ADMINISTRATIVE DIRECTIVE

COORDINATION OF CITY CONSTRUCTION AND MAINTENANCE IN WATERCOURSES, REGULATORY FLOOD PLAINS, OR EROSION HAZARD AREAS	NUMBER 4.05-1	PAGE 1 of 4
	EFFECTIVE DATE January 20, 2016	

I. PURPOSE

To establish procedures for the coordination of city construction and maintenance operations within watercourses or regulatory floodplains in order to ensure compliance with city drainage and floodplain policies and standards, and to disseminate the Engineering Division's knowledge of flood hazards, watershed problems, potential solutions, and neighborhood impacts.

II. DEFINITIONS

A. **Watercourse** – A lake, river, creek, stream, wash, arroyo, or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designed areas in which substantial flood damage can occur.

B. **Major Wash or Major Watercourse** – Any watercourse which drains a contributing drainage basin of less than thirty (30) square miles and generates a base flood peak discharge of 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 Santa Cruz River Washes.

C. **Minor Wash or Minor Watercourse** – A watercourse which conveys or collects a 100-year (base flood) peak discharge of less than 2,500 cubic feet per second (cfs), but more than 100 cfs.

D. **Regulatory Floodplain** – That portion of the natural floodplain that would be inundated by the 100 year flood. It includes that area where drainage is or may be restricted by man-made structures and that would be inundated by the 100 year flood or those areas which are subject to sheet flooding, or those areas mapped as being floodprone on existing recorded subdivision plats.

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

F. **Detention System** – 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 (pond) and a metered outlet device which causes a lengthening of the duration of flow and thereby reduces downstream flood peaks.

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

H. **Major Maintenance** – Includes: The realignment, excavation, or filling of watercourses; installation of drainage appurtenances, channel lining or other erosion facilities, etc. Major maintenance does not include the removal of weeds and accumulated sediment or other routine work necessary to keep established drainageways functioning properly.

I. **Erosion Hazard Area** – The land area adjoining a watercourse which is subject to erosion damage. If a detailed erosion hazard study is not available, the areas listed below are to be considered the erosion hazard area (or as calculated from the "Drainage Design and Floodplain Management Manual"):

WATERCOURSES	DISTANCE FROM TOP OF BANK	
	Straight Section	Curved Section
Santa Cruz River	490 Feet	1,220 Feet
Rillito Creek	360 Feet	895 Feet
Pantano Wash	350 Feet	870 Feet
Tanque Verde Creek	350 Feet	870 Feet
All Major Washes	100 Feet	250 Feet
All Minor Washes	50 Feet	100 Feet

J. **Construction** – Includes: Erection of any building, structure or fence; installation of pipes or other utilities across or along watercourses either above or below ground; construction of bridges, culverts or dip crossings; installation of improvements for bank protection; construction of grade control structures; and sand or gravel excavations.

III. POLICY

All departments undertaking construction or major maintenance work in watercourses or within a regulatory floodplain are required to have authorization from the City Engineer prior to commencing such work. Such authorization is also required for all construction in an erosion hazard area. Obtaining authorization may require the submitting agency to prepare and execute an approved mitigation plan for the protection of historical and archaeological resources, and for the restoration of affected vegetation or wildlife habitat. Watercourses and regulatory floodplains affected by this directive are on line at http://maps2.tucsonaz.gov/Html5Viewer/?Viewer=maptucson. Activities related to stormwater pollution/stormwater pollution prevention plans for watercourses also require coordination with the Transportation Engineering Division.

A. Notification of City Engineer

1. No city work in watercourses, erosion hazard areas, or regulatory floodplains other than routine maintenance shall be undertaken without prior approval by the City Engineer.

2. At the beginning of each fiscal year, all departments which plan to undertake construction or major maintenance activities in watercourses, erosion hazard areas or regulatory floodplains shall submit a list of these projects with a projected starting date to the City Engineer. The City Engineer shall also be notified prior to beginning construction or major maintenance activities in watercourses or regulatory floodplains which because of their unscheduled nature are not included on the project list.

B. Review by the City Engineer

1. The City Engineer or his designee, shall review the project list and advise each department in writing if detailed plans for the scheduled work are required.

2. If plans are required, they shall be submitted to the City Engineer thirty (30) days prior to the planned commencement date.

3. Written approval/authorization shall be obtained from the City Engineer prior to commencing work.

C. Inspection by the City Engineer

1. The City Engineer or his designee, shall determine whether or not there is a need for field inspection during construction/maintenance activities.

2. All work shall be inspected by the City Engineering Division upon its completion in order to determine whether or not there has been compliance with all city drainage and floodplain policies and ordinances. If not, then the responsibility for ensuring that the construction/maintenance is brought into compliance lies with the department doing the work.

IV. DEPARTMENT ASSISTANCE

Additional information on sites of interest may be obtained by calling the Engineering Division, Floodplain Unit at 791-5100.

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Appendices None

References None

Review Responsibility and Frequency The Deputy City Manager will review this directive annually, or as necessary. Last review date: October 13, 1994.

Authorized

City Manager

Date