

## Chapter 26 FLOODPLAIN, STORMWATER, AND EROSION HAZARD MANAGEMENT\*

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\* **Editors Note:** Ord. No. 5777, § 1, adopted May 23, 1983, repealed ch. 26, pertaining to swimming pools, bath houses and bathing places, in its entirety. Former ch. 26 was derived from Ord. No. 3002, § 2, adopted June 26, 1967, as amended by Ord. No. 5722, §§ 1, 3, adopted Feb. 28, 1983. Ord. No. 5802, § 1, adopted July 5, 1983, specifically repealed Ord. No. 5722, §§ 1, 3, from which §§ 26-70 and 26-72 had been derived. For a complete sectional disposition, see the Code Comparative Table at the back of this volume.

Subsequently, Ord. No. 7407, § 5, adopted June 25, 1990, added a new ch. 26.

**Note:** Ord. No. 10209, § 1, adopted Oct. 18, 2005, amended the title of ch. 26 to read as herein set out. Prior to inclusion of said ordinance, ch. 26 was entitled, "Floodplain and Erosion Hazard Management."

**Cross References:** Spa/pool code, § 6-181 et seq.

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## **ARTICLE I. IN GENERAL**

### **DIVISION 1. FLOODPLAIN AND EROSION HAZARD AREA REGULATIONS**

#### **Sec. 26-1. Purpose.**

These floodplain and erosion hazard area regulations are intended to promote and protect the public health, peace, safety, comfort, convenience, and general welfare; to meet state and federal requirements, thereby allowing residents of the city to purchase flood insurance; receive disaster relief should the need

arise and obtain residential and commercial real estate loans; to manage uses of the floodplains, recognizing that the highest and best use of the regulatory floodplains in the city is for the maintenance of hydrologic and hydraulic processes, with consideration for aesthetics, natural open space, recreation areas and wildlife habitat; to minimize flood and erosion damage; to protect and preserve groundwater recharge; to minimize costs to the city; to encourage the most effective expenditures of public money for drainage projects; to accommodate anticipated runoff; to preserve the natural areas, streams, washes, arroyos, rivers, and drainage courses in their natural riverine condition whenever possible and that any land use proposal which utilizes this approach be considered superior to all others; to recognize that southwestern watercourses are unstable and that their physical characteristics may change; and to ensure that those who occupy the areas within a regulatory floodplain or erosion hazard area assume the responsibility for their actions.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-1.1. Authority.**

The mayor and council, pursuant to the powers and jurisdiction vested by A.R.S. title 9, chapter 4, article 6.1, section 9-462,01(A)(8), (9), and title 48, chapter 4, article 1, section 48-3610, et seq., and other applicable laws, statutes, orders and regulations of the city, do hereby exercise the power and authority to adopt floodplain and erosion hazard area regulations for the city. The mayor and council, within city limits, shall delineate, through this chapter for areas where development is ongoing or imminent or becomes imminent, the criteria for development within floodplains in a manner that is consistent with the criteria developed by the Director of the Arizona Department of Water Resources.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

### **Sec. 26-1.2. Applicability.**

These floodplain and erosion hazard area regulations shall be applicable and enforceable in all incorporated areas of the city for all developments located within the floodplains, as defined herein, including public lands and to erosion-prone areas (as described in section 26-11.1(b)) located within the corporate limits of the city.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-1.3. Basis for establishing areas of special flood hazard.**

The performance requirements as specified in this chapter are minimum standards and address general floodplain management requirements. Specific projects may warrant additional requirements. The mayor and council, acting as the floodplain board and the city engineer have the authority to establish standards and/or policies as necessary to carry out the provisions of this chapter.

The special flood hazard areas identified by the Federal Insurance Administration (FIA) in a scientific and engineering report entitled "The Flood Insurance Study for the City of Tucson, Arizona," (FIS) dated February 8, 1999, with an accompanying flood insurance rate maps (FIRM) and all subsequent amendments and/or revisions thereto are hereby adopted by reference and declared to be a part of this chapter. The flood insurance study (FIS) is on file at the floodplain section of the Engineering Division of the Department of Transportation. The FIS and FIRM are the minimum areas and standards of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are approved by the city engineer and FEMA. All river and basin management plans, or other land use plans approved by the mayor and council, are hereby incorporated into this chapter and made a part thereof by reference. Engineering drainage design standards, approved by the city engineer as revised on an ongoing basis to include the most current practices and methodologies, will be used in creating river and basin management plans.

The FIS and FIRM shall apply to all territory annexed into the city at the time of annexation. The floodplain administrator shall notify FEMA and ADWR of acquisition by means of annexation, incorporation or otherwise, of additional areas of jurisdiction.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

## **Sec. 26-2. Definitions.**

The following definitions shall apply to words and phrases used in this division:

*Arizona Department of Water Resources (ADWR)* is the state agency assigned with oversight of floodplain management/flood control as provided in Title 48, Chapter 21 of the Arizona Revised Statutes (A.R.S.).

*Balanced basin* means a drainage basin which contains floodwater channels, natural or manmade, and/or flood control structures that are adequate to contain existing runoff from the regulatory storm produced by the basin, but in which additional runoff cannot be safely contained by said channels or structures.

*Base flood or regulatory flood* means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

*Base flood elevation* means the calculated water-surface elevation of the base flood. For a special flood hazard area, the base flood elevation means the elevation shown on or calculated for the FIS or FIRM, including Zones A, AE, AO and AH, where the FIS or FIRM indicates the water surface elevation resulting from a base flood. Other elevations shall be determined by an engineering study.

*Basement* means any area of the building having its floor subgrade (below ground level) on all sides.

*Basin management plan* means a site-specific plan for a watershed or balanced or critical basin which has been prepared for and approved by the city engineer, and which provides a conceptual plan for orderly development of flood control measures within the basin.

*Breakaway wall* means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

*Building:* See "Structure."

*Critical basin* means a drainage basin which contains floodwater channels, natural or manmade, and/or flood control structures that cannot contain existing runoff produced by the regulatory flood within the basin, and which has a documented history of severe flooding hazards.

*Detention system* means a type of flood control system which delays the downstream progress of floodwaters in a controlled manner, generally through the combined use of a temporary storage area and a metered outlet device which causes a lengthening of the duration of flow and thereby reduces downstream flood peaks.

*Development* means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, landscaping, paving, excavation, drilling operations, or storage of equipment or materials.

*Drainage basin* means any watershed or stormwater catchment land area, above a point on a watercourse which traverses the basin and to which the waters drain and collect.

*Dry well* means a device that is used to dispose of floodwaters through a process of passive infiltration

of floodwaters into the vadose zone, below the ground surface.

*Dwelling unit* means a place of residence which may be located in a single- or multiple- dwelling building or a manufactured home.

*Encroachment* means the advancement or infringement of land uses, fill or structures into the floodplain that reduces the flow capacity of the channel and regulatory floodplain of a watercourse.

*Erosion* means the process, either rapid or gradual, of the wearing away of land masses by water flow forces.

*Erosion hazard area* means the land area adjoining a watercourse regulated by this chapter which is deemed by the city engineer to be subject to flood-related erosion losses.

*Exhibit 1.* See exhibit 1 at end of this section.

*Existing manufactured home park or subdivision* means a manufactured home park for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets) is completed on or before March 22, 1982.

*Expansion to an existing manufactured home park or subdivision* means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).

*FEMA* means the Federal Emergency Management Agency or designate successor agency that is responsible for the administration of the National Flood Insurance Program (NFIP) to provide flood insurance and to establish flood prone areas and development regulations.

*Flood or flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from the unusual and rapid accumulation of runoff of surface waters from any source when two (2) or more lots or two (2) or more acres become flooded.

*Flood hazard map(s) (FHM)* means an official map(s) of a community, issued by the city engineer, where the boundaries of the flood and/or related erosion hazard areas have been designated as zone A and/or erosion hazard zones, other than the official flood insurance rate maps.

*Flood insurance rate map(s) (FIRM)* means the official map(s) on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community. These maps, which are approved by the city engineer and adopted by the floodplain board, provide information regarding floodplains of the city.

*Flood insurance study (FIS)* means the official report provided by FIA that includes flood profiles, FIRM and the water surface elevation of the base flood as set forth in the FIS dated February 8, 1999, and as subsequently amended and/or revised in the manner approved by FEMA.

*Floodplain or flood-prone area* means any land area susceptible to being inundated by water from any source (see definition of "flood").

*Floodplain administrator* means the city engineer, or designee.

*Floodplain board* means the mayor and council.

*Floodplain and erosion hazard area regulations* means zoning ordinances, subdivision regulations, building codes, health regulations, housing codes, setback requirements, open space area regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control

ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood and erosion damage and reduction.

*Floodproofing* means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

*Floodplain use permit* means an official document which authorizes specific activity within a regulatory floodplain or erosion hazard area.

*Floodway or regulatory floodway* means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. See exhibit 1.

*Floodway fringe* means the land outside the floodway lying at or below the base flood elevation along a watercourse. See exhibit 1.

*Freeboard* means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size of flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

*Highest adjacent grade* means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

*Historic structure* means any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the department of the interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing in the National Register.
- (2) Certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district.
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior.
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either of the following:
  - a. By an approved state program as determined by the secretary of the interior.
  - b. Directly by the secretary of the interior in states without approved programs.

*Lowest floor* means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of section 26-5 of this chapter.

*Major wash or major watercourse* means any watercourse which drains a contributing drainage basin of less than thirty (30) square miles and generates a base flood peak discharge of twenty-five hundred (2,500) cubic feet per second (cfs), or greater. Examples of major washes include but are not necessarily limited to: Alamo Wash, Cholla Wash, at and downstream from Mission Road, Pima Wash, Rodeo Wash, Silvercroft Wash, Tucson Arroyo, and West Branch of the Santa Cruz River Washes.

*Manufactured home* means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" does not include a "recreational vehicle."

*Manufactured home park or manufactured home subdivision* means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

*Market value* is determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation that has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

*Mean sea level* means, for purposes of the National Flood Insurance Programs, the National Geodetic Vertical Datum (NGVD) of 1929, or other datum, to which base flood elevations shown on a community's flood insurance rate map are referenced.

*Minor watercourse or minor wash* means a watercourse which conveys or collects a 100-year (base flood) peak discharge of less than twenty-five hundred (2,500) cubic feet per second (cfs), but more than one hundred (100) cfs.

*New construction* means structures for which the "start of construction" commenced on or after the effective date of March 22, 1982, when floodplain management regulations were adopted by the city, and when the FIRM became effective, and includes any subsequent improvements to such structures.

*New manufactured home park or subdivision* means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of March 22, 1982, when floodplain management regulations were adopted by the city and the FIRM became effective.

*Obstruction* means any matter, including but not limited to a dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel rectification, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, or structure in, along, across or projecting into any channel, watercourse, stream, lake or regulatory flood hazard area which may impede, retard or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water, or that is placed where the flow of water might carry the same downstream to the damage of life or property.

*Person* means any individual or his agent, firm, partnership, association, corporation, or agent of the aforementioned groups, or the state, or any agency or political subdivision thereof.

*Reach* is a hydraulic engineering term to describe longitudinal segments of a watercourse.

*Reclamation plan* means a plan for sand and gravel operations which defined hydrological and hydraulic constraints; outlines methods of extraction, operation and site development; and provides for backfilling procedures and final site reclamation.

*Recreational vehicle* means a vehicle which is:

- (1) Built on a single chassis;

- (2) Four hundred (400) square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light-duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel or seasonal use.

*Regional watercourse* means a large watercourse, which may have intermittent flow, draining a contributing drainage basin of thirty (30) square miles or greater. Examples of regional watercourses include but are not necessarily limited to the Santa Cruz River, Rillito Creek, Pantano Wash, Tanque Verde Wash, and Canada Del Oro Wash.

*Regulatory flood:* See definition of "Base Flood."

*Regulatory flood elevation* means the elevation which is one (1) foot higher than the calculated water surface elevation of the base flood.

*Regulatory floodplain* means that portion of the natural floodplain that would be inundated by the base flood. It includes that area where drainage is or may be restricted by manmade structures or those areas which are subject to sheet flooding, or those areas mapped as being floodprone on existing recorded subdivision plats. Also see exhibit 1.

*Retention system* means a type of flood control facility which stores surface runoff and stops the downstream progress of surface water runoff or flood by employing methods of total containment. No flow is discharged directly into a downstream watercourse from a retention system or basin. The stored water may infiltrate into the subsurface ground layers.

*Setback* means the minimum horizontal distance between a structure and a watercourse. On each side of a watercourse, the setback is measured from the top edge of the highest channel bank or edge of the base flood water surface elevation, whichever is closer to the channel center line.

*Sheet flooding* means those areas which are subject to flooding with depths of one-half ( 1/2) foot or greater during the base flood where a clearly defined channel does not exist and the path of the flooding is often unpredictable and indeterminate.

*Special flood hazard area (SFHA)* means an area having special flood or flood-related erosion hazards, which is the land area inundated by the base flood. SFHA are shown on a FIRM as Zones A, AO, A1--30, AE, A99 or AH.

*Start of construction* includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, rehabilitation, addition, placement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling below existing ground surface; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations, or the erection of temporary forms. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

*Structure* means, for floodplain management purposes, a walled and/or roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. "Structure" for insurance coverage purposes, means a walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such

construction, alteration or repair unless such materials or supplies are within an enclosed building on the premises.

*Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a rolling 10-year period for which the cost or repairs at the time of each such flood event, on average, equals or exceeds twenty-five (25) percent of market value of the structure before the damage occurred.

*Substantial improvement* means any reconstruction, repair, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage" regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

(2) Any alteration of an "historic structure."

*Variance* means a grant of relief by the floodplain board from the requirements of this chapter which permits development in a manner that would otherwise be prohibited by the terms of this chapter.

*Violation* means the failure of a structure or other development to fully comply with this chapter.

*Watercourse master plan* means a comprehensive plan adopted by the board that provides uniform, but separate, rules for watercourses where a higher level of protection is warranted for public safety or to preserve integrity of the watercourse, as provided by ARS Section 48-3609.01. These include the river and/or basin management plans.

*Watershed* means "drainage basin." See definition of "drainage basin."

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

**Cross References:** Definitions and rules of construction, § 1-2.

### **Sec. 26-3. Floodplain boundaries, elevations.**

(a) *Boundaries:* The boundaries of the regulatory floodplains and floodways shall be shown on maps maintained by the city engineer using the best available hydrologic and hydraulic data, such as the flood hazard maps (FHM) and flood insurance rate maps (FIRM) provided by the Federal Emergency Management Agency (FEMA). The approximate boundaries of the regulatory floodplains shall also be shown on the city's building zone maps, which serve as the city's flood hazard maps.

For those watercourses where regulatory floodplains are not delineated on the maps maintained by the city engineer, the regulatory floodplains shall be determined by engineering studies. An engineering study shall mean the requirements of these regulations and shall include hydrologic and hydraulic analyses prepared by a state registered professional civil engineer and approved by the city engineer.

(b) *Elevations:* Where elevations of the base flood have been determined for the regulatory floodplain and floodway delineated on maps maintained by the city engineer (such as the elevations shown on the FEMA flood insurance rate maps), those elevations are hereby made a part of these regulations.

For those watercourses which are delineated on the FIRM as unnumbered A zones or where the base

flood elevations have not been previously determined, the base flood elevations shall be determined by an engineering study. The study shall meet the requirements of these regulations and shall include hydrologic and hydraulic analyses prepared by a state-registered professional civil engineer and approved by the city engineer. The study shall further demonstrate that the determination of the base flood elevation and study methodology comply with any applicable criteria established by ADWR and FEMA.

(c) *Interpretation of boundaries:* Where uncertainty exists, the boundary of any regulatory floodplain or floodway shall be determined by the city engineer. The base flood elevation for the point in question shall be the governing factor in locating the floodplain area boundary on the land. A person contesting a boundary location shall be given a reasonable opportunity to substantiate an alternative location based on technical evidence.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

### **Sec. 26-3.1. Floodplain boundary and flood elevation revisions.**

(a) Whenever additional data becomes available and warrants floodplain elevation or boundary revisions, such revisions may be made by the city engineer at the request of property owners or developers upon submission of the necessary engineering calculations and maps prepared by a state-registered professional civil engineer in conformance with the requirements of this chapter, the Arizona Department of Water Resources (ADWR), and the Federal Emergency Management Agency (FEMA). The city will submit the required flood insurance study information to FEMA within 15 days.

(b) Whenever a watercourse is to be altered or relocated:

(1) Require that the flood-carrying capacity of the altered or relocated portion of the watercourse is maintained.

(2) Where appropriate, obtain a permit from the corps of engineers in accordance with section 404 of the Clean Water Act.

(c) The city engineer or his designated representative shall have the authority and responsibility to revise the regulatory floodplain and floodway boundaries and base flood elevations on the flood hazard maps (FHM) for the watercourses that are not included on the FIRM.

(1) The city engineer shall notify, within thirty (30) days after his ruling, the owner of each property for which floodplain boundaries and/or base flood elevations have been revised and those owners of adjoining property immediately upstream and downstream. Such specific notice shall not be required when such revisions have been made following a noticed public hearing on the property involved. In addition, the city engineer shall notify ADWR and FEMA.

(d) Within one hundred twenty (120) days after completion of construction of any flood control protective works, the revised regulatory floodplain and/or floodway and the revised base flood elevations in the areas affected by such work shall be redefined.

(e) An appeal may be taken to the floodplain board by any person aggrieved by such revisions in accordance with section 26-11.3 of this chapter.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-4. Statutory exemptions.**

As specified in A.R.S. sections 48-3609 and 48-3613, these regulations shall not:

(1) Affect or apply to facilities constructed or installed pursuant to a certificate of environmental

compatibility issued under the authority of A.R.S. title 40, chapter 2, article 6.2.

(2) Affect existing legal uses of property or the right to continuation of such legal use. However, if a nonconforming use of land, building, or structure is discontinued for twelve (12) months or destroyed to the extent of fifty (50) percent of its value, as determined by a competent appraiser, any further use shall comply with this article and these regulations.

(3) Affect reasonable repair or alteration of property for purposes for which the property was legally used on August 3, 1984, or the date on which any regulations affecting such property took effect; except that any alteration, addition or repair to a nonconforming building or structure which would result in increasing its flood damage potential by fifty (50) percent or more shall be either floodproofed (nonresidential structures only) or elevated to or above the regulatory flood elevation. All floodproofing (nonresidential structures only) shall be certified by a state-registered professional civil engineer. A record of such floodproofing shall be maintained on file with the city, which includes a certificate of floor elevation. See section 26-11.2(h).

(4) Affect the construction of streams, waterways, lakes and other auxiliary facilities in conjunction with development of public parks and recreation facilities by a public agency or political subdivision. Any such alteration must maintain the carrying capacity of the watercourse.

(5) Prohibit the construction of bridges, culverts, dikes and other structures necessary for the construction of public highways, roads, and streets intersecting or crossing a watercourse.

(6) Prohibit the construction of storage dams for watering livestock or wildlife, structures on banks of a creek, stream, river, wash, arroyo, or other watercourse to prevent erosion of or damage to adjoining land or dams for the conservation of floodwaters permitted by A.R.S. title 45, chapter 6, section 45-1201 et seq., and chapter 10, section 45-1701 et seq.

(7) Prohibit construction of tailing dams and waste disposal areas for use in connection with mining and metallurgical operations. This does not exempt those sand and gravel operations which will divert, retard or obstruct the flow of waters in any watercourse from complying with and acquiring authorization from the city engineer pursuant to regulations adopted by the floodplain board under this chapter.

(8) Prohibit the construction and erection of poles, towers, foundations, guy wires, and other facilities related to power transmission as constructed by any utility whether a public service corporation or a political subdivision.

(9) Prohibit any flood control district, county, city, town or other political subdivision to exercise powers granted to it under A.R.S. section 48-3601 et seq.

These exemptions do not preclude any person from liability if that person's actions increase flood hazards to any other person or property. Before any construction authorized by this section may begin, plans for such construction must be submitted to the city engineer for review and comment, and/or issuance of a floodplain use permit. A drainage statement or report also may be required.

(Ord. No. 7407, § 5, 6-25-90)

#### **Sec. 26-4.1. Nonconforming development.**

(a) *Improvements to, or Reconstruction of, Existing Nonconforming Development:*

(1) Any structure which is substantially improved at a cost equal to or exceeding fifty (50) percent of the full cash value of the structure as shown on the latest assessment rolls of the county assessor either (a) before the improvement or repair is started, or (b) if the structure has been damaged and is being restored, before the damage occurred, shall conform to these regulations. At the time of improving or reconstructing the structure or development, floodproofing (nonresidential structures only) may be considered as one of the

means of bringing it in compliance with this chapter.

For the purpose of determining the value of any such construction, repair or alteration, the normal retail value of the materials and the reasonable value of labor performed shall be used.

(2) For the purpose of this chapter, "substantial improvement" is also considered to occur, but is not limited to, when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

(3) No person shall repair or alter property in any manner so as to avoid the provisions of this section.

(b) *Discontinuance of Nonconforming Development:* In the event that the use of a nonconforming development is discontinued for a period of twelve (12) consecutive months, any further use thereof shall be in conformity with the provisions of these regulations.

(c) *Condominium Conversions:* These regulations shall not apply to an existing legally constructed building which is subdivided for the purpose of conversion to condominium ownership as long as "substantial improvement" guidelines stated in subsections (a)1--3 of this section are met.

(Ord. No. 7407, § 5, 6-25-90)

## **Sec. 26-5. Floodplain and erosion hazard area development.**

Areas designated as floodways have a high potential for flooding. Land in the floodway should be set aside for the conveyance of floodwaters as a first priority. Floodways are also areas of major groundwater recharge, a characteristic which should be preserved and enhanced where possible. Floodways are areas of land that belong to the watercourse, while floodway fringe areas can be shared by people and the watercourse, provided the arrangement does not result in damage to either the people or the watercourse.

The requirements outlined in sections 26-5.1 and 26-5.2 below also apply to all land areas designated as AO zones on city FIRM.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-5.1. Floodway development.**

Development in the floodway shall:

(1) Conform to adopted city land use plans for the design of public and private development in the floodplain.

(2) Not result in damage to public facilities as a result of erosion or flooding events.

(3) Not generate adverse impacts (including but not limited to erosion) upstream or downstream.

(4) Not unnecessarily alter riparian habitats of watercourses and adjacent bank areas.

(5) Not increase the base flood elevations.

(6) Not result in higher floodwater velocities which significantly increase the potential for flood or erosion damage.

(7) Not significantly increase channel or bank erosion.

- (8) Not decrease groundwater recharge.
- (9) Not contain a waste disposal system wholly or partially.
- (10) Not result in the placement of any structure or material that may divert, retard or obstruct the flow of floodwaters.
- (11) Not result in creating a danger or hazard to life or property.
- (12) Not utilize structures except hydraulic structures and those structures exempted under section 26-4(4)--(8), which are designed and constructed to protect life or property from dangers or hazards of floodwaters.
- (13) Not contribute to debris accumulation upstream and/or downstream.
- (14) Not create a water pollution problem in the floodway due to soluble, insoluble, or solid materials, at the time of flooding.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-5.2. Floodway fringe development.**

No development, storage of materials or equipment, or other uses shall be permitted which, acting alone or in combination with existing or future uses, create a danger or hazard to life or property. Development in the floodway fringe shall:

- (1) Conform to adopted city land use plans for the design of public and private development in the floodplain.
- (2) Not result in damage to public facilities as a result of erosion or flooding events.
- (3) Not generate adverse impacts, including but not limited to erosion, upstream or downstream.
- (4) Not unnecessarily alter riparian habitats of watercourse and adjacent bank areas.
- (5) Not increase the base flood elevation more than one-tenth of a foot.
- (6) Not result in higher floodwater velocities which significantly increase the potential for flood or erosion damage.
- (7) Not significantly increase channel or bank erosion.
- (8) Use, where appropriate, native and/or adaptive landscaping to enhance the open space character of the floodway fringe.
- (9) Place the first (including basement) floor one (1) foot above the base flood elevation. Following the pouring of the first slab or finish floor installation and prior to any framing, the applicant shall submit to the city engineer certification by state-registered land surveyor or a state-registered professional civil engineer that the elevation of the lowest floor is in compliance with that approved by the city engineer's office.
- (10) Anchor all structures, material or equipment firmly to prevent their flotation.
- (11) Place all service facilities such as electrical and heating equipment at or above the regulatory flood elevation.

(12) Be constructed so as to protect placed fill from erosion which could be caused by waters, or otherwise. Such fill shall be permitted only when demonstrated by the owner/developer that it will have some beneficial purpose, as determined by the city engineer, and the amount of proposed fill is not in excess of what is necessary to achieve that purpose. The fill shall be protected from erosion which could be accomplished by placing riprap, vegetative cover, bulk heading, or any other city engineer approved methods.

(13) Prohibit storage and/or processing of materials that are buoyant, flammable, explosive or that could be injurious to human, animal or plant life at the time of flooding.

(14) Locate on-site sanitary waste disposal systems to avoid impairment to them or contamination from them during flooding.

(15) Locate water supply, water treatment and sewage collection and disposal systems to eliminate or minimize infiltration of floodwaters into these systems and discharge of materials from these systems into floodwaters.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

### **Sec. 26-5.3. Special flood hazard areas.**

In areas of special flood hazards, the minimum criteria for approval of any development shall require compliance with all applicable regulations adopted by these regulations, the ADWR and FEMA, whichever is more restrictive.

(Ord. No. 10311, § 1, 8-8-06)

### **Sec. 26-6. Extraction of sand, gravel and other earth products; permit required.**

A floodplain use permit shall be required for extraction of sand, gravel and other earth products within a floodway or floodplain (which includes the floodway fringe areas) or erosion hazard areas. An engineering study outlining effects on stream mechanics prepared by a state-registered professional civil engineer shall be required with an application for a floodplain use permit for major extraction operations, for operations in locations that appear to be hazardous because of their relative proximity to structures or banks of watercourses, and for any other operations considered by the city engineer to be potentially hazardous. The operations plan and any engineering study required shall meet the approval of the city engineer. For other operations, a study may be required, at the discretion of the city engineer, depending upon the nature of the proposed operation.

The engineering study is for the purpose of evaluating the possible flood- and erosion- related hazards and must include considerations of effects of the excavation on water velocities, direction of flows, volume of flows, channel geometry (shape and size), type of channel banks, depth of flow, and other items that may be pertinent to stream mechanics, which includes an analysis indicating a balanced sediment flow system or channel aggradation, and resultant effects on structures (including but not limited to roads, bridges, culverts and utilities), banks of watercourses, adjoining lands, and groundwater recharge for the respective alluvial watercourse.

Floodplain use permits for sand and gravel mining operations shall be issued for a time limit of one (1) year only. All such permits are subject to review by the city engineer prior to issuance. No mining operation shall be commenced without an approved permit.

In granting the permit, the city engineer may impose restrictions/conditions regarding the location and boundaries of the area where excavations/stockpiles are allowed, the quantity of excavations/stockpiles, and time period and methods of operation.

After July 25, 1990, the effective date of this section, any extraction of sand and gravel or related materials in the floodway, floodway fringe or erosion hazard areas shall be allowed only if a reclamation plan is also provided for the extraction operation. The reclamation plan shall show that all adverse effects of extraction are mitigated. The plan shall also contain a timetable and financial assurances for accomplishing reclamation.

The city engineer may require bonds or other financial assurances appropriate for the sand and gravel extraction operation.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-6.1. Stockpiling.**

(a) There shall be no stockpiling within the floodway of materials or tailings that may obstruct, divert or retard the flow of floodwaters, except as may be approved by the city engineer pursuant to an application for a floodplain use permit.

(b) The storage or processing of materials that are in time of flooding buoyant, flammable, explosive, or that could be injurious to human, animal or plant life is prohibited. Storage of other materials or equipment may be allowed if it is not subject to major damage by floods, and is firmly anchored to prevent flotation, or is readily removable from the area within the very short time available after a flood warning.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-6.2. Standards for construction of utility systems.**

All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Waste disposal systems shall not be installed wholly or partially in a floodway.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-7. Erosion hazard areas and setbacks from watercourses.**

The banks of watercourses constitute an erosion hazard zone which is subject to channel widening and/or meandering. Setback distances are best determined by a detailed engineering study performed by a state-registered professional civil engineer. Guidelines for such studies and for determining setbacks are found in the *Standards Manual for Drainage Design and Floodplain Management in Tucson, Arizona (Standards Manual)*.

Setbacks from unstabilized banks may be determined by use of methodology found in the *Standards Manual*.

Reduced setbacks may be considered at the discretion of the city engineer only upon submitting to the city a detailed engineering study performed by a state-registered professional civil engineer for review and approval.

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-7.1. Setbacks on regional watercourses.**

If a detailed engineering study is not performed, the minimum setback to structures shall be as indicated in table I or from the appropriate formulas from the *Standards Manual* unless the banks are stabilized. When banks are stabilized to the level of the base flood (plus an appropriate freeboard) the setback to structures shall be fifty (50) feet.

*Table I*

<i>Watercourse</i>	<i>Minimum Setback in Straight Section (Feet)</i>	<i>Minimum setback in Curved Section (Feet)</i>
Pantano Wash	350	870
Rillito Creek	360	895
Santa Cruz River	490	1,220

Setbacks for other regional watercourses may be determined from guidelines in the *Standards Manual*.

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-7.2. Setbacks on all other watercourses.**

When the banks are stabilized to the level of the base flood (plus an appropriate freeboard) the setback to structures shall be a minimum of twenty (20) feet for access and maintenance. When access and maintenance easements are not required by the city engineer, the minimum setback may be reduced to ten (10) feet at the discretion of the city engineer. When banks are not stabilized, the setback to structures shall be as calculated from guidelines in the *Standards Manual*.

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-8. Subdivision and development project requirements.**

The requirements outlined in subsections (a) through (i) below apply to all improved or unimproved land areas or lands divided for the purpose of financing, sale or lease, whether immediate or future, the boundaries of which have been fixed by or proposed to be fixed by a recorded plat and which are located in flood hazard areas. These regulations shall also apply in instances where development plans are required by chapter 23, Tucson Zoning Code of the Tucson Code.

(a) *Suitability of Land:*

(1) Land physically unsuitable for subdivision or development because of severe flooding, drainage or erosion problems endangering life or property shall not be subdivided or developed unless it can be developed in such a way so as to alleviate those problems.

(2) Additionally, if a subdivision proposal or other proposed new development is in a floodprone area, any such proposals shall be reviewed, designed and constructed to assure that:

a. All such proposals are consistent with the need to minimize flood and erosion damage within the floodprone area;

b. All public utilities and facilities such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood and erosion damage;

- c. Adequate drainage is provided to reduce exposure to flood and erosion hazards.

(3) When planning and designing developments adjacent to, surrounding or affected by watercourses, the owner/developer should conform to policies set forth in the adopted general plan of the city, existing basin management plans, and this chapter. In those areas where basin management plans have not yet been formulated, the first consideration in approaching alternative drainage design concepts shall be to maintain the natural configuration to reduce exposure to flood and erosion hazards as well as promote groundwater recharge. Where natural washes cannot be maintained, a mitigation plan shall be established with emphasis being placed on earthen or naturally appearing channels with landscaping and texture/color added to bank protection materials. The design of earthen channels will be encouraged in order to allow for a more permeable surface which permits reintroduction of the water into the groundwater system, allowing for the reintroduction of native plant species which promotes a natural, partially soil-stabilized system.

- (b) *Delineation of Areas Subject to Flooding on Plats and Development Plans:*

(1) All tentative plats and development plans submitted shall show the location, by survey or photographic methods, of streams, watercourses, canals, irrigation laterals, private ditches, culverts, lakes and other water features, including those areas subject to flooding and/or erosion. The location shall also include the direction and magnitude of any flow, water surface elevations, and the limits of inundation from the base flood.

(2) All tentative plats and development projects in floodprone areas shall be accompanied by conceptual grading plans and conceptual drainage improvement plans included in a drainage statement or a drainage report prepared by a state-registered professional civil engineer, for approval by the city engineer, unless exempted by the city engineer. These reports or statements should include the following:

- a. The methods for mitigation of increased urban peak and/or volumetric flood-water runoff or discharge created by the development on-site and to upstream and downstream properties, up to a reasonable location as determined by the approved hydrologic and hydraulic study.

- b. The demonstration that the improvements are compatible with the existing upstream and downstream drainage conditions and that any proposed grading and/or grade change will not have an adverse impact on adjacent property.

- c. The methods for adequate erosion and sediment control, as approved by the city engineer.

- d. The proposed floodplain management methods for floodproofing (existing nonresidential structure only) drainage control, detention, retention, and/or delineating and setting aside floodprone areas which result in mitigating a flood or erosion hazard on the proposed finished pads (elevations determined) and drainage slopes constructed to protect building foundations from runoff waters.

(3) All tentative plats and development plans in floodprone areas shall show proposed grading and improvement for areas which are subject to flooding or erosion or which have poor drainage. Also included will be a description and location of all facilities proposed to be used to alleviate flooding, erosion or other drainage problems, both in the proposed subdivision or development, and downstream and upstream of any watercourse affected by the subdivision or development, whether they are within or outside the project boundaries.

Prior to commencement of any site improvements or grading, a grading plan shall be submitted to the city engineer for review and approval. Detailed improvement plans of storm drains or channel improvements shall also be submitted to the city engineer for review and approval.

(4) All final plats and development plans in floodprone areas shall show limits of the regulatory floodplains, erosion hazard boundaries, and the floodways and floodplains delineated in a surveyable manner and certified by a state-registered land surveyor.

(5) All tentative plats and development plans in floodprone areas of all developments, including manufactured home parks and subdivisions, submitted shall include base flood elevation data. Also included as a general note shall be the drainage area(s) and their respective base flood peak discharges.

(c) *Street Design Criteria:* Streets required for permanent access shall be designed and paved/constructed so that the flow depths over them do not exceed one (1) foot in depth except at drainage crossings during the base flood peak discharge. At least one (1) paved permanent access shall be provided to each lot over terrain which can be traversed by conventional motor vehicles in times of flooding. Where the streets are also used for flow of stormwater additional safety features may be required by the city engineer. Fill may be used for streets in areas subject to flooding provided such fill does not unduly increase flood heights. Developers may be required to provide profiles and elevation of streets in areas subject to flooding.

(d) *Building Sites:* Land which contains area within a floodplain shall not be platted for residential occupancy or building sites unless each lot contains a building site, either natural or manmade, which is not subject to flood-related erosion or to flooding by the base flood.

(1) In areas subject to flooding where no fill is proposed to be used, the building line shall be located no closer to the floodplain than the edge of the area subject to flooding by the base flood.

(2) In areas where fill is to be used to raise the elevation of the building site, the building line shall be located not less than twenty-five (25) feet landward from any edge of the fill, unless a study prepared by a state-registered professional civil engineer and approved by the city engineer shows that a lesser distance is acceptable. No fill shall be placed in any floodway; nor shall any fill be placed where it diverts, retards or obstructs the flow of water to such an extent that it creates a danger or hazard to life or property in the area.

(e) *Setbacks From Channels:* Setbacks shall be established in accordance with the *Drainage Standards Manual* or city engineer approved studies prepared by a state-registered professional civil engineer. Also see section 26-7 of this chapter.

(f) *Rights-of-way for Drainage; Easement Dedication:* Whenever a subdivision plat or development plan contains a watercourse which is regulated by this chapter, all right-of-way associated with the watercourses shall be provided and designated "drainageway" or "drainage easement" as determined by the city engineer.

At the discretion of the city engineer, structural solutions to drainage problems will be required.

When structural solutions are necessary, preference shall be given to landscaped natural appearing channels. While improvements to watercourses should be responsive to the environment, existing conditions may prevent or inhibit the desired approach. Examples of such existing conditions include insufficient right-of-way, insufficient runoff carrying capacity in the channel, large erosion potential, existing residences or businesses exposed to flooding during runoff events, and inadequate street conveyance capacity.

The additional land area required for the purpose of widening, deepening, aligning, improving, stabilizing, constructing and allowing for natural meanders so the watercourse will safely convey the base flood peak discharge shall also be included in the drainageway or drainage easement.

(1) If the watercourse is an improved regional watercourse, the drainageway shall include the channel, the channel improvements, and a fifty-foot-wide area measured outward from the front face of the top of the bank protection, for the city or for county flood control district uses.

(2) If the watercourse is an improved major or minor watercourse, the drainageway or the easement shall include the channel, the channel improvements, and necessary maintenance access.

(3) If the watercourse is to remain natural, the drainageway shall contain the boundaries of the regulatory floodplain and necessary maintenance access.

(4) Along regional watercourses and major watercourses where the peak discharge during the base flood is ten thousand (10,000) cubic feet per second or greater, the drainageway shall be dedicated in fee simple to the city.

(5) Along other watercourses, the city engineer shall determine whether it is necessary for the city to have control of the drainageway. If the city engineer determines that public control is necessary, the owner shall dedicate the drainageway in a fee simple or grant an easement.

(g) *Detention/Retention Systems:* (See section 26-10 of this chapter.)

(h) *Utilities:* All public and private utilities are to be constructed so as to minimize or eliminate flood damage and shall comply with the provisions of section 26-6.2.

(i) *Arizona Revised Statutes (A.R.S.) Section 48-3610 Compliance:* The city engineer upon receipt of an application for any development in a floodplain shall advise the county flood control district ("district") in writing and provide a copy of the application and any development plan, tentative plat, or a floodplain use permit application within one (1) mile of the corporate limits of the city. The district shall also provide similar development applications to the city which are located within one (1) mile outside of the corporate limits of the city. Written notice and a copy of the development plan and/or tentative plat shall be sent to the district no later than three (3) working days after the receipt by the city engineer.

(j) *Construction Conformance:* All construction including the detention/retention systems (see section 26-10) shall conform to the city engineer approved plans and specifications. Any deviation shall occur only upon prior approval by the city engineer.

(Ord. No. 7407, § 5, 6-25-90)

## **Sec. 26-9. Standards for manufactured homes and manufactured home parks and subdivisions.**

All new and replacement manufactured homes, additions to existing manufactured homes or additions to existing manufactured home parks or subdivisions, and recreational vehicles which are left on a site for longer than one hundred eighty (180) days or are not licensed and ready for highway use shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse or lateral movement. Methods of anchoring may include but are not to be limited to use of over-the-top or frame ties to ground anchors. The provisions of this paragraph and subsection (a)(1) do not apply to recreational vehicles which are on a site for fewer than one hundred eighty (180) days and which are fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system and is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

(a) *General Provisions:*

(1) All newly placed, repaired or replacement manufactured homes, additions to existing manufactured homes and recreational vehicles, where applicable, shall be placed and elevated so that the bottom of the structural frame or the lowest point of any attached appliances, whichever is lower, is at or above the regulatory flood elevation.

(2) A manufactured home placed in an existing manufactured home park which has incurred substantial damage by a flood may be repaired or may be replaced by another manufactured home. If the damage is less than fifty (50) percent of its value before the flood, it may be repaired or may be replaced by another manufactured home.

(3) All public and private utilities shall be located and constructed so as to minimize or eliminate flood damage.

(4) A plan for evacuating residents of all manufactured home parks or subdivisions located within

floodprone areas shall be developed and filed with and approved by the county department of emergency services, disaster planning and preparedness. A copy of the approved plan shall be submitted to the city engineer's office for record.

(b) *Certification:* Certification by a state-registered professional civil engineer that the installation of a manufactured home meets all of the requirements of this section is required. Such certification shall be provided by the person installing the manufactured home, the owner, the developer of the manufactured home park or subdivision, or an agency regulating manufactured home placement, whichever is deemed appropriate by the city engineer. Certification of elevations listed on the floodplain use permit shall be prepared by a state-registered land surveyor and provided to the city engineer prior to habitation of the structure.

(Ord. No. 7407, § 5, 6-25-90)

## **Sec. 26-10. Detention/retention systems.**

(a) When deemed necessary by the city engineer, flood detention/retention systems shall be employed in lieu of or in combination with structural flood control measures to reduce flooding potential or restrict it to a level no greater than pre-platting and/or pre-development conditions.

All proposed residential net densities of three (3) or more units per acre and all proposed commercial and industrial developments greater than one (1) acre in size shall provide some method of peak and volumetric runoff reduction. The amount of reduction is stipulated within the *Stormwater Detention/Retention Manual*, which was approved for use by the city engineer as development standard 10-01.0.

(b) Basins which have been identified by the city engineer as unsuitable for additional development because of the high probability of increased flooding, or flooding of existing improvements or properties not previously studied, may be developed further only upon the incorporation of adequate detention/retention systems as reviewed and approved by the city engineer. The following criteria shall be considered:

(1) If a drainage basin is determined to be a balanced basin, detention or retention systems shall be employed. These systems shall maintain the existing balance within the basin by limiting the flood peak discharges from the site to values no greater than pre-developed conditions.

(2) If a drainage basin is determined to be a critical basin where potential flood problems currently exist, detention or retention systems shall be employed. The purpose of such systems in a critical basin shall be to reduce the potential flood hazard through the detention or retention of storm runoff in fair and equitably apportioned increments.

(c) The design of a detention or retention system, as reviewed and approved by the city engineer, shall include consideration of the degree of existing development within the basin and the capacity of the downstream drainage facilities. The systems will be designed with strict conformance to the public's health, safety and welfare. The effects of recharging storm runoff and possible pollution of the groundwater shall be evaluated for all systems employing infiltration systems, such as dry wells, in order to prevent contamination of the groundwater aquifer.

(d) Structural flood control measures may be utilized in conjunction with or in place of a detention/retention system if it can be clearly demonstrated that such measures shall accomplish, with an equal or greater degree of success, the function of such system, which includes preservation of the water and sediment equilibrium in the affected watercourse and mitigation of the environmental impacts. Appropriate structural flood control measures, such as channelization to a logical conclusion downstream of the proposed development and/or improvements to existing off-site flood control systems within the affected drainage or stream reach, shall be completed in accordance with plans reviewed and approved by the city engineer.

(e) A fee may be utilized in place of a detention/retention system, at the request of affected persons, when it can be clearly demonstrated that detention at the site does not provide off-site flood relief

due to the parcel size, location within the drainage basin, or other factors. The fees collected will be used to construct public flood control improvements which will be designed to mitigate the potential damage of floodwaters associated with the property from which the fees are contributed. In balanced and critical basins, and where development is less than three (3) units to the acre, use of a fee system may be considered appropriate in lieu of a detention system in order to preserve the natural drainage patterns. The amount of the fee shall be proportional to the cost of the otherwise required detention/retention system.

(f) The city engineer shall prepare and retain for public inspection and use an official map designating critical and balanced basins within the city.

(g) All repairs and maintenance of detention/retention systems shall conform to the city engineer approved design drawings and specifications. Any deviation shall occur only if approved by the city engineer.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-11. Floodplain use permit requirements and regulations.**

(a) Except as otherwise provided in these regulations, it shall be unlawful for any person to establish, erect, alter or relocate a use or structure in the regulatory floodplain or an erosion-prone area as described in section 26-11.1(2) without first obtaining a floodplain use permit from the city engineer.

(b) It shall be unlawful for any person to perform any grading operation in or alteration of any watercourse in violation of this chapter. Without written authorization from the city engineer, any such act, including excavation of any kind, is a public nuisance per se and may be abated, prevented or restrained by action of the city.

(c) No license, permit or other similar approval for any development which would be in conflict with the provisions of this chapter shall be issued by any department, official or employee of the city; and any such license, permit or approval, if issued in conflict with the provisions of this chapter, shall be considered null and void.

(Ord. No. 7407, § 5, 6-25-90)

#### **Sec. 26-11.1. City engineer review of floodplain and erosion hazard area development.**

The city engineer shall review all of the following applications for compliance with these regulations:

(1) Applications for development within a regulatory floodplain and erosion hazard areas.

(2) Applications for development requiring building permits within an area five hundred (500) feet on either side of delineated floodway boundaries in floodplains having watersheds larger than thirty (30) square miles, or two hundred fifty (250) feet on either side of watercourses having watersheds between ten (10) and thirty (30) square miles, and one hundred (100) feet on either side of watercourses having watersheds less than ten (10) square miles shall be reviewed. If, within ten (10) working days, the city engineer determines that the location is subject to floor or erosion hazards, an application for a floodplain use permit pursuant to section 26-11.2 is required. Property owners may request a preliminary determination from the city engineer for property in such areas prior to any application for actual development.

(3) Applications for subdivision plat approval.

(Ord. No. 7407, § 5, 6-25-90)

## **Sec. 26-11.2. Floodplain use permit procedure.**

(a) *General:* Upon receiving an application for a floodplain use permit, the city engineer shall, within five (5) working days, review the application to ensure that the site is free from flooding, declare the application complete, or:

(1) Require the applicant to submit, where applicable, plans in triplicate drawn to scale, showing the nature, location, dimensions and elevation of the lot, existing or proposed structures, fill, storage of materials, floodproofing measures (existing nonresidential structures only), and the relationship of the above to the location of any watercourse channel, floodway, regulatory floodplain, erosion hazard area boundaries, and the regulatory flood elevation of the structures. All elevations or vertical distances must be referenced to an established datum or base elevation.

(2) Require the applicant to furnish as much of the following additional information as the city engineer deems necessary for the evaluation of effects of the proposed development upon flood flows and erosion:

a. A typical valley cross section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross sectional areas to be occupied by the proposed development, and high water information.

b. Plan (surface view) showing elevations or contours of the ground; structure, fill or storage elevations; size, location and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply lines, sanitary sewers and waste disposal facilities; photographs showing existing land uses and vegetation upstream and downstream; soil types; and other pertinent information.

c. Profile showing the slope of the bottom of the channel or flow line of the stream or watercourse.

d. Specifications for building construction and materials, filling, dredging, grading, channel improvement, storage of materials, water, and sewage facilities.

e. An engineering study prepared by a state-registered professional civil engineer outlining the effects the development will have on the flow of water through the area being developed and the surrounding areas. This study will be for the purpose of evaluating possible flood hazards and shall, where necessary, include consideration of the effects of the development on flood heights, water velocities, direction of flow, sedimentation and/or erosion, volume of flows, channel shape and size, type of channel banks and other items that may be pertinent, and the resultant effects on structures, land, banks, etc., for the adjacent regulatory floodplain and the surrounding area.

f. A soils investigation study prepared by a state-registered professional civil engineer, outlining the determination of the erosive properties of areas or lands to be graded or disturbed which may create sediment deposition or erosion in any watercourse or watershed regulated by this chapter.

(3) Require applicants to submit an additional copy of the development plan and/or subdivision plat, including the pertinent reports of the studies performed for forwarding to the county flood control district ("district"), if the proposed development in the floodplain is located within one (1) mile of the boundary between the city and the district's area of jurisdiction. The city shall also advise any city or town in writing and provide a copy of any development plan of any major development proposed within a regulatory floodplain, floodway or erosion hazard area which could affect regulatory floodplains, floodways, erosion hazard areas or watercourses within the district's area of jurisdiction. Written notice as required above and a copy of the plan of development shall be sent to any adjacent jurisdiction no later than three (3) working days after having been received by the city.

(4) Require the applicant to obtain all necessary permits from those governmental agencies from which approval is required by federal or state law, including section 404 of the Federal Water Pollution Control Act Amendment of 1972, 33 U.S.C. 1334.

(b) *Conditions:* Any floodplain use permit may be subject to conditions or restrictions designed to reduce or mitigate the potential damage or hazard to life or property resulting from development within the regulatory floodplain, floodway or erosion hazard areas.

Any grading or alteration (including excavation) of any watercourse regulated by this chapter shall be controlled to minimize the loss of soil through erosion from rainfall or stormwater flowage. Methods to control erosion and sedimentation must be demonstrated to the satisfaction of the city engineer prior to the granting of a floodplain use permit for any work in any floodplain. Both temporary and permanent measures for sediment and erosion control must be clearly delineated on plans or other written documents prior to receiving a floodplain use permit.

Examples of conditions that may be imposed include, but are not limited to, the following:

- (1) Modification of sanitary sewer, waste disposal, and water supply facilities.
- (2) Limitations on periods of use and hours of operation.
- (3) Imposition of operational controls, sureties related to temporary uses, and deed restrictions.
- (4) Requirements for construction of channel modifications, dikes, levees and other protective measures.
  - (5) All new construction and substantial improvements (including the placement of prefabricated buildings and manufactured homes) shall:
    - a. Be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure;
    - b. Be constructed with materials and utility equipment resistant to flood and erosion damage; and
    - c. Be constructed by methods and practices that minimize flood and erosion damage.
  - (6) Indemnification agreements whereby the applicant agrees to hold the city and its officials, employees and agents, harmless and defend them from any and all claims for damages now and in the future relating to the use of the property sought to be developed by reason of flooding, flowage, erosion or damage caused by water, whether surface, flood or rainfall.
  - (7) Floodproofing measures for existing nonresidential structures, which shall be designed to be consistent with the regulatory flood elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the base flood. The city engineer may require that the applicant submit a plan or document certified by a state-registered professional civil engineer that the floodproofing measures are consistent with the regulatory flood elevation and associated flood factors for the particular area. Examples of floodproofing measures may be obtained from the city engineer approved drainage design standards.

(c) *Revocation of Permit:* Any person who fails to comply with the terms of the floodplain use permit or has created situations that can be a danger to life and property as determined by the city engineer shall be subject to revocation of the floodplain use permit by the city engineer upon written notice by registered mail to the applicant citing the reasons for revocation. The person holding the floodplain use permit or any affected party may appeal the decision of the city engineer by requesting in writing a hearing before the floodplain board in accordance with section 26-12.

(d) *Removal of violation:* Upon written notice, the city engineer may cause any structure, encroachment or work constructed without a floodplain use permit, or which is in violation with the terms of a permit, to be removed immediately at the expense of the person who caused the structure, encroachment or work if the structure, encroachment or work will cause an immediate danger to life and property.

(e) *Recovery of costs:* The city shall be entitled to recover all costs, administrative, engineering and legal, as well as actual costs to remove or modify the structure, encroachment and/or any other work in violation of this chapter.

(f) *Factors upon which a decision of the city engineer shall be based:* In reviewing floodplain use permit applications, the city engineer shall consider, in addition to relevant factors specified in other sections of these regulations, any other provision of law relating to such development. In making such a determination, the city engineer may consider the following factors:

(1) The danger to life and property due to increased flood heights, velocities or altered direction of flow caused by the development.

(2) The danger that materials may be swept onto other lands or downstream to cause injury to others.

(3) The proposed water supply, sanitary sewer systems and waste disposal systems of any development and the ability of these systems to prevent disease, contamination and unsanitary conditions due to flooding and/or erosion.

(4) The susceptibility of the proposed development and/or its contents to flood and erosion damage and the effect of such damage on the individual owner.

(5) The availability of alternative locations for the proposed use on the same property which are not subject to flooding or erosion.

(6) The compatibility of the proposed use with existing regulatory floodplain uses and with floodplain management programs anticipated in the foreseeable future.

(7) The relationship of the proposed use to any comprehensive plan, basin management plan, neighborhood plan, and floodplain management program for the area.

(8) The safety of access to the property in times of flood for conventional and emergency vehicles.

(9) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site under both existing and proposed conditions.

(10) The enhancement and preservation of groundwater recharge and the potential pollution of the groundwater supply.

(11) Such other factors, including but not limited to cost to the city, which are relevant to the purposes of these regulations.

(12) Documentation that all necessary permits have been obtained from state and federal agencies.

(g) *Decision:* The city engineer shall, within fifteen (15) working days of the application's being declared complete, render a decision on the floodplain use permit. A floodplain use permit shall be denied if the proposed development constitutes a danger or hazard to life and/or property.

(h) *Certificate of flood elevation:* Prior to the issuance of final occupancy permits for development undertaken pursuant to a floodplain permit, the applicant shall submit, on a form provided by the city, certification that the elevation (in relation to mean sea level) of the lowest floors (including basement) of all new or substantially improved structures is at or above the regulatory flood elevation. The certificate shall also disclose the method used to determine the regulatory flood elevation and the required erosion hazard setback, if any. The certification shall be signed by a state-registered professional civil engineer or land surveyor. Following acceptance of a certificate by the city engineer, a copy shall also be maintained in the building safety division records of the development.

The city engineer shall maintain for public inspection and furnish upon request, for the determination of applicable flood insurance risk premium rates within all areas having special flood hazards identified on an FHM or FIRM, any certifications and information on the elevation (in relation to mean sea level) of the level of the lowest flood (including basement) of all new or substantially improved structures.

(i) *Fees:* The following fees are imposed on applications for floodplain use permits:

Flood status requests . . . . . \$ 15.00

Floodplain use permit . . . . . 50.00

Review of engineering studies, including review of first resubmittal . . . . . 150.00

Review of subsequent resubmittals . . . . . 300.00

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-11.3. Penalties, violations, unlawful acts, classifications.**

(a) *Civil infraction:* Except as provided in subsection (b) below, it is unlawful and is hereby declared a civil infraction for any person to:

- (1) Fail to obtain any floodplain use permit; or
- (2) Fail to comply with the terms and conditions of any permit required by this chapter; or
- (3) Violate any of the provisions of this chapter.

All violations under this section shall be heard under the procedures set forth in chapter 28 of this Code. Additionally, any person found responsible under this section shall be punished by a fine of not less than fifty dollars (\$50.00) and not more than twenty-five hundred dollars (\$2,500.00). The administrative hearing officer may also order abatement of the violation. Furthermore, where the provisions of chapter 28 conflict with the provisions of this section, this section shall govern.

(b) *Class 2 Misdemeanor:* Pursuant to A.R.S. section 48-3615, it is unlawful and is hereby declared a class 2 misdemeanor for any person to engage in any development or by any acts to cause a diversion, retardation or obstruction to the flow of waters in a watercourse whenever it creates a hazard to life or property and without securing the permit required by any provision of this chapter. Any person found guilty of violating this section shall be punished by a fine not to exceed more than seven hundred fifty dollars (\$750.00) or four (4) months' imprisonment, or both. In addition, a person convicted of a class 2 misdemeanor may be placed on probation for a period not to exceed twenty-four (24) months.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 10311, § 1, 8-8-06)

**Sec. 26-11.4. Declaration of public nuisance; abatement.**

All development located or maintained in a floodplain since August 8, 1973, in violation of Title 48, Chapter 21, Article 1 of the Arizona Revised Statutes or of floodplain regulations established by this chapter and without written authorization from the floodplain board is a public nuisance per se and may be abated, prevented or restrained by action of the City of Tucson.

(Ord. No. 10311, § 1, 8-8-06)

**Sec. 26-12. Appeals and variances.**

(a) *Appeals.* Any written decision of the city engineer made in the course of administering or interpreting this ordinance may, within thirty (30) days of the decision, be appealed to the floodplain board.

(b) *Variances.* The floodplain board shall hear and decide all requests for variances from the requirements of this ordinance.

(1) A variance may be granted only if, based on technical evidence prepared by an Arizona registered professional engineer, the floodplain board finds all of the following:

a. A showing of good and sufficient cause.

b. That the variance is the minimum necessary, considering the flood hazard, to afford relief.

c. That failure to grant the variance would result in exceptional hardship to the applicant. An exceptional hardship is one that is exceptional, unusual and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, personal preferences or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

d. That the granting of the variance will not create a danger or hazard to life or property in the area, or result in increased flood heights; additional threats to public safety; extraordinary public expense; the creation of a nuisance; the victimization of or fraud on the public; and that the variance is not in conflict with other city ordinances or regulations.

e. That special circumstances, such as size, shape, topography, location, or surroundings of the property would cause strict application of the regulations to deprive the property of privileges enjoyed by similar property in the floodplain or erosion hazard areas.

(2) A variance is subject to conditions to ensure that the variance does not constitute a grant of special privileges inconsistent with the limitation on similar property in the floodplain or erosion hazard areas.

(3) If the floodplain board grants a variance from the provisions of this division, the city engineer shall provide written notice to the grantees of the variance as required by A.R.S. section 48-3609(J) that the property may be ineligible for exchange of state land pursuant to the statutory flood relocation and land exchange program. The city clerk shall record a copy of the notice in the office of the county recorder so that the notice appears in the chain of title of the affected parcel of land.

(4) The issuance of a variance to construct a structure below the base flood level may result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage as determined by the insurance carrier.

(5) The floodplain administrator shall maintain a record of all variance actions, including justification for their issuance and report such variances issued in its biennial report submitted to FEMA.

(c) *Application and hearing.* The following application and hearing procedures apply to an appeal of a decision of the city engineer, or a variance request, or combination thereof:

(1) The application shall be in writing and filed with the city engineer. The application shall include technical evidence prepared by an Arizona registered professional engineer in support of the appeal or variance request.

a. An application for an appeal shall state why the decision of the city engineer is in error and shall contain a concise explanation of all matters in dispute and any pertinent maps, drawings, data or other information in support of the appeal.

b. An application for a variance shall state the code section from which the variance is sought and shall include any pertinent maps, drawings, data or other information why the variance should be granted.

(2) Incomplete applications shall not be accepted.

a. Within three (3) working days after the receipt of the application, or any additional materials or information as provided for below, the city engineer shall notify the applicant whether or not the application is deemed complete.

b. If the application is determined to be incomplete, the applicant shall submit additional materials and information as may be reasonably determined necessary by the city engineer.

(3) The floodplain board shall hold a public hearing to consider an appeal or variance request within sixty (60) days after the city engineer accepted the application. After the close of the public hearing the mayor and council may:

a. Uphold, reverse or modify the decision of the city engineer on appeal.

b. Grant or deny the variance, subject to the findings for a variance set forth in these regulations.

(d) *Stormwater technical advisory committee (STAC)*. The STAC shall make recommendations to the director of the department of transportation to be forwarded to the mayor and council on technical issues raised by appeals and variance requests.

(1) Within three (3) days after accepting an appeal or variance request, the city engineer shall submit a copy of the appeal or variance request, together with all available pertinent documents and information to STAC. If STAC determines that the appeal or variance request raises technical questions or issues, STAC may review the request and provide written conclusions and recommendations to the floodplain board. The conclusions for a variance request must address the findings required in section 26-12(b)(1) for the granting of a variance by the floodplain board.

(2) Reserved.

(e) *Stormwater advisory committee (SAC)*. The SAC shall review all proposed amendments to Chapter 26 of the Tucson Code and shall provide written conclusions and recommendations to the director of the department of transportation to be forwarded to the mayor and council and to the planning commission, as applicable, prior to a public hearing on the proposed amendments.

(Ord. No. 7407, § 5, 6-25-90; Ord. No. 8309, § 1, 9-26-94; Ord. No. 9582, §§ 4, 5, 8-6-01; Ord. No. 10311, § 1, 8-8-06)

### **Sec. 26-13. Enforcement.**

It shall be the duty of the city engineer and all officers of the city otherwise charged with the enforcement of the law to enforce these floodplain or erosion hazard area regulations.

(Ord. No. 7407, § 5, 6-25-90)

### **Sec. 26-14. Disclaimer of liability.**

The degree of flood and erosion protection required by these regulations is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or the flood height may be increased by manmade or natural causes, such as bridge openings restricted by debris. These regulations do not imply that areas outside the floodplain or erosion hazard area boundaries or land uses permitted within such area will be free from flooding or flood and

erosion damages. These regulations shall not create liability on the part of the city or any officer or employee thereof for any flood or erosion damages that may result from reliance on any administrative decision lawfully made thereunder.

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-15. Coordination with other agencies.**

The city engineer shall notify adjacent communities and the Arizona Department of Water Resources prior to any alteration or relocation of a regional or a major watercourse, and submit evidence of such notification to the Federal Insurance Administration.

(Ord. No. 7407, § 5, 6-25-90)

**Sec. 26-16. Public hearing.**

If a public hearing is required for any amendment of these regulations, it shall be held in accordance with the provisions of A.R.S. title 9 and title 48. The advisory body which will conduct the first public hearing will be either the citizens advisory planning commission (CAPC) in accordance with Tucson Code, chapter 23, article II, division 3, section 23-484 et seq., or such other committee, commission or hearing office as the mayor and council by resolution may establish. The mayor and council may also establish themselves as the body which conducts the public hearing. The public hearing and notice requirements will be conducted in accordance with A.R.S. title 9 and title 48. In cases where the provisions of either title are more restrictive, the more restrictive provisions will prevail.

(Ord. No. 7407, § 5, 6-25-90)

**Secs. 26-17--26-19. Reserved.**

**ARTICLE II.  
STORMWATER MANAGEMENT**

**DIVISION 1.  
PURPOSE AND DEFINITIONS**

**Sec. 26-20. Purpose.**

It is the purpose of this article to comply with the City of Tucson's Municipal Stormwater Permit and applicable federal (40 CFR § 122.26) and state (ARS Title 49, Ch. 2 Article 3.1) regulations for stormwater discharges, to be consistent with the stormwater quality provisions of the federal Clean Water Act (33 U.S.C. § 1342), and to enable the City of Tucson to comply with all applicable stormwater quality provisions of federal, state, and local laws and regulations to ensure the future health, safety, and general welfare of the citizens of Tucson, as well as the protection and preservation of the local environment.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-21. Consistency.**

This article shall be interpreted to be consistent with the federal Clean Water Act and applicable state law

and all provisions of the City of Tucson's Municipal Stormwater Permit.

(Ord. No. 10209, § 3, 10-18-05)

### **Sec. 26-22. Severability.**

If any provision, clause, sentence, or paragraph of this article is held invalid, such invalidity will not affect the other provisions or application of this article. To this end, the provisions of this article are declared to be severable.

(Ord. No. 10209, § 3, 10-18-05)

### **Sec. 26-23. Definitions.**

[The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

*Authorized representative* means a person delegated powers or duties by the manager pursuant to this article.

*AZPDES* means Arizona Pollutant Discharge Elimination System.

*BMP* means Best Management Practice.

*Certified industrial hygienist* means a professional industrial hygienist certified by the American Board of Industrial Hygiene.

*City* means the City of Tucson, a municipal corporation and subdivision of the State of Arizona.

*Clean Water Act* means the Federal Water Pollution Control Act amendments of 1972, as amended (P.L. 92-500; Stat. 816; 33 United States Code §§ 1251 through 1376).

*Connection* means the juncture/location at which discharge may enter the municipal separate storm sewer system.

*Corrective action plan* is a plan required under this article and approved by an authorized representative that consists of structural and nonstructural Best Management Practices to prevent stormwater pollution or remediate impacts to the stormdrain system. Based on site conditions, the authorized representative will determine whether the corrective action plan will be prepared and certified by a qualified person registered with the State of Arizona as a professional engineer, or professional landscape architect; or a qualified person certified by the American Board of Industrial Hygiene, as a certified industrial hygienist.

*De Minimus discharge* means a discharge that is a low flow and/or low frequency event of relatively pollutant free water which is discharged with appropriate BMPs to reduce any pollutants to below the applicable surface water standard (A.A.C. Title 18, Chapter 11, Article 1).

*Discharge* means any generated or naturally occurring runoff or flow into, or through the city's municipal separate storm sewer system or waters of the United States.

*Discharger* means any person who causes or allows a discharge or who owns property from which a discharge originates.

*Engineer* means a professional civil engineer, registered with the State of Arizona.

*Environment* means navigable waters, any other surface waters, groundwater, drinking water supply, land surface, subsurface strata, ambient air, biotic community, or wildlife habitat within or bordering on the city.

*Illicit connection* means a connection that causes, or otherwise allows, illicit discharges.

*Illicit discharge* means any discharge that is not composed entirely of stormwater except: discharges pursuant to and in compliance with an applicable NPDES or AZPDES permit or other written authorization from the Environmental Protection Agency or the Arizona Department of Environmental Quality; not including the city's Municipal Stormwater Permit; and discharges that are considered to be non-significant sources of stormwater pollution.

*Industrial facility* means the site of any industrial activity regulated under federal NPDES or state AZPDES stormwater permit requirements.

*Land disturbance activity* means any activity that is regulated under the federal NPDES or state AZPDES stormwater permit requirements for construction sites.

*Landscape architect* means a professional landscape architect registered with the State of Arizona.

*Manager* means the City of Tucson Manager or the manager's authorized representative.

*Municipal separate storm sewer system* means a system of conveyances, consisting of all structures, basins, and natural or manmade channels that can collect, detain/retain, receive, or convey stormwater or other liquid that is discharged to a water of the United States from, or through, private property, public property, common areas, easements or rights-of-way, infrastructure, including but not limited to swales, watercourses, channels, streets, culverts, stormdrains, curbs and gutters. For the purposes of this article, the municipal separate storm sewer system does not include the following waters of the United States: the Santa Cruz River, Rillito Creek, Pantano Wash, Tanque Verde Creek, Rincon Creek, Sabino Creek, West Branch Santa Cruz River Diversion Channel, and Agua Caliente Wash.

*NPDES* means National Pollutant Discharge Elimination System.

*No-exposure certification* is a document certifying that federal and/or state no-exposure requirements have been met.

*Notice of intent (NOI)* is a document describing the intent to operate an industrial facility or land disturbance activity in accordance with a general stormwater AZPDES/NPDES permit.

*Notice of termination (NOT)* is a document certifying one of the following conditions:

- (1) A change of ownership or responsible party;
- (2) Final site stabilization following a land disturbance activity;
- (3) Discharge has permanently ceased; or
- (4) Discharges are covered under another AZPDES/NPDES permit.

*Person* means an individual, resident, property owner, firm, partnership, joint venture, association, corporation, estate, trust, receiver, syndicate, broker, the federal government, State of Arizona, or any political subdivision or agency of this state.

*Pollutant* means any solid, liquid, or gaseous substances that may have an adverse impact on human health, the environment, or the property of others, or which otherwise causes or contributes to a violation of any stormwater quality provision of federal, state, or local laws.

*Qualified person* means a person who is knowledgeable and possesses the skills to assess conditions at the site that could impact stormwater quality and the effectiveness of the BMPs selected to control the quality of stormwater discharges. Based on site conditions, the manager will determine whether the qualified person must also be registered with the State of Arizona as a professional civil engineer, or professional landscape architect; or whether the qualified person must be certified by the American Board of Industrial Hygiene, as a certified industrial hygienist.

*Stormwater* means precipitation runoff, to which no pollutant has been added by human activity.

*Stormwater pollution prevention plan* is a document required under AZPDES/NPDES regulations or imposed pursuant to this article describing the stormwater quality controls in place at a site.

*Waters of the United States or waters of the U.S.* means a water body that is claimed under the jurisdiction of the U.S. government, including rivers and streams (intermittent, ephemeral), dry washes, acequias, arroyos, natural ponds and wetlands.

(Ord. No. 10209, § 3, 10-18-05)

**Secs. 26-24--26-29. Reserved.**

## **DIVISION 2. POWERS AND DUTIES**

**Sec. 26-30. Authorized representative.**

The manager may delegate any or all of the powers and duties set out in this article to any persons as the manager deems necessary. Any person who has been delegated any power or duty described under this article is an authorized representative.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-31. General.**

The manager may adopt and enforce such rules, regulations, standards, processes and forms as the manager deems necessary for the efficient administration and enforcement of this article. The manager may interpret and enforce this article. Upon request of the manager any other department of the city has the authority to assist in the exercise of powers and performance of duties under this article.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-32. Authority to enter.**

For the purposes of determining compliance with, and enforcement of, the provisions of this article, authorized representatives shall, at reasonable times, be admitted to any property from which a discharge is known, or is suspected. When security measures requiring identification and clearance before entry are in place on such property, the owner or agent of the owner, or a lawful occupant of the property shall make all necessary arrangements to allow authorized representatives, upon presentation of official identification, to enter the property without delay. If such entry is refused or cannot be obtained, the manager shall have recourse to every remedy provided by law to secure lawful entry and take necessary action.

If authorized representatives have reason to believe that discharge conditions on, or emanating from, the property require immediate action to safeguard the public health or safety, they shall have the right to

immediately enter, inspect the property and take such action, after making reasonable efforts to locate and obtain permission from the owner or an agent of the owner, or a lawful occupant of the property.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-33. Warrants, restraining orders, and injunctive relief.**

The manager is, for purposes of enforcing this article, empowered to seek restraining orders, other injunctive relief, or search warrants as necessary to enforce this article.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-34. Authority to inspect.**

Authorized representatives may inspect properties that discharge or are suspected of discharging. Inspections may include reviewing records, reports and test results, conducting site surveys, and examining any wastes, chemicals, storage areas, storage containers, waste generating processes, treatment facilities, and discharge locations. Inspection methods may include photographing, videotaping, or collecting samples for analytical analysis, from any part of the site or from any materials present on the site.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-35. Authority to monitor.**

Authorized representatives may conduct all monitoring and sampling necessary to ensure compliance with this article and may establish such devices as are necessary to conduct such sampling or monitoring. Such devices shall be installed and operated so as to minimize impact to the owner and occupant of the property.

(Ord. No. 10209, § 3, 10-18-05)

**Sec. 26-36. Authority to abate.**

If a person in violation of this article fails to comply with an order to abate or a notice of violation with a requirement to immediately abate, the city may abate the problem itself or by private contractor, and assess the responsible party for the cost of such abatement including expenditure of city resources.

(Ord. No. 10209, § 3, 10-18-05)

**Secs. 26-37--26-39. Reserved.**

**DIVISION 3.  
PROHIBITIONS, NON-PROHIBITED DISCHARGES, AND REQUIREMENTS**

**Sec. 26-40. Prohibited discharges.**

The following are prohibited:

- (1) Any discharge that is a source of pollutants;

- (2) Allowing or causing any discharge that contributes a pollutant to stormwater;
- (3) Any discharge that contributes to a violation of the city's Municipal Stormwater Permit, regardless of whether that discharge is covered under, and is in compliance with, an AZPDES/NPDES permit;
- (4) Establishing, using, and/or maintaining any connection that allows a discharge that contributes a pollutant to stormwater;
- (5) Depositing, dumping or storing any materials in a manner that may contribute a pollutant to, or obstruct the flow of, stormwater;
- (6) Failing to comply with any applicable AZPDES/NPDES Permit, including any permit requirements to develop, implement, or comply with a Stormwater Pollution Prevention Plan (SWPPP);
- (7) Failing to provide required information to the city including:
  - a. Copies of the notice of intent, notice of termination, and/or no exposure certification as appropriate;
  - b. Upon request, copies of the SWPPP, water quality monitoring results and/or hydrologic reports certifying compliance with discharge or retention requirements;
- (8) Failing to develop, implement, or comply with a Stormwater Pollution Prevention Plan or a Corrective Action Plan utilizing Best Management Practices that is either required under an AZPDES/NPDES permit or imposed by the city pursuant to this article, including requirements to implement good housekeeping, spill control and response, employee training, record keeping, proper material and waste management, practices for nonstormwater flows, and structural stormwater controls;
- (9) Misrepresentation in any document pertaining to an approved plan, permit, or certification relating to a discharge activity; and
- (10) Disabling or rendering inaccurate any sampling or monitoring device required under this article.

(Ord. No. 10209, § 3, 10-18-05)

#### **Sec. 26-41. Non-prohibited discharges.**

The following types of discharges are not prohibited under this article unless they are found to be a source of pollutants:

- (1) Discharges in compliance with an AZPDES/NPDES permit;
- (2) Discharges in compliance with an approved Corrective Action Plan utilizing Best Management Practices.
- (3) Discharges of the following types of naturally occurring water are not prohibited:
  - a. Stormwater;
  - b. Rising groundwater;
  - c. Springs and ponds;
  - d. Diverted stream flow;

- e. Flows from riparian habitats and wetlands; and
- f. Pumped unpolluted groundwater.

(4) Discharges that qualify for the AZPDES De Minimus General Permit are not prohibited as long as these discharges are in compliance with the permit. Qualifying discharges include:

- a. Discharges from installation and maintenance of potable water supply systems;
- b. Discharges from subterranean dewatering;
- c. Discharges from well development and maintenance and/or aquifer testing;
- d. Discharges of groundwater, surface water or potable water from hydrostatic testing;
- e. Discharges of groundwater, surface water or potable water associated with installation and maintenance of reclaimed water system transport discharges;
- f. Discharges from residential non-contact cooling water (including overflow from air conditioning condensate and evaporative coolers);
- g. Discharges from charitable noncommercial car washes when only the exterior of vehicles are being washed with water only or when biodegradable soap is used;
- h. Discharges from building or street washing where only water or biodegradable soaps are used;
- i. Discharges of dechlorinated pool water; and
- j. Other de minimus discharges as specifically approved by ADEQ.

(5) Additional types of discharges, which do not contribute to a violation of the city's Municipal Stormwater Permit may be allowed upon submittal of a copy of the discharger's written authorization from the Arizona Department of Environmental Quality or the Environmental Protection Agency. Such authorization shall be submitted to the city prior to the time of discharge, and must be retained for at least three (3) years after the last discharge made pursuant to the authorization.

(Ord. No. 10209, § 3, 10-18-05)

#### **Sec. 26-42. Requirements.**

- (a) Any person who is determined by the manager to have the potential to be a discharger of pollutants can be required to develop and implement a Corrective Action Plan utilizing Best Management Practices (BMPs) to prevent stormwater pollution. Based on site conditions, the manager will determine whether the Corrective Action Plan must be prepared and certified by a qualified person registered with the State of Arizona as a professional engineer, or professional landscape architect; or a qualified person certified by the American Board of Industrial Hygiene, as a certified industrial hygienist.
- (b) For land disturbing activities that fall under the jurisdiction of this article, a Stormwater Pollution Prevention Plan must be prepared and certified by an engineer, or a landscape architect and submitted along with application for a grading permit to the City of Tucson Development Services Department.
- (c) Proof of all applicable city, state, and federal permits including supporting documents such as the Stormwater Pollution Prevention Plan, the notice of intent, the notice of termination, and the no-exposure certification shall be maintained on site for inspection by authorized representatives.
- (d) Any industrial facility or land disturbing activity seeking exemption from AZPDES/NPDES

permitting requirements by retaining stormwater discharges on site must submit a hydrologic report certifying adequate containment in a 100 year storm event.

(e) Any person that is required to have a Stormwater Pollution Prevention Plan or a Corrective Action Plan utilizing Best Management Practices must post notices to employees containing information about whom to contact and what procedures to follow in the event of an accidental discharge or spill. Dischargers shall have a trained employee or staff member who will be responsible for oversight of any necessary clean up or remediation.

(f) In the event of a spill or release, the owner, operator, or the person who has control of the source or location of any spill or release, which may result in a discharge that is not in compliance with this article, shall immediately take all reasonable safety precautions including, if appropriate, calling 911 and completing the following steps:

(1) Proceed with containment and clean up in accordance with:

a. The orders of an involved health and safety agency, or if no such orders have been issued:

b. The orders of an authorized representative, or if no such orders have been issued;

c. The Stormwater Pollution Prevention Plan or approved corrective action plan utilizing Best Management Practices for the involved facility.

(2) Report any violations of the Tucson Fire Code or other such applicable safety or health codes in the manner required by such code;

(3) Notify the Tucson Department of Transportation, Stormwater Management Section and the Arizona Department of Environmental Quality of the release by telephone before noon of the next working day;

(4) Provide written notification, within five (5) working days, to the Tucson Department of Transportation, Stormwater Management Section of the type, volume, cause of the discharge, corrective actions taken, and measures to be taken to prevent future occurrences.

(f) Compliance with these requirements shall not relieve the discharger of any fines, penalties, or liability incurred, or that may be imposed by this article or other applicable laws as a result of the discharge. In addition, compliance with these requirements shall not relieve the discharger from the reporting requirements of 40 CFR 110, 40 CFR 117 and 40 CFR 302.

(Ord. No. 10209, § 3, 10-18-05)

**Secs. 26-43--26-46. Reserved.**

## **DIVISION 4. ENFORCEMENT**

**Sec. 26-47. Violation notices.**

(a) Upon discovery of a violation of this article, authorized representatives may issue to the violator a written notice stating the nature of the violation, the corrective action required, the time frame for corrective action, and the penalties for continued non-compliance. The notice shall be served either by personal service or certified mail, upon the owner, the owner's agent, the occupant, or the lessee. The notice may also require the violator to:

(1) Submit a Corrective Action Plan utilizing Best Management Practices to an authorized representative indicating the cause of the violation, corrective actions to prevent recurrence, and a proposed compliance schedule;

(2) Allow installation and operation of sampling and monitoring devices and pay all costs of installation, as well as costs for laboratory sample analysis, and submit results to the authorized representative;

(3) Clean up any material that has left the property or has the potential to impact stormwater runoff, ensure that the clean up has been completed, and make changes in operations to prevent future violations;

(4) Obtain and pay for the services of a qualified person to provide oversight and certify that corrective actions needed to resolve the violation have been completed;

(5) Prepare and implement a Corrective Action Plan utilizing Best Management Practices to prevent stormwater pollution, regardless of AZPDES/NPDES requirements. Depending on site conditions, the manager may require that the corrective action plan be prepared by a qualified person or prepared and certified by an engineer;

(6) Stop work on clearing, dredging, grading, excavating, storing, transporting, and/or filling of land, new construction, improvements, alterations, or additions;

(7) Stop any activity that is in violation of this article;

(8) Abate, within the time specified in the notice, any condition that is in violation of this article; and

(9) Abate immediately any condition in violation of this article, if the manager determines that such condition presents an immediate threat to public health, safety, or the environment.

(b) Authorized representatives may approve the compliance schedule or Corrective Action Plan utilizing Best Management Practices submitted by the violator, or may require an alternative compliance schedule or Corrective Action Plan utilizing Best Management Practices. This shall be done within the period specified in the notice.

(c) If the manager discovers a condition that the manager determines is likely to cause or is causing a discharge that is in violation of the city's Municipal Stormwater Permit or that threatens public health, safety or the environment, the manager may require an immediate cessation of activity and abatement.

(Ord. No. 10209, § 3, 10-18-05)

#### **Sec. 26-48. Penalties and corrective actions.**

(a) The remedies provided in this section are cumulative and the city may seek one or more such remedies.

(1) It is a civil infraction for any person to violate this article or fail to comply with a notice of violation issued under this article.

(2) It is a misdemeanor for any person to violate this article or fail to comply with a notice of violation issued under this article.

(3) Any person violating this article shall be liable to the city for all damages, costs, fines and penalties incurred by the city as a result, and shall defend, indemnify, and hold harmless the city against any resulting claims, liabilities or damages.

(b) Upon a finding that any person has violated this article, the court shall issue an order or, in the case of a criminal conviction, terms of probation, requiring the violator to do any or all of the following as appropriate:

(1) Submit a plan to an authorized representative indicating the cause of the violation, corrective actions to prevent recurrence, and a proposed compliance schedule;

(2) Allow installation and operation of sampling and monitoring devices and pay all costs of installation and laboratory sample analysis, and submit results to the authorized representative;

(3) Clean up any material that has left the property, or has the potential to impact stormwater runoff, ensure that the clean up has been completed, and make changes in operations to prevent future violations;

(4) obtain and pay for the services of a qualified person to provide oversight and certify that corrective actions needed to resolve the violation have been completed;

(5) Prepare and implement a Corrective Action Plan utilizing Best Management Practices to prevent stormwater pollution, regardless of AZPDES/NPDES requirements. Based on site conditions, the manager will determine whether the Corrective Action Plan must be prepared and certified by a qualified person registered with the State of Arizona as a professional engineer, or professional landscape architect; or a qualified person certified by the American Board of Industrial Hygiene, as a certified industrial hygienist.

(6) Stop work on clearing, dredging, grading, excavating, storing, transporting, and/or filling of land, new construction, improvements, alterations, or additions;

(7) Stop any activity that is in violation of this article;

(8) Abate, within the time specified, any condition that is in violation of this article; and

(9) Abate immediately any condition in violation of this article, if the condition presents an immediate threat to public health, safety, or the environment.

(c) The City Court of the City of Tucson shall have jurisdiction to issue to any person violating this article the orders specified in this section, and any other orders necessary to insure compliance with this article. The City Court of the City of Tucson shall have jurisdiction to impose upon any person violating this article the terms of probation specified in this section, or any other terms of probation necessary to insure compliance with this article.

(d) If more than one person is identified as the owner of record, such persons shall be presumed to be jointly and severally in lawful possession and control of the activity or property. The transfer of ownership, possession, or control of real property to another person does not relieve the transferor of the responsibility for violations of this article that occurred before the transfer.

(Ord. No. 10209, § 3, 10-18-05)

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