

## **C. WATER**

### **1. Surface Water Runoff**

See *Section C.3, Flood Hazard/Mudflow Hazard*, page 67.

### **2. Ground Water**

Determined not significant by the October 1984 and January 1999 Initial Studies conducted by the Los Angeles City Planning Department.

### **3. Flood Hazard/Mudflow Hazard**

**A Hydrology study for the Proposed Project was conducted by Pace Engineering, Inc on October 27, 2000. This study is attached in full in Appendix D (under separate cover), and is on file with the department of City Planning, Environmental Review Section, Room 1500, 221 N. Figueroa St., los Angeles. The findings of this study have been utilized in this section.**

#### **Environmental Setting**

The MPTF covers approximately 44.8 acres and is generally bounded on the east by Mulholland Drive, on the south by Valmar Road, on the west by Park Sorrento, and on the north by Calabasas Road. Hydrologically, the site can be divided into three areas. The northern approximately 23 acres of the site is developed with surface parking, paved walkways, plazas and the construction site of the Stark Villas. The central approximately 15.8 acres of the site are used for agricultural crops, and the southern 6 acres, including the approximately 2 acre area of the Dry Canyon Creek, are undeveloped. For hydrologic purposes, on-site drainage includes the entire limits of Motion Picture and Television Fund development, including the areas within the right-of-way of Mulholland Drive.

Drainage from the site is in a northeasterly direction. Existing public, off-site storm drains in the vicinity are a 36 inch pipe located in Mulholland Drive, approximately 1,040 feet south of the intersection with Calabasas Road (hereafter referred to as Line "A"); a 39 inch storm drain in Mulholland Drive, approximately 448 feet south of Calabasas Road (hereafter referred to as Line "B"); a 24 inch storm drain in Calabasas Road (hereafter referred to as Line "C"), which lies in Calabasas Road at the on- and off-ramps of the eastbound Ventura Freeway (US 101); and a natural watercourse, within the southerly portion of the property, ( hereafter referred to as "Dry Canyon

Creek”). Dry Canyon Creek enters an existing City of Los Angeles, 18 x 10 foot, reinforced concrete box culvert under Mulholland Drive immediately east of the site. The existing drainage patterns to the storm drains in the project vicinity are shown in **Figure 10, Existing Storm Water Drainage Patterns**, page 69.

#### **Line “A”**

This 36 inch Reinforced Concrete Pipe (“R.C.P.”) flows eastward under Mulholland Drive, approximately 1,040 feet south of Calabasas Road. This line drains easterly under the existing El Camino shopping center, on the east side of Mulholland Drive. The inlet to this system is on the west side of Mulholland Drive, and the outlet is in the channelized “Dry Canyon” creek east of the shopping center. Approximately 22.1 acres of the project site drains to this line. Of this area, approximately 15.8 acres is presently undeveloped farmland. The pre-development runoff for a 50-year storm event to this 36 inch R.C.P. is 80.3 c.f.s. The capacity of Line “A” for a 50-year event is approximately 80.3 c.f.s.

#### **Line “B”**

This 39 inch R.C.P. flows northerly under Mulholland Drive. Inlets to this line are located at a low spot in Mulholland Drive approximately 448 feet south of Calabasas Road. From this location, Line “B” drains northerly along Mulholland Drive to Calabasas Road, where it converges with a 27 inch, on-site line that drains the western approximately 7.7 acres of the site. Upon convergence, this line drains approximately 15.8 acres of the site. At the intersection of Mulholland Drive and Calabasas Road, this line turns and flows east under Avenue San Luis to the channelized Dry Canyon. The pre-development runoff for a 50-year storm event to this 39 inch R.C.P. is approximately 59.0 c.f.s. The capacity of Line “B” for a 50-year event is approximately 87.1 c.f.s.

#### **Dry Canyon Creek**

This watercourse drains approximately 2,350 acres of land upstream from the site. Approximately six acres of the site drain to this creek. The County of Los Angeles Department of Public Works prepared an analysis of potential runoff for the Dry Canyon Creek watershed. This analysis assumes the entire build-out of the watershed area, based on 1990 General Plan designations. This is an extremely conservative assessment method considering that, at this time, the watershed is not near build-out condition. Based on the Los Angeles County Department of Public Works study, a 50-year storm event could produce approximately 5,610 c.f.s. in Dry Canyon Creek, concentrating at the existing culvert at Mulholland Drive. This culvert has a 50-year storm event capacity of approximately 3,090 c.f.s. As a result, a 50-year event will cause an approximately 2,520 c.f.s. overflow onto Mulholland Drive. This overflow will split, with approximately 1,770 c.f.s. crossing over Mulholland Drive and re-entering Dry Canyon Creek on the east side and re-joining the approximately 3,090 c.f.s. conveyed by the culvert. The remaining approximately 750 c.f.s. will proceed northwesterly along Mulholland Drive.

**FIGURE 10**  
**EXISTING STORM WATER DRAINAGE PATTERNS**

**Line “C”**

This 24 inch line, located under Calabasas at the intersection of the eastbound on- and off-ramps of the Ventura Freeway (US 101), collects drainage from this intersection and a small portion of the Motion Picture and Television Fund parking area. This storm line drains an area of approximately 0.9 acres that flows to Calabasas Road, of which approximately 0.2 acres are from the existing parking lot at the north end of the campus in front of the Administration Building. An additional approximately 0.7 acres of the northwest portion of the campus drains to the intersection of Calabasas Road and El Canon Avenue, and to the drain in Calabasas Road.

The pre-development runoff for a 50-year storm event from the campus to this storm drain is 4.0 c.f.s. The capacity of Line “C” for a 50-year storm event is at least greater than 27.2 c.f.s.<sup>1</sup> Preliminary analysis indicated that the Proposed Project would not negatively affect this line. As a result, the discussion of this facility is provided for reference purposes. A summary of drainage area, flow, and of all of the public, off-site lines in the Project vicinity is provided in **Table 24, Existing Storm Water Runoff**.

<b>TABLE 24 EXISTING STORM WATER RUNOFF</b>				
<b>STORM DRAIN LINE</b>	<b>CONTRIBUTING SITE AREA</b>	<b>CURRENT PEAK FLOW (Q50)</b>	<b>CAPACITY</b>	<b>REMAINING CAPACITY</b>
Line “A”	22.1 acres	80.3 cfs	80.3 cfs	0 cfs
Line “B”	15.8 acres	59.0 cfs	87.1 cfs	28.1 cfs
Dry Canyon Creek Culvert	6.0 acres	5,610 cfs	3,090 cfs	0 cfs
Line “C” <sup>2</sup>	0.9 acres	N/A	> 27.2	N/A

**Significance Criteria**

A project would normally have a significant impact due to flood hazard/mudflow hazard if the project would:

1. Alter existing drainage patterns to create greater downstream flooding potential,
2. Alter existing drainage patterns so that existing vegetation declines,

<sup>1</sup> This minimum capacity was calculated utilizing the minimum design standards of CalTrans.

<sup>2</sup> The inclusion of Line “C” is provided for reference purposes.

3. Cause or increase an exceedance of capacity of bridges and in-place flood control improvements,
4. Impose flood hazards on other properties,
5. Cause uncontrolled runoff resulting in erosion and sedimentation downstream,
6. Impose barriers to the free movement of fish and other aquatic resources, or
7. Place new habitable structures or essential transportation improvements within floodways.

### **Environmental Impacts**

Project development would consist of a total of approximately 316,700 square feet of medical use and approximately 65,350 square feet of service use on the northern portion of the site, and the development of approximately 476 assisted living dwelling units<sup>1</sup>, with associated activity space and surface parking, on the central and southern portions of the site.

Because the northern portion of the site is currently fully developed, the Proposed Project would not increase the storm water discharge generated by that area. However, as part of the redesign of the parking lot along Calabasas Road, drainage from approximately 0.2 acres of the northern portion of the site will be diverted from Line “C” to Line “B”.

On the central portion of the site, the proposed development would result in an approximately 10.7 cfs increase of 50-year frequency peak discharge. Because of the limited capacity of Line “A”, this approximately 10.7 cfs increase would be conveyed northerly to Line “B”. The post-development drainage patterns to the storm drains in the project vicinity are shown in **Figure 11, Post-Development Storm Water Drainage Patterns**, page 72.

To convey the Project generated approximately 10.7 c.f.s. increase in storm water to a storm drain with capacity, site drainage is proposed to be collected in three on-site drainage lines: an approximately 12 inch line to drain the area along Mulholland Drive; an approximately 24 inch line for the Central area; and an approximately 15 inch line to drain the western portion of the site. These three lines will converge southerly of the Stark Villas into a new approximately 30 inch pipe. This approximately 30 inch line will flow northerly to the existing 36 inch storm drain, Line “A”.

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<sup>1</sup> Including 148 dwelling units from the Stark Villas which were conceptually approved under Case No. ZA 86-0653 (CUZ)(ZV), dated September 12, 1986, and fully approved on October 2, 1998.

**FIGURE 11**  
**POST-DEVELOPMENT STORM WATER DRAINAGE PATTERNS**

At the connection to Line “A” a drainage device designed to split flows from one drain into two drains, to prevent exceedance of capacity of one line, will be installed. This splitter device will prevent any additional site contribution to Line “A”. A new approximately 24 inch line is proposed to direct any onsite drainage in exceedance of capacity of the 36 inch Line “A” north to Line “B”. Post-development storm water runoff quantities are shown on **Table 25, Post-Development Storm Water Runoff**.

<b>TABLE 25 POST-DEVELOPMENT STORM WATER RUNOFF</b>					
<b>Storm Drain Line</b>	<b>Existing Capacity</b>	<b>Existing Peak Flow</b>	<b>Project Contribution</b>	<b>Future Peak Flow</b>	<b>Remaining Capacity</b>
Line “A”	80.3 cfs	80.3 cfs	0.0 cfs	80.3 cfs	0.0 cfs
Line “B”	87.1 cfs	59.0 cfs	10.7 cfs	69.7 cfs	17.4 cfs
Dry Canyon Creek Culvert	3,000 cfs	5,610 cfs	0.0 cfs	0.0 cfs	0.0 cfs
Line “C” <sup>1</sup>	> 27.2	N/A	-0.9 cfs	N/A	N/A

Because the County of Los Angeles, Department of Public Works analysis of Dry Canyon Creek assumed build-out of the entire watershed, including approximately four acres of the site which drain to Dry Canyon Creek, increased runoff from development of this portion was already accounted for. The County of Los Angeles analysis was based on the 1990 General Plan designation for this area. That designation, which allows one dwelling unit per 6,000 square feet of lot area, permits 29 dwelling units in the area to the south of Dry Canyon Creek. The proposed development in this area would be the equivalent of approximately nine dwelling units<sup>2</sup>, which is less than the assumed density. As a result, the proposed development would not contribute to an increase in the peak flow in Dry Canyon Creek. However, structures would need to be designed to prevent inundation by storm waters.

The approximately 334.2 cfs overflow from Dry Canyon Creek, which currently reenters the site from Mulholland Drive, would be maintained and conveyed to Spielberg Drive through the east side perimeter roadway and parking area. On-site flooding from this flow would be prevented by the

<sup>1</sup> The inclusion of Line “C” is provided for reference purposes.

<sup>2</sup> Based on the assumption that the average dwelling unit is 1,500 square feet. The proposed development in this area is a total of 13,570 square feet.

development of low garden walls and berms along the western edge of the perimeter roadway and parking area. The approximately 334.2 cfs overflow would be delivered to the 36 inch storm drain that runs easterly from the intersection of Mulholland Drive and Spielberg Drive. At that point, the 36 inch storm drain can experience an exceedance of capacity due to overflow from Dry Canyon Creek. However, no additional site runoff would contribute to this device.

As proposed, the Project would not alter existing drainage patterns to create greater downstream flooding potential; alter existing drainage patterns so that existing vegetation declines; cause or increase an exceedance of capacity of bridges and in-place flood control improvements; impose flood hazards on other properties; cause uncontrolled runoff resulting in erosion and sedimentation downstream; impose barriers to the free movement of fish and other aquatic resources; or place new habitable structures or essential transportation improvements within floodways. Therefore, the Proposed Project would not result in a significant hydrology impact.

### **Cumulative Impacts**

With the exception of the Dry Canyon Creek watershed and the contribution to Line “C”, the entire site is located at the headwaters of the drainage areas of the storm drains that are affected. For Lines “A” and “B”, only Related Project No. 11 would contribute to the flows entering into these lines. However, Related Project No. 11 was included in the assessment of the post-development conditions. With implementation of the proposed on-site drainage facilities, no cumulative impacts are anticipated for Lines “A” or “B”. For Line “C”, the Project contribution to this storm drain is actually reduced by approximately 0.9 cfs, and as a result will not contribute to any cumulative impacts from other Related Project development. For Dry Canyon Creek, the hydrologic analysis performed by the County of Los Angeles assumed full build-out of the Dry Canyon Creek watershed and, as a result, can be considered a worst case cumulative impact assessment. Furthermore, all Related Project development within the subject watershed can reasonably be expected to be developed in accordance with the City or County building codes, thus reducing the amount of new runoff to less than significant levels. This notwithstanding, the existing area of localized flooding along Mulholland Drive can be expected to experience greater quantities of runoff due to upstream exceedances of flood control capacity. However, the Proposed Project would not contribute runoff to this drainage. Thus, the Proposed Project would not result in a significant cumulative flood hazard impact.



### **Mitigation Measures**

- ! The finished floor elevations of structures adjacent to the floodway shall be determined by a civil engineer.
  
- ! The design of any bridge structures (pedestrian, pedestrian/equestrian, or pedestrian/vehicle) over Dry Canyon Creek shall be to the satisfaction of the Department of Building and Safety.
  
- ! The eastern perimeter roadway should be designed to contain and convey at least 334.2 cfs from Dry Canyon Creek to Spielberg Drive.
  
- ! See also *Section IV.A.1, Grading*, page 29, for mitigation measures relating to construction activities.

### **Impacts After Mitigation**

The proposed increase in site generated storm water is not anticipated to increase flooding, erosion or sedimentation on other properties. Provided that the eastern perimeter roadway is designed to contain and convey at least 334.2 cfs from Dry Canyon Creek to Spielberg Drive, and the structures in the central portion of the site are designed to prevent inundation, the project would not locate any habitable structures or transportation improvements within the floodways. As a result, no adverse impacts are anticipated with implementation of proposed mitigation measures.