contractor or other person responsible for the transport of the fill and the owner of the property on which the fill is to be deposited.
- (c) Cash Deposit. A cash deposit shall be tendered to the City prior to the issuance of a permit for any fill activity subject to the provisions of this Section. The amount of the cash deposit shall be based upon the City Engineer's estimate of the following:
 - (1) the cost of hiring a gatekeeper to monitor compliance with the terms of the permit relevant to the source and quantity of the fill;
 - (2) the cost of removing the fill if same is not deposited in accordance with the terms of the permit;
 - (3) the cost of grading and/or revegetating the fill site if same is not done in accordance with the terms of the permit; and
 - (4) reasonable administrative costs incurred by the City in connection with the foregoing.
- (d) Permit Terms. Upon the applicant's tender of the cash deposit, and compliance with the provisions of this Chapter, the City Council may issue the watershed development permit. The permit shall specify the duties of the gatekeeper, the location at which the fill shall be deposited, the quantity of the fill that shall be deposited, the source of the fill to be deposited, how the fill site is to be graded, how the fill site is to be revegetated, and the dates by which such grading and revegetation must be completed. Unless authorized by the City council, all grading shall be completed within 30 days of the deposit of the authorized fill, and revegetation of the fill site within 30 days thereafter.
- (e) Inspections and Notice to Correct. The City shall have the right to enter upon the property and inspect the fill site. If the City determines that the terms of the permit are being or have been violated, the City shall issue a written stop work order, and/or a written notice to correct the violation(s). The notice to correct shall be served upon the owner and the contractor and shall identify the violations and specify the corrective

action to be taken and the time within which same must be completed. The notice shall also advise that if the corrective action is not completed as directed, the City will draw upon the cash deposit and perform or cause to be performed the required corrective action.

- (f) Appeals. The owner and/or contractor may appeal the City's determination that the terms of the permit have been violated by filing a written notice of appeal with the City Secretary within ten (10) business days of receipt of the notice to correct. The City Council shall consider said appeal as soon as practicable. If the City Council determines that any condition of the permit has been violated, it may proceed to draw upon the cash deposit and perform or cause to be performed the required corrective action.
- (g) Draw on Deposit. If no appeal is taken in accordance with and as authorized by subsection (f), and the required corrective action is not completed as and within the time directed, the City may draw upon the cash deposit and perform or cause to be performed the required corrective action.
- (h) Refund of Deposit Balance. Upon final inspection and the City's determination that the terms of the permit have been satisfied, the City shall refund the balance of the cash deposit that remains after deductions therefrom have been made to pay the expenses of the gatekeeper, the costs incurred by the City in connection with its performance of any required corrective action and the City's reasonable administrative costs incurred in connection with the foregoing.

Sec. 4.107 Single-Family Residential Small Project Requirements

- (a) This section applies to a legal lot which is to be developed with one single family residence, or to two contiguous legal lots which are to be developed or redeveloped by the same developer with one or two single family residence(s), or in connection with which additional or expanded improvements resulting in additional impervious cover is proposed.
- (b) Three (3) copies of a preliminary site plan showing the information required in this section shall be submitted with the development permit application. Only the following information will be required for submittal if the lot or lots are not otherwise exempt from the requirements of this Chapter:
 - (1) legal description of the property;
 - (2) name and address of the Owner/Developer;
 - (3) name and address of the company or individual who prepared the site plan;
 - (4) a topographic map with two (2) foot contours based upon City of Austin data showing;
 - (A) the horizontal limits and elevations of the one-hundred (100) and twenty-five (25) year flood plains with a citation of the source of the information;
 - (B) locations of the Critical Water Quality Zone (CWQZ) and the Water Quality Transition Zone (WQTZ);
 - (C) location of all trees having a trunk with a four (4) inch diameter or greater as measured four and one half (4½) feet above the ground; (*Amended 2/19/2013*)
 - (D) existing geologic features including but not limited to faults and fractures along waterways and other critical environmental features (CEF) as defined herein;

- (E) location of all proposed improvements including buildings, streets, driveways, storm drainage systems, water supply and distribution systems, wastewater collection systems or wastewater treatment and disposal systems;
 - (F) location and description of all temporary erosion/sedimentation controls and permanent water quality controls, if such controls are required;
 - (G) changed drainage patterns from the property after completion of construction;
 - (H) final grades of all topography, structures, drainage ways, parking and driveways;
 - (I) location of existing and proposed drainage easements;
- (5) With respect to any fill proposed to be deposited, the identity of the source of any fill material to be deposited, and the certification of the owner of such fill that same does not contain any hazardous or toxic substances or materials.
 - (6) Tree protection and tree replacement plans as required by Chapter 16 of this code. (Amended 2/19/2013)
 - (7) Other information as the City may reasonably require, including but not limited to the information specified in subsection 4.107(c) below.
- (c) For an existing legal lot to which this section applies, a variance, administrative approval, or modified administrative approval, pursuant to the applicable provisions of Section 4.103 is required to develop any portion of the lot that lies within the Development Free Zone. **(Amended 5-5-09)**

Division 4.2: Water Quality Zones

Sec. 4.200 Critical Water Quality Zone

- (a) Critical water quality zones shall be established along all creeks and tributaries with drainage basins greater than sixty-four (64) acres in size. The zone line shall be delineated parallel to each such creek or tributary according to the size of the drainage basin.
 - (1) For minor waterways, the zone line shall be defined by the limits of the one hundred year flood plain, provided that it shall never be extended beyond one hundred (100) feet on each side from the centerline of the waterway.
 - (2) For intermediate waterways, the zone line shall be defined by the one hundred year flood plain, provided that it shall never be located greater than two hundred (200) feet nor less than one hundred (100) feet on each side from the center line of the waterway.
 - (3) For major waterways, the zone line shall be defined by the one hundred year flood plain; provided that it shall never be located greater than four hundred (400) feet not less than two hundred (200) feet on each side from the center line of the waterway.
- (b) The flood plain delineation shall be based on a channel in its unaltered state, and shall assume fully developed watershed conditions.
- (c) The critical water quality zone shall remain free of all construction activity, development and alterations except that the following may be permitted: ***(Amended February 20, 2007)***
 - (1) Utilities as provided by Section 4.200(d) and (e) of this Chapter.
 - (2) Fences that do not obstruct flood flows.
 - (3) Public and private parks and open space, with development in the parks and open space limited to trails and outdoor facilities (other than stables and corrals for animals) for hiking, jogging, nonmotorized biking, and nature walks when a program of fertilizer, pesticide and herbicide use is approved by the City.
 - (4) Concrete private drives to allow access to property not otherwise accessible.
 - (5) Arterial, collector and residential street crossings provided no major waterways may be crossed.
 - (6) Structures described in Section 4.301(f) located on lots zoned and used for single family residential purposes, provided that the placement of any such allowable structure: (i) does not require the addition of any fill, (ii) is designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of flood waters, (iii) does not impede surface water runoff or drainage patterns that effect adjoining upstream or downstream properties, (iv) does not result in increased flooding on upstream or downstream properties, (v) is in compliance with all applicable provisions of this Code, and (vi) the City Council has granted a variance or the City Administrator or his/her designee has granted an administrative approval, as may be required pursuant to Section 4.103.

- (7) Structures for which the City Council has granted a variance pursuant to Section 4.103.
- (d) All utilities other than wastewater shall be located outside the critical water quality zone, except for crossings.
- (e) Wastewater trunk lines and lateral lines shall be located outside the critical water quality zone whenever possible except for crossings. At the time of the watershed development permit application review, the City's appointed designate shall make a report to the City Council on any significant environmental impact and possible alternatives related to wastewater line locations in the critical water quality zone. In no case shall any wastewater line be located less than one hundred (100) feet from the center line of a major waterway or fifty (50) feet from the center line of an intermediate waterway except for crossings, unless approved by the City Council upon consideration of reports by the City appointed designate, and unless the applicant has shown that installation outside of this zone is physically prohibitive or environmentally unsound.

Sec. 4.201 Water Quality Transition Zone

- (a) A water quality transition zone shall be established parallel to all critical water quality zones, and shall extend from the outer boundaries of the critical water quality zone for three hundred (300) feet along major waterways, two hundred (200) feet along intermediate waterways, and one hundred (100) feet along minor waterways.
- (b) The water quality transition zone shall remain free of all construction activity, development and alterations except that the following may be permitted: **(Amended February 20, 2007)**
 - (1) Utilities as provided by Section 4.200(d) and (e) of this Chapter.
 - (2) Fences that do not obstruct flood flows.
 - (3) Public and private parks and open space, with development in the parks and open space limited to trails and outdoor facilities (other than stables and corrals for animals) for hiking, jogging, non motorized biking, and nature walks when a program of fertilizer, pesticide and herbicide use is approved by the City.
 - (4) Concrete private drives to allow access to property not otherwise accessible.
 - (5) Arterial, collector and residential street crossing provided no major waterways may be crossed.
 - (6) Minor drainage facilities and water quality controls, provided such facilities or controls are in compliance with the floodplain modification guidelines section of the City of Austin Environmental Criteria Manual, as amended, as if they were in the floodplain.
 - (7) Structures described in Section 4.301(e) located on existing residential lots for which an administrative approval has been granted by the City pursuant to Section 4.103(g), and development allowed by administrative approval or modified administrative approval pursuant to Section 4.103(f). **(Amended 5-5-09)**

- (c) The minimum size of all lots within or partially within a water quality transition zone shall be at least one (1) acre, exclusive of all land within a twenty-five (25) year floodplain.
- (d) No development shall occur within the water quality transition zone unless a variance, administrative approval, or modified administrative approval has been obtained pursuant to Section 4.301(k) or Section 4.103 of this Code and the property and improvements are in compliance with all other provisions of this Code. **(Amended 5-5-09)**

Sec. 4.202 Upland Zone

- (a) An uplands zone is established to be that portion of land which is not located within the Critical Water Quality Zone or the Critical Water Transition Zone.
- (b) Development limitations including impervious cover shall not exceed the limits set forth in Section 4.301 of this Chapter.
- (c) The minimum size of all lots within the uplands zone shall be at least one (1) acre.

Division 4.3: Building Sites/Impervious Cover Calculation and Transfer of Development Intensity

Sec. 4.300 Building Sites

All lots or tracts of land shall contain an adequate building site prior to development. An adequate building site shall not contain:

- (a) Discontinuous segments;
- (b) Land within the critical water quality zone, except as development is otherwise allowed pursuant to Section 4.103(f) or (g) (variances, administrative approvals and modified administrative approvals); **(Amended 9-8-09)**
- (c) Land within the water quality transition zone, unless a variance, administrative approval, or modified administrative approval is obtained pursuant to subsections 4.301(k) and/or Section 4.103(f) or (g) of this Code. **(Amended 9-8-09)**
- (d) Land within a drainage or utility easement;
- (e) Any stream, pond or permanent water quality controls;
- (f) Land within building setback lines.

Sec. 4.301 Impervious Cover (Amended 9/8/09)

- (a) Although a certain percentage of impervious cover is discussed and designated within this Section, nothing in this Section shall release a person from meeting the requirements of the zoning, landscape, and other provisions of this Code.

(b) (1) Impervious cover and calculations thereof shall include, but shall not be limited the following:

(A) Alleys, streets, and any kind of pavement driveways, and parking areas used for vehicular purposes. For roadways or streets located within the boundaries of a proposed subdivision, the area to be included in an impervious cover calculation will be based on roadways widths of up to and including twenty-four feet (24'). Requirements for sizing water quality controls or detention facilities for runoff from such roadways are not affected by this provision.

(B) Buildings, concrete, and other impermeable construction covering the natural land surface.

(C) Roadways or streets located adjacent to a development area shall be included in the calculation of impervious cover as described in the City of Austin Environmental Criteria Manual, as amended, except that this provision does not apply to those roadways that either already have Water Quality Controls in place or Water Quality Controls have been previously approved for construction by the City Council and construction of such controls timely occurs as approved before the earlier of expiration of the permit or one year after the issuance of the subject watershed development permit.

(D) Site area used for the storage of scrap, auto, and metal salvage.

(2) Impervious cover and calculations thereof shall not include the following when located on property zoned and used for single family residential purposes: **(Amended 9/8/09)**

(A) Water surface area of a swimming pool, hot tub, wading pond, fountain, bird bath, fish pond, and other similar city-approved structure.

(B) Uncovered decks meeting the following standards:

- (i) The deck must be constructed on piers or posts to allow for the unabated flow or passage of water underneath the deck;
- (ii) The deck floor must be constructed of slatted material that provides for a minimum of ¼-inch drainage spaces between the slats; and
- (iii) The deck must be constructed over pervious cover.

(C) Up to 350 square feet of City-Approved rainwater harvesting systems whose sole purpose is for the collection, treatment, and/or storage of rainwater for on-site use. **(Amended 5-20-2014)**

(D) Walkways and uncovered patios used for landscaping and pedestrian use only that are placed on pervious material and allow for the unobstructed passage of water between or through the material used in the construction thereof, as permitted pursuant to regulations adopted by the Director of Public Works for pervious structures.

(c) In calculating projected impervious cover, all existing impervious surfaces shall be included in the calculations and charged against impervious cover allowances. This provision does not include any "natural" imperviousness, such as rock outcrops, or any surfaces excluded from impervious cover pursuant to the terms of subsections (e) or (f) of Section 4.301, provided there is full compliance with any pollution reduction measures required pursuant such subsections. Pedestrian sidewalks located within

public right-of-way and approved water quality controls/treatment devices and other drainage facilities are not impervious cover for the purposes of impervious cover calculations. In addition, trails located on City-owned property or dedicated for use by the general public no more than 11 feet wide constructed of natural soil, granite gravel, and stabilized soil aggregate, with concrete or stone edging no more than 6 inches wide on each side, are exempted from impervious cover calculations. Pervious concrete may also be exempted from impervious cover calculations in trail areas prone to high erosion **(Amended 11/15/2016)**

- (d) Roads, parking area, buildings and other construction are to be assumed as one hundred (100) percent impermeable unless specific proposed alternate surfaces are authorized as being less than such by the City Council.
- (e) Subject to the provisions of subsection 4.301(h) regarding maximum impervious cover on a single lot or undivided tract, impervious cover calculations will specifically exclude the items described in this subsection that are located in the Uplands Zone or Water Quality Transition Zone on property that is zoned and used for single family residential purposes; provided, however, that the items described in this subsection shall be subject to the administrative approval standards and procedures provided in Section 4.103(g) if located in the Water Quality Transition Zone on property which is zoned and used for Single Family Residential purposes, and further provided that such items located in the Water Quality Transition Zone shall be excluded from impervious cover calculations only to the extent that there is full compliance with any required pollution reduction measure. **(Amended 9/8/09)**
 - (1) Up to 350 square feet of pedestrian sidewalk or walkway that is (i) not greater than 3.5 feet in width; (ii) connects to the primary single-family residential structure, and (iii) has a minimum of 1 foot of pervious cover on each side.
 - (2) Up to 350 square feet of covered decks or gazebos meeting the following specifications:
 - a. The deck or gazebo must be constructed on piers or posts to allow for the substantially unobstructed flow or passage of water underneath the deck or gazebo;
 - b. The deck or gazebo floor must be constructed of slatted material that provides for a minimum of ¼-inch drainage spaces between the slats;
 - c. The deck or gazebo must be constructed over pervious cover; and
 - d. Each wall of the deck or gazebo, excluding those sides of the structure adjoining a primary single-family residential structure, does not exceed 20-percent of the area measured from the top of the overhead cover to the top of the floor.
 - (3) Up to 350 square feet and a maximum width of eighteen inches (18") of coping, if any, on: a swimming pool, hot tub, wading pond, fountain, bird bath, fish pond, and other similar city-approved structures.
 - (4) Up to 350 square feet of solar or wind power structures and facilities used for the primary purpose of providing on-site energy.
 - (5) Up to 350 square feet of an accessory building that is elevated to allow for the substantially unobstructed flow or passage of water over pervious cover underneath. Nothing in this subsection shall exempt a lot or accessory structure from the requirements of Chapter 2 of the Land Development Code, including but not limited to the limitations on the number of structures allowed

per lot.

- (f) Subsection 4.301(f) is deleted in its entirety, and no reference appearing elsewhere in the Code to such deleted subsection 4.301(f) shall have the effect of providing for any right, privilege, or procedure formerly included in the provisions of deleted subsection 4.301(f). **(Amended 5-5-09)**
- (g) Single family lots shall not exceed one residential unit per acre nor 18 percent aggregate impervious cover.
- (h) The projected impervious cover on any single lot or undivided tract in the upland zone shall not exceed eighteen (18) percent. Notwithstanding anything to the contrary in subsection (e) of this Section 4.301, the items listed in subsection (e) shall not be excluded from impervious cover calculations to the extent that the area of any such item, when added to the area of impervious cover located on the affected lot, results in a total area in excess of 18% of the area of such lot. The projected impervious cover on any part of any single lot or undivided tract, regardless what zones(s) are located on such lot or undivided tract shall not exceed eighteen percent. **(Amended 9-8-09)**
- (i) **Variance Allowing Additional Development in the Water Quality Transition Zone.** The provisions of this subsection (i) apply only to development of property not described in Section 4.107. The City Council may grant a variance allowing development of commercial, multi-family, and developments of single family residential lots comprised of more than two (2) lots in the water quality transition zone as provided in this subsection (i), and as permitted pursuant to subsection (a) of Section 4.103.
 - (1) A person desiring to develop in the water quality transition zone may submit an application for a variance at the time of submission of the preliminary site plan, and the application shall be acted upon by the City Council at the same time that the preliminary site plan is acted upon.
 - (2) The granting of a variance under this subsection shall not be construed as relieving the grantee from obtaining a watershed development permit under applicable ordinances or this Code, nor shall the granting of a variance be construed as committing the Council to approving the grantee's application for a watershed development permit.
 - (3) A variance may be granted only if the following standards are met:
 - (i) Impervious cover in the water quality transition zone shall be no more than 8% of the total portion of the lot that is in the transition zone. The impervious cover within the water quality transition zone shall be part of, and not in addition to, the total amount of impervious cover allowed on the lot as a whole.
 - (ii) A minimum setback of at least 75 feet shall be maintained between the critical water quality zone and developed, impervious, or pollutant source areas, or areas with disturbed vegetation or soil in the water quality transition zone. Within the aquifer recharge zone, a 100 foot minimum setback shall also be preserved between developed, impervious, or pollutant source areas, or areas with disturbed vegetation or soil in the water quality transition zone and any identified recharge features.
 - (iii) Impervious cover, water quality controls, and drainage shall be designed to allow maximum infiltration of clean rainfall runoff. The applicant shall provide an increased average annual infiltration equal to 125% of the infiltration volume lost due to development within the transition zone. The increase must be shown compared to the average annual infiltration

volume without the proposed water quality transition zone encroachment. Increased infiltration can be achieved using retention/re-irrigation of storm water runoff, infiltration basins, disconnected impervious cover, and/or engineered vegetative buffers. Infiltration estimates must be based either on soil data for the site published by the Soil Conservation Service (U.S. Department of Agriculture, 1974), or on field measurements of the infiltrative capacity of the surface soil, using such devices as a ring infiltrometer. Subsurface infiltration testing methods for septic systems are not acceptable.

- (iv) Water quality controls shall be designed to be at least 25% more efficient at reducing the average annual pollutant load for total suspended solids, total nitrogen, total phosphorous and total organic carbon or chemical oxygen demand than water quality controls required for development in the Upland Zone.
 - (v) Where development encroaches into the water quality transition zone, associated turf and landscaped areas requiring fertilizer, pesticides, herbicides, insecticides, or fungicides for maintenance shall be prohibited. Disturbances of the natural vegetation and tree cover shall be prohibited except within the building footprint and the surrounding construction disturbance area. The surrounding construction disturbance area within the water quality transition zone shall be limited to a maximum radius of 20 feet from the building footprint, unless the developer can demonstrate that a greater, specified radius is necessary and would not produce greater adverse effects than a 20-foot radius.
 - (vi) A variance under this subsection may be granted only if the property to be developed in the water quality transition zone has not already been used for transferring development intensity credits.
- (4) The conditions of a variance permitted under this subsection shall be imposed on the property as a restrictive covenant running with the land, in a form approved by the City Attorney, and recorded in the real property records of the Travis County, Texas once a final site plan is approved by the City Council.

Sec. 4.302 This Section Left Blank Intentionally (Repealed in its entirety February 18, 2003)

Sec. 4.303 Impervious Cover Limits for Non-Commercial, Non-Residential Development (Amended March 18, 1997)

The impervious cover limits set forth in this Chapter for commercial and multi-family development shall apply to development for governmental, utility, and institutional purposes.

Division 4.4: Standards and Specifications

Sec. 4.400 General

- (a) The City engineer shall inspect all land grading, drainage, detention and water quality controls to determine compliance with the released site plan.
- (b) When construction of these facilities is complete, the design engineer shall submit a concurrence letter to the City engineer stating that in the Engineer's opinion, the project is in substantial conformance with the

approved construction plans. A final inspection will then be performed by the City engineer. If all applicable Code provisions and construction plan requirements are met, a Certificate of Occupancy will be released by the accountable official.

- (c) Final acceptance of facilities by the City, or approval of Certificates of Occupancy shall not be issued until a water quality control inspection of the facility and certificate of compliance is completed by the City.

Sec. 4.401 Erosion-Sedimentation Control and Construction Sequencing; Dust Control (*Amended Sept 17, 1996*)

- (a) Erosion and sedimentation controls in accordance with the specifications established in the Environmental Criteria Manual, as amended, are required for all construction and development, including without limitation commercial, multi-family, single-family, and two-family construction, the construction of all roads, utilities, parks, golf courses, water quality controls, detention basins, and all other activities utilizing clearing, trenching, grading or similar construction techniques.
- (b) Projects shall not be considered complete until restoration has been made, the approved permanent vegetation established and installation certified for acceptance by the City after receipt of the engineer's concurrence letter.
- (c) Significant changes to approved erosion control and construction sequencing plans may be made in the field after two days written notice to the permit holder if the City inspector deems the control or sequencing inappropriate or inadequate, and has confirmed those findings with the City. Minor changes which result in an upgrading of erosion controls or simply reflect the progression of construction on a site may be accomplished in the field without such written approval.
- (d) Development shall require a temporary erosion and sedimentation control plan and water quality plan certified by a registered professional engineer and approved by the City engineer which will control off-site sedimentation during the construction of the project by temporary structural controls, site management practices, or other approved methods until permanent revegetation is certified complete. The temporary erosion control plan must be phased to be effective at all stages of construction and must be adjusted, maintained, and repaired as necessary. The water quality plan shall be approved in conjunction with the site plan approval. In addition, a dust control plan approved by the City engineer shall be included with the other plans required herein. (*Amended Sept. 17, 1996*)
 - (1) At the time the developer submits a final site plan, the developer also shall submit the erosion and sedimentation control, water quality, and dust control plans. (*Amended Sept. 17, 1996*)
 - (A) The plan must specify site layout, grading, and drainage patterns, locations of all land disturbance, silt fences, spoils disposal areas, delineation of limits of construction, construction staging areas, construction entrances, temporary and permanent erosion and sedimentation controls, and temporary and permanent water quality controls.
 - (B) The plan must contain a discussion of project phasing and measures for assuring that proper erosion protection is in place.
 - (C) The plan must contain measures to limit airborne particulates and dust when dry and/or windy conditions create potential air quality degradation.

- (2) Prior to clearing activities at the site, all permanent water capture-type controls must be excavated and drainage appurtenances constructed such that these facilities will serve as temporary construction-phase sedimentation traps prior to final finishing and revegetation of the structure. **(Amended Sept. 17, 1996)**
- (3) Silt control measures must be placed in the unfinished water quality structure to assure that sediment does not flow unfiltered from the unfinished facility. **(Amended Sept. 17, 1996)**
- (4) The contractor's representative responsible for compliance with construction-phase sediment and erosion control rules must perform the following activities: **(Amended Sept. 17, 1996)**
 - (A) Attend the pre-construction meeting at the site to present proposed temporary erosion control measures to the City Engineer and/or the City's representative.
 - (B) Prior to any site clearing, conduct an inspection of all temporary erosion control measures with the City Engineer and/or the City's representative.
 - (C) During or immediately after al significant rainfall events, visit the site to evaluate the performance of temporary erosion control measures.
 - (D) Following each significant rainfall event, schedule a meeting with the City Engineer or the City's engineering representative to discuss the performance, ongoing adequacy and required upgrades of the site's temporary erosion control measures.
 - (E) During dry or windy conditions creating potential dust migration off-site, must implement the dust suppression measures described in the erosion/sedimentation plan.
- (5) All drainage from potentially disturbed areas must drain through a properly installed silt fence prior to exiting the site. Silt fences must be constructed in strict compliance with design specification detailed in the City of Austin's Environmental Criteria Manual. Silt fence construction must use proper excavation and anchoring depth and minimal disturbance and complete compaction of disturbed areas adjacent to the silt fence, as described in the City of Austin Environmental Criteria Manual. Silt Fences must be properly secured to steel posts and woven wire supports such that there are no openings at the junctions of silt fence material. The contractor shall only use new or completely intact silt fence material. No worn, torn, or punctured silt fence material is permitted. When accumulated silt behind a silt fence exceeds 6 inches in depth, it must be removed and properly disposed of. After completion of the project and certification of complete stabilization of site vegetation, the silt fence may be removed; however, the disturbed ground must be thoroughly compacted such that there is no loose soil along the former path of the silt fence. **(Amended Sept. 17, 1996)**
- (e) The following general standards shall apply to all development:
 - (1) Clearing of existing vegetation is prohibited unless the City determines the clearing is pursuant to and in accordance with a released site plan or a released subdivision construction plan;
 - (2) Limited clearing of existing vegetation or other specified development activities necessary for surveying or geological testing is authorized before release of a site plan or subdivision construction plans to the minimum extent necessary to survey or conduct geological tests. Areas cleared for

surveying or testing purposes shall not exceed a width of fifteen (15) feet. No tree with a diameter greater than four (4) inches shall be removed in connection with surveying or testing. **(Amended 2/19/2013)**

- (3) Clearing of existing vegetation on land used for an agricultural use is prohibited if an application for approvals required to develop that land for other than an agricultural use is pending or such an approval has been granted, including without limitation an application for approval of a preliminary subdivision plan, a final subdivision plat, a site plan, or zoning as a district where the agricultural use is not permitted. The City may waive this prohibition if the applicant can show that the clearing has a bona fide agricultural purpose and is unrelated to the proposed development or sale of the land for nonagricultural uses.
- (4) The location for clearing for temporary storage of spoils or construction equipment shall be shown on the released site plan. Any such location shall be in accordance with the City of Austin Environmental Criteria Manual, as amended. Topsoil shall be protected against erosion during and after the site grading operations. Where practical, the existing vegetation shall be left in place.
- (5) The length of time between rough-cutting and final surfacing of a street shall not exceed 12 months. If an applicant does not meet this deadline, the City shall provide written notice to the applicant and to the record owner of the subject property that the City may complete the street or revegetate the disturbed area at the applicant's expense unless the work is completed no later than 60 days after the date of notice.
- (6) Roadway clearing width shall not exceed the width of the dedicated right-of-way.
- (7) Vegetation within the critical water quality zone and the water quality transition zone may not be disturbed except for purposes consistent with development activity permitted by Sections 4.200 and 4.201 of Chapter 4.
- (8) All constructed and altered drainage channels shall be stabilized and vegetated immediately after final grading.
- (9) The City shall submit a copy of the erosion and sedimentation control measures to the Barton Springs/Edwards Aquifer Conservation District for review and comment.

Sec. 4.402 Water Quality Controls

- (a) General. Except as provided otherwise with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103, water quality controls and the drainage systems to the controls shall be designed, constructed and maintained at a minimum in accordance with the specifications established by the City of Austin Environmental Criteria Manual. Construction of Water Quality Control facilities must begin not later than eighteen (18) months after approval of a final site plan providing for such facilities, except as otherwise required in the terms of a variance, administrative approval or modified administrative approval. The applicable Watershed Development Permit shall expire if construction is not commenced before such deadline to commence construction. **(Amended 9-8-09)**

Water quality controls shall be required according to the criteria established by this Section, except as provided otherwise with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103, as evaluated for each development application. When water quality controls are required,

they shall be shown on the slope map, preliminary plats, preliminary site plan, land use site plan, construction site plan and/or the subdivision construction plans. **(Amended 9-8-09)**

- (1) For water quality controls located in series, the second or later control following sedimentation, extended detention, sedimentation/filtration or similar structure shall not require an impervious liner.
- (2) Water Quality controls shall be required for golf courses, playfields and similar improved recreational uses where fertilizers, herbicides, or pesticides are applied.
- (3) Water quality controls are required for all development regardless of the level of impervious cover. Except as provided otherwise with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103, such controls will be designed to meet the standards of the City of Austin Environmental Manual, as amended, provided that the design therein achieves the greatest pollutant removal efficiency for the particular site conditions. **(Amended 9-8-09)**
- (4) Vegetative buffers may be used to treat runoff from private driveways and parking areas for single family residential use, or for sidewalks, roof tops, golf courses, playfields, or landscaped areas receiving applications of chemical pesticides or fertilizers. Vegetative buffers shall not be used to treat public, commercial, or multi-family roadways, driveways, or parking areas unless water quality pretreatment is provided. Vegetative buffers shall be designed to meet the applicable standards of the City of Sunset Valley, as well as applicable requirements of the LowerColorado River Authority (LCRA), City of Austin, and Texas Commission on Environmental Quality, except as provided otherwise with regard to a particular application of a vegetative buffer pursuant to subsections (f) and (g) of Section 4.103, vegetative buffers must meet or exceed the standards set forth in Section 4.406. **(Amended 9-8-09)**

(b) Design Criteria. The interpretation of the requirements set forth in this Chapter shall be made by the City's engineer or designate, unless specified otherwise by the Council. Water quality controls shall be designed and constructed in conformance with the City of Austin Environmental Criteria Manual, as amended, except as provided otherwise with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103, and be approved by the City's engineer or other designate of the Council. **(Amended 9-8-09)**

- (1) Water quality control facilities designed in the Water Quality Transition Zone must be placed as close to the Upland Zone line as technically practical.
- (2) Plans are to be submitted to the Texas Commission on Environmental Quality for approval, where required pursuant to state statutes and regulations.
- (3) All commercial/office/multi-family construction and all single-family and two-family developments with four lots or more consisting of less than five (5) acres per lot shall provide water quality controls that shall comply with the City of Austin's Environmental Manual, as amended.
- (4) Water quality control facilities required pursuant to subsection 4.402(b)(3) shall be situated and constructed to capture runoff from residential, commercial and Multi-family developments and associated streets (including boundary streets).

- (A) The water quality controls and drainage into the water quality control basins shall be designed to capture and isolate the first flush of runoff as required in Section 4.402(a)(3). All subsequent runoff in excess of the design capacity of the water quality basins shall bypass the water quality facilities and remain segregated in a detention basin up to the designed capacity specified in the City of Austin Drainage Criteria Manual, as amended.
 - (5) The design of all permanent water quality control sedimentation basins shall allow an average residence time of twenty-four (24) hours for the water quality volume determined in Section 4.402(a)(3).
 - (6) All basins shall have impervious liners to prevent seepage to groundwater, except as provided in Section 4.402(a)(1) or except as provided otherwise with regard to rain gardens permitted pursuant to subsections (f) and (g) of Section 4.103.
 - (7) Input to and release from detention basins shall utilize grass-lined swales and/or overland flow dispersion measures in conformance with Section 4.502 of this Chapter.
 - (8) No portion of a water quality control basin shall be located within the critical water quality zone, except as provided otherwise with regard to rain gardens permitted pursuant to subsections (f) and (g) of Section 4.103.
- (c) Maintenance and Compliance.
- (1) All water quality control facilities and their appurtenances required for development of a commercial lot shall be maintained either by the property owner, or by the City in accordance with a contractual agreement between the City and the property owner. If the property owner will perform the maintenance, a plan for operation and maintenance shall be submitted to the City along with construction plans and must be approved by the City's engineer or designate. **(Amended 5-5-09)**
 - (A) Water quality control facilities for a commercial lot development shall also require an annual renewal permit in accordance with Section 4.402(d)(2).
 - (2) All water quality control facilities and their appurtenances required for single family and two family residential development shall be maintained by the City after final acceptance, except where otherwise provided in the terms of any variance given in connection with an approval, and except as otherwise provided in subsections (f)(1) [development up to 14% impervious cover in the WQTZ of single family residential property], (f)(5) [development up to 14% impervious cover in the WQTZ of single family residential property using other mitigation] and (g) [single family mitigation measures in the WQTZ] of Section 4.103. The City shall not be required to accept for maintenance any water quality control facility which does not meet the criteria established in the City of Austin Environmental Criteria Manual as amended. **(Amended 9-8-09)**
 - (A) Water quality control facilities and their appurtenances to be maintained by the City shall be dedicated to the City by easement or fee simple as the City may require.

- (3) All water quality controls and their appurtenances shall be appropriately maintained in accordance with the maintenance standards established by the City of Austin Environmental Criteria Manual, as amended, except as provided otherwise with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103.
 - (4) Duly authorized inspectors of the City shall have the right of entry on the land or premises where property owners are required to maintain drainage or water quality control facilities, at reasonable times, for the purpose of inspection of the maintenance required. Where facilities are found not to be in good condition, the City shall request in writing that the property owner comply and shall specify the measures required to be taken. If, within thirty (30) days of the notice the maintenance required is not accomplished, the City shall either:
 - (A) Cause the necessary maintenance to be accomplished and assess the property owner for the City's actual cost; OR
 - (B) Bring an action for mandatory injunction to require the property owner to accomplish the necessary maintenance.
 - (5) All drainage easements across private property shall contain the necessary language to permit the required water flow, allow and require the maintenance set out herein, and permit the necessary access by the City for inspection and maintenance. All these shall be properly noted on the site plan and/or subdivision plat.
 - (6) The required maintenance on a commercial lot by a property owner and the power of the City shall be noted in a restrictive covenant agreement to be filed with the Travis County Deed Records.
 - (A) The applicant shall designate one person or legal entity, with a current address, to which notice shall be given pursuant to this subsection.
 - (7) An inspection and renewal permit fee for water quality basins, as specified in the Fee Schedules adopted by ordinance or resolution, shall be paid at the time of development approval.
 - (8) A water quality facility located wholly on City property and serving nothing but City property or a public works project shall be maintained by the City.
 - (9) A water quality facility serving both City property and private property zoned nonresidential or devoted to nonresidential use shall be maintained by the owner of the private property served by the facility, unless the City has otherwise entered into an agreement providing for maintenance of the facility by the City.
- (d) Inspection and Renewal Permit.
- (1) At least once each year the City shall inspect the premises of each water quality control required to be maintained by the owner, except that in connection with a water quality control provided pursuant to subsections (f) or (g) of Section 4.103, the City may, but shall not be required to perform such inspection. **(Amended 9-8-09)**
 - (2) Any person or entity owning or operating commercial development in the City or ETJ shall obtain and maintain in force an annual renewal permit for the required water quality controls, unless the

owner and the City have entered into a contractual agreement whereby the controls will be maintained by the City. A water quality control renewal permit shall be granted or renewed after:

- (A) the applicant has filed with the City a maintenance plan in accordance with the City of Austin Environmental Criteria Manual, as amended.
 - (B) the applicant has illustrated compliance with Section 4.402(d)(2)(A) above.
 - (C) the applicant has paid the permit fee as established by City Ordinance and supplied the necessary information to verify that the controls are in proper operating condition.
- (3) Upon transfer of ownership of a commercial or multi-family development, the new owners/operators shall obtain a new permit, accept responsibility for the water quality controls at the time of transfer of the development, and document the transfer of the permit on a form provided by the City on or before the date of transfer of the development.
- (4) No permit shall be granted or renewed until or unless the permit fee has been paid and the facility is in operating condition as designed. The City shall inspect and accept a report from a registered engineer verifying that the water quality control is in operating condition as designed. The fee shall be paid simultaneously with the filing of the application. No refund or rebate of a permit fee shall be allowed based on denial of the permit, suspension or revocation of the permit, or discontinuance of use of a water quality control. The permit fee shall be sufficient to cover the cost of inspection and review of the report from owner.
- (7) Quarterly, beginning with the 3-month anniversary of the issuance of the water quality control facility operating permit, permittee must submit documentation that the facility is in proper operating condition, including photographs of the facility. The photos should be dated, and should show, at a minimum, the inlet structure, outlet structures and the condition of any vegetation. The fourth quarter documentation should be submitted together with the annual report required for permit renewal.
- (8) Notwithstanding any other provision of this subsection (d) regarding permit renewals, the provisions of this subsection (d)(6) shall apply to renewals of permits for water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103. A renewal permit shall be obtained on or before each anniversary date of the initial permit on a form provided by the City for such purpose. At the time of sale of the property on which such water quality control is located, a new permit must be obtained, and in connection therewith, the City shall perform an inspection for compliance with applicable design and performance standards. It shall be the responsibility of both the selling and purchasing owner to obtain such renewal permit and to accommodate such inspection by the City. **(Amended 9-8-09)**
- (e) Fiscal Security. **(Amended 9-8-09)**
- (1) Except with regard to water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103, fiscal security shall be required for development in the City and the ETJ to ensure that the water quality controls required are functioning properly. Fiscal security shall be based on an estimate prepared by the developers engineer and reviewed and approved by the City.

The estimate shall include, but is not limited to, the cost to construct the temporary and permanent water quality control facilities for the particular site development.

- (2) The fiscal security shall be returned to the applicant no earlier than one year after completion of the development, and only upon the receipt of a certified engineering concurrence letter verifying that the controls are constructed in conformance with the approved design as verified after inspection by the City.
- (3) In the event the annual inspection required under this Chapter reveals that the water quality controls are not being properly maintained or repaired, fiscal security shall be required in connection with the issuance of the next annual inspection and renewal permit. The amount of the fiscal security shall be ten percent (10%) of the amount which had been required for the initial construction of the water quality control facilities. This fiscal security shall be retained by the City for a minimum of two (2) years to a maximum of five (5) years; however, the City retains the right to extend or reimpose the requirement for fiscal security at any time inspections reveal that the water quality controls are not being maintained or repaired.

Sec. 4.403 Additional Pollution Reduction Requirements

All development shall include the following additional pollution reduction techniques:

- (a) No untreated run-off arising from development shall be allowed to flow over critical environmental features that are recharge features.
- (b) No untreated run-off arising from development, shall be allowed in defined channels containing recharge features provided that for single family residential lots adjacent to Transition Zones, untreated run-off may be discharged through the transition zone provided that the Transition Zone meets the criteria in the City of Austin Environmental Criteria Manual, as amended, for vegetative filter strips.
- (c) Developments must provide detention for the 2 year storm, unless it is determined by the City that the development is a participant in a regional stormwater detention facility, or centralized detention facility, or control of the 2 year storm will result in identifiable adverse flooding as determined by a Registered Professional Engineer and confirmed by the City engineer.
- (d) Commercial development shall also include two of the following four pollution reduction measures:
 - (1) Xeriscape with a fertilizer reduction element and an Integrated Pest Management Plan;
 - (2) A street sweeping program or covered parking with parking drainage isolated from stormwater;
 - (3) Construction restricted to 0-10% slopes;
 - (4) The design includes separation of roof run-off from other filtered run-off volumes and reirrigates this on the site.

Sec. 4.404 Landscape

- (a) Landscape shall be preserved in its natural state to the greatest extent feasible and shall comply with the requirements this Code, including compliance with Chapter 16 regarding natural areas protection. (Amended 2/19/2013)
- (b) Proposed structures and landscaping shall relate harmoniously to the terrain, to the natural landscape, and to existing buildings and roads in the vicinity that have a visual relationship to the proposed structure.

Sec. 4.405 Ecological Considerations

Development shall comply with the following standards, as well as other provisions of this Code addressing ecological considerations: **(Amended Sept. 17, 1996)**

- (a) There shall be minimal impairment of the regenerative capacity of aquifers and other ground water and surface water supplies. Plugging, filling, or sealing any significant recharge feature, as that term is defined in this Code, is prohibited. **(Amended Sept. 17, 1996)**
- (b) There shall be minimal adverse impact upon critical areas, such as streams, slopes greater than fifteen percent (15%), highly erodible soils and mature stands of native vegetation. **(Amended Sept. 17, 1996)**
- (c) No proposed structure shall impair creek flow or cause lateral back up of water.
- (d) Pesticide and Fertilizer Management Plan **(Amended Sept. 17, 1996)**
 - (1) A pesticide and fertilizer management plan shall be submitted providing information regarding proper use, storage, and disposal of pesticides and fertilizers. The plan shall indicate likely pesticides and fertilizers to be used. The plan shall include two lists of pesticides and fertilizers: (1) those which, due to their chemical characteristics, potentially contribute significantly to water quality degradation; and (2) those which, due to the chemical characteristics, potentially would result in minimal water quality degradation.
 - (2) Landscaped areas should use limited amounts of fertilizer. Nitrogen within the fertilizer should be slow-release formulations: composted organic mulches, urea formaldehyde (UF), methylene urea, isobutylidene diurea (IBDU), and sulfur coated urea (Pitt, 1994). The mass of nitrogen applied to each area per year should not exceed the estimated nitrogen utilization rate of the vegetation. The following table provides a guide of typical nitrogen utilization rates for the Texas Hill Country:

<u>VEGETATION</u>	<u>NITROGEN UPTAKE</u> (pounds/acre/yr.	<u>REFERENCE</u>
Lawn Grass	130	Leps & Duble (no date)
Ryegrass	200-280	U.S. EPA (1981)
Coastal Bermuda Grass	400-675	U.S. EPA (1981)

- (e) Water Conservation Plan **(Amended Sept. 17, 1996)**

As part of the requirements for development, the applicant shall submit a Water Conservation Plan. The water conservation plan shall include as a minimum the following:

- (1) Identify of all water users;
- (2) Monitoring program to identify and repair water pipe leaks;
- (3) Installation of water-efficient plumbing fixtures; and
- (4) Description of a water-efficient landscape program, including options for landscape irrigation using rooftop runoff (rainwater harvesting).

Sec. 4.406 Standards for Vegetative Buffer Water Quality Controls (*Amended entire section Sept. 17, 1996*)

The following standards shall govern the design and implementation of vegetative buffer water quality controls, except as otherwise provided with regard to vegetative buffer water quality controls permitted pursuant to subsections (f) and (g) of Section 4.103. (*Amended 9-8-09*)

- (a) Minimum soil depths in the vegetative filter zone must be 18 inches or more. Soil depths shall be determined from hand or mechanical borings at representative locations at a density of at least one per 2 acres in the vegetative filter zone.
- (b) The vegetative filter will be constructed along the entire length of the contributing drainage area and shall receive runoff as sheet flow.
- (c) Flows from impervious surfaces must be delivered to the vegetative filter in an even, diffuse, shallow, overland flow manner. If necessary, a flow spreader meeting the requirements of the City of Austin Environmental Criteria Manual will be provided to distribute flow evenly across the top of the strip.
- (d) The runoff flow path across the vegetative filter shall be as long as possible, within topographic site constraints.
- (e) Native, existing vegetation in the vegetative filter shall be preserved to the greatest extent possible.
- (f) Existing vegetation shall be supplemented with grasses and ground cover as necessary to prevent erosion. Juniper trees must be trimmed and native grasses established beneath. Supplemental vegetation should be selected to be drought resistant, sturdy under short periods of inundation and shall require minimum fertilization for vigorous growth.
- (g) Fertilizer application to the vegetative filter at a rate greater than 75 pounds/acre per year must be preceded by an assessment of the nitrogen requirements of the vegetation and the measurement of nitrogen concentration in the soil.
- (h) The maximum slope of the vegetative filter must be 5% or less. Alternatively, a demonstration, sealed by a registered professional engineer, may be presented to show that flow velocities through the filter during the 10-year design storm will not be erosive.
- (i) Flow velocities through the vegetative filter shall not exceed 1 ft/second for the one-year design storm.

- (j) The average annual hydraulic load to the vegetative filter shall not exceed 20 inches per year.
- (k) Vegetative filters shall not be used for construction-phase erosion and sedimentation controls.
- (l) Vegetative filter strips for commercial or multifamily development will be operated and maintained either by the City of Sunset Valley or by the owner. If maintained by the owner, an annual operating permit to ensure the continued effectiveness of the flow spreader and that there is no erosion or gullying, and the presence of adequate vegetation to prevent erosion shall be required.
- (m) Vegetative filter strips for residential development will be maintained by the City of Sunset Valley.
- (n) The vegetative filter strips shall be inspected visually by the owner at least once each year and following every rainfall event of 8 inches or more within 24 hours. Inspection will include, at a minimum:
 - (1) Examination of vegetation for indications of distress.
 - (2) Examination of the soil and topography for indications of erosion or flow channeling.
 - (3) Examination of the entire length of all diversion berms and level spreaders.
- (o) Any changes in vegetation which reduce the effectiveness of the vegetative buffers strip will be repaired. If repeated channeling and erosion of the vegetative filter occur, it may be necessary to supplement or replace the filter with structural controls.

Sec. 4.407 *Violations (Amended Sept. 17, 1996)*

- (a) It shall be unlawful for any person to operate a water quality control facility subject to the requirements of this Division without first obtaining an annual operating permit.
- (b) Any person to whom a water quality control facility operating permit has been granted commits a violation of this Division if such person fails to observe and perform any term or condition stated in the permit, approved maintenance plan, or in any other document submitted in order to secure the permit.
- (c) The owner of any land or water quality control facility where anything in violation of this Division is constructed or operated, and any architect, builder, contractor, agent, laboratory, independent inspector, or any other person employed in connection therewith commits a violation of this Division if he or she knowingly aids, assists, or contributes to the commission of such violation.

Division 4.5: Drainage

Sec. 4.500 Adopting Drainage Criteria Manual

- (a) The Drainage Criteria Manual, First Edition, January, 1977, and amendments thereto, as published by the City of Austin, Engineering Department is hereby designated and adopted as the drainage criteria and policy of and for the City of Sunset Valley and within all areas subject to the City of Sunset Valley's Extra-Territorial Jurisdiction.

- (b) The following listed portions of the Drainage Criteria Manual are deleted and shall not become a part of the drainage criteria and policy of the City of Sunset Valley: Paragraph IX, p. 3 is deleted, and the Appendix shall be and hereby is deleted.
- (c) Whenever the standards and specifications of this Chapter conflict with another provision of the Land Development Code or city ordinance, the most stringent or restrictive provision shall govern.

Sec. 4.501 General

- (a) The interpretation of the requirements set forth in this Chapter shall be made by the City's engineer or designate, unless specified otherwise by the Council. The developer shall be responsible for the conveyance of all storm drainage flowing through or abutting the subject property, including drainage directed to the property by prior development as well as that naturally flowing by reason of topography.
- (b) Where new drainage improvements are required along the boundary of a site, the owner proposing development shall be responsible for designing and constructing all the required improvements at or before the time of development, including the dedication of all necessary rights-of-way or easements necessary to accommodate the improvements. Where the developer proposes to develop only a portion of the property, only the drainage improvements for the portion being developed shall be required to be installed, except as drainage improvements outside the portion being developed are deemed necessary by the city for proper drainage of the portion being developed.

Sec. 4.502 Overland Flow

- (a) Drainage patterns should be designed to prevent erosion, maintain infiltration and recharge of local seeps and springs, and attenuate the harm of contaminants collected and transported by stormwater. Overland sheet flow and natural drainage features and patterns shall be maintained to the greatest extent reasonably possible and the dispersion of run-off back to sheet flow shall be the primary objective of drainage design where possible, depending on volumes and velocities of run-off for the development, as opposed to concentrating flows in storm sewers and drainage ditches.
- (b) Construction of enclosed storm sewers and impervious channel linings are permitted only when the City on the basis of competent engineering evidence, concludes that such storm sewers or impervious linings are protective of water quality.
- (c) If storm sewers are deemed necessary as specified above, the applicant shall design the drainage system to mitigate its harmful impact on water quality by using structural devices or other methods to prevent erosion and dissipate discharges from outlets wherever practicable, and by loading discharges to maximize overland flow through buffer zones or grass line swales.

Sec. 4.503 Drainage Facilities

- (a) The responsibility of the developer shall extend to the provision of adequate off-site drainage facilities and improvements to accommodate the full effects of the development of said property.
- (b) When the developer certifies by affidavit that a bona fide attempt to acquire property rights to meet off-site drainage requirements was not successful, the City may assist at its discretion in the acquisition of necessary property rights to provide for the construction of off-site drainage improvements. In such cases, the developer shall make adequate guarantees that he will stand the full cost of acquiring said property rights and constructing the off-site improvements and facilities.

Sec. 4.504 Design Criteria

- (a) Unless otherwise specified herein, the design of all storm drainage facilities shall at least meet the requirements of the City of Austin Drainage Criteria Manual. **(Amended 03/03/98)**

- (b) Computation of runoff shall be based on a fully developed drainage area, or watershed, in accordance with the minimum provisions of the City of Austin drainage criteria. The drainage system shall be designed to convey the theoretical two (2), ten (10) and twenty-five (25) year storm as predicted in the Drainage Criteria Manual, as amended. The design shall further provide for system overflows from larger storms up to the intensity of the one-hundred (100) year storm without increasing the risk of flood damages to development.
- (1) Critical Environmental Features shall have a standard setback of 150 feet around said feature. An administrative variance may be granted by the City engineer for a 50 feet setback on the downstream side only of said feature. **(Amended Sept. 17, 1996)**
 - (2) The rate of runoff after construction shall not exceed the site's runoff rate prior to construction. Rate of runoff shall be computed on a two (2), ten (10) and twenty-five (25) year storm peak flow using the City of Austin Drainage Criteria Manual, as amended.
 - (3) Surface drainage channels shall be designed to reduce velocity, minimize potential erosion and to maximize the bottom width to flow depth ratio, in accordance with the following criteria:
 - (A) Channel cross-sections shall be trapezoidal in configuration.
 - (B) Side slopes of channels shall be no steeper than four (4) horizontal to one (1) vertical.
 - (C) For a six-month design storm assuming wet antecedent conditions, channel bottom flow depth shall not exceed four (4) inches and design flow velocity shall be two and one-half (2½) feet per second.
 - (D) All constructed and altered drainage channels shall be stabilized and vegetated immediately after final grading.
 - (E) The City Council may allow exceptions to the design flow velocities or depths in the following situations:
 - (i) On lands with greater than fifteen percent (15%) slope, or less than two percent (2%) slope; provided that the design flow velocity shall never be greater than three (3) feet per second or design depth greater than six (6) inches.
 - (ii) In limited transitional channel sections (such as culverts, culvert entries and exits, drop sections, sharp bends, and water quality control entries).

Sec. 4.505 Easements

Public drainage easements shall include all drainage at least to the limits of the twenty-five (25) year flood as indicated on the flood plain maps or as determined on the basis of the Drainage Criteria Manual, as amended. All drainage easements across private property shall contain the necessary language to permit the required unobstructed water flow, require maintenance of vegetation by the property owner(s), and permit the necessary access by City officials for inspection and repairs. The minimum drainage easement width shall be twenty-five (25) feet. All easements, twenty-five (25) and one hundred (100) year flood plain boundaries and water quality zones shall be clearly shown on drainage plans and the site plan.

Sec. 4.506 Roadway Drainage

- (a) As a general rule, drainage carried in roadside channels shall be minimized and off-roadway locations shall be used as the primary drainage network whenever practicable.
- (b) When roadside channels are required, they shall be contained within a dedicated right-of-way or right-of-way easement. Channel sideslopes shall be no steeper than four:one (4:1), except for curves and transitions where slope stabilization acceptable to the City's engineer may be allowed. Roadways shall be designed for fordable driveway approaches whenever practical. All driveways shall be designed such that drainage flow from a one hundred (100) year storm shall not exceed a depth of twelve (12) inches on any portion of the driveway. Should driveway culverts be required, the culvert design, capacity, and general location shall be shown on the construction plans. Minimum driveway culvert diameter shall be twelve (12) inches. In no case shall driveway approaches constitute a blockage of roadway drainage.

Sec. 4.507 Maintenance and Compliance

- (a) All drainage facilities located in the street rights-of-way shall be maintained by the appropriate jurisdiction. All drainage facilities located on private property shall be maintained by the property owner.
- (b) Duly authorized inspectors of the City shall have the right of entry on the land or premises where property owners are required to maintain drainage facilities or detention facilities, at reasonable times, for the purpose of inspection of the maintenance required. Where noncompliance is found, the City shall request in writing that the property owner comply. This notice shall describe the measures required to be taken. If, within three (3) months of the notice the maintenance required is not accomplished, the City shall either:
 - (1) Cause the necessary restoration to be accomplished and assess the property owner for the City's actual cost; or
 - (2) Bring an action for mandatory injunction to require the property owner to accomplish the necessary maintenance.
- (c) The required maintenance by private landowners and the power of the City shall be noted on the plat.

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