# 5.3 Hydrology

The analysis below was performed by the civil engineering firm of Robert Bein, William Frost and Associates, Inc.

## 5.3.1 Environmental Setting

Final EIR 447 commented extensively on the hydrologic aspects of the Musick Jail site based on a report by Kennedy/Jenks Engineers. This portion of Final EIR 447 and the Kennedy/Jenks report is incorporated by reference herein. Additional calculations were performed in connection with the preparation of the Alton Parkway Project Report.

This project lies within the Borrego Canyon watershed. The project site comprises the majority portion of the immediate drainage area to Borrego Wash.

The 100-year flood for this area is analyzed in the context of improvements that are intended to be implemented for Borrego Canyon Channel when it is enclosed in a storm drain. The Borrego Canyon Channel (either the storm drain or the improved channel) will be implemented with the construction of the Musick Jail project in the first phase. This will alleviate the flood plain encroachment into the Musick site.

It should be noted, however, that the current Musick Jail is enclosed by a fence roughly one-third northwest of the ultimate southeasterly right-of-way line for Alton Parkway, and therefore is little affected by Borrego Wash in a flood event, since the Alton Parkway improvements will remove any hazard.

Approximately 20 acres of the existing 100-acre Musick Jail are covered by impervious surface. Approximately 36 acres of the site are tributary to a storm drain at the southerly corner of the site, which flows into a drain in Parker Avenue and eventually to Serrano Creek (O.C. Facility No. F19). The remaining 64 acres of the site are tributary to Borrego Canyon Wash (O.C. Facility No. F20).

#### 5.3.2 Project Impacts Prior to Mitigation

Since the Musick site is relatively flat, peak runoff impacts are minimal. Approximately 35 additional acres of impervious surface will be created on-site. This is a 15% increase in the runoff volumes, and is insignificant from a hydrology point of view. The Alton Parkway engineering plans included storm drain plans for Borrego Wash, anticipating the development of areas within the watershed, including this site. This site was calculated at a "commercial" runoff rate and the expanded facility land coverage is below that considered for "commercial." Therefore, both downstream facilities can adequately accommodate increased runoff from this project.

Short-term surface water quality impacts from construction activities, and long-term runoff quality impacts from new impervious surfaces, pesticides and fertilizers, as well as spills from accidents and/or improper management of chemicals, can be expected. The project design features of most concern in this regard would be: a) any loading docks at the warehouse, laundry and food service buildings; b) tilt up or roll up doors at these same locations through which interior wastes might be hosed or swept outside; c) trash enclosures in these same areas; and d) future activities in the maintenance yard other than collecting work crews for transportation.

Appropriate structural and non-structural Best Management Practices (BMPs) would be applied to reduce these impacts. The Countywide Drainage Area Management Plan (mostly for long-term impacts) will be consulted.

### 5.3.3 Mitigation Measures

30. Prior to commencement of grading, applicant shall submit for approval of the Manager, Development Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff.

This WQMP shall identify the structural and non-structural measures specified in the Countywide NPDES Drainage Area Management Plan Appendix which details implementation of BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities, and shall reference the location(s) of structural BMPs. The SWPPP shall be prepared for construction activities and shall be consistent with Regional Water Quality Control Board NPDES Permit No. CAS618030.

#### 5.3.4 Level of Significance After Mitigation

No impacts in this topical area are anticipated with the stated mitigation.