A. Introduction

The purpose of this chapter is to summarize the existing and planned infrastructure facilities and provide recommended infrastructure upgrades for the Baldwin Park Transit Oriented Development (TOD) Specific Plan area. The recommended upgrades are based on comparing the existing facilities and their capabilities/capacities with the proposed development within the Specific Plan area. An analysis was conducted for the existing infrastructure facilities in the Specific Plan area and was presented in the Baseline Infrastructure Study, prepared in May 2014. The proposed development within the Specific Plan area is assumed to be at maximum “build-out” condition based on the Specific Plan zoning. The recommendations provided in this chapter will serve as a guideline for future improvements to the infrastructure within the Specific Plan area.

B. Water System

There are three water purveyors providing water services in the city of Baldwin Park: Valley County Water District (VCWD), San Gabriel Valley Water Company and Valley View Mutual Water Company. VCWD is the water service provider for Downtown Baldwin Park. There are potable water lines under almost all streets and alleys within the Specific Plan area. The sizes of the potable water lines vary from 4 to 12 inches. Most of the pipes are ST (steel pipe) with the exception of a few Poly Vinyl Chloride (PVC) pipes. Figure 8-1 shows the layout of the existing water lines.

There are two identified areas within the Specific Plan boundary where there will be significant increase in water usage in units of gallons per day (GPD) when comparing the post development conditions to existing conditions. The first area is the existing City-owned Metrolink parking lot on the east side of the Specific Plan area, at the intersection of Ramona Boulevard and Badillo Street. This property is being rezoned to Mixed Use 1 (MU-1). Although this will create an increase in the water usage and fire flow demand, the existing 12-inch ST under Ramona Boulevard will be able to handle the increment after the development. The second area is the residential area located
Figure 7-1: Existing and Proposed Wet Utilities

- **Project Boundary**
- **City Boundary**
- **Metrolink San Bernardino Line**
- **Water Lines**
- **Water Upgrade from 6" ST to 8" ST**
- **Sewer Lines**
- **Storm Drain Lines**

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along Bogart Avenue, north of Ramona Boulevard. A higher residential density is assumed for this area at full build-out. The demand for domestic water usage and fire flow requirements will require the existing 6-inch ST water line on Bogart Avenue from Clark Street to Ramona Boulevard to be upgraded to 8-inch ST as shown in Figure 7-1. This is the only upgrade recommended for the existing water infrastructure.

VCWD will evaluate all new development that will occur in the future using a more detailed hydraulic analysis. The VCWD analysis will supersede the recommendations herein, and VCWD will ultimately decide whether the water system infrastructure is required to be upgraded.

C. Sewer System

The sewer lines serving the Specific Plan area are owned and maintained by the City of Baldwin Park Department of Public Works, with the exception of the 15-inch Baldwin Park trunk sewer, which is owned and maintained by the Los Angeles County Sanitation District. The sewer lines within the area are mainly Vitrified Clay Pipes (VCP), mostly 8 inches in diameter. The sewer lines are all under the major streets with smaller lateral lines connecting directly to the residential building or businesses (Figure 7-1).

There are two major sewer trunk lines within the Specific Plan area, one of them is the 15-inch VCP in Maine and Pacific Avenues, and the other is the 15-inch VCP in Baldwin Park Boulevard. Both sewer trunk lines flow from north to south. Using the Zoning Coefficient for sewer area study developed by Los Angeles County Department of Public Works Land Development Division, the cumulative increase of sewage flow affecting the 15-inch VCP on Maine and Pacific Avenues after the development is estimated to be 0.064 cfs. The cumulative increase after development affecting the 15-inch VCP in Baldwin Park Boulevard is estimated to be 0.028 cfs. Based on the small amount of increase, the sewer trunk lines will not require any upgrades to accommodate the new development. Furthermore, the rest of the sewer mains are 8 inches in diameter or larger, which are more than adequate to handle the increased sewage discharge created by the new development.

It is recommended that the City's Department of Public Works would require a detailed sewer area study when the individual developer is planning new construction in the Specific Plan area. The area studies will provide a better and more detailed understanding of the impact of the new development to the existing sewer infrastructure. The Los Angeles County Sanitation District will be involved in reviewing all new sewer infrastructure upgrades as the City’s Department of Public Works will be sending new or updated tentative tract or parcel maps for the district to review.
D. Storm Drain System

The storm drain system serving the Specific Plan area is maintained by the Los Angeles County Flood Control District (LACFCD). The storm drain system within the Specific Plan area consists of mostly underground Reinforced Concrete Pipes (RCP) ranging from 36 to 63 inches (Figure 7-1).

The proposed development in the Specific Plan area will generate little or no increase in the runoff to the existing drainage system, since more than 90% of the existing Specific Plan area is already impervious. It is predicted that the new development will not directly trigger any need for upgrading the City’s existing storm drain major backbone facilities. In addition, the requirements for percolation and on-site detention for new development will stabilize and/or even reduce runoff in the area.

At the present time, there are no plans to upgrade the existing storm drain system within the Specific Plan area.

LID Practices and Project Requirements

Since January 20, 2005, the State Water Resource Control Board of California (SWRCB) adopted a sustainable practice called Low Impact Development (LID) that would benefit the water supply and contribute to water quality protection for the region. Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility, LID takes a different approach by using site design and storm water management to maintain the site’s pre-development runoff rates and volumes. The goal of LID is to mimic a site’s pre-development hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

The ten LID practices are:
1) Bioretention & Rain Gardens
2) Rooftop Gardens
3) Sidewalk Storage
4) Vegetated Swales, Buffers & Strips; Tree Preservation
5) Roof Leader Disconnection
6) Rain Barrels and Cisterns
7) Permeable Pavers
8) Soil Amendments
9) Impervious Surface Reduction & Disconnection
10) Pollution Prevention & Good Housekeeping

All new development in the Specific Plan area will require preparation of a hydrology study to demonstrate that building sites are free from flooding hazard. All new devel-
Development will be required to mimic the site’s pre-development runoff by choosing the appropriate LID practice most suitable for the site. A proposed project must demonstrate that any proposed improvement, including filling, does not raise the flood level upstream or downstream of the project. In addition, National Pollution Discharge Elimination System (NPDES) reports, such as the Water Quality Management Plan (WQMP), Standard Urban Stormwater Management Plan (SUSMP), and Storm Water Pollution Prevention Plan (SWPPP), will be required from the developer for each new development to ensure the quality of water is preserved and adverse environmental impacts are minimized.

E. Electrical System

Southern California Edison (SCE), an independently owned utility, provides electrical power service to the City of Baldwin Park. SCE sets their own service standards (with the involvement of the Public Utilities Commission) and facility improvement strategies. Currently, there is a network of power grid lines that supply sufficient electrical power service to the Specific Plan area. There is no major deficiency or functional problem in the power supply facilities within the Specific Plan area. The specific locations of the existing underground and overhead electrical lines are illustrated in Figure 7-2.

With the coordination of the City, the decision to upgrade the power supply facilities and the number of the upgrades (if any) to meet the demand of future development will be decided by SCE after developers have submitted their building plans. Demand for services and the ability to serve new developments are generally determined on a case-by-case basis. At this point, there are no recommendations for any major upgrades to the existing power supply facilities in the Specific Plan area.

It is important for developers to note that SCE has developed several energy-efficiency programs for residential, non-residential, new construction and low-income subscribers. These programs include rebates and cash incentives for completion of energy-efficiency projects in residences and businesses, providing energy-efficient solutions for new developments as well as programs that aid low-income customers to purchase energy-efficient refrigerators and outdoor lighting. SCE will continue to promote the resourceful use of energy, and in turn, a reduction in electrical use and electricity. All new development will be required to place the power and telecommunication services underground.

F. Natural Gas System

The Southern California Gas Company/Sempra Utilities (The Gas Company) is the gas service provider for the Specific Plan area. Currently the gas pipelines are in all major streets in the area, specific locations of gas pipelines are illustrated in Figure 7-2.
Figure 7-2: Existing Dry Utilities

- Project Boundary
- City Boundary
- Metrolink San Bernardino Line
- Electrical, Telecommunications, Cable TV Aerial Facilities
- Gas
- Cable Television

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The Gas Company is a public utility company; therefore, the analysis on the capacity and capability to meet future demand will be conducted by The Gas Company with coordination with the City upon submittal of building plans by developers. It is important for developers to note that The Gas Company participates in the California Energy Star® New Homes Program Version 3, a performance-based program that provides builders with incentives for developments that use at least 15% less energy than the California 2008 Building Energy Efficiency Standards.

G. Telecommunications System

The City of Baldwin Park is within the service area of Verizon Communications, a privately owned company. Verizon is the provider of both local and long distance telecommunications in the Specific Plan area (Figure 7-2). Currently, the local telecommunications network lacks the high-speed internet service that will be demanded by existing and future businesses in the area.

Verizon Communications will assess the demand for services and the ability to serve new developments on a case-by-case basis. The capacity and capability analysis for meeting future demand within the Specific Plan area will be conducted after building plans are submitted by developers. An upgrade of the existing telecommunications infrastructure to have the capability of providing high-speed internet for future developments will include the placing of the aerial telecommunication lines underground, and providing fiber optic cables to replace copper conduits.

Verizon Communications will coordinate with the electrical service supplier (SCE) to share the utility trenching cost by utilizing a joint trench. In most cases, SCE will dictate the layout of the trench, and the telecommunication lines would follow.

H. Cable Television System

The cable service provider for this area is Time Warner Cable. Most of the existing cable TV systems within the Specific Plan area are aerial facilities that share the power poles with the electrical system with a few existing underground conduits (Figure 7-2).

New land uses resulting from the Specific Plan will consist of both commercial and residential development, therefore high-speed internet and cable television services will be in demand. Similar to telecommunications systems, Time Warner Cable will assess the demand for services on a case-by-case basis and ultimately make the decisions concerning upgrades for the existing cable TV systems to meet the demand of the future developments.

Also similar to telecommunications systems, cable TV will most likely coordinate with SCE to conduct joint trenching, if new underground infrastructure is warranted, in order to lower the cost.