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# MILKEN EAST CAMPUS
# (15600 MULHOLLAND DRIVE, LOS ANGELES, CA 90077)

## HYDROLOGY & WATER RESOURCES TECHNICAL REPORT
## NOVEMBER 19, 2025

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# 1. INTRODUCTION

## 1.1. PROJECT LOCATION AND EXISTING ON-SITE USES:

The Site is located at 15600 Mulholland Drive in Los Angeles, California. The Site is a reported 21.7 acres in size and is further identified by County of Los Angeles Assessor's Parcel Numbers 4378-001-041. The Site is currently occupied by the former campus of the American Jewish University ("AJU") and is developed with multiple buildings. The Main Building currently consists of classrooms, a library, a performing arts center and auditorium, a kitchen and cafeteria, religious use areas, and administrative offices. The Student Union Building consists of recreational facilities and administrative offices. The Site is also occupied by four Student Residence Buildings, athletics fields, parking spaces, and campus security fencing, gates, and associated kiosk.

Existing buildings on the Project Site include the three-story, approximately 125,000-square-foot Main Building; a two-story, approximately 13,600-square-foot Student Union Building; and four three-story, total of approximately 56,000-square-foot Student Residence Buildings. Existing parking lots have approximately 396 parking spaces. Vehicular access to the Project Site is provided via five driveways along Casiano Road. Pedestrian access to the Project Site is located along Casiano Road. The Project Site is generally sloping to the west along the west of the Site and slopes north along the east of the site. Existing landscaping within the Project Site includes lawns, shrubs, and trees. Electricity, potable water and sanitary sewer service is provided to the area by the City of Los Angeles. Natural gas is supplied to the area by the Southern California Gas Company.

## 1.2. PROJECT DESCRIPTION

The Project proposes to relocate the high school component of the Milken Community School's existing approved school use to the Project Site, where it will make use of the existing school facilities. The Project does not include construction or grading; and proposes no soil import or export. The Project does not propose the removal of any protected or non-protected trees. No additional floor area will be constructed.

The proposed uses of the Main Building would be classrooms, science laboratories, an auditorium and performing arts rooms, kitchen and dining areas, a student lounge, religious use areas, and faculty and administrative offices. The Student Union will contain fitness rooms, multipurpose rooms, and offices. After completion of the Project, a total of up to 900 high school students will be permitted to be enrolled at the Project Site.

## 1.3. SCOPE OF WORK

This report provides a description of the existing site conditions and analyzes the Project's potential impacts to surface water hydrology, surface water quality, groundwater level, and groundwater quality.

# 2. REGULATORY FRAMEWORK

## 2.1. SURFACE WATER HYDROLOGY

*County of Los Angeles Hydrology Manual*

Per the City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The 2006 LACDPW Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.[1] The County also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer systems (MS4) Permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines require review and approval from the County Flood Control District department.

*Los Angeles Municipal Code*

Any proposed drainage improvements within the street right of way or any other property owned by or under the control of the City requires the approval of a B-permit (Section 62.105, Los Angeles Municipal Code (LAMC)). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works, Bureau of Engineering. Additionally, any connections to the City's storm drain system from a private property to a City catch basin or an underground storm drain pipe requires a storm drain connection permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

## 2.2. SURFACE WATER QUALITY

*Clean Water Act*

The Clean Water Act was first introduced in 1948 as the Water Pollution Control Act. The Clean Water Act authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the Clean Water Act forms the basic national framework for the management of water quality and the control of pollutant discharges. The Clean Water Act also sets forth a number of objectives in order to achieve the above-mentioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish,

[1] Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/publication/index.cfm, accessed November, 2025.

shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.[2]

Since its introduction, major amendments to the Clean Water Act have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970 created the U.S. Environmental Protection Agency (USEPA), while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a "Best Management Practices" Program at the state level and provided the Water Pollution Control Act with the common name of "Clean Water Act," which is universally used today. Amendments enacted in 1987 required the USEPA to create specific requirements for discharges.

In response to the 1987 amendments to the Clean Water Act and as part of Phase I of its NPDES permit program, the USEPA began requiring NPDES permits for: (1) municipal separate storm sewer systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. Phase II of the USEPA's NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to: (1) numerous small municipal separate storm sewer systems,[3] (2) construction sites of one to five acres, and (3) industrial facilities owned or operated by small municipal separate storm sewer systems. The NPDES permit program is typically administered by individual authorized states.

In 2008, the USEPA published draft Effluent Limitation Guidelines (ELGs) for the construction and development industry. On December 1, 2009 the EPA finalized its 2008 Effluent Guidelines Program Plan.

In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB). The SWRCB was created by the Legislature in 1967. The joint authority of water distribution and water quality protection allows the Board to provide protection for the State's waters, through its nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California's waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop "basin

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[2] Non-point sources of pollution are carried through the environment via elements such as wind, rain, or stormwater and are generated by diffuse land use activities (such as runoff from streets and sidewalks or agricultural activities) rather than from an identifiable or discrete facility.

[3] A small municipal separate storm sewer system (MS4) is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all small MS4s located in "urbanized areas" as defined by the Bureau of the Census (unless waived by the NPDES permitting authority), and on a case-by-case basis those small MS4s located outside of urbanized areas that the NPDES permitting authority designates.

plans" for their hydrologic areas, issue waste discharge requirements, enforce action against stormwater discharge violators, and monitor water quality.[4]

*Federal Anti-Degradation Policy*

The Federal Anti-degradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state anti-degradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

*California Porter-Cologne Act*

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control. The California Water Code authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

As discussed above, under the California Water Code (CWC), the State of California is divided into nine RWQCBs, governing the implementation and enforcement of the CWC and CWA. The Project Site is located within Region 4, also known as the Los Angeles Region. Each RWQCB is required to formulate and adopt a Basin Plan for its region. This Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

*California Anti-Degradation Policy*

The California Anti-degradation Policy, otherwise known as the *Statement of Policy with Respect to Maintaining High Quality Water in California* was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Anti-degradation Policy, the California Anti-degradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

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[4] Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. April 2019. <https://www.epa.gov/laws-regulations/summary-clean-water-act>., accessed November, 2025.

*California Toxic Rule*

In 2000, the EPA promulgated the California Toxic Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The EPA promulgated this rule based on the EPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxic Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles RWQCB (LARWQCB) as having beneficial uses protective of aquatic life or human health.

*Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.[5]

The Basin Plan is a resource for the LARWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

*NPDES Permit Program*

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the United States. As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs.

*The General Permit*

SWRCB Order No. 2012-0006-DWQ known as "The General Permit" was adopted on July 17, 2012. This NPDES permit establishes a risk-based approach to stormwater control

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[5] Los Angeles Regional Water Quality Control Board. LARWQCB Basin Plan. June 2019. <http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/> accessed November, 2025.

requirements for construction projects by identifying three project risk levels. The main objectives of the General Permit are to:

1. Reduce erosion;
2. Minimize or eliminate sediment in stormwater discharges;
3. Prevent materials used at a construction site from contacting stormwater;
4. Implement a sampling and analysis program;
5. Eliminate unauthorized non-stormwater discharges from construction sites;
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects; and
7. Establish maintenance commitments on post-construction pollution control measures.

California mandates all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices (BMPs) for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.[6, 7]

*Los Angeles County Municipal Storm Water System (MS4) Permit*

As described above, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On November 8, 2012, the LARWQCB adopted Order No. R4-2012-0175 under the CWA and the Porter-Cologne Act. This Order is the NPDES permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the "Permit") cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the Los Angeles County Flood Control District (LACFCD) is designated as the Principal Permittee. The Permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities

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6 State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/.

7 USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, https://www.epa.gov/npdes.

necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Permittees.

*Stormwater Quality Management Program (SQMP)*

In compliance with the Permit, the Co-Permittees are required to implement a stormwater quality management program (SQMP) with the goal of accomplishing the requirements of the Permit and reducing the amount of pollutants in stormwater runoff. The SWMP requires the County of Los Angeles and the 84 incorporated cities to:

- Implement a public information and participation program to conduct outreach on storm water pollution;
- Control discharges at commercial/industrial facilities through tracking, inspecting, and ensuring compliance at facilities that are critical sources of pollutants;
- Implement a development planning program for specified development projects;
- Implement a program to control construction runoff from construction activity at all construction sites within the relevant jurisdictions;
- Implement a public agency activities program to minimize storm water pollution impacts from public agency activities; and
- Implement a program to document, track, and report illicit connections and discharges to the storm drain system.

The Permit contains the following provisions for implementation of the SQMP by the Co-Permittees:

1. General Requirements:
    - Each permittee is required to implement the SQMP in order to comply with applicable stormwater program requirements.
    - The SQMP shall be implemented and each permittee shall implement additional controls so that discharge of pollutants is reduced.
2. Best Management Practice Implementation:
    - Permittees are required to implement the most effective combination of BMPs for stormwater/urban runoff pollution control. This should result in the reduction of storm water runoff.
3. Revision of the SQMP:

- Permittees are required to revise the SQMP in order to comply with requirements of the RWQCB while complying with regional watershed requirements and/or waste load allocations for implementation of Total Maximum Daily Loads (TMDLs) for impaired waterbodies.

4. Designation and Responsibilities of the Principal Permittee:

   The Los Angeles County Flood Control District is designated as the Principal Permittee who is responsible for:

   - Coordinating activities that comply with requirements outlined in the NPDES Permit;
   - Coordinating activities among Permittees;
   - Providing personnel and fiscal resources for necessary updates to the SQMP;
   - Providing technical support for committees required to implement the SQMP; and
   - Implementing the Countywide Monitoring Program required under this Order and assessing the results of the monitoring program.

5. Responsibilities of Co-Permittees:

   Each Co-Permittee is required to comply with the requirements of the SQMP as applicable to the discharges within its geographical boundaries. These requirements include:

   - Coordinating among internal departments to facilitate the implementation of the SQMP requirements in an efficient way;
   - Participating in coordination with other internal agencies as necessary to successfully implement the requirements of the SQMP; and
   - Preparing an annual Budget Summary of expenditures for the storm water management program by providing an estimated breakdown of expenditures for different areas of concern, including budget projections for the following year.

6. Watershed Management Committees (WMCs):

   - Each WMC shall be comprised of a voting representative from each Permittee in the Watershed Management Area (WMA).
   - Each WMC is required to facilitate exchange of information between co-permittees, establish goals and deadlines for WMAs, prioritize pollution

control measures, develop and update adequate information, and recommend appropriate revisions to the SQMP.

7. Legal Authority:

    - Co-Permittees are granted the legal authority to prohibit non-storm water discharges to the storm drain system including discharge to the MS4 from various development types.

*City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff*

On March 2, 2007, City Council Motion 07-0663 was introduced by the City of Los Angeles City Council to develop a water quality master plan with strategic directions for planning, budgeting and funding to reduce pollution from urban runoff in the City of Los Angeles. The Water Quality Compliance Master Plan for Urban Runoff was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders to address the requirements of this Council Motion. The primary goal of the Water Quality Compliance Master Plan for Urban Runoff is to help meet water quality regulations. Implementation of the Water Quality Compliance Master Plan for Urban Runoff is intended over the next 20 to 30 years to result in cleaner neighborhoods, rivers, lakes and bays, augmented local water supply, reduced flood risk, more open space, and beaches that are safe for swimming. The Water Quality Compliance Master Plan for Urban Runoff also supports the Mayor and Council's efforts to make Los Angeles the greenest major city in the nation.

- The Water Quality Compliance Master Plan for Urban Runoff identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans. Additionally, the Water Quality Compliance Master Plan for Urban Runoff provides an implementation strategy that includes the following three initiatives to achieve water quality goals:

- Water Quality Management Initiative, which describes how Water Quality Management Plans for each of the City's watershed and TMDL-specific Implementation Plans will be developed to ensure compliance with water quality regulations.

- The Citywide Collaboration Initiative, which recognizes that urban runoff management and urban (re)development are closely linked, requiring collaborations of many City agencies. This initiative requires the development of City policies, guidelines, and ordinances for green and sustainable approaches for urban runoff management.

- The Outreach Initiative, which promotes public education and community engagement with a focus on preventing urban runoff pollution.

- The Water Quality Compliance Master Plan for Urban Runoff includes a financial plan that provides a review of current sources of revenue, estimates costs for water quality compliance, and identifies new potential sources of revenue.

*City of Los Angeles Stormwater Program*

The City of Los Angeles supports the policies of the General Permit and the Los Angeles County NPDES permit through the *Development Best Management Practices Handbook. Part A Construction Activities,* 3rd Edition, and associated ordinances were adopted in September 2004. *Part B Planning Activities*, 4th Edition was adopted in June 2011. The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program. Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494. The handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the General Permit.

The City of Los Angeles implements the requirement to incorporate stormwater BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, zoning ordinances, and other applicable local ordinances and codes, including storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following:[8]

- Peak Storm Water Runoff Discharge Rate: Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;

- Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site);

- Properly design outdoor material storage areas to provide secondary containment to prevent spills;

- Properly design trash storage areas to prevent off-site transport of trash;

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[8] City of Los Angeles Stormwater Program website, http://www.lastormwater.org/green-la/standard-urban-stormwater-mitigation-plan/; accessed November, 2025.

- Provide proof of ongoing BMP Maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment control BMPs:

- Conserve natural and landscaped areas;
- Provide planter boxes and/or landscaped areas in yard/courtyard spaces;
- Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash;
- Provide proof on ongoing BMP maintenance of any structural BMPs installed;

Design Standards for Structural or Treatment Control BMPs:

- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff from one of the following:

- The 85$^{th}$ percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998)*;
- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook—Industrial/ Commercial, (1993)*;
- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system; or
- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85$^{th}$ percentile 24-hour runoff event.

*Los Angeles Municipal Code*

Section 64.70 of the LAMC sets forth the City's Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of the following into any storm drain system:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.
- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.
- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.
- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.
- Any medical, infectious, toxic or hazardous material or waste.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects/materials from being deposited such that they could be carried into the storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in LAMC, Chapter IX, Article 1. Specifically, Section 91.7013 includes regulations pertaining to erosion control and drainage devices, and Section 91.7014 includes general construction requirements, as well as requirements regarding flood and mudflow protection.

*Standard Urban Stormwater Mitigation Plan (SUSMP)*

Under the Los Angeles County Municipal NPDES Permit, permittees are required to implement a development planning program to address storm water pollution. These programs require project applicants for certain types of projects to implement Standard Urban Stormwater Mitigation Plans (SUSMP) throughout the operational life of their projects. The purpose of SUSMP is to reduce the discharge of pollutants in storm water by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. A project is subject to SUSMP if it falls under one of the categories listed below:

1. Single-family hillside homes;

2. Ten or more unit homes (including single family homes, multifamily homes, condominiums, and apartments);

3. Automotive service facilities;

4. Restaurants;

5. 100,000 or more square-feet of impervious surface in industrial/commercial development;

6. Retail gasoline outlet;

7. Parking lots with 5,000 square feet or more of surface area or with 25 or more parking spaces;

8. Redevelopment projects in subject categories that meet redevelopment thresholds;

9. Location within or directly adjacent to or discharging directly to an environmentally sensitive area if the discharge is likely to impact a sensitive biological species or habitat and the development creates 2,500 square feet or more of impervious surface.

*Low Impact Development – City of LA (LID)*

In October 2011, the City of Los Angeles passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70.01 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012.

On Nov 8, 2012, the Los Angeles Regional Water Quality Control Board (Regional Board or RWQCB) adopted Order No. RA-2012-0175 the NPDES Stormwater Permit (Permit) for the County of Los Angeles and cities within (NPDES No. CAS004001). The Permit was issued to Los Angeles County Flood Control District, the county of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County to reduce pollutants discharged from their Municipal Separate Storm Sewer Systems (MS4) to the Maximum Extent Practicable (MEP) statutory standard. On December 28, 2012 the Order became effective. The requirement to implement the Permit is based on federal and state statutes, including Section 402(p) of the Federal Clean Water Act, Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990, and the California Water Code. The Federal Clean Water Act amendments of 1987 established a framework for regulating stormwater discharges from municipal, industrial, and construction activities under the NPDES program. The primary objectives of the stormwater program requirements are to:

- Effectively prohibit non-stormwater discharges, and

- Reduce the discharge of pollutants from stormwater conveyance systems to the MEP statutory standard.

LID is a stormwater management strategy that seeks to mitigate the impacts of increases in runoff and stormwater pollution as close to its source as possible. LID comprises a set of site design approaches and Best Management Practices (BMPs) that promote the use of natural systems for infiltration, evapotranspiration, and use of stormwater. These LID practices can effectively remove nutrients, bacteria, and metals from stormwater while reducing the volume and intensity of stormwater flows. With respect to urban development and redevelopment projects, it can be applied onsite to mimic the site's predevelopment drainage characteristics. Through the use of various infiltration techniques, LID is geared towards minimizing surface area that produces large amounts of runoff and does not allow water to infiltrate into the ground. Where infiltration is infeasible, the use of bioretention, rain gardens, vegetated rooftops, and rain barrels that will store, evaporate, detain, and/or treat runoff can be used.[9]

In November 2011, the City adopted the Stormwater LID Ordinance (Ordinance #181899) with the stated purpose of:

The intent of the City of Los Angeles LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

The recently adopted NPDES Permit also adopts Low Impact Development principals and requires development and redevelopment projects to incorporate similar requirements as those outlined in the City's LID Ordinance. Under the City's LID Ordinance, stormwater mitigation is required for a much larger number of development and redevelopment projects.

## 2.3. GROUNDWATER

[9] City of Los Angeles. "Planning and Land Development Handbook for Low Impact Development (LID)." May, 2016

*Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

As required by the California Water Code, the LARWQCB has adopted the Basin Plan. Specifically, the Basin Plan designates beneficial uses for surface and ground waters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The Basin Plan is a resource for the Regional Board and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

*Safe Drinking Water Act (SDWA)*

The Federal Safe Drinking Act, established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the CCR, Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal Safe Drinking Water Act.

*California Water Plan*

The California Water Plan (the Plan) provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators and other decision-makers.

*Sustainable Groundwater Management Act of 2014*

The Sustainable Groundwater Management Act of 2014 (SGMA) requires the designation of Groundwater Sustainability Agencies (GSAS) by one or more local agencies and the adoption of Groundwater Sustainability Plans (GSPS) for basins designated as medium or high-priority by the California Department of Water Resources (DWR). SGMA grants new powers to GSAS, including the power to adopt rules, regulations, ordinances, and resolutions; regulate groundwater extractions; and to impose fees and assessments. SGMA also allows the State Water Resources Control Board (SWRCB) to intervene if local agencies will not or do not meet the SGMA requirements, in addition to mandating that critically over drafted basins be sustainable by 2040, and medium- or high-priority by 2042. The Coastal Plain of Los Angeles – Santa Monica Groundwater Basin is classified as a medium priority and is under the Santa Monica Groundwater Subbasin Groundwater Management Plan.

# 3. ENVIRONMENTAL SETTING

## 3.1. SURFACE WATER HYDROLOGY

### 3.1.1. REGIONAL

The Project Site is located within the Ballona Creek Watershed (Watershed) in the Los Angeles Basin. The Watershed covers approximately 130 square miles in the coastal plain of the Los Angeles Basin. Its boundaries are the Santa Monica Mountains to the north, the Harbor Freeway (110) to the east, and the Baldwin Hills to the south. The watershed includes the cities of Beverly Hills, West Hollywood, portions of the cities of Los Angeles, Culver City, Inglewood and Santa Monica, unincorporated areas of Los Angeles County, and areas under the jurisdiction of Caltrans.

The watershed is highly developed: residential (64%), industrial (4%), vacant/open space (17%), and commercial (8%) are the predominant land uses. Overall, 49% of the watershed is covered by roads, rooftops and other impervious surfaces.

Ballona Creek flows as an open channel for just under 10 miles from mid-Los Angeles (south of Hancock Park) through Culver City, reaching the Pacific Ocean at Playa del Rey (Marina del Rey Harbor).

The Estuary portion (from Centinela Avenue to the outlet) is soft bottomed, while the remainder of the creek is lined in concrete. Ballona Creek is fed by a network of underground storm drains, which reaches north into Beverly Hills and West Hollywood. Major tributaries of the Creek and Estuary include Centinela Creek, Sepulveda Channel, and Benedict Canyon Channel.

The average dry weather flow at the Watershed's terminus in Playa del Rey is 25 cubic feet per second – a slow, steady flow. The average wet weather flow is ten times higher, or even more during large storms.[10] Refer to Figure 1 for Ballona Creek Watershed Map.

### 3.1.2. LOCAL

[10] City of Los Angeles Stormwater Program website, https://www.ladpw.org/wmd/watershed/bc/

There is an existing 24-inch underground storm drain pipe located along Casiano Road. Multiple catch basins located along Casiano Road connects to this underground storm drain line. It then connects to a 27-inch underground storm drain main located along Mulholland Drive that flows toward the south. There are two catch basins located at the intersection of Mulholland Drive and Casiano Road that connect to this underground storm drain system. The aforementioned storm drain system is owned and maintained by the City of Los Angeles. This storm drain eventually drains into a main line owned by Caltrans.

Stormwater runoff from the Project Site will discharge toward the offsite catch basins and underground storm drain pipes located in Casiano Road that convey stormwater through various underground pipe networks into the Ballona Creek. The Ballona Creek flows generally southward, ultimately discharging into the Pacific Ocean at the Santa Monica Bay. The Ballona Creek was designed to discharge up to approximately 71,400 cubic feet of stormwater per second from a 50-year frequency storm event.[11]

#### 3.1.3. ON SITE

The subject site consists of the Main Building and Student Union Building of the former campus of the American Jewish University at the corner of Mulholland Drive and Casiano Road. The area surrounding the site consists generally of residential properties and educational facilities to the east. To the west is the Interstate 405 freeway. The Project does not include grading and proposes no soil import or export.

See attached Figure 2 for existing on-site drainage pattern and Figure 3 for hydrology calculations.

Table 1 below shows existing volumetric flow rate generated by the 50-year storm event.

| Table 1- Existing Drainage Stormwater Runoff Calculations | | |
|---|---|---|
| Drainage Area | Area (Acres) | Q50 (cfs) (volumetric flow rate measured in cubic feet per second) |
| Sub-area 1 | 18.37 | 49.30 |
| Sub-area 2 | 2.90 | 9.56 |
| Sub-area 3 | 0.15 | 0.49 |
| Sub-area 4 | 0.30 | 1.14 |

### 3.2. SURFACE WATER QUALITY

#### 3.2.1. REGIONAL

As stated above, the Project Site lies within the Ballona Creek Watershed. Constituents of concern listed for Ballona Creek under California's Clean Water Act Section 303(d) List include Copper, Cyanide, Indicator Bacteria, Lead, Toxicity, Trash, Viruses (enteric), Zinc,

[11] <http://www.ladpw.org/wmd/watershed/bc/>; accessed November, 2025.

Aluminum, Bifenthrin, Chlordane, Cyfluthrin, Cyhalothrin, Cypermethrin, DDT, Deltamethrin, Esfenvalerate, Fipronil, Imidacloprid, Permethrin, Pyrethroid, and pH. TMDL's that apply to this waterbody has been recorded by the EPA and are as follows: Nitrate-Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen + Nitrite-Nitrogen, Total Cadmium, Total Copper, Total Lead, Total Zinc, and E. coli[12].

### 3.2.2. LOCAL

In general, urban stormwater runoff occurs following precipitation events, with the volume of runoff flowing into the drainage system depending on the intensity and duration of the rain event. Contaminants that may be found in stormwater from developed areas include sediments, trash, bacteria, metals, nutrients, organics and pesticides. The source of contaminants includes surface areas where precipitation falls, as well as the air through which it falls. Contaminants on surfaces such as roads, maintenance areas, parking lots, and buildings, which are usually contained in dry weather conditions, may be carried by rainfall runoff into drainage systems. The City of Los Angeles typically installs catch basins with screens to capture debris before entering the storm drain system. In addition, the City conducts routine street cleaning operations, as well as periodic cleaning and maintenance of catch basins, to reduce stormwater pollution within the City.

### 3.2.3. ON SITE

The existing buildings on the site were roughly built between 1979-2003. Based on the year these buildings were built, it is assumed that the Project Site currently does not implement Best Management Practices (BMPs). Depending on site grading, stormwater runoff is conveyed offsite through sheet flow to the public storm drain infrastructure or through infiltration. See Figure 2 for Existing Drainage exhibit.

## 3.3. GROUNDWATER HYDROLOGY

### 3.3.1. REGIONAL

Groundwater use for domestic water supply is a major beneficial use of groundwater basins in Los Angeles County. The City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin (Basin). The Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Groundwater Subbasins. Groundwater flow in the Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water. Refer to Figure 4 for the groundwater basin exhibit.

[12] CA Water Board: 2024 CALIFORNIA 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS. available at https://www.waterboards.ca.gov/losangeles/water_issues/programs/303d/index.html ; accessed November, 2025.

### 3.3.2. LOCAL

As the Project Site is located in the Santa Monica Mountains, it does not overly any specific groundwater basin. Groundwater and streamflow from the Santa Monica Mountains tend to flow south towards the Santa Monica Subbasin, which underlies the northeastern part of the Coastal Plain of Los Angeles Groundwater Basin. The subbasin is bounded on the north by Santa Monica Mountains, on the west by the Pacific Ocean, on the east by the Newport-Inglewood fault zone, and on the south by the Ballona Escarpment , formed by an anticline that brings impermeable rocks close to the surface. Surface drainage flows southward to join Ballona Creek, then westward to the Pacific Ocean. Average annual precipitation ranges from 12 to 14 inches.[13]

The Santa Monica Subbasin is replenished by several sources. The largest sources consist of rainfall that infiltrates within the Subbasin boundaries, rainfall that infiltrates to the north of the Subbasin in the Santa Monica Mountain watershed and enters the Subbasin at its margin, and subsurface inflows from the adjacent Hollywood and Central Substations. Other sources may include extracted groundwater and imported water. In some years, additional recharge may occur from seawater intrusion or from groundwater already stored in the basin. The Subbasin also gains water from leakage in local water-supply pipelines, sewer infrastructure, and storm drains. Between 1985 and 2015, leakage from the distribution system within the Subbasin averaged about 3,916 acre-feet per year (AFY), with yearly vales ranging from 2,982 to 4,328 AFY. The natural safe yield of the Subbasin is estimated to be approximately 3,300 acre-feet per year (AFY).

### 3.3.3. ON-SITE

The entire existing site is approximately 34% impervious. Stormwater runoff will leave the site through curb drains or surface flow that discharge offsite. Refer to Figure 2 for the existing on-site drainage pattern.

Given the mountainous terrain surrounding the Project Site, groundwater is not expected to be encountered.

## GROUNDWATER QUALITY

### 3.3.4. REGIONAL

As stated above, the City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin, which falls under the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB). According to LARWQCB's Basin Plan, objectives

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[13] Coastal Plain of Los Angeles Groundwater Basin, Santa Monica Subbasin, <https://cawaterlibrary.net/wp-content/uploads/2022/05/Part-1-Santa-Monica-GSP.pdf >

applying to all ground waters of the region include bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate, nitrite), and taste and odor.[15]

#### 3.3.5. LOCAL

As stated above, the Project Site does not overly a groundwater basin however drainage from the Santa Monica Mountains drains into the Santa Monica Subbasin.

#### 3.3.6. ON-SITE

The existing Project Site consists of existing buildings, parking lots, and landscaping. Due to the location within the Santa Monica Mountains, the project site does not substantially contribute to groundwater recharge. Therefore, the existing Project Site does not contribute to groundwater pollution or otherwise adversely impact groundwater quality.

## 4. SIGNIFICANCE THRESHOLDS

In accordance with the significance thresholds described by CEQA, the Project has been analyzed for potential impacts on hydrology, water quality, and groundwater. This report includes an analysis of the Project with respect to the CEQA thresholds listed below.

### 4.1. SURFACE WATER HYDROLOGY

Appendix G of the State of California's CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water hydrology. These questions are as follows:

Would the project:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff

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[15] Los Angeles Regional Water Quality Control Board, Basin Plan, March 2013, <http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/electronics_documents/Final%20Chapter%203%20Text.pdf> accessed November, 2025.

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as result of the failure of levee or dam;

In the context of these questions from Appendix G of the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide (*L.A. CEQA Thresholds Guide*) states that a project would normally have a significant impact on surface water hydrology if it would:

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body; or

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

### 4.2. SURFACE WATER QUALITY

Appendix G of the CEQA Guidelines provides a set of sample questions that address impacts with regard to surface water quality. These questions are as follows:

Would the project:

- Violate any water quality standard or waste discharge requirements; or
- Otherwise substantially degrade water quality.

In the context of the above questions from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on surface water quality if it would result in discharges that would create pollution, contamination or nuisance, as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

The CWC includes the following definitions:

- "Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".

- "Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.
- "Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes.[16]

### 4.3. GROUNDWATER HYDROLOGY

Appendix G of the CEQA Guidelines provides a sample question that addresses impacts with regard to groundwater. This question is as follows:

Would the project:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table;

In the context of the above question from Appendix G, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater if it would:

- Change potable water levels sufficiently to:
    - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;
    - Reduce yields of adjacent wells or well fields (public or private); or
    - Adversely change the rate or direction of flow of groundwater; or
- Result in demonstrable and sustained reduction of groundwater recharge capacity.

### 4.4. GROUNDWATER QUALITY

With respect to groundwater quality, and in the context of the above question from Appendix G pertaining to groundwater, the *L.A. CEQA Thresholds Guide* states that a project would normally have a significant impact on groundwater quality if it would:

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[16] City of Los Angeles.LA. CEQA Thresholds Guide. 2006 https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/A07.pdf

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

# 5. METHODOLOGY

## 5.1. SURFACE WATER HYDROLOGY

The Project Site is located within the City of Los Angeles, and drainage collection, treatment and conveyance are regulated by the City. Per the City's Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual as its basis of design for storm drainage facilities. The 2006 LACDPW Hydrology Manual requires projects to have drainage facilities that meet the Urban Flood level of protection. The Urban Flood is runoff from a 25-year frequency design storm falling on a saturated watershed. A 25-year frequency design storm has a probability of 1/25 of being equaled or exceeded in any year. The *L.A. CEQA Thresholds Guide*, however, establishes the 50-year frequency design storm event as the threshold to analyze potential impacts on surface water hydrology as a result of development. To provide a more conservative analysis, this report analyzes the larger storm event threshold, i.e., the 50-year frequency design storm event.

The Modified Rational Method was used to calculate storm water runoff. The "peak" (maximum value) runoff for a drainage area is calculated using the formula, **Q = CIA**

Where,

Q = Volumetric flow rate (cfs)
C = Runoff coefficient (dimensionless)
I = Rainfall Intensity at a given point in time (in/hr)
A = Basin area (acres)

The Modified Rational Method assumes that a steady, uniform rainfall rate will produce maximum runoff when all parts of the basin area are contributing to outflow. This occurs when the storm event lasts longer than the time of concentration. The time of concentration (Tc) is the time it takes for rain in the most hydrologically remote part of the basin area to reach the outlet.

The method assumes that the runoff coefficient (C) remains constant during a storm. The runoff coefficient is a function of both the soil characteristics and the percentage of impervious surfaces in the drainage area.

LACDPW has developed a time of concentration calculator, Hydrocalc, to automate time of concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria as outlined in the Hydrology Manual. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet. The Hydrocalc Calculator was used to calculate the storm water peak runoff flow rate for the Project conditions by evaluating an individual sub-area independent of all adjacent subareas. See Figure 3 for the Hydrocalc Calculator results and Isohyet Map.

## 5.2. SURFACE WATER QUALITY

### 5.2.1. CONSTRUCTION

Construction contractors disturbing less than one acre of soil would not be required to obtain coverage under the NPDES General Construction Permit (order No. 2012-0006-DWQ). As the site does not propose to grade or disturb any soil, the project does not require coverage under the General Permit.

### 5.2.2. OPERATION

The Project will meet the requirements of the City's Low Impact Development (LID) standards.[17] Under section 3.1.3. of the LID Manual, post-construction stormwater runoff from a new development must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs onsite for at least the volume of water produced by the greater of the 85th percentile storm or the 0.75 inch storm event. The LID Manual prioritized the selection of BMPs used to comply with stormwater mitigation requirement. The order of priority is:

1. Infiltration Systems
2. Stormwater Capture and Use
3. High Efficient Biofiltration/Bioretention Systems
4. Combination of Any of the Above

Feasibility screening delineated in the LID manual is applied to determine which BMP will best suit the Project.

LID best management practices (BMPs) would need to be designed for the area of disturbance, unless the area of disturbance is greater than 50% of the property, then the BMPs would need to be designed for the entire project area. As the Project does not

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[17] The Development Best Management Practices Handbook, Part B Planning Activities, 5th edition was adopted by the City of Los Angeles, Board of Public Works on July 1, 2011 to reflect Low Impact Development (LID) requirements that took effect May 12, 2012.

propose development or redevelopment of land and does not disturb impervious area, the Project does not meet the threshold required to implement LID Standards.

### 5.3. GROUNDWATER

The significance of this Project as it relates to the level of the underlying groundwater table of the Santa Monica Subbasin Groundwater Basin included a review of the following considerations:

*Analysis and Description of the Project's Existing Condition*

- Identification of the Santa Monica Subbasin as the underlying groundwater basin, and description of the level, quality, direction of flow, and existing uses for the water;
- Description of the location, existing uses, production capacity, quality, and other pertinent data for spreading grounds and potable water wells in the vicinity (usually within a one-mile radius), and;
- Area and degree of permeability of soils on the Project Site, and;

*Analysis of the Proposed Project Impact on Groundwater Level*

- Description of the rate, duration, location and quantity of extraction, dewatering, spreading, injection, or other activities;
- The projected reduction in groundwater resources and any existing wells in the vicinity (usually within a one-mile radius); and
- The projected change in local or regional groundwater flow patterns.

In addition, this report discusses the impact of both existing and proposed activities at the Project Site on the groundwater quality of the underlying Santa Monica Subbasin.

## 6. PROJECT IMPACT ANALYSIS

### 6.1. CONSTRUCTION

#### 6.1.1. SURFACE WATER HYDROLOGY

The subject site consists of the Main Building and Student Union Building of the American Jewish University. The area surrounding the site consists generally of residential properties and educational facilities. No construction activities are included in this Project.

The Project would not substantially alter the Project Site drainage patterns or result in a permanent adverse change to the movement of surface water. Therefore, construction-related impacts to surface water hydrology would be less than significant.

### 6.1.2. SURFACE WATER QUALITY

Construction of the Project would not result in discharge that would cause: (1) pollution which would alter the quality of the water of the State (i.e., Ballona Creek) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the water of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes. Furthermore, construction of the Project would not result in discharges that would cause regulatory standards to be violated in the Los Angeles River Watershed. Therefore, temporary construction-related impacts on surface water quality would be less than significant.

### 6.1.3. GROUNDWATER HYDROLOGY

As stated above, no construction activities are included in the Project. Therefore, as Project development would not adversely impact the rate or direction of flow of groundwater and no water supply wells would be affected, the Project would not result in a significant impact on groundwater hydrology during construction.

### 6.1.4. GROUNDWATER QUALITY

As discussed above, the Project would not result in any substantial increase in groundwater contamination through hazardous materials releases and impacts on groundwater quality would be less than significant.

## 6.2. OPERATION

### 6.2.1. SURFACE WATER HYDROLOGY

The project site's overall percentage of impervious area is expected to remain the same as the current condition of the project site. The project will not disturb the grades on site and accordingly, there is no incremental increase in the imperviousness of the project site. Therefore, peak flow rates would not increase and the runoff volumes into the existing storm drain system would remain the same.

Table 2 below shows the existing and proposed peak flow rates stormwater runoff calculations for the 50-year Percentile design storm event. A comparison of the pre and post peak flow rates indicates no increase in stormwater runoff. Consequently, the Project would not cause flooding during the 50-year developed storm event, would not create runoff which would exceed the capacity of existing or planned drainage systems, would not require construction of new stormwater drainage facilities or expansion of existing facilities, would not substantially reduce or increase the amount of surface water in a water body, or result in a permanent adverse change to the movement of surface water. As such, operation of the Project would result in a less than significant impact on surface water hydrology.

| Table 2 – Existing and Proposed Stormwater Runoff Calculations | | | | |
|---|---|---|---|---|
| Drainage Area | Project Site Area (Acres)[(b)] | Pre-Project $Q_{50}$ (cfs)[(a)] | Post-Project $Q_{50}$ (cfs)[(a)] | Incremental Increase from Existing to Proposed Condition |
| Total Site | 21.71 | 60.49 | 60.49 | 0.00% |

(a) peak volumetric flow rate measured in cubic feet per second
(b) It is assumed the proposed 0% landscape or planter area has been divided equally between Sub-area A & B.

Lastly, no water bodies are located on or within the immediate vicinity of the Project Site, and as such, the Project would not substantially reduce or increase the amount of surface water in a local water body. The Project peak flow rate of stormwater runoff discharging to the Ballona Creek will remain the same (the local receiving water).

The Project would not cause flooding during the 50-year developed storm event, would not create runoff which would exceed the capacity of existing or planned drainage systems, would not require construction of new stormwater drainage facilities or expansion of existing facilities, would not substantially reduce or increase the amount of surface water in a water body, or result in a permanent adverse change to the movement of surface water. Therefore, potential operational impacts to site surface water hydrology would be less than significant.

The Project Site is not located within a 100-year flood plain or within an area that could be impacted by a seiche, tsunami or mudflow. The project site is located with in the FEMA Flood Zone D area, an area in which flood hazards are undetermined but possible. Dam safety regulations are the primary means of reducing damage or injury due to inundation occurring from dam failure. The California Division of Safety of Dams regulates the siting, design, construction, and periodic review of all dams in the State. In addition, the Los Angeles Department of Water and Power (LADWP) operate the dam and mitigate the potential for overflow and seiche hazard through control of water levels and dam wall height. These measures include seismic retrofits and other related dam improvements completed under the requirements of the 1972 State Dam Safety Act. The City's Local Hazard Mitigation Plan,[20] which was adopted in June 2024, provides a list of existing programs, proposed activities and specific projects that may assist the City of Los Angeles in reducing risk and preventing loss of life and property damage from natural and human-caused hazards, including dam failure. The Hazard Mitigation Plan evaluation of dam failure vulnerability classifies dam failure as a moderate risk rating. Therefore, considering the above information and risk reduction projects, the risk of flooding from inundation by a seiche or dam failure is considered low and impacts are less than significant.

[20] City of Los Angeles Emergency Management Department, *Local Hazard Mitigation Plan,* June 2024.

### 6.2.2. SURFACE WATER QUALITY

The Project Site will not increase concentrations of the items listed as constituents of concern for the Ballona Creek Watershed.

The Project will not implement LID BMPs for managing stormwater runoff as no soil will be disturbed as a part of the Project.

Operation of the Project would not result in discharges that would cause: (1) pollution which would alter the quality of the waters of the State (i.e., Los Angeles River) to a degree which unreasonably affects beneficial uses of the waters; (2) contamination of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health; affect an entire community or neighborhood, or any considerable number of persons; and occurs during or as a result of the treatment or disposal of wastes.

Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated.

### 6.2.3. GROUNDWATER HYDROLOGY

Regarding groundwater recharge, the entire Project Site does not overlay a groundwater basin. The Project will not include construction or grade changes and is not anticipated to cause any change to existing groundwater recharge. Therefore, the Project would not result in any substantial increase in groundwater contamination through hazardous materials releases and impacts on groundwater quality would be less than significant.

### 6.2.4. GROUNDWATER QUALITY

The Project does not include the installation of water wells, or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility.

Operational activities are not expected to affect groundwater quality. The Project would not expand any potential areas of contamination, increasing the level of contamination, or cause regulatory water quality standard violations, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act.

The Project is not anticipated to result in releases or spills of contaminants that could reach a groundwater recharge area or spreading ground or otherwise reach groundwater through percolation. The Project does not involve drilling to or through a clean or contaminated aquifer. Therefore, the Project's potential impact on groundwater recharge is less than significant.

## 6.3. CUMULATIVE IMPACT ANALYSIS

### 6.3.1. SURFACE WATER HYDROLOGY

The geographic context for the cumulative impact analysis on surface water hydrology is the Ballona Creek Watershed. The project would not be required to implement BMPs to manage stormwater runoff as improvements will not disturb existing grades. Furthermore, potential cumulative impacts associated with the Project on surface water hydrology would be less than significant.

### 6.3.2. SURFACE WATER QUALITY

The Project Site will not increase concentrations of the items listed as constituents of concern for the Ballona Creek Watershed as no soil will be disturbed as a part of improvements.

Furthermore, operation of the Project would not result in discharges that would cause regulatory standards to be violated. The Project would comply with all applicable laws, rules and regulations, so cumulative impacts to surface water quality would be less than significant.

### 6.3.3. GROUNDWATER HYDROLOGY

The geographic context for the cumulative impact analysis on groundwater level is the Santa Monica Subbasin.

The Project will not involve land disturbance. Therefore, cumulative impacts to groundwater hydrology would be less than significant.

### 6.3.4. GROUNDWATER QUALITY

Future growth in the Santa Monica Subbasin would be subject to LARWQCB requirements relating to groundwater quality. The Project would not expand any potential areas of contamination, increasing the level of contamination, or cause regulatory water quality standard violations, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. The Project would comply with all applicable laws, rules and regulations, so cumulative impacts to surface water quality would be less than significant.

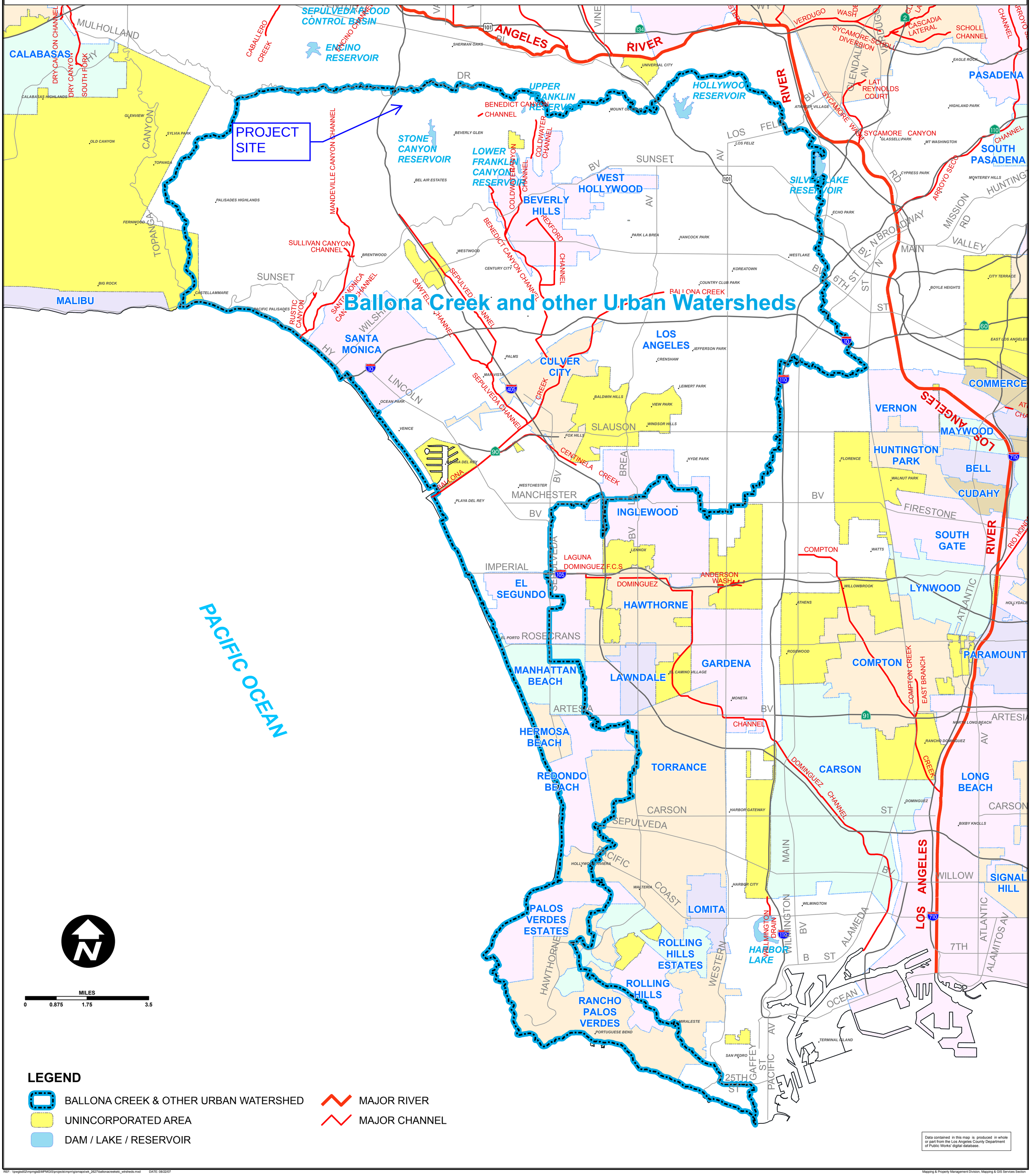
## 7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant impacts have been identified for surface water hydrology, surface water quality, groundwater hydrology or groundwater quality for this Project.

# APPENDIX

# FIGURE 1 - LA COUNTY WATERSHED MAP

# BALLONA CREEK & OTHER URBAN WATERSHEDS




REF: \\pwgisd02\mpmgis$\MPMGIS\projects\mpm\gismaps\wk_2627\ballonacreeketc_wtrsheds.mxd DATE: 08/22/07

Mapping & Property Management Division, Mapping & GIS Services Section

# FIGURE 2 - DRAINAGE AREAS

| COLOR | LABEL | AREA (SF) | DISCHARGE LOCATION | LONGEST DRAINAGE PATH LENGTH (FT) | ELEVATION CHANGE (FT) | DRAINAGE PATH SLOPE (%) |
|---|---|---|---|---|---|---|
| | DRAINAGE AREA 1 | 799,727 | MULHOLLAND DRIVE | 1,715 | 160 | 9.3% |
| | DRAINAGE AREA 2 | 126,296 | SW NEIGHBOR | 800 | 181 | 22.6% |
| | DRAINAGE AREA 3 | 6,698 | SOUTH NEIGHBORS | 90 | 14 | 15.6% |
| | DRAINAGE AREA 4 | 13,162 | CASIANO ROAD | 164 | 1 | 0.6% |
| | TOTAL | 945,883 | | | | |

LEGEND

FLOW DIRECTION

28 ft LONGEST DRAINAGE PATH

D.A. 2
126,296 sf

MILKEN COMMUNITY SCHOOL EAST CAMPUS
15600 MULHOLLAND DRIVE, LOS ANGELES, CA 90077
APN: 4378-001-041

ELEV: 1198

1,198 ft

D.A. 1
799,727 sf

STUDENT UNION UILDING

ELEV: 1379

ELEV: 1225

1,715 ft

MULHOLLAND DRIVE

PROPERTY LINE
SETBACK LINE

25 ft

ACADEMIC-ADMIN BUILDING

D.A. 3
1,484 sf

EXISTING LOT
80 SPACES

EXISTING LOT
82 SPACES

EXISTING LOT
25 SPACES

EXISTING LOT
41 SPACES

EXISTING LOT
60

DORMITORY 4

DORMITORY 2

ELEV: 1361

164 ft

EXISTING LOT
108 SPACES

DORMITORY 3

DORMITORY 1

CASIANO COURT

CASIANO ROAD

ELEV: 1385

ELEV: 1360

D.A. 3
5,214 sf

D.A. 4
10,122 sf

D.A. 4
3,040 sf

ELEV: 1371

1"=120'

# FIGURE 3 - IMPERVIOUS AREAS PER DRAINAGE AREA

| DRAINAGE AREA | TOTAL AREA (SF) | IMPERVIOUS AREA (SF) BUILDING ROOF | IMPERVIOUS AREA (SF) VEHICULAR PAVEMENT | IMPERVIOUS AREA (SF) PEDESTRIAN PAVEMENT | TOTAL IMPERVIOUS AREA (SF) | % IMPERVIOUS |
|---|---|---|---|---|---|---|
| DRAINAGE AREA 1 | 799,727 | 75,910 | 168,948 | 74,960 | 319,818 | 40% |
| DRAINAGE AREA 2 | 126,296 | 0 | 442 | 0 | 442 | 0.3% |
| DRAINAGE AREA 3 | 6,698 | 0 | 0 | 0 | 0 | 0% |
| DRAINAGE AREA 4 | 13,162 | 0 | 5,359 | 188 | 5,547 | 42% |
| TOTAL | 945,883 | 75,910 | 174,749 | 75,148 | 325,807 | 34% |

IMPERVIOUS AREA TYPES
- BUILDING ROOF
- VEHICULAR PAVEMENT
- PEDESTRIAN PAVEMENT

D.A. 2

MILKEN COMMUNITY SCHOOL EAST CAMPUS
15600 MULHOLLAND DRIVE, LOS ANGELES, CA 90077
APN: 4378-001-041

442 sf

MULHOLLAND DRIVE

17,741 sf

PROPERTY LINE
SETBACK LINE
25 ft

D.A. 1

STUDENT UNION UILDING

ACADEMIC-ADMIN BUILDING

D.A. 3

17,948 sf

7,623 sf

25,348 sf

44,858 sf

3,174 sf

15,276 sf

EXISTING LOT
80 SPACES

148,033 sf

EXISTING LOT
82 SPACES

EXISTING LOT
25 SPACES

EXISTING LOT
41 SPACES

EXISTING LOT
60

4,079 sf
DORMITORY 4

4,069 sf

4,075 sf
DORMITORY 2

4,083 sf

382 sf

278 sf

123 sf

5,359 sf

14,625 sf

EXISTING LOT
108 SPACES

DORMITORY 3
2,670 sf

DORMITORY 1
4,330 sf

248 sf

330 sf

525 sf

188 sf

CASIANO COURT

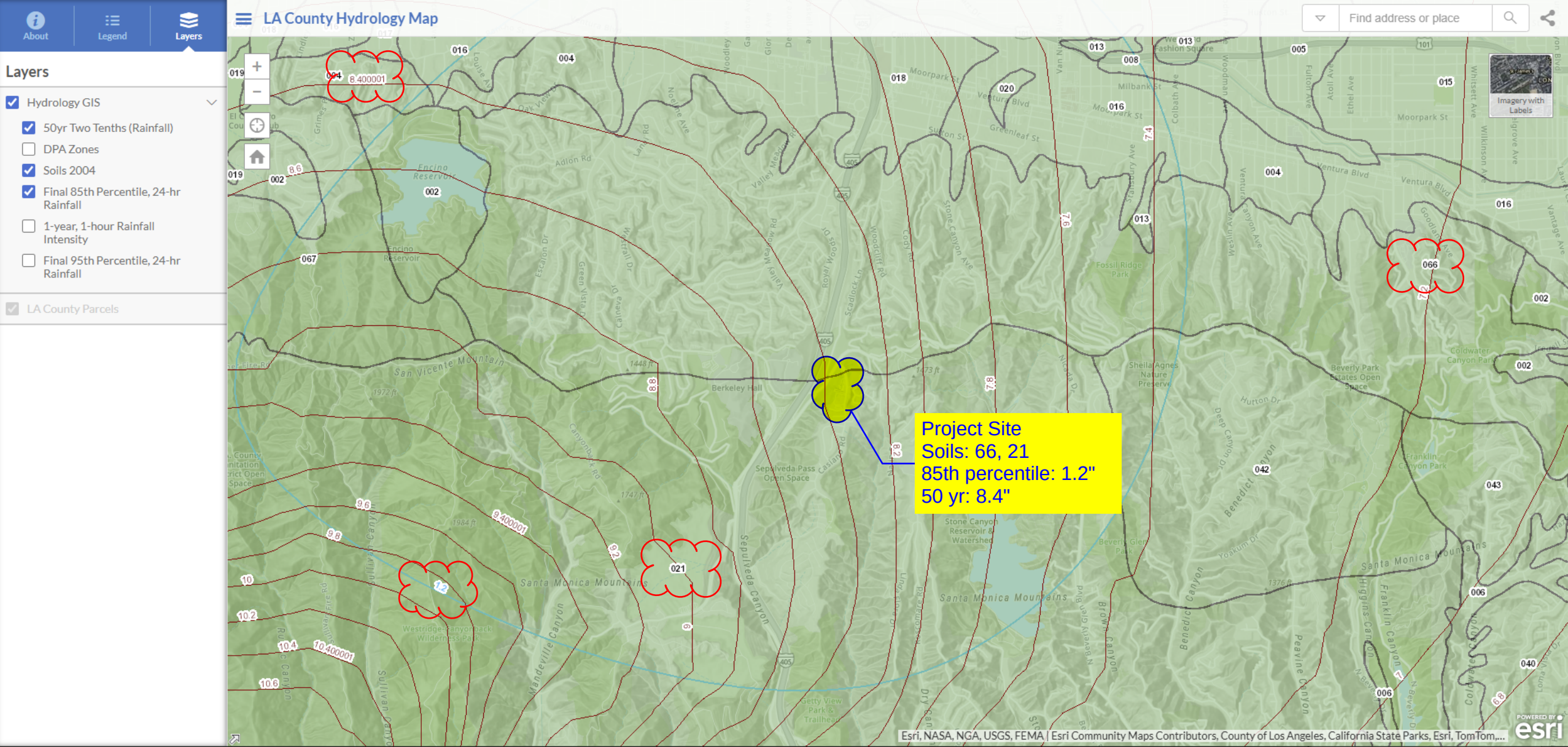
CASIANO ROAD

D.A. 3

D.A. 4

D.A. 4

1"=120'


About
Legend
Layers
LA County Hydrology Map
Find address or place
Layers
Hydrology GIS
50yr Two Tenths (Rainfall)
DPA Zones
Soils 2004
Final 85th Percentile, 24-hr Rainfall
1-year, 1-hour Rainfall Intensity
Final 95th Percentile, 24-hr Rainfall
LA County Parcels
Imagery with Labels
Project Site
Soils: 66, 21
85th percentile: 1.2"
50 yr: 8.4"
Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, County of Los Angeles, California State Parks, Esri, TomTom,...
POWERED BY esri

# 85TH PERCENTILE FLOWRATE

## Peak Flow Hydrologic Analysis

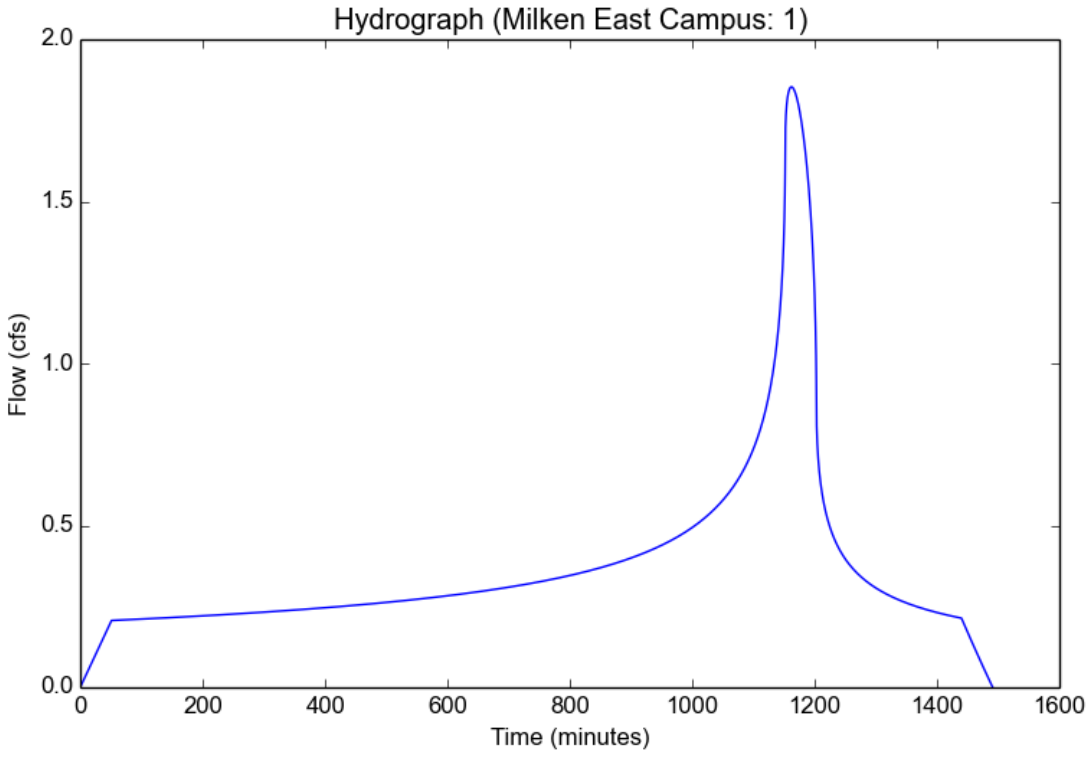
File location: P:/2025/2500719 Milken East Campus/2 ENGR/STORM/Milken East Campus - 1.pdf
Version: HydroCalc 1.0.2

### Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 1 |
| Area (ac) | 18.36 |
| Flow Path Length (ft) | 1715.0 |
| Flow Path Slope (vft/hft) | 0.093 |
| 85th Percentile Rainfall Depth (in) | 1.2 |
| Percent Impervious | 0.4 |
| Soil Type | 21 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

### Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.2 |
| Peak Intensity (in/hr) | 0.2403 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.42 |
| Time of Concentration (min) | 51.0 |
| Clear Peak Flow Rate (cfs) | 1.8534 |
| Burned Peak Flow Rate (cfs) | 1.8534 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.7648 |
| 24-Hr Clear Runoff Volume (cu-ft) | 33313.5047 |



# Peak Flow Hydrologic Analysis

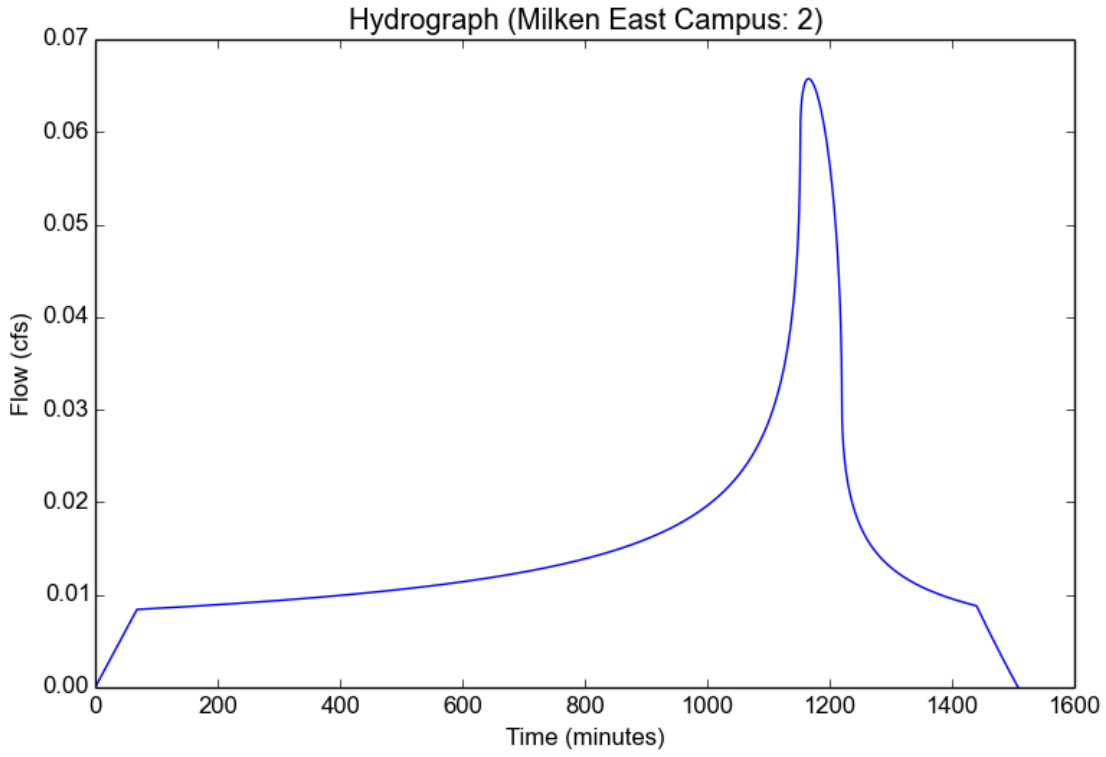
File location: P:/2025/2500719 Milken East Campus/2 ENGR/STORM/Milken East Campus - 2.pdf
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 2 |
| Area (ac) | 2.9 |
| Flow Path Length (ft) | 800.0 |
| Flow Path Slope (vft/hft) | 0.226 |
| 85th Percentile Rainfall Depth (in) | 1.2 |
| Percent Impervious | 0.01 |
| Soil Type | 21 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.2 |
| Peak Intensity (in/hr) | 0.21 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.108 |
| Time of Concentration (min) | 68.0 |
| Clear Peak Flow Rate (cfs) | 0.0658 |
| Burned Peak Flow Rate (cfs) | 0.0658 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.0311 |
| 24-Hr Clear Runoff Volume (cu-ft) | 1353.1058 |



# Peak Flow Hydrologic Analysis

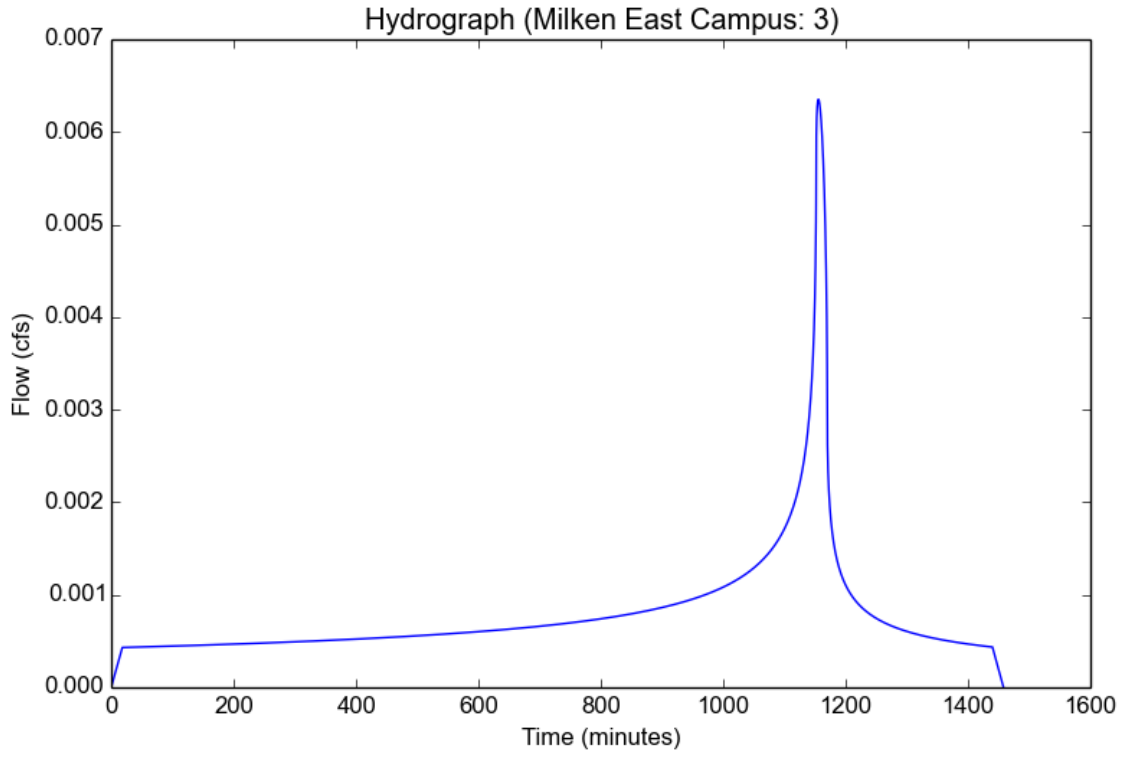
File location: P:/2025/2500719 Milken East Campus/2 ENGR/STORM/Milken East Campus - 3.pdf
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 3 |
| Area (ac) | 0.15 |
| Flow Path Length (ft) | 90.0 |
| Flow Path Slope (vft/hft) | 0.156 |
| 85th Percentile Rainfall Depth (in) | 1.2 |
| Percent Impervious | 0.01 |
| Soil Type | 21 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.2 |
| Peak Intensity (in/hr) | 0.3921 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.108 |
| Time of Concentration (min) | 18.0 |
| Clear Peak Flow Rate (cfs) | 0.0064 |
| Burned Peak Flow Rate (cfs) | 0.0064 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.0016 |
| 24-Hr Clear Runoff Volume (cu-ft) | 69.9843 |



# Peak Flow Hydrologic Analysis

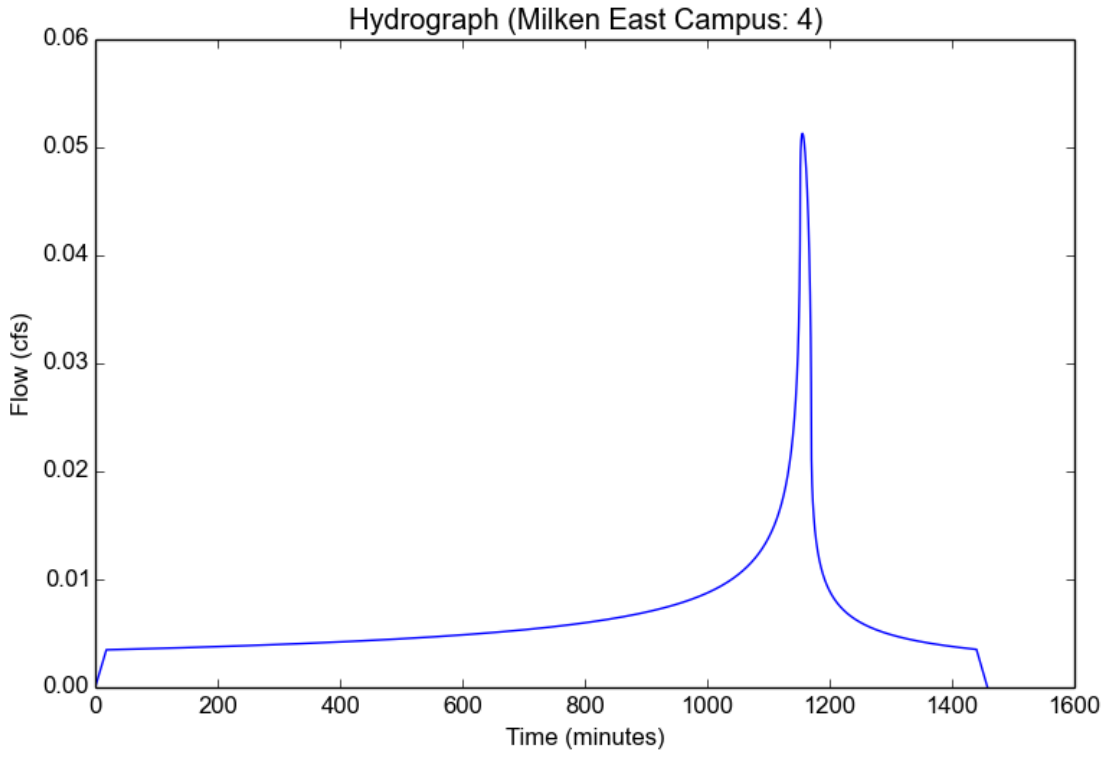
File location: P:/2025/2500719 Milken East Campus/2 ENGR/STORM/Milken East Campus - 4.pdf
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 4 |
| Area (ac) | 0.3 |
| Flow Path Length (ft) | 164.0 |
| Flow Path Slope (vft/hft) | 0.006 |
| 85th Percentile Rainfall Depth (in) | 1.2 |
| Percent Impervious | 0.42 |
| Soil Type | 21 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.2 |
| Peak Intensity (in/hr) | 0.3921 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.436 |
| Time of Concentration (min) | 18.0 |
| Clear Peak Flow Rate (cfs) | 0.0513 |
| Burned Peak Flow Rate (cfs) | 0.0513 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.013 |
| 24-Hr Clear Runoff Volume (cu-ft) | 565.0583 |



# 50-YEAR FLOWRATE

## Peak Flow Hydrologic Analysis

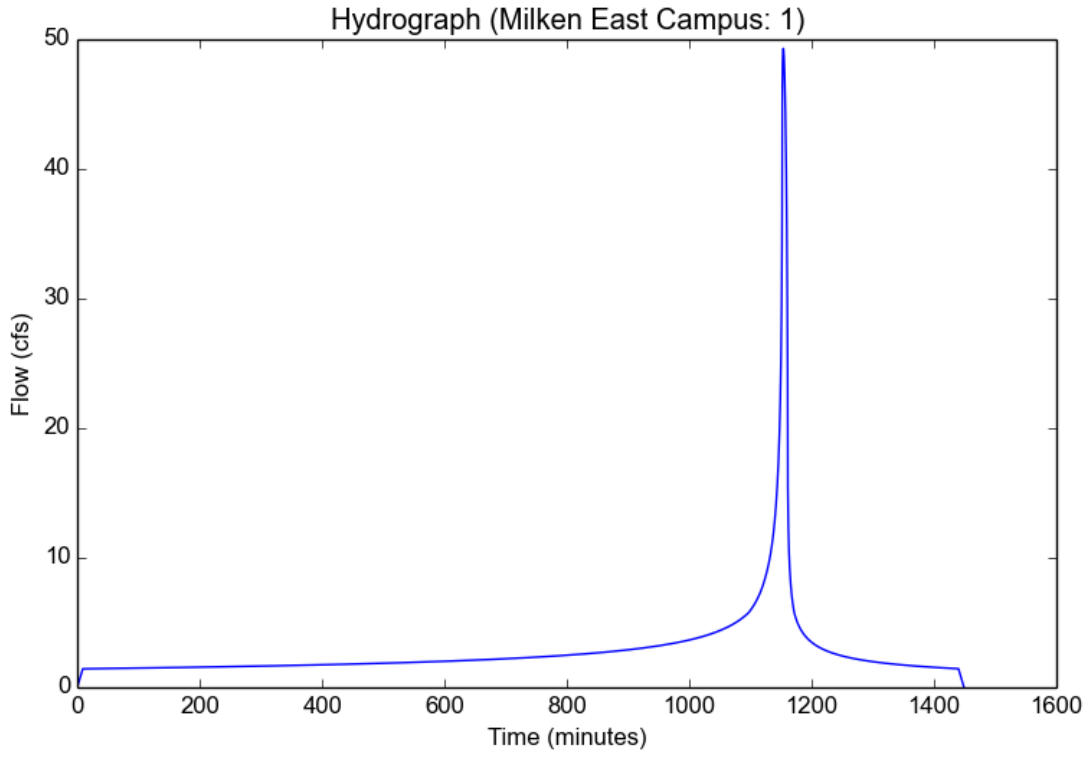
File location: P:/2025/2500719 Milken East Campus/2 ENGR/EIR - Technical Reports/Hydrology and Water Quality Report/Attachments/Milken East Can
Version: HydroCalc 1.0.2

### Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 1 |
| Area (ac) | 18.36 |
| Flow Path Length (ft) | 1715.0 |
| Flow Path Slope (vft/hft) | 0.093 |
| 50-yr Rainfall Depth (in) | 8.4 |
| Percent Impervious | 0.4 |
| Soil Type | 21 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

### Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 8.4 |
| Peak Intensity (in/hr) | 3.8019 |
| Undeveloped Runoff Coefficient (Cu) | 0.5771 |
| Developed Runoff Coefficient (Cd) | 0.7062 |
| Time of Concentration (min) | 9.0 |
| Clear Peak Flow Rate (cfs) | 49.2984 |
| Burned Peak Flow Rate (cfs) | 49.2984 |
| 24-Hr Clear Runoff Volume (ac-ft) | 5.6997 |
| 24-Hr Clear Runoff Volume (cu-ft) | 248280.782 |



# Peak Flow Hydrologic Analysis

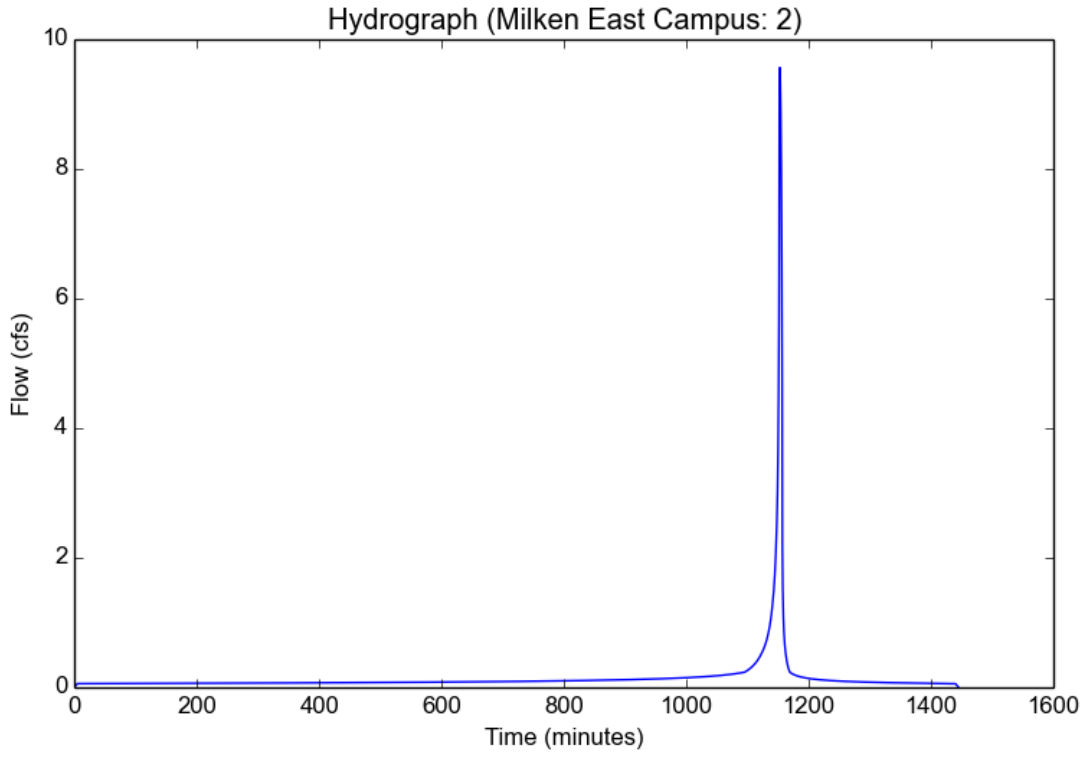
File location: P:/2025/2500719 Milken East Campus/2 ENGR/EIR - Technical Reports/Hydrology and Water Quality Report/Attachments/Milken East Can
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 2 |
| Area (ac) | 2.9 |
| Flow Path Length (ft) | 800.0 |
| Flow Path Slope (vft/hft) | 0.226 |
| 50-yr Rainfall Depth (in) | 8.4 |
| Percent Impervious | 0.01 |
| Soil Type | 21 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 8.4 |
| Peak Intensity (in/hr) | 5.0117 |
| Undeveloped Runoff Coefficient (Cu) | 0.6556 |
| Developed Runoff Coefficient (Cd) | 0.6581 |
| Time of Concentration (min) | 5.0 |
| Clear Peak Flow Rate (cfs) | 9.5641 |
| Burned Peak Flow Rate (cfs) | 9.5641 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.3109 |
| 24-Hr Clear Runoff Volume (cu-ft) | 13544.7377 |



# Peak Flow Hydrologic Analysis

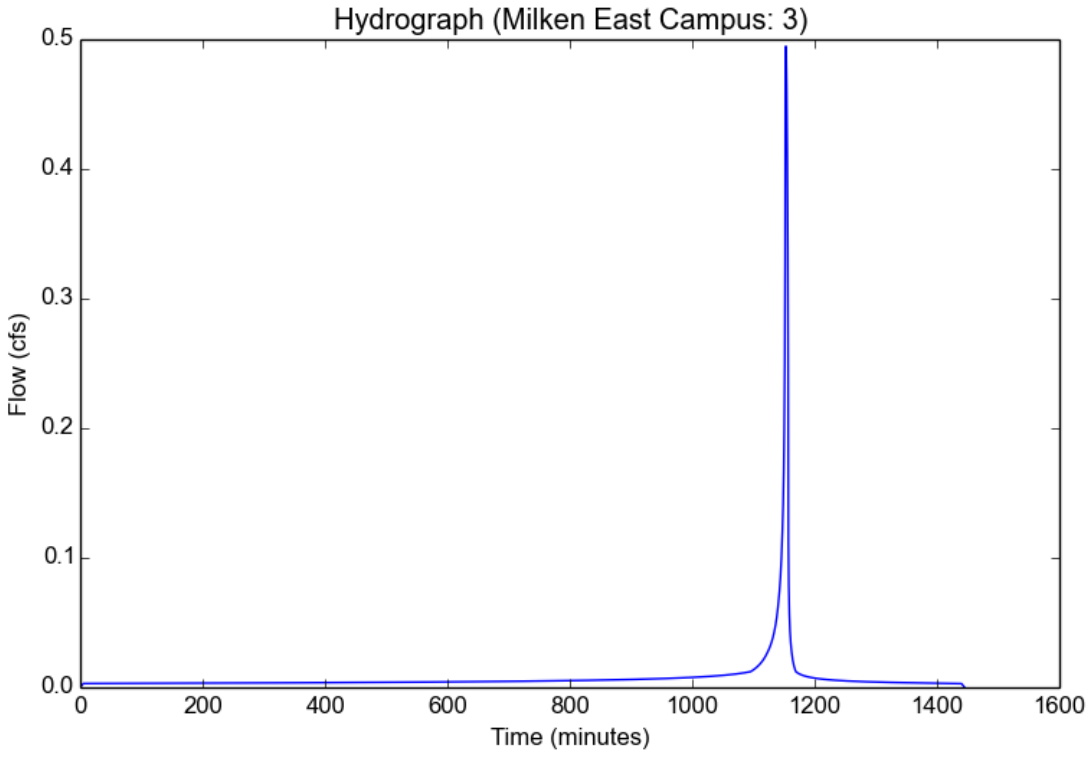
File location: P:/2025/2500719 Milken East Campus/2 ENGR/EIR - Technical Reports/Hydrology and Water Quality Report/Attachments/Milken East Can
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 3 |
| Area (ac) | 0.15 |
| Flow Path Length (ft) | 90.0 |
| Flow Path Slope (vft/hft) | 0.156 |
| 50-yr Rainfall Depth (in) | 8.4 |
| Percent Impervious | 0.01 |
| Soil Type | 21 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 8.4 |
| Peak Intensity (in/hr) | 5.0117 |
| Undeveloped Runoff Coefficient (Cu) | 0.6556 |
| Developed Runoff Coefficient (Cd) | 0.6581 |
| Time of Concentration (min) | 5.0 |
| Clear Peak Flow Rate (cfs) | 0.4947 |
| Burned Peak Flow Rate (cfs) | 0.4947 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.0161 |
| 24-Hr Clear Runoff Volume (cu-ft) | 700.5899 |



# Peak Flow Hydrologic Analysis

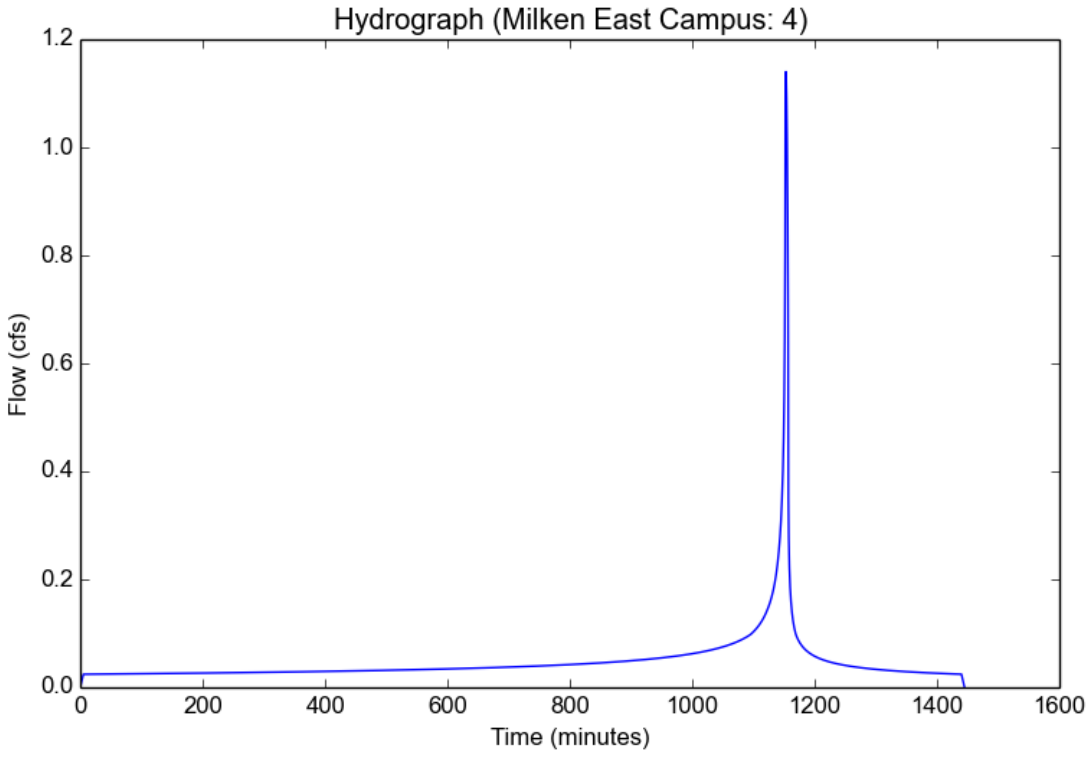
File location: P:/2025/2500719 Milken East Campus/2 ENGR/EIR - Technical Reports/Hydrology and Water Quality Report/Attachments/Milken East Can
Version: HydroCalc 1.0.2

## Input Parameters

| | |
|---|---|
| Project Name | Milken East Campus |
| Subarea ID | 4 |
| Area (ac) | 0.3 |
| Flow Path Length (ft) | 164.0 |
| Flow Path Slope (vft/hft) | 0.006 |
| 50-yr Rainfall Depth (in) | 8.4 |
| Percent Impervious | 0.42 |
| Soil Type | 21 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 8.4 |
| Peak Intensity (in/hr) | 5.0117 |
| Undeveloped Runoff Coefficient (Cu) | 0.6556 |
| Developed Runoff Coefficient (Cd) | 0.7583 |
| Time of Concentration (min) | 5.0 |
| Clear Peak Flow Rate (cfs) | 1.14 |
| Burned Peak Flow Rate (cfs) | 1.14 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.0965 |
| 24-Hr Clear Runoff Volume (cu-ft) | 4202.2761 |



# FIGURE 4 - COASTAL PLAIN OF LOS ANGELES GROUNDWATER BASIN EXHIBIT