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Floodplain Regulations for Maricopa County

*As adopted August 4, 1986
and subsequently amended*



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FLOOD CONTROL DISTRICT

of

MARICOPA COUNTY, ARIZONA

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1993 REVISION

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ARTICLE I. AUTHORITY, PURPOSE AND TITLE

Section 101. Statutory Authority.

Sections 48-3603 and 48-3609 of the Arizona Revised Statutes direct each County Flood Control District Board of Directors to adopt and enforce floodplain regulations. Therefore, the Board of Directors of the Flood Control District of Maricopa County, Arizona adopts this Regulation.

Section 102. Statement of Purpose.

It is the purpose of this Regulation to comply with the directive of ARS 48-3603 and to promote and protect the health, peace, safety, comfort, convenience, and general welfare of the citizens within the jurisdictional area of Maricopa County, Arizona and to minimize public losses due to flood conditions in specific areas.

Section 103. Title.

This Regulation may be referred to as the Floodplain Regulation for Maricopa County.

ARTICLE II. RULES, CONSTRUCTION AND INTERPRETATION

Section 201. Rules.

When not inconsistent with the context, words used in the present tense include the future tense, words in the singular number include the plural; words in the plural number include the singular. Words or phrases used in this Regulation shall be interpreted so as to give them the meaning they have in common usage and to give this Regulation its most reasonable application; the word "building" includes the word "structure"; the word "shall" is mandatory and the word "may" is permissive. No provision of this Regulation shall be construed to require written authorization for those exemptions set forth in ARS 48-3613 (B) nor shall the Board of Directors have authority to prohibit said exemptions.

Section 202. Construction and Interpretation.

1. This Regulation shall be liberally construed to effectuate its purposes. The requirements set out herein shall be construed as minimum requirements.
2. Nothing contained in this Regulation shall be construed to limit or repeal any powers granted to the Flood Control District of Maricopa County under state statute. If the provisions of this Regulation conflict with or overlap with other regulations, ordinances and statutes, the regulation, ordinance or statute which imposes the more stringent requirement or restriction shall prevail.

ARTICLE III. DEFINITIONS

Section 301.

In this Regulation unless the context requires otherwise the following words shall be used as defined in this article:

1. **Accessory Use**: A use which is incidental and subordinate to the principal use of the parcel of land on which it is located.
- ⁹2. **Alluvial Fan**: A geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel and fine sediments that have been eroded from mountain slopes, transported by flood flows and then deposited in the valley floors and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition and channel migration.
- ¹¹3. **Alluvial Fan Flooding**: Flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows, sediment transport, and deposition; and unpredictable flow paths.
- ¹⁰4. **Apex**: A point on an alluvial fan or similar landform below which the flow of the major stream that formed the fan becomes unpredictable and alluvial fan flooding may occur.
5. **Appeal**: A request for a review of the Floodplain Administrator's interpretation of any provision of this Regulation, or any determination made under this Regulation.
- ¹¹6. **Area Drainage Master Study (ADMS)**: A study to develop hydrology for a watershed, to define watercourses, identify potential flood problem areas, drainage problems and recommend solutions and standards for sound floodplain and stormwater management. The ADMS will identify alternative solutions to a given flooding or drainage problem. An Area Drainage Master Plan (ADMP) identifies the preferred alternative. An ADMP, unique to the subject watershed provides minimum criteria and standards (for flood control and drainage) for land use and development.
7. **Area of Jurisdiction**: The incorporated and unincorporated areas of Maricopa County, including public lands, excluding those incorporated areas of cities or towns which have elected to assume flood plain management powers and duties pursuant to ARS Section 48-3610.
8. **Area of Shallow Flooding**: An area with flood depths from one to three feet where a clearly defined channel does not exist, the path of flooding is indeterminate and where ponding may be evident.
- ⁹9. **Backfill**: The placement of fill material within a specified depression, hole or excavation pit below the surrounding adjacent ground level as a means of improving flood water conveyance or to restore the land to the natural contours existing prior to excavation.

10. **Base Flood or One Hundred Year Flood**: A flood that has a one percent chance of being equalled or exceeded in a one year period, based on the criteria established by the Director of the State Department of Water Resources.
11. **Board**: The Board of Directors of the Flood Control District of Maricopa County.
12. **Building**: A structure affixed to the land having a roof supported by columns or walls built for housing, shelter or enclosure of persons, animals, or property of any kind.
- ¹⁴ 13. **Delineated Floodplain**: A graphic illustration of the area susceptible to inundation by a 100-year flood based upon the results of an authorized study and which is included on either the Flood Management Maps for Maricopa County or the Flood Insurance Rate Maps or both.
- ⁸ 14. **Development**: Any man-made change to property, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations or storage of equipment or materials.
15. **District**: The Flood Control District of Maricopa County.
16. **Encroachment**: The advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or developments into a floodplain which may impede or alter the flow capacity of a floodplain.
- ¹³ 17. **Erosion Control Zone**: A land area adjoining a body of water or adjacent to or located partially or wholly within a delineated floodplain which due to the soil instability, is likely to suffer flood-related erosion damage.
- ¹³ 18. **Exempt Use**: Any use of the delineated floodplain specifically exempted from this Regulation by Arizona law or this Regulation.
- ⁹ 19. **Fill**: The placement of fill material at a specified location to bring the ground surface up to a desired elevation.
- ⁹ 20. **Fill Material**: Natural sands, dirt, soil and rock. For the purposes of floodplain management, fill material may include concrete, cement, soil cement, brick or similar material as approved on a case by case basis.
21. **Flood or Flood Waters**: A temporary rise in water level including ground water or overflow of water onto land not normally covered by water.
- ¹³ 22. **Flood Hazard Zone**: Any land area located partially or wholly within a delineated floodplain susceptible flood related damage as designated on the Flood Management Maps. Such flood hazard zones may include but not be limited to areas highly susceptible to erosion, stream meander sensitivity, moveable bed, scour, wave action, and subsidence.

- ¹³ 23. **Flood Insurance Rate Map (FIRM)**: An official map on which the Federal Insurance Administration has delineated both the 100-year flood special flood hazard areas and the risk premium zones applicable to a community.
- ⁵ 24. **Flood Insurance Study**: The official report provided by the Federal Insurance Administration. The report includes flood profiles and base flood elevations.
- ¹⁴ 25. **Flood Management Map**: An official map for Maricopa County on which the Floodplain Administrator has delineated floodplains and other flood related flood hazard zones for the purpose of floodplain administration.
- ¹⁰ 26. **Floodplain**: The area susceptible to inundation by a base flood including areas where drainage is or may be restricted by man-made structures which have been or may be covered partially or wholly by flood water from the one hundred-year flood.
27. **Floodplain Administrator**: The individual appointed by the Board to administer and enforce this Regulation.
- ¹⁴ 28. **Floodplain Clearance**: Review and approval of a use of property in or adjacent to a delineated floodplain or other delineated flood related hazard zone for which a Floodplain Use Permit is not required.
- ¹³ 29. **Floodplain Regulation**: This Regulation and other codes, ordinances and regulations adopted pursuant to the authority granted in ARS 48-3603 et seq. relating to the use of land and construction within a delineated floodplain or other delineated flood related hazard area.
- ¹³ 30. **Floodplain Use Permit**: A permit which must be obtained from the Floodplain Administrator prior to commencement or continuance of any non-exempt use within a delineated floodplain.
- ¹⁰ 31. **Flood Proofing**: Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved property, water and sanitary facilities, structures and their contents.
32. **Floodway or Floodway District**: The channel of a river or other watercourse and the adjacent land areas necessary in order to discharge the one hundred-year flood without cumulatively increasing the water surface elevation more than one foot.
- ¹³ 33. **Floodway Fringe District**: The areas of a delineated floodplain adjacent to the Floodway District where encroachment may be permitted.
- ⁸ 34. **Interim Delineation**: A graphic illustration of an approximate delineation of the floodplain by the Floodplain Administrator made from the most reliable source available where neither a floodplain nor a Floodway District has been determined by detailed methodology.

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Landfill: Deleted. See "Solid Waste Landfill".

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35. **Lowest Floor:** 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 non-elevation design requirements of this Regulation.

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36. **Mobile/Manufactured Home:** A structure transportable in one 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 "Mobile/Manufactured Home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "Mobile/Manufactured Home" does not include park trailers, travel trailers, and other similar vehicles.

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37. **Nonconforming Use:** The use of any land, building or permanent structure lawfully existing either on the effective date of the adopted floodplain delineation in which the land, building or permanent structure is located, or August 3, 1984, the effective date of Title 48, Chapter 21, Article 1, whichever is the earliest date.

38. **Obstruction:** Includes but is not limited to any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water or its likelihood of being carried downstream.

39. **Person:** An individual or his agent, firm, partnership, association, corporation, municipality, or agent of the aforementioned groups, or the State or its agencies or political subdivisions.

40. **Recreation Vehicle:** Any vehicle or portable unit designed for living, sleeping, housekeeping or office purposes which is: a) not more than forty (40) feet in length or eight (8) feet in width; b) transportable on its own chassis; c) maintained in a readily transportable condition at all times. This definition includes motorized and non-motorized vehicles, travel trailers, camping trailers, but does not include mobile/manufactured homes or buildings as defined by this Regulation.

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41. **Regulatory Flood Elevation:** The elevation which is one foot above the base flood elevation for a watercourse. Where a Floodway District has been delineated, the base flood elevation is the higher of either the natural or encroached water surface elevation of the 100-year flow.

- ¹⁴ 42. **Solid Waste:** Any garbage, trash, rubbish, refuse, sludge from a waste treatment plant, water supply treatment plant or pollution control facility and other discarded material, including solid, liquid, semisolid or contained gaseous material but not including domestic sewage or hazardous waste.
- ¹⁴ 43. **Solid Waste Landfill:** Either a public or private facility at which solid waste is placed on or in land for the purpose of long-range storage or disposal. Solid waste landfill does not include a land application unit, surface impoundment, injection well, compost pile or agricultural on-site disposal areas covered under ARS 49-766.
- ¹³ 44. **Structure:** Anything affixed to the ground or attached to something located on the ground, including but not limited to fences, walls, berms, levees, fill, gas or liquid storage tanks, buildings and mobile/manufactured homes as defined by this Regulation or other features which have the potential to obstruct, divert or retard flood flows.
- ¹⁴ 45. **Substantial Damage:** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
- ¹⁰ 46. **Substantial Improvement:** Any repair, rehabilitation, addition or other improvement of a structure, the estimated cost of which as determined by a licensed contractor equals or exceeds fifty percent (50%) of the fair market value or the appraised value whichever may be higher of the building or structure either: 1) before the improvement or rehabilitation is started, or 2) if the building or structure has been damaged by any origin and is being restored, before the damage occurred. In the case of structures which have been damaged, the value of the rehabilitation or restoration must include the fair market cost of all material and labor required to return the structure to its pre-damaged condition, regardless of the actual work performed. "Substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building or structure commences, whether or not that alteration affects the external dimensions of the building or structure. The term does not include any project for improvement of a building or structure which has been identified by the local building official to correct violations of existing State and local health, sanitary or safety code requirements; nor does it include any alteration of a building or structure listed on the National Register of Historic Places or State Inventory of Historical Places.

47. **Variance**: A grant of relief from the requirements of this Regulation which permits construction or other uses of property in a manner that would otherwise be prohibited or restricted by this Regulation.
48. **Watercourse**: A lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.
- ¹¹ 49. **Watercourse Master Plan**: A hydraulic plan for a watercourse that examines the cumulative impacts of existing development and future encroachment in the floodplain and future development in the watershed on potential flood damages, and establishes technical criteria for subsequent development so as to minimize potential flood damages for all flood events up to and including the one hundred-year flood.

ARTICLE IV. APPLICATION

¹³
This Regulation is applicable to all lands located within a delineated floodplain which are within the area of jurisdiction of the Flood Control District of Maricopa County.

ARTICLE V. ADMINISTRATION

Section 501. Floodplain Administrator.

- ² 1. The Floodplain Administrator as designated by the Board of Directors shall be the Chief Engineer and General Manager of the District who shall administer and enforce this Regulation.
- ² 2. Violators of any provision of this Regulation shall be notified by the Floodplain Administrator who shall state the nature of the violation and order corrective action.
- ³ 3. Failure to comply with ordered corrective action may result in submission of a declaration for denial of flood insurance for otherwise insurable structures to the Administrator of the Federal Insurance Administration pursuant to Section 1316 of the National Flood Insurance Act of 1968 as amended.
- ² 4. Failure to appeal the order of the Floodplain Administrator within the time period set forth in Section 602 shall render the order of the Floodplain Administrator final and enforceable as provided in Article XII.

Section 502. Floodplain Use Permit.

- ¹³ 1. A Floodplain Use Permit shall be obtained from the Floodplain Administrator prior to commencing any proposed addition, alteration or change of any building, structure, land or other use within a delineated flood plain except as exempted under Section 505 of the Regulation.
- ⁸ 2. The Floodplain Administrator may place a time limit and any other conditions or restrictions designed to reduce or eliminate potential hazards to life or property.
- ⁸ 3. The applicant may be required to execute deed restrictions running with the land or to post performance bonds, assurances or other security to guarantee the performance of the conditions and restrictions imposed.
- ⁸ 4. The applicant shall submit any information to the Floodplain Administrator considered necessary in making determinations required by this Regulation. The applicant may also be required to provide certification that all requirements of the Floodplain Use Permit have been met.

Section 503. Elevation/Floodproofing Certification.

¹⁰ An Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer, Architect or Land Surveyor shall be submitted in a form acceptable to the Floodplain Administrator prior to occupancy or use of any building within a flood hazard zone designated on the Flood Management Maps, except those uses exempted by this Regulation.

¹¹ The required elevation certification within an AO Zone may be completed by the applicant or his agent or by District Staff as approved by the Floodplain Administrator.

¹⁰ The Floodplain Administrator shall maintain a record of all Elevation and Floodproofing Certifications and may record such certification with the office of the Maricopa County Recorder in a manner so that it appears in the chain of title of the affected parcel of land.

Section 504. Coordination.

1. The Board and the Floodplain Administrator shall coordinate the provisions of this Regulation with all other interested and affected political subdivisions, Federal and State agencies, as required by ARS 48-3609 and 48-3610.
- ³ 2. The Floodplain Administrator shall review proposed development to assure that necessary permits required by Section 404 of the Federal Water Pollution Control Act Amendments of 1972 have been obtained for such development prior to issuance of any clearances, permits or variances authorized by state statute or this Regulation.

Section 505. Exemptions.

1. In accordance with ARS 48-3609, nothing in this Regulation shall affect:
 - ⁸ a. Existing legal uses of property or the right to continuation of such legal uses. However, if a nonconforming use of land, or a building or structure is discontinued for twelve consecutive months or destroyed to the extent of fifty percent of its value, as determined by a competent appraiser, any further use shall comply with this Regulation.
 - ¹⁰ b. Reasonable repair or alteration of property for the purposes for which the property was legally used on August 3, 1984; except that any alteration, addition, rehabilitation or repair to a building or structure regardless of the cost as determined by a licensed contractor of the work performed which would result in increasing its flood damage potential by fifty percent or more of the value of such building or structure prior to alteration, addition, rehabilitation or repair as determined by a competent appraiser shall be either floodproofed or elevated to or above the Regulatory Flood Elevation.

¹ DELETED "STRUCTURES LISTED AS HISTORIC PLACES".

- c. Facilities constructed or installed pursuant to a certificate of environmental compatibility issued pursuant to ARS Title 40, Chapter 2, Article 6.2.
2. In accordance with ARS 48-3613, written authorization shall not be required, nor shall the Board prohibit the following except that before any construction authorized by this subsection may begin, the person shall submit plans for the construction to the Floodplain Administrator for review and comment.
 - a. Construction of bridges, culverts, dikes and other structures necessary to the construction of public highways, roads and streets intersecting or crossing a watercourse.
 - b. Dams for the conservation of flood waters as permitted by Title 45, Chapter 3 and construction of storage dams for watering livestock or wildlife and structures on the banks of a watercourse to prevent erosion of or damage to adjoining land so long as the structure will not divert, retard or obstruct the natural channel of the watercourse.
 - c. Construction of tailing dams and waste disposal areas used in connection with mining and metallurgical operations. This paragraph does not exempt those sand and gravel operations which may divert, retard or obstruct the flow of water in any floodplain from the requirements of this Regulation.
 - d. Any political subdivision from exercising powers granted to it under ARS Title 48, Chapter 18, Article 10.
 - e. 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.
 - f. Construction and erection of poles, towers, foundations, support structures, guy wires, and other facilities related to power transmission as constructed by any utility whether a public service corporation or a political subdivision.
3. In addition to the statutory exemptions, any other use or development within the jurisdiction of this Regulation as may be determined by the Floodplain Administrator to be exempt if the applicant for the exemption satisfies the Floodplain Administrator that such use is not prohibited by any other regulation, code or ordinance, and has a low flood damage potential, will not cause a change in watercourse mechanics including but not limited to obstruction, diversion or other changes detrimental to the natural flow of water and will not cause a hazard to life or property.

SECTION 506. FLOODPLAIN CLEARANCE.

Before any construction authorized under Section 505 may begin, the person shall submit plans for construction to the Floodplain Administrator for review and comment and to determine whether a floodplain clearance or any of the exemptions set forth in this Section are applicable.

Section 507. Personal Liability.

The exemptions contained in Section 505 do not relieve any person from liability if that person's actions cause flood damage to any other person or property.

ARTICLE VI. FLOODPLAIN REVIEW BOARD, APPEALS AND VARIANCES

Section 601. Floodplain Review Board.

Pursuant to the authority granted in ARS 48-3612, the Board of Directors shall appoint the Flood Control Advisory Board as the Floodplain Review Board to sit in review and make decisions in accordance with ARS 48-3612. The members of the Floodplain Review Board shall serve without compensation except that their reasonable and necessary expenses incurred on board business may be reimbursed.

1. The Floodplain Review Board shall elect a chair and a vice chair from among its own members who shall have power to administer oaths and to take evidence.
2. The Floodplain Review Board shall by resolution fix the time and place of its meetings. The meetings shall be open to the public. Minutes of its proceedings and records of its examinations and other official actions shall be kept and filed in the office of the Flood Control District as a public record.
3. The Board of Directors shall adopt rules of procedure consistent with the provisions of this Regulation for the conduct of Board of Review business including establishment of a fee schedule to cover in part administrative costs incurred in the processing of Appeals, Floodplain Use Permits, Floodplain Variances, plans review and performance bonds.
4. Property shall be posted pursuant to procedures adopted by the Floodplain Review Board.
5. The Floodplain Review Board may prescribe, in connection with the grant of any variance or appealed use permit, conditions determined necessary to fully carry out the provisions and intent of the Regulation.
6. If the Floodplain Review Board has cause to believe, after approval of a variance, that any stipulations or conditions may have been violated, it may set a hearing for the purpose of determining to revoke the variance for such violation. The Floodplain Review Board may revoke the variance for finding a violation of the stipulations or conditions or it may grant a limited time within which to correct the violation in order to avoid revocation of the variance.

Section 602. Appeals.

1. Appeals of any decision of the Floodplain Administrator to the Floodplain Review Board shall be filed with the Floodplain Administrator within 30 days from the receipt of notice of the decision to be appealed and shall be in writing on a form provided by the Floodplain Administrator. The notice of appeal shall specify the grounds for said appeal.
2. During the pendency of an appeal all existing floodplain delineations shall remain in effect. All other matters regarding the proceeding shall be stayed during its pendency unless the Administrator certifies to the Floodplain Review Board that by reason of facts surrounding the application the stay would, in his opinion, cause imminent peril to life or property. In such cases the other matters shall not be stayed.
3. The Floodplain Review Board shall fix a time for hearing the appeal and give notice to the parties in interest and to the public as set forth herein. The Floodplain Review Board shall hear and decide the appeal within a reasonable time.
4. Any person aggrieved by a decision of the Floodplain Review Board may, within 30 days of such decision, appeal to the Board of Directors by filing a written notice of appeal with the Clerk of the Board on a form provided by the Floodplain Administrator. Said notice shall specify the grounds of appeal. The Board of Directors shall conduct the appeal under such rules of procedure as they shall adopt.
5. Any person aggrieved by a decision of the Board of Directors may file a special action in Superior Court of the State of Arizona to determine if an abuse of discretion by the Board of Directors, the Floodplain Review Board or the Floodplain Administrator may have occurred.

Section 603. Floodplain Variance.

Conditions for the issuance of a variance:

1. The Board of Directors or the Floodplain Review Board as the case may be shall hear and decide requests for variance from the requirements of this Regulation.
- ² 2. A variance shall be issued only if the Board of Directors or the Floodplain Review Board finds that all of the following criteria are met:
 - a. A determination that no increase in the base flood elevation would result; and
 - ¹³ b. Only if special circumstances, such as size, shape, topography, location or surroundings of the property, would cause the strict application of the Regulation to deprive the property of privileges enjoyed by similar property in the delineated floodplain; and

- c. A variance is subject to conditions to ensure that the variance does not constitute a grant of special privileges inconsistent with the limitations on similar property in the delineated floodplain; and
 - d. The variance requested is the minimum necessary, considering the flood hazard, to afford relief; and
 - e. There is a showing of good and sufficient cause; and
 - f. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - g. A determination that the granting of the variance will not result in additional threats to public safety, extraordinary public expense, create a nuisance, the victimization of or fraud on the public and that the variance does not conflict with existing local laws or ordinances.
3. In addition to the above requirements the Board of Directors or the Floodplain Review Board may attach such conditions or restrictions to the granting of a variance as it determines necessary to reduce or eliminate potential threats to public safety or to public or private property resulting from the granting of the variance. The applicant among other things may be required to post performance bonds, assurances or other security to guarantee compliance with the conditions and restrictions imposed.

7

DELETE: PARAGRAPH CONCERNING DEVELOPMENT ON LOTS OF ONE-HALF ACRE.

4. Variances shall not be issued within an area of Interim Delineation with a low depth of more than two (2) feet if an increase in the flow depth would result.
5. The burden of proof for compliance with the above conditions shall be on the applicant.

¹¹
ARTICLE VII. RECORDATION/NOTIFICATION

¹⁰
Section 701. Recordation/Notification of Variance.

Upon the granting of a variance for the construction of a dwelling unit or commercial or industrial structure, where the construction of such unit or structure is otherwise contrary to this Regulation the Board shall notify the applicant in writing that:

1. The issuance of the variance may result in increased premium rates for flood insurance;
2. Construction below the Regulatory Flood Elevation will increase risks to life and property and flooding may occur by channel meander or by a more frequent flood or a larger flood than the 100-year flood event;
3. If the structure is a dwelling unit or business, then the land upon which the structure is located is ineligible for exchange of land pursuant to the flood relocation and land exchange program provided for by ARS Title 26, Chapter 2, Article 2;
4. The original of the above written notice shall be recorded with the Maricopa County Recorder in a manner so that it appears in the chain of title of the affected parcel of land. Proof of such recordation shall be maintained on file with the District and be available to any agency requiring any subsequent permits.
5. The Floodplain Administrator shall maintain a record of all variance actions. This record shall be included in the biennial report to the Federal Insurance Administration.

¹³
Section 702. Recordation of Flood Hazard Determination.

Upon approval of a Floodplain Use Permit or when through the course of performing other authorized duties it is determined that any portion of a parcel of land is within a delineated Flood Hazard Zone, or a previously noticed parcel has been removed from the delineated Flood Hazard Zone, a notice of such determination may be recorded with the office of the Maricopa County Recorder in a manner so that it appears in the chain of title of the affected parcel of land.

¹⁰
ARTICLE VIII. FLOOD HAZARD BOUNDARIES

Section 801. Minimum Area for Floodplain Delineation.

¹³
All zones designated A, AH, AO, AE or A1 through A30 on the current Flood Insurance Study, the Flood Insurance Rate Maps and Flood Boundary and Floodway Maps for Maricopa County, Arizona shall, constitute the minimum area for management under this Regulation.

Section 802. Other Delineations.

¹³
In areas without delineated flood hazard zones A, AH, AO, AE or A1 through A30, where development is imminent or ongoing, the District may require developers of land to delineate floodplains to be administered under this Regulation. Such delineations shall be consistent with criteria established by the Director, State Department of Water Resources and may be forwarded to the Federal Emergency Management Agency for adoption.

⁸
The District may forward to the Federal Emergency Management Agency other delineations obtained from other sources, provided they are determined to be consistent with criteria established by the Director, State Department of Water Resources.

Sources include but are not limited to (1) a developer of floodplain property, (2) County agency, (3) any agency which must delineate a floodplain as a result of completion of a flood control structure, or (4) the Federal Insurance Administration.

¹⁰
1. Such delineations shall be submitted to the Floodplain Administrator to be reviewed for technical adequacy. The Floodplain Administrator shall forward all such delineations to the Arizona Department of Water Resources and to the Federal Emergency Management Agency with his recommendation for approval or denial.

¹⁰
2. All delineations approved by the Federal Emergency Management Agency are hereby adopted as referenced and shall be included on the Flood Management Maps for Maricopa County.

¹¹
Section 803. Other Flood Hazard Boundaries.

¹³
Whenever the District determines through a flood hazard study, watercourse master plan or other flood related study authorized by the Board that a flood related hazard exists due to such factors as high-velocity flows, erosion, sediment transport, deposition, unstable soil conditions or land subsidence, the Floodplain Administrator shall designate such hazard areas on the Flood Management Maps for Maricopa County and shall establish technical criteria and enforce rules and regulations for subsequent development that meet or exceed criteria adopted by the Director, State Department of Water Resources and when appropriate such studies may be forwarded to the Federal Emergency Management Agency.

¹⁰

Section 804. Publication of Flood Hazard Boundaries.

¹³

All flood hazard designations as authorized by this Regulation including but not limited to erosion control zones, watercourse master plans, moveable bed watercourses and other special flood related designations and, including all A, AH, AO, AE and A1 through A30 zones on the Flood Insurance Rate Maps for Maricopa County, Arizona, shall be shown on the official Flood Management Maps for Maricopa County.

¹³

For floodplain management purposes, areas which are under current Flood hazard Study shall be designated by the Floodplain Administrator as preliminary Interim Delineations on the Flood Management Maps for Maricopa County as the best technical data available pending final approval of the study by the Federal Emergency Management Agency.

¹⁴

Section 805. Public Notice.

Whenever a flood hazard identification study has been authorized by the Board, the District shall publish a notice concerning the intent and scope of the study and notify affected adjacent political jurisdictions. The District shall also mail information concerning the study or hold a public meeting for the affected property owners.

Section 806. Determination in Case of Dispute.

¹³

If the boundary of any floodplain with an Interim Delineation, Floodway District, Floodway Fringe District, Area of Shallow Flooding including Ponding Areas, Alluvial Fans or other flood hazard boundaries is in dispute the Floodplain Administrator shall determine the boundary using the best technical data available. In all cases, the base flood elevation shall be the determining factor. In cases where a revision of the Floodway District becomes necessary, the required public notice and public hearing process shall be followed and the necessary information shall be submitted to the Federal Emergency Management Agency.

ARTICLE IX. FLOODWAY DISTRICT

Section 901. Floodplain Use Permit.

¹⁰
All new uses or substantial improvements to existing structures within a floodway district (A1-30 and AE Zones) not exempt from this Regulation require a Floodplain Use Permit issued by the Floodplain Administrator and are subject to the provisions of Section 902. Issuance of a Floodplain Use Permit does not exempt the holder of the Floodplain Use Permit from any additional requirements necessary to obtain flood insurance.

Uses for which a Floodplain Use Permit may be granted are:

1. Circuses, carnivals and similar transient amusement enterprises.
2. Drive-in theaters, roadside stands, signs and billboards.
3. Operations for extraction of sand, gravel and other materials.
4. Marinas, boat rentals, docks, piers and wharves.
5. Railroads, privately owned and maintained streets, bridges, utility transmission lines and pipelines.
6. Privately owned and maintained dikes and culverts.
7. Storage yards for equipment and machinery.
8. Kennels, stockyards, corrals and stables.
9. Golf courses and parks.
- ¹⁴10. Temporary recreation vehicles and mobile/manufactured homes for a period not to exceed 180 consecutive days.
11. Other uses similar in nature to uses described in this section which are consistent with the standards set forth in Section 902.

Section 902. Floodway District Development Standards.

No structure, excavation or fill material (including fill material for roads, dikes, and levees), deposit, obstruction, storage of material or equipment or other uses shall be permitted which alone or in combination with existing or future uses would in the opinion of the Floodplain Administrator cause an increase in the base flood elevations or flood damage potential.

- ¹³ 1. Septic systems whether public or privately owned, shall not be located wholly or partially within a Floodway District.
- ¹⁴ 2. In accordance with ARS 49-767B.2 solid waste landfills or any part of such facility, whether public or privately owned, shall not be located wholly or partially within a Floodway District or within one-half mile of a one-hundred year floodplain that has one hundred year flows in excess of twenty-five thousand cubic feet per second, as determined by the Federal Emergency Management Agency.
- ⁸ 3. Any fill material proposed in the Floodway District must be shown by the applicant to have no detrimental effect on the purposes of this Regulation. The amount of fill material shall not be greater than is necessary to achieve the purpose for which it is intended as demonstrated by a plan submitted by the applicant indicating the uses to which the filled land will be put and the final dimensions and the extent of the proposed fill material. Such fill material shall not include junk, trash, tires, garbage, wood or other buoyant materials nor hazardous, toxic or deleterious material and shall be protected against scour and erosion.
- ¹³ 4. Structures and uses permitted within the Floodway District shall not include buildings and shall have a low flood damage potential, shall be located so as to minimize obstruction to flood flows with any utilities floodproofed, and shall not be designed or utilized for human habitation.
5. The processing or the outside storage of materials and equipment may be permitted if flooding would cause minimal damage to the material or equipment and such material or equipment is either non-buoyant or firmly anchored or located so as to prevent floatation or is maintained in a readily transportable condition so as to be readily removed from the area within the time available after flood warning.
- ¹⁴ 6. Recreation vehicles and mobile/manufactured homes may be placed for a period not to exceed 180 consecutive days provided they are properly licensed and ready for highway use or are on jacks or wheels with quick disconnect of utilities and have no permanently attached additions on a case by case Floodplain Use Permit basis.

7. Sand and Gravel Extraction.

- a. A Floodplain Use Permit for the extraction of sand and gravel or other materials within the Floodway District shall be granted if the applicant shows that excavations will not be of such depth, width, length, or location as to present a hazard to life or property or to the watercourse in which they are located.
- b. Excavations shall not be permitted so close to any floodway crossings, utility structures or facilities as to cause or have the potential to cause an adverse effect on such crossings, utilities or similar facilities.
- c. No stockpiling of tailings, overburden or sand and gravel which may obstruct, divert or retard the natural flow of water except as specifically approved by the Floodplain Administrator in a particular Floodplain Use Permit shall be permitted.
- d. A plan of development shall be submitted with an application for a Floodplain Use Permit to the Floodplain Administrator. The Floodplain Administrator may require that the plan be sealed by an Arizona Registered Professional Engineer and include a sediment transport analysis.
- e. The plan of development shall be required to include a plan of reclamation to leave the land when the approved use is terminated in such a condition as to maintain stability of the floodway by backfilling, contouring, leveling, removal of equipment and materials or other appropriate means.
- f. Any substantial change in a previously approved plan of development which may have an adverse effect on stream dynamics or surrounding land uses, life or property shall require an application to amend the approved plan of development.

ARTICLE X. FLOODWAY FRINGE DISTRICT

Section 1001. Floodplain Use Permit.

¹⁰ All new uses and substantial improvements to existing structures within a Floodway Fringe District (A1-30 and AE Zones) specified in 1001.1 through 1001.6 below require a Floodplain Use Permit issued by the Floodplain Administrator subject to the provisions of Section 1002. Issuance of a Floodplain Use Permit does not exempt the holder of the Floodplain Use Permit from any additional requirements necessary to obtain flood insurance.

Uses for which a Floodplain Use Permit may be granted are:

1. Any use permitted in Section 901.
- ¹³ 2. Structures and buildings, including dwellings and mobile/manufactured homes, recreational vehicles and other residential uses.
- ¹³ 3. New and replacement water supply systems, water treatment and sewage collection and disposal systems provided that they are designed to prevent or minimize floodwater contamination during the base flood.
4. New and replacement sanitary sewage systems, provided that they are designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters unless otherwise allowed by a permit in conformance with the Federal Water Pollution Control Act.
- ¹³ 5. Septic systems and solid waste landfills, whether public or privately owned provided that they are located in such a way as to avoid impairment to them or contamination from them during flooding and provided that no part of a solid waste landfill is within one-half mile of a one-hundred year floodplain that has one-hundred year flows in excess of twenty-five thousand cubic feet per second as determined by the Federal Emergency Management Agency.
- ¹³ 6. Any other uses which will not be subject to substantial flood damage and which will not cause a hazard to life or property or to the public. These may include uses which can be readily removed from delineated floodplain areas during times of flooding.

Section 1002. Floodway Fringe District Development Standards.

- ⁸ 1. New construction or substantial improvement to any existing structure shall be constructed with methods which minimize flood damage with materials and utilities resistant to flood damage.
- ¹⁰ 2. In A1-30 and AE Zones without a delineated Floodway District development shall be permitted provided that the base flood elevation is not more than two (2) feet above the existing ground elevation and provided it is demonstrated that the cumulative effect when combined with existing and anticipated development shall not increase the encroached water surface elevation beyond the allowable one foot rise.

- ⁸ 3. Dwellings other than mobile/manufactured homes shall have the lowest floor elevated and all utilities floodproofed up to or above the Regulatory Flood Elevation. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer or Land Surveyor that the elevation requirement has been met.
- ¹⁰ 4. Mobile/manufactured homes including permanently placed recreation vehicles shall be elevated so that the bottom of the structural frame is at or above the Regulatory Flood Elevation and is anchored to prevent floatation, collapse or movement. Methods of anchoring may include, but not be limited to use of over-the-top or frame ties to ground or foundation anchors. Specific requirements shall be as follows:
- ⁵ a. Over-the-top or frame ties shall be provided at each of the four corners of the mobile/manufactured home, with additional ties on each side at intermediate locations and;
- b. Mobile/manufactured homes more than 50 feet long require one additional tie per side;
- c. All components of the anchoring system be capable of carrying a force of 4,800 pounds;
- d. Adequate surface drainage and access for a hauler are provided;
- e. In the instance of elevating on piers, setbacks are sufficient to permit steps, pier foundations are placed in stable soil no more than ten feet part, and reinforcement is provided for piers more than six feet above ground level; and
- f. Any additions to the mobile/manufactured home be similarly anchored.
- ¹ DELETED (Para. 4 concerned with elevation methods other than on fill)
- ⁸ g. Attached appliances and all utilities shall be either elevated or flood roofed up to the Regulatory Flood Elevation.
- ¹⁰ h. The above requirements do not apply to units in storage and may be waived for units placed for less than 180 consecutive days and which are properly licensed and ready for highway use or are on jacks or wheels with quick disconnect of utilities and have no permanently attached additions on a case by case Floodplain Use Permit basis.
- ³ 5. For all mobile/manufactured home parks and mobile/manufactured home subdivisions an evacuation plan indicating alternate vehicular access and escape routes shall be filed with the Maricopa County Department of Emergency Management.

- ² 6. Fill material, if used to elevate structures, shall meet all of the following standards:
- a. The top of such fill material shall be at no point lower than the Regulatory Flood Elevation.
 - b. Such fill material shall extend at least 25 feet beyond the walls or supporting frame of the structure, or as approved by the Floodplain Administrator.
 - c. Fill material shall be placed and compacted in accordance with the applicable building code.
 - d. Fill material shall not interfere with local drainage or tributary flow of the channel of any watercourse.
- ⁸ e. Fill material proposed in excess of the amount and extent required herein shall be shown by the applicant to have no detrimental effect on the purposes of this Regulation and the amount of fill material shall not be greater than is necessary to achieve the purpose for which it is intended as demonstrated by a plan submitted by the applicant indicating the uses to which the filled land will be put and the final dimensions and extent of the proposed fill material.
- ¹³ 7. Fill material for purposes other than solid waste landfills shall not include junk, trash, tires, garbage, wood or other buoyant materials nor hazardous, toxic or deleterious material and shall be protected as needed against scour and erosion by riprap or other protective measures as approved by the Floodplain Administrator.
- ¹³ 8. Permitted landfills shall be protected against scour, erosion and contamination by and contamination of the regulatory flood event.
- ¹³ 9. Buildings, except dwellings or any type of residence may have the lowest floor below the Regulatory Flood Elevation provided that they shall be watertight with walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood. Designs for meeting this criteria shall either be certified in an Elevation/Floodproofing Certificate by an Arizona Registered Professional Engineer or the design must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they allow the automatic entry and exit of floodwaters.

¹²
DELETED REFERENCE TO RECREATIONAL VEHICLES.

¹³
10. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirements have been met or the design shall meet the provisions of Section 1002.9.

²
11. Sand and Gravel Extraction.

¹³
A Floodplain Use Permit for the extraction of sand and gravel or other materials within the floodway fringe district shall be granted if the applicant shows that excavations will not be of such depth, width, length, or location as to present a hazard to life or property or to the delineated floodplain in which they are located subject to the following conditions:

- a. Unprotected excavations shall not be permitted so close to any floodplain crossings, utility structures or facilities as to cause or have the potential to cause an adverse effect on such crossings, utilities or similar facilities.
- b. No stockpiling of tailings, overburden or sand and gravel which may obstruct, divert or retard the natural flow of tributaries to the main watercourse except as specifically approved by the Floodplain Administrator in a particular Floodplain Use Permit shall be permitted.
- ¹³
c. Dikes or levees are permitted provided it can be shown by the applicant that such dikes or levees would not adversely effect structures, road or utility crossings, other public or private property, will not cause erosion or diversion of flood flows onto property outside the delineated floodplain and will not create a danger to life or property.
- d. A plan of development shall be submitted with an application for a Floodplain Use Permit to the Floodplain Administrator. The Floodplain Administrator may require that the plan be sealed by an Arizona Registered Professional Engineer and include a sediment transport analysis.

- ¹³
- e. The plan of development shall be required to include a plan of reclamation to leave the land when the approved use is terminated in such a condition as to maintain stability of the delineated floodplain or to an improved condition to enhance higher use of the land.
 - f. Any substantial change in a previously approved plan of development which may have an adverse effect on stream dynamics or surrounding land uses, life or property shall require an application to amend the approved plan of development.

ARTICLE XI. INTERIM DELINEATIONS

Section 1101. Floodplain Use Permit.

⁸
The uses and structures in an Interim Delineation (A Zone) specified in 1101.1 and 1101.3 below require a Floodplain Use Permit issued by the Floodplain Administrator subject to the provisions of Section 1102. Issuance of a Floodplain Use Permit does not exempt the holder of the Floodplain Use Permit from any additional requirements for flood insurance.

Uses for which a Floodplain Use Permit may be granted are:

1. Any use permitted in Section 901 which will not increase the threat of flooding to surrounding property.
2. Any use permitted in Section 1001 subject to the provisions of Section 1002 which will not increase the threat of flooding to surrounding property.
- ⁸ 3. Any other use not specifically named in Sections 901 or 1001 provided the applicant submits an analysis of the Interim Floodplain consistent with Article VIII. Such delineations shall be subject to review and approval by the Floodplain Administrator prior to issuance of a Floodplain Use Permit and shall be forwarded to the State Department of Water Resources and the Federal Emergency Management Agency in the manner described in Article VIII.

Section 1102. Interim Delineation Development Standards.

- ¹³ 1. Uses shall be permitted within the Interim Delineations as set forth above provided that the base flood elevation is not more than two (2) feet above the existing ground elevation either at the site of the proposed use or along a line perpendicular to the direction of flow between such site and the limit of the delineated floodplain.
- ⁸ 2. The lowest floor of dwellings other than mobile/manufactured homes shall be elevated up to or above the Regulatory Flood Elevation.
- ³ 3. Mobile/manufactured homes are permitted subject to the provisions of Section 1002.4.

- ¹³ 4. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer or Land Surveyor in a form acceptable to the Floodplain Administrator stating that the elevation or flood proofing requirement has been met.
- ¹³ 5. All nonresidential buildings and substantial improvements thereto shall have the lowest finished floor elevated or the structure shall be floodproofed up to the Regulatory Flood Elevation. Such buildings and substantial improvements thereto shall be watertight with walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ¹³ 6. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ⁹ 7. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³ 8. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ⁶ 9. All subdivision proposals and other proposed new developments greater than 50 lots or 5 acres, whichever is the lesser, shall include within such proposals base flood elevation data.

¹⁰
ARTICLE XII. PONDING AREAS AND AREAS OF SHALLOW FLOODING.

Section 1201. Floodplain Use Permit.

¹⁰
Uses, new buildings and substantial improvements thereto which are permitted elsewhere in this Regulation may be permitted in Ponding Areas and Areas of Shallow Flooding. A Floodplain Use Permit issued by the Floodplain Administrator subject to the provisions of the following appropriate Section shall be required. Issuance of a Floodplain Use Permit does not exempt the holder of the Floodplain Use Permit from any additional requirements for flood insurance.

⁹
Section 1202. AO Zone Ponding Area.

- ⁹
1. Any volume displacement shall be equally compensated for from within the same Ponding Area.
- ⁹
2. Residential buildings shall have the lowest floor elevated at least one foot above the average depth of inundation.
- ¹³
3. Nonresidential buildings shall have the lowest floor either elevated or, together with the building contents and utilities, floodproofed at least one foot above the average depth of inundation with watertight walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood or the design shall meet the provisions of Section 1002.9.
- ¹¹
4. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.
- ⁹
5. The effective lateral conveyance shall be preserved.
- ⁹
6. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³
7. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ¹³
8. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.

- ¹¹ 9. All new residential buildings and substantial improvements to residential buildings shall have an Elevation Certification which may be completed by the applicant, his agent or by District staff as approved by the Floodplain Administrator.
- ¹³ 10. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

⁹
Section 1203. AH Zone Ponding Area.

- ⁹ 1. Any volume displacement shall be equally compensated for from within the same Ponding Area.
- ⁹ 2. Residential buildings shall have the lowest floor elevated at least one foot above the known water surface elevation.
- ¹³ 3. Nonresidential buildings shall have the lowest floor either elevated or, together with the building contents and utilities, shall be floodproofed up to at least one foot above the known water surface elevation with watertight walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood or the design shall meet the provisions of Section 1002.9.
- ¹¹ 4. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.
- ⁹ 5. The effective lateral conveyance shall be preserved.
- ⁹ 6. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³ 7. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ¹³ 8. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ¹³ 9. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

⁹
Section 1204. A Zone Ponding Area.

- ⁹ 1. Any volume displacement shall be equally compensated for from within the same Ponding Area.
- ⁹ 2. In Areas of Shallow Flooding designated as an A Zone, residential buildings shall have the lowest floor elevated at least one foot above the height of the effective outfall or the height of the feature causing the ponding.
- ¹³ 3. Nonresidential buildings shall have the lowest floor either elevated or, together with the building contents and utilities, floodproofed up to at least one foot above the height of the effective outfall or the height of the feature causing the ponding with watertight walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood or the design shall meet the provisions of Section 1002.9.
- ¹¹ 4. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.
- ⁹ 5. The effective lateral conveyance shall be preserved.
- ⁹ 6. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³ 7. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ¹³ 8. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ¹³ 9. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

⁹
Section 1205. A Zone Area of Shallow Flooding.

- ⁹ 1. In Areas of Shallow Flooding other than Ponding Areas, residential buildings shall have the lowest floor elevated at least one foot above the depth of inundation.
- ¹³ 2. Nonresidential buildings shall have the lowest floor either elevated or, together with the building contents and utilities, be floodproofed up to at least one foot above the depth of inundation with watertight walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a Base Flood or the design shall meet the provisions of Section 1002.9.
- ¹¹ 3. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.
- ⁹ 4. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³ 5. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ¹³ 6. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ¹³ 7. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

¹¹

ARTICLE XIII. ALLUVIAL FAN AREAS.

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Section 1301. Alluvial Fan Development In A Zone.

¹³

1. Development permitted in other sections of this Regulation is permitted in Alluvial Fan Areas with an A Zone designation provided that the base flood elevation is not more than two (2) feet above the existing ground elevation either at the site of the proposed use or along a line perpendicular to the direct of flow between the site and the limit of the delineated floodplain.

⁹

2. The applicant shall make adequate provisions to maintain all natural and improved drainage or flood conveyance systems.

¹³

3. The applicant shall submit a plan of development shall be prepared by an Arizona Registered Professional Engineer. The plan shall include engineering analysis to mitigate all hazards associated with Alluvial Fan flooding including inundation, ground erosion, scour around structures, debris and sediment flow and accumulation in addition to aggradation and degradation of conveyance systems. The plan shall also include building pad and lowest floor elevations.

¹³

4. Nonresidential buildings are permitted in Alluvial Fan Areas with an A Zone designation provided the lowest floor is either elevated or, together with the building contents and utilities, be floodproofed up to one foot above the average depth of inundation with watertight walls impermeable to the passage of water and structural components and utilities having the capacity of resisting the effects associated with a base flood or the design shall meet the provisions of Section 1002.9.

¹¹

5. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.

⁹

6. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.

¹³

7. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.

¹³

8. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.

¹³

9. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

¹¹
Section 1302. Alluvial Fan Development in AO Zone.

- ¹³ 1. In Alluvial Fan Areas with an AO Zone designation, residential buildings shall have the lowest floor elevated at least one foot above the designated average depth of inundation.
- ⁹ 2. The applicant shall make adequate provisions to maintain all natural and improved drainage or flood conveyance systems.
- ¹⁰ 3. The applicant shall submit a plan of development acceptable to the Floodplain Administrator. The plan shall include engineering analysis to mitigate all hazards associated with Alluvial Fan flooding including inundation, ground erosion, scour around structures, debris and sediment flow and accumulation in addition to aggradation and degradation of conveyance systems. The plan shall also include building pad and lowest floor elevations.
- ¹³ 4. Nonresidential buildings in Alluvial Fan Areas with an AO Zone designation, shall have the lowest floor either elevated or, together with the building contents and utilities, floodproofed at least one foot above the designated depth of inundation with watertight walls impermeable to the passage of water and structural components, and utilities having the capacity of resisting the effects associated with a base flood or the design shall meet the provisions of Section 1002.9.
- ¹¹ 5. Mobile/manufactured homes and recreation vehicles shall be permitted subject to the provisions of Section 1002.4.
- ¹³ 6. All new construction and substantial improvements, that fully enclose areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. The applicant shall provide an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer stating that the flood proofing requirement has been met or the design shall meet the provisions of Section 1002.9.
- ⁹ 7. If fill material is to be used to elevate buildings, such fill material shall meet the requirements of Section 1002.6.
- ¹³ 8. Fill material for purposes other than solid waste landfills shall meet the requirements of Section 1002.7.
- ¹¹ 9. All new residential buildings and substantial improvements to residential buildings shall have an elevation certification which may be completed by the applicant or his agent or by District staff as approved by the Floodplain Administrator.
- ¹³ 10. Whenever an elevation or floodproofing certification is required, a separate certification shall be furnished for each building.

ARTICLE XIV. OTHER FLOOD HAZARD ZONES**Section 1401. Floodplain Use Permit.**

This article regulates uses located in flood hazard zones designated by the Floodplain Administrator not specifically regulated elsewhere in this Regulation including but not limited to Erosion Control Zones, Watercourse Master Plans, Area Master Drainage Studies, Moveable Bed Watercourses and other special flood related designations determined based upon authorized studies.

New uses and substantial improvement to existing uses shall require a Floodplain Use Permit issued by the Floodplain Administrator and subject to the following provisions. Issuance of a Floodplain Use Permit does not exempt the holder of the Floodplain Use Permit from any additional requirements necessary to obtain flood insurance.

Uses for which a Floodplain Use Permit may be granted are:

1. Uses permitted elsewhere in this Regulation provided the applicant submits technical information which demonstrates that neither the use nor the specific flood hazard will be adversely affected by such use.

Section 1402. Flood Hazard Development Standards.

1. Standards adopted for development contained in a Watercourse Master Plan, Area Drainage Master Plan or other hydrologically oriented master plan shall be consistent with sound floodplain management practices and this Regulation.
2. Residential uses including mobile/manufactured homes shall provide for reasonable access to the site during a regulatory flood event and may also be required to submit an Elevation/Floodproofing Certification by an Arizona Registered Professional Engineer, Architect or Land Surveyor.
- 13 3. The applicant for any proposed use may be required to provide against encroachment into or protection from the delineated flood hazard.
4. The placement of fill material or extraction of materials may require approval of plans prepared by an Arizona Registered Professional Engineer by the Floodplain Administrator.
5. Whenever a proposed use is located within a delineated floodplain regulated elsewhere in this Regulation as well as another designated flood hazard zone regulated by this article, the article with the most stringent requirements shall take precedence.
6. The standards, provisions, criteria and requirements for development in flood hazard zones imposed by an authorized master plan shall meet or exceed the requirements of this Regulation.

¹¹
ARTICLE XV. WATERCOURSE MASTER PLANS

¹¹
Section 1501. Authorization.

¹¹
Pursuant to Section 48-3909.01 of the Arizona Revised Statutes the District, whenever it has completed a Watercourse Master Plan may submit the plan including uniform rules for development to the Board for adoption. If adopted by the Board the District shall enforce the Watercourse Master Plan under this Regulation.

¹¹
Section 1502. Public Notification.

During the preparation of a Watercourse Master Plan, the owners of record of real property within and immediately contiguous to the watercourse or watercourses included in the planning shall be publicly notified by the District so that the owners may have input to the planning process. In addition, the Sand and Gravel Recommendations Committees organized pursuant to ARS Section 11-830, Subsection D, if any, shall be notified.

¹¹
Section 1503. Recharge Techniques.

All Watercourse Master Plans shall consider recharge techniques including but not limited to gabions, swales, dry wells, sand tanks and small dams.

¹¹
Section 1504. Minimum Standards.

Requirements for a Watercourse Master Plan shall meet or exceed the minimum requirements under the National Flood Insurance Program or the criteria adopted by the Director of Water Resources or this Regulation. In case of conflict the most stringent requirements shall prevail.

ARTICLE XVI. VIOLATIONS

²
Section 1601. Civil Remedies.

As provided for by ARS 48-3613D a person who may be damaged or has been damaged as result of the unauthorized diversion, retardation or obstruction of a watercourse, or the Flood Control District in the case of any violation of this Regulation, has the right to commence, maintain and prosecute any appropriate action or pursue any remedy to enjoin, abate or otherwise prevent any person from violating or continuing to violate this Regulation. If a person is found by the court to be in violation of this Regulation, the court shall require the violator to either comply with this Regulation, if authorized by the Board, or remove the obstruction and restore the watercourse to its original state. The court may also award such monetary damages as are appropriate to the injured parties resulting from the violation including reasonable costs and attorney fees.

²
Section 1602. Declaration of Public Nuisance; Abatement.

Every new structure, building, fill, excavation, or development located or maintained in a flood plain since August 8, 1973 in violation of Title 48, Chapter 1, Article 1 of the Arizona Revised Statutes or this Regulation is a public nuisance per se and may be abated, prevented or restrained by action of the State or any of its political subdivisions.

²
Section 1603. Violation; Classification.

It is unlawful for a person to divert, retard or obstruct the flow of waters in a watercourse if it creates a hazard to life or property without securing written authorization of the Board of Directors, Board of Review or the Floodplain Administrator as required by this Regulation.

¹⁴
Where the watercourse is a delineated floodplain, it is unlawful to excavate or build any structure affecting the flow of waters without securing written authorization from the District.

¹³
A person who violates ARS 48-3615.A or this Regulation is guilty of a CLASS 2 MISDEMEANOR.

ARTICLE XVII. WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this Regulation is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Compliance with this Regulation does not insure complete protection from flooding and is not to be construed as a warranty. Larger floods may occur or the flood height may be increased by man-made or natural causes, such as bridge openings restricted by debris, natural erosion, stream bed meander or man-made obstructions and diversions. This Regulation is not intended to imply that areas outside the floodplain or land uses permitted within such areas will be free from flooding or flood damage. This Regulation shall not create liability on the part of the Flood Control District of Maricopa County or any officer or employee thereof for any flood damages that may result from reliance on this Regulation or any administrative decision lawfully made thereunder.

ARTICLE XVIII. SEVERABILITY

This Regulation and the various parts thereof are hereby declared to be severable. Should any section of this Regulation be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of this Regulation as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

ARTICLE XIX. EFFECTIVE DATE

⁹
This Regulation as amended is adopted by the Board of Directors of the Flood Control District of Maricopa County, Arizona, this 15th day of

December 19 93.

Jan Mc Carroll
CLERK OF THE BOARD

Jan 1, 1994
DATE

FEE SCHEDULE

FLOODPLAIN REGULATION for MARICOPA COUNTY, ARIZONA

The following administrative fees shall be charged for the processing of Appeals, Floodplain Use Permits, Floodplain Variances, plans review and performance bonds with no provision for refund:

Development Plan Review.....	\$200+
	\$20 per acre: Max. \$1000
Floodplain Use Permits (Floodplain Administrator)	
Single Family Residence.....	\$25
Commercial/Industrial.....	\$150
Sand and Gravel Operation.....	\$200+
	\$20 per acre: Max. \$1000
Appeals/Variances (Floodplain Board of Review)	
Residential.....	\$75
Commercial/Industrial.....	\$200
Appeals (Flood Control District Board of Directors)	
Residential.....	\$75
Commercial/Industrial.....	\$200
Floodplain Delineation Review.....	\$250+
	50 per 1/4 mile
Performance Bond.....	100% cost of required improvement or cost to abate violation, or 50% of value at risk whichever is higher.
Continuance of Hearing (Applicant's Request).....	\$25
Regulation (Per Copy).....	\$2

Adopted by the Board of Directors of the Flood Control District of Maricopa County, Arizona, March 23, 1987.