



CHAPTER 4

PARKS, PUBLIC FACILITIES, AND INFRASTRUCTURE

Intensified land uses in the Isabel Neighborhood will create demand for a complete network of open spaces, public facilities, and infrastructure. This chapter summarizes the Neighborhood's future demand for public services under buildout of the Plan and outlines strategies for meeting this need. Topics include: parks and open space; public services (schools, library, fire, police, and materials collection, or solid waste); and utilities (water, wastewater, stormwater, electricity, natural gas, and telecommunications). The Draft EIR for the Isabel Neighborhood Specific Plan includes a detailed analysis of these public services and utilities.



4.1 BACKGROUND

As described in Chapter 2, Land Use, the Isabel Neighborhood Specific Plan will accommodate development of approximately 4,095 new housing units. This level of residential development would result in approximately 9,800 new residents. Build-out of the Plan would also result in approximately 1.97 million square feet of non-residential development (net new) and about 9,200 jobs.

The capacity of infrastructure and public services to accommodate future growth is based largely upon the City of Livermore General Plan. The General Plan establishes an overall development capacity for the entire city, based on the land use designations for each property and other assumptions about how and where growth will occur. Under build-out of the General Plan, Livermore can accommodate about 41,000 dwelling units and 85,000 jobs. Based on 2017 housing and job counts, there is remaining capacity for approximately 9,150 new housing units and 33,500 additional jobs.

The General Plan currently allocates about 4,500 of these housing units to a future BART station in the Greenville Road area, contingent

upon preparation of a specific plan and a BART extension to Greenville Road. While BART was not extended to Livermore, the Valley Link rail station meets the intent of a BART station by providing regional transit service that will connect with BART and match BART headways. Part of the Isabel Neighborhood Specific Plan planning effort is to shift the capacity associated with the Greenville area to the Isabel Neighborhood. With this shift, there is sufficient capacity under the current General Plan to accommodate the anticipated level of development under the Isabel Neighborhood Specific Plan. This finding serves as the basis for the City and partner agencies to accommodate growth under the Isabel Neighborhood Specific Plan.



Anticipated development within the Isabel Neighborhood Specific Plan is complemented by the proposed Valley Link project.

4.2 PARKS, RECREATION, AND OPEN SPACES

The City coordinates with the Livermore Area Recreation and Parks District (LARPD) to develop, maintain, and operate recreational facilities, including parks, trails, open space areas, community centers, and programs. Existing parks within and near the Planning Area will add to the recreational options for new residents. Currently, there are about 12 acres of parkland north of the freeway (Cayetano Park), and about 11 acres of parkland within a half-mile of the proposed residential areas south of the freeway (Maitland R. Henry, Livermore Downs, and Al Caffodio parks). Cayetano Park offers the following amenities: tot lot and playground equipment, group picnic sites, barbeque areas, picnic tables, sports fields, basketball courts, dog park and run, and restroom facilities; playground equipment is also provided in the Maitland R. Henry park.

Policies and standards applicable to the Isabel Neighborhood are established in the Open Space and Conservation Element of the Livermore General Plan, the Livermore Development Code, and the LARPD Master Plan (2016). LARPD has developed park standards to determine the amounts of different types of parkland needed to serve Livermore residents. The City of Livermore General Plan and LARPD 2016 Master Plan reference these standards, which are summarized in Table 4-1.

TABLE 4-1: PARK STANDARDS

Park Type	Size/Description	Service Area	LARPD Standard
<i>Neighborhood</i>	4-10 acres; includes open play fields, small picnic areas, tot lots	½ to 1 mile	2 acres per 1,000 residents, or 1 park per 3,000-5,000 residents
<i>Community</i>	30+ acres; includes sports fields, on-site parking, tennis courts, large group picnic areas	2 miles	2 acres per 1,000 residents
<i>Regional</i>	250 acres min.; provides habitats for plants and animals	1 hour drive	15 acres per 1,000 residents
<i>Special Use</i>	No minimum size; includes rodeo grounds, soccer, softball, and concerts	Whole community	2 acres per 1,000 residents

Source: City of Livermore General Plan and LARPD 2016 Master Plan.

DEMAND

As described previously, the level of new residential development would support about 9,800 new residents within the Isabel Neighborhood. Per Table 4-1, this would generate demand for two Neighborhood Parks (or 19.6 acres) and 19.6 acres of Community parkland for a total of about 40 acres, based on the service level standards.

All neighborhoods should have an integrated park, recreation, and open space system designed to meet the needs of existing and future residents, workers, students, and visitors in the Planning Area. The program should serve a variety of functions: provide opportunities for recreation and exercise, allow for community gathering and

TABLE 4-2: CIVIC SPACES

Park Type (size)	Description	Typical Uses
Playgrounds (no min/max size)	Designed and equipped for children recreation; protected from the street and placed so children do not have to cross a major road; may be freestanding or located within a larger park.	Play structures Picnic facilities Interactive art Fountains
Community Gardens (0.1 – 1 acre)	Groupings of garden plots available to nearby residents for small-scale cultivation.	Gardening/agriculture
Neighborhood Pocket Parks (0.1 – 1 acre)	Smaller parks located at the intersection of principal streets, mid-block, or removed from the street; surrounded by buildings on two or more frontages.	Picnic areas Community gardens Limited community facilities Passive open space and trails
Pocket Plazas (0.1-1 acre)	Intimate places for seating; places for commercial and neighborhood activity to spill into. May be formal spaces in front of prominent building entrances.	Outdoor pavilions Outdoor assembly Farmers markets Playground
Plazas (0.25 – 2 acres)	Spaces are defined by building frontages and consist primarily of hardscape, with trees formally arranged.	Outdoor pavilions Outdoor assembly Farmers markets Playground
Urban Parks (0.5 – 4.9 acres)	Centrally located within a neighborhood at the intersection or at the edge of important thoroughfares to benefit multiple residential areas or provide a transition to natural areas; surrounded by buildings on one or more frontages.	Community facilities Playgrounds Outdoor pavilions Public restrooms Passive open space and trails

Source: City of Livermore Development Code.

special events, enhance the greenery and overall aesthetics of the neighborhood, and support the general enjoyment of the outdoors. The mix of amenities and programs should address the diverse needs and preferences of the community with respect to age and abilities. Open spaces should be interconnected such that they are accessible to all residents.

The traditional format for providing these recreational functions in Livermore is through large parks interspersed throughout neighborhoods, play fields at elementary schools, and private backyards of single-family houses, which make up the vast majority of the city’s housing stock. Since new housing in the Isabel Neighborhood will come in the form of attached units, residents will rely more on smaller private spaces such as balconies, common areas within individual developments, and public spaces.

PROVISION OF PARK SPACE

Given the compact form of the Neighborhood, the Plan must use land efficiently to meet the range of recreational needs and preferences. For these reasons, this Plan relies on the Civic Space types described in Table 4-2 and Part 8, Civic Space Types, of the Livermore Development Code, rather than the traditional LARPD park size standards. The Plan will remain subject to LARPD standards related to the total acreage target (40 acres of active open space) and the half-mile service area standard for neighborhood and community parkland.

To achieve these standards, the Plan integrates smaller park sizes appropriate to the transit-oriented environment and distributes the open space acreage throughout the Neighborhood. The program includes a variety of open space types and recreational activities, ranging from active/structured play areas to passive/unstructured open spaces. The strategy also emphasizes connections between these spaces, calling for a continuous network of public parks and open spaces linked by trails and vibrant streetscapes. This strategy will fulfill the community’s recreational needs and support the vision for a complete neighborhood.

The key elements of the parks, recreation, and open space strategy are to:

- Distribute park and open space acreage evenly throughout the Neighborhood,
- Provide a variety of open space types with high quality recreational amenities,
- Connect parks and public spaces together with trails and walkable streets, and
- Recognize and leverage existing parks and open space facilities.

Neighborhood parks and on-site open spaces provide the foundation of the Plan’s recreational program. In addition, there are partnership opportunities with local agencies such as the Las Positas College and Livermore Valley Joint Unified School District to share the area’s existing parks and athletics facilities, such as Cayetano

Park, Shea Neighborhood Park, a potential school on Constitution Drive and sports fields at Las Positas College. The proposed trail network, pedestrian-friendly neighborhood streets, and on-site pathways will link the park spaces to the active street life of the Neighborhood’s core. Abundant landscaping on private properties, passive open space areas, and the scenic beauty and recreational opportunities of the surrounding area will complement the formal features of the recreational program. Together, the nodes (parks, plazas, and common areas) and linear elements (trails, paseos, and streets) will form a cohesive, hierarchical framework for the open space program.

The open space types are mapped in Figure 4-1, Parks and Open Space. While the combined 38.4-acre park and plaza space would not meet the total estimated parkland demand of 40 acres, the Isabel Neighborhood will have approximately 235 acres of combined park, plaza, and passive and scenic open space at build-out, as summarized in Table 4-3. This would exceed the total estimated demand for parkland generated by new residents (about 40 acres) and provide a variety of neighborhood- and community-serving functions. All new residents will be within easy access of a recreational amenity, two blocks of a public park, pedestrian and bicycle trail, or passive open space. The planned parks and open space program will play a fundamental role in defining the character of the Neighborhood.

TABLE 4-3: PARKS, PLAZA, AND OPEN SPACE AREA

Type	Acres
Neighborhood Park ¹	9.7
Plaza	1.0
Community Park ²	11.8
Scenic Open Space	197.7
Sports Facility ³	14.8
Total	235.0

Source: Dyett & Bhatia

Notes:

1. Includes Shea Sage neighborhood park (3.2 acres) in addition to the neighborhood parks described below.
2. Cayetano Park.
3. Includes sports fields on the Las Positas College campus.



Pedestrian and bicycle trails provide options for active recreation and transportation.



Neighborhoods benefit from parks that include a range of outdoor programming for all ages.

Neighborhood Parks

Three new public parks for the Isabel Neighborhood, totaling 6.5 acres, are designated on the Land Use Diagram and the Open Space Diagram. One park site abuts Collier Canyon Creek north of I-580. Located at the western edge of the Innovation Hub, along the creekside of a proposed pedestrian and bicycle trail and between residential and business park uses, this park is central to the Neighborhood's workforce but is also within a half-mile walk from most residences. This 3-acre park would be suitable for a range of programming; potential uses could include a sports field and compatible uses to include shaded picnic tables, restrooms, on-street parking, and trail amenities.

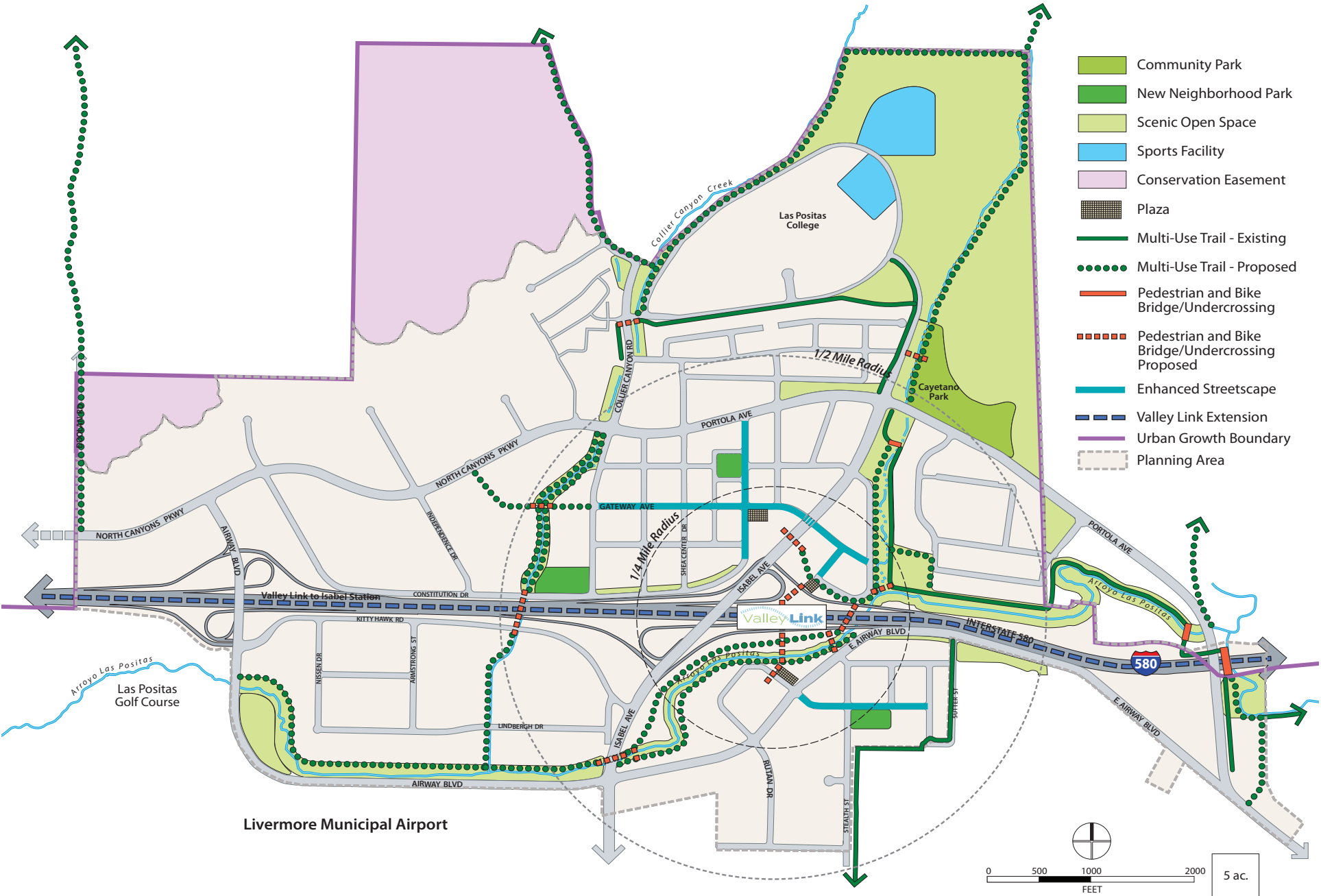
The other two neighborhood parks are centrally located to new residential areas and within a five-minute walk from the Isabel Valley Link station. On the north side of I-580, a 1.5-acre park site is located along the proposed Main Street – creating opportunity for outdoor seating, plazas, and other engaging features that complement the retail uses. This space also is intended to accommodate a variety of public programs and events (e.g., farmer's markets, evening movies in parks, family

gatherings, etc.). The third park site is designated for the center of the new residential area south of I-580 and is 2 acres in size. This area currently has a pumpkin patch and corn maze. This 2-acre park site offers opportunities for preserving historic structures and/or honoring the agricultural heritage of the Planning Area.

The new neighborhood parks will be designed as "Urban Parks," consistent with the Civic Space standards. In addition to the specific amenities mentioned above, the new parks may include passive open space areas (e.g., turf lawns), playgrounds, par courses (exercise equipment), picnic areas, concessions, benches, water features, plazas, restrooms, and/or pathways. The exact size, location, and features of each park will be determined at the time of development, consistent with the policies below.

These neighborhood parks will be dedicated at the time of development for public use. New development is subject to a Park Facilities Fee, which will pay for the cost to build the public park facilities on these sites. Developers may be eligible for park credits based on construction and parkland dedication. LARPD will incorporate the Plan's parks into their system and the City will work with LARPD as the Plan is implemented.

FIGURE 4-1: PARKS AND OPEN SPACE



On-site Open Space

As described in Chapter 2, Land Use, all new development will be required to provide on-site open spaces. Residential uses must provide common usable areas (e.g., small greens, pool areas, barbecue decks, etc.), as well as private outdoor spaces (e.g., balconies, patios, rooftop decks, etc.). Non-residential development must also provide some publicly accessible spaces such as plazas and courtyards. Based on the Plan's open space standards, the Isabel Neighborhood Specific Plan would generate about 14 acres of common usable areas at build-out in residential and non-residential developments, in addition to the public parks.

Open spaces on private property will provide convenient opportunities for passive and active recreation, outdoor enjoyment, and community gathering. Larger common areas should be designed as "Pocket Parks" or "Pocket Plazas," pursuant to the Civic Space standards. As described further in Chapter 5, Urban Design, these areas should not be "hidden" behind buildings, but rather contribute to an active street life and neighborhood identity. Developments shall also provide landscaped pedestrian pathways ("paseos") to facilitate connectivity, openness, and greenery. Private property owners (such as homeowner associations) will own and maintain on-site open spaces.

Pedestrian and Bicycle Trail Network and Pedestrian-friendly Streets

Throughout the Isabel Neighborhood Specific Plan planning process, the community has stressed its desire for a well-connected, complete trail network. LARPD identifies a demand for approximately 5 more miles of trails throughout its service area. As described in Chapter 3, Transportation, the Plan proposes a total of 5.1 linear miles of pedestrian and bicycle trails just within the Isabel Neighborhood. These planned improvements will close existing gaps in the system. At build-out, the Planning Area will have over eight miles of trails.

Not only do trails provide connections to open spaces, they serve recreational function in and of themselves, as well as additional connectivity for those using their bikes to commute to work. Residents can utilize the trails for running, walking, biking, or skating. The inclusion of amenities along trail segments such as exercise equipment would further enhance the recreational value. Many of the trails will be located within open space buffers along creeks, providing access to natural areas (as described further under Scenic Open Spaces below). The trail network will link to regional and citywide trails, providing recreational opportunities and benefitting the entire Livermore community not just the Planning Area.

Also described in Chapter 3, Transportation, new streets within the Neighborhood will incorporate pedestrian-friendly design, including wide sidewalks, landscape strips, lighting, and traffic calming measures at key intersections. The Main Street, Pedestrian Streets, and Bicycle Streets will be designed with additional features such as benches, shade trees, specialty paving, and bulb-outs. The pedestrian-friendly streetscape will weave a common open space thread throughout the Neighborhood. Together with the trail network, these streets will connect the open space network and provide walking/biking loops within the area. The trail network and pedestrian-friendly streets serve important functions in the overall recreation and open space program: connectivity, linear green spaces, and active transportation opportunities.

Plazas and Active Neighborhood Core

An active neighborhood core defined by Main Street, the Retail Center, and Valley Link station area, will help serve other critical functions of the open space program: allowing for community gathering and establishing a sense of place for the Neighborhood. Plazas are prime spaces for these purposes. As described in Chapter 5, Urban Design, plazas consist primarily of hardscape rather than turf and incorporate features like public art, wayfinding signage, and shade trees.

The Neighborhood will have at least three public plazas, totaling approximately one acre. Two small plazas are planned on either end of the Valley Link pedestrian bridge. As described in Chapter 3, Transportation, these plazas are key elements of the overall circulation network, through which all Valley Link patrons must pass. Accordingly, these plazas should incorporate waiting areas, signage, kiosks, landscaping, trail connections, and street furniture. The main function of Valley Link station plazas is to accommodate high pedestrian volumes, although nearby retail, trails, and open spaces will help activate the plazas and provide a welcoming entry to the Neighborhood. These spaces are not intended for large special events and should not exceed 0.25 acres in size unless necessary for circulation purposes.

The third and largest plaza in the core area will be located on the Retail Center site, at the corner of Main Street and Gateway Avenue. This public space is central to the Neighborhood and is the main connection point to the Valley Link station from much of the Isabel Neighborhood—priming it to become the main gathering place for the community. Both this plaza and Main Street will include outdoor dining areas, benches, and other amenities that encourage people to socialize and spend time outdoors in between dining and shopping. Public art, fountains, and street furniture will provide playful opportunities for children. The Neighborhood may host special events and programs such as Farmer’s Markets

or musical performances in these community-oriented open spaces.

The City of Livermore recommends that Valley Link station plazas be designed as “Pocket Plazas” that are smaller than the major “Plaza” on the Retail Center site, based on the Civic Space standards. Additional pocket plazas may be incorporated into private developments or the neighborhood park located on Main Street. As with other open space types, plazas will be designed to reinforce the identity of the Isabel Neighborhood.

Scenic Open Spaces

The Plan designates nearly 200 acres as scenic open space, which includes 50-foot wide buffers along natural creeks, the undeveloped areas on the Las Positas College campus, the hillside area north of Cayetano Park, scenic buffers along the freeway, active vineyards along the northern boundary of the Planning Area, and landscaped areas along publicly accessible rights-of-way. The buffers along creeks are part of the publicly accessible trail network and may include benches, picnic areas, and par courses (i.e., exercise equipment). Amenities shall be determined by City staff and provided by the adjacent developer.

Scenic open spaces increase the green space within the Neighborhood, help maintain a sense of openness, and enhance the aesthetic quality of trails and adjacent parks. These spaces also provide habitat for wildlife and help protect



New plazas in the core area and near Valley Link will provide public gathering places for dining and socializing.

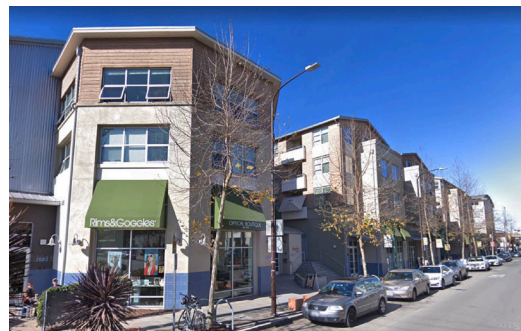


Proposed scenic open spaces will preserve natural areas and provide recreation opportunities.

water quality. Like the trail network, the scenic open spaces are intended to benefit the greater Livermore community.

Community Centers and Related Uses

The Isabel Neighborhood Specific Plan does not specifically designate space for a new community center. However, residential designations permit uses such as private swim clubs and recreation centers. In addition, new parks may include small buildings to provide indoor spaces for the community. Similarly, the Ground Floor Retail/Flex Space designation in the Neighborhood core would provide opportunity for community-oriented uses such as gyms, child day care, or meeting rooms. These uses would be ideally located next to the neighborhood park along the Main Street. Additionally, individual developments may include indoor meeting rooms and/or fitness centers for tenants, in addition to common outdoor space.



Ground Floor Retail/Flex Space can include gyms, child care, and other community-serving facilities.

Shared Use Opportunities

Based on the mix and size of proposed open spaces, as well as the existing popularity of Cayetano Park, there may be a shortage of sports fields/courts in the Planning Area as the area approaches build-out. However, existing athletic facilities at the Las Positas College campus may become available to the Neighborhood residents for specific hours, days of the week, or purposes. This would require shared use agreements. There is also an approved play field at the school site on Constitution Drive, although there are currently no plans to construct this facility. In addition to and/or in lieu of securing shared access to athletic facilities at these locations, the City and LARPD should plan for a new sports field/court in the new park located along Collier Canyon Creek. The City shall coordinate with Las Positas College on future shared use opportunities.



Additional sports fields and courts may become available through joint-use agreements with nearby colleges or schools.

GOAL AND POLICIES

The following goals and policies address the overall open space program, as well as specific standards and guidelines related to parks. Refer to Chapter 2, Land Use, for on-site open space requirements by land use type; Chapter 3, Transportation for the design of pedestrian-friendly streets; Chapter 5, Urban Design, for the design standards and guidelines related to on-site open spaces, plazas, active frontages, scenic buffers, and trails; Chapter 6, Environmental Resources, for habitat protection measures; and Chapter 7, Implementation and Financing Strategies, for funding and implementation tools related to the construction and maintenance of parks and trails.

G-PF-1: Provide an integrated park, recreation, and open space system that serves a variety of functions: provide opportunities for recreation and exercise, allow for community gathering and special events, enhance the greenery and overall aesthetics of the Neighborhood, and support the general enjoyment of the outdoors.

P-PF-1: Incorporate nodes (parks, plazas, and common areas) and linear elements (trails, paseos, and streets) to form a cohesive, hierarchical open space system for the Neighborhood.

P-PF-2: Provide a mix of amenities and programs that respond to the diverse needs and preferences of the community. Design physically accessible, multi-generational spaces to serve

children, young adults, seniors, and people with limited mobility.

P-PF-3: Construct three new neighborhood-serving Urban Parks (pursuant to Part 8, Civic Space Types, of the Livermore Development Code) in the general locations shown on Figure 4-1, with the following minimum sizes:

- 3 acres along Collier Canyon Creek;
- 1.5 acres located along the proposed Main Street; and
- 2 acres south of the freeway, east of Stealth Street.

P-PF-4: Require developers to provide land or in lieu fees for parks, as governed by the terms of the Quimby Act. Developers of the three park sites as shown on Figure 4-1 shall be required to dedicate land for such purpose and provide park improvements at the time of development.

P-PF-5: Design new parks to be easily accessible to residents and highly visible from the adjacent streets and surrounding uses.

P-PF-6: Each new park shall include a variety of amenities such as: benches, pathways, picnic areas, dog stations, children's play areas, and landscaping.

- The new park located next to Collier Canyon Creek should include a sports field, other compatible uses, and trail amenities.

- The new park located along the proposed Main Street shall be scaled appropriately to fit the surrounding mixed use/commercial context. The new park located along the proposed Main Street should be designed to accommodate community events, oriented such that residents can view the park, and provide adequate lighting and on-street parking. Park design shall be consistent with the standards set-forth in section 8.01.070 of the Livermore Development Code for Urban Parks, as it exists today or amended in the future.

- The new park located south of the freeway should incorporate features that honor the history of the site and agricultural heritage of the Planning Area.

P-PF-7: Design the new park located next to Collier Canyon Creek to minimize adverse effects resulting from the proximity to the freeway.

- Locate the most active uses in the northern portion of the park.
- Provide on-street parking along the southern end of the park.

P-PF-8: The final selection of amenities within new public parks shall:

- Involve community outreach and coordination with LARPD;

- Utilize low-maintenance vegetation and high quality, durable materials; and
- Minimize long-term operational costs.

P-PF-9: Incorporate a plaza into the Retail Center site as a central gathering place that can accommodate special events, outdoor dining, and pedestrian circulation, consistent with design principles in Chapter 5, Urban Design.

P-PF-10: Coordinate with Valley Link and BART on the design of Pocket Plazas at each base of the pedestrian bridge to the station, consistent with open space goals and design principles in Chapter 5, Urban Design. The City of Livermore recommends that the total size of the plazas not exceed 0.25 acre unless a larger area is necessary for pedestrian circulation purposes.

P-PF-11: Incorporate recreational amenities such as bike parking, Pocket Plazas, children play structures, and dog stations along active frontages in the Neighborhood Core.

P-PF-12: Private developments shall provide on-site common outdoor areas in the form of Pocket Parks or Pocket Plazas (pursuant to Part 8, Civic Space Types, of the Livermore Development Code).

P-PF-13: Connect new and existing parks, open spaces, and common areas on private property directly to the trail network or through pedestrian-friendly streets and paseos.

P-PF-14: Install landscaping and enhance natural habitats to enhance the aesthetic quality and recreational value of trail corridors and other passive open spaces.

P-PF-15: Designate a 2.5:1 buffer from the toe of all natural (non-channelized) creeks plus 20 feet, consistent with Zone 7 creek setback criteria. Pedestrian and bicycle trails and associated amenities may be located within this buffer, subject to the trail polices in Chapter 3, Transportation, design standards and guidelines in Chapter 5, Urban Design, and necessary regulatory permits.

P-PF-16: Increase the availability of athletic facilities through shared use agreements with Las Positas College and/or K-12 schools in the Planning Area.

P-PF-17: Incorporate a consistent theme of wayfinding signage and Neighborhood-identifying features into parks, plazas, and other open spaces, based on the Pedestrian Streetscape palette described in Chapter 5, Urban Design.

P-PF-18: Require that development projects involving the alteration, relocation, or demolition of historical resources include interpretative signage with historical images and information for residents, employees, and passers-by to learn about the property and its significance. The content of the interpretive signage shall be prepared by a qualified Architectural Historian and graphic design professional.

P-PF-19: Incorporate elements commemorating Gandolfo Ranch into the park development south of the freeway, east of Stealth Street in order to promote understanding among visitors of the site's historical significance. The preservation of structures and other character-defining features is strongly encouraged.

P-PF-20: Require, prior to issuance of permits for the alteration, relocation, or demolition of a historical resource, that the project sponsor conduct Historic American Buildings Survey (HABS) and Historic American Landscapes Survey (HALS) Level II documentation. The HABS is a federal preservation program used to document architectural heritage and the HALS is a federal program used to document landscapes.

4.3 PUBLIC SERVICES

SCHOOLS

The Livermore Valley Joint Unified School District (District), which serves all of Livermore, currently has 18 schools located on 17 campuses throughout the city. This includes nine elementary schools, two K-8 schools, three middle schools, two comprehensive high schools, and two alternative high schools. The District has an open enrollment policy, under which residents can choose which school to attend within the district as long as there is capacity. Students within the boundaries of a given school's service area have priority. Under this policy, about 20 percent of students choose to attend district schools other than the one assigned to their neighborhood.

The three District schools that currently serve the Isabel Neighborhood include: Rancho Las Positas Elementary School (K-5), Junction Avenue School (K-8), and Granada High School (9-12). Enrollment over the last four school years has ranged from 75-84 percent of school capacity at Rancho Las Positas, 88-89 percent at Junction Avenue, and 91-95 percent at Granada. New students living in the Isabel Neighborhood would have priority at these schools, but would also have the option of attending any school within the District that has capacity.

For the 2019-2020 school year, the District has a total student population of 13,665, or

approximately 85 percent of its current overall capacity of 16,150 students.¹¹ The student population has been generally stable over the last 15 years.

Given that growth under the Isabel Neighborhood Specific Plan is accounted for under the existing General Plan, no additional schools would be required to meet overall demand. However, it is difficult to predict demand for schools over time, both from new development and from turnover of the existing housing stock. For example, as the average age of Livermore's population has increased, each single-family house "generates" fewer students on average, and high housing prices might deter families with children from buying homes as they become available.

The most recent enrollment analysis found the following student generation rates (average number of students in grades K-12 per household): 0.44 for single-family detached residences,¹² 0.21 for single-family attached residences, and 0.49 for multi-family residences. Based on these rates, residential development under the Neighborhood Plan would generate a K-12 student population of 800 to 1,930 students. When combined with new students from other existing, approved, and planned housing in the city, enrollment at existing public schools could exceed capacity if the District

11. City of Livermore, Community Services and Infrastructure Report, 2019.
12. Cooperative Strategies for the Livermore Valley Joint Unified School District, Enrollment Analysis, February 7, 2017.



Three Livermore Valley Joint Unified School District schools — Rancho Las Positas Elementary School, Junction Avenue School, and Granada High School — currently serve the Isabel Neighborhood.

does not increase capacity by re-opening schools or add classroom space at existing school sites.

Furthermore, the north side of the Planning Area, where the majority of new residential development is planned, currently lacks an elementary and middle school. The existing schools serving the Planning Area are over 1.5 miles away, measuring from the neighborhood core via existing streets.¹³ Given the distance to these existing schools, accessibility will be a challenge (i.e., getting to school safely and conveniently). In addition, I-580 acts as a barrier, further reducing the ability for children to get to school by foot or bike. To address this challenge, school access shall be incorporated into the Transportation Demand Management program to be developed for the Neighborhood (see Chapter 3, Transportation). Potential strategies include school busing, carpooling programs, and improvements to walk/bike routes linking schools and residences.

As the Plan is implemented, the District may determine that a new K-12 school is necessary for capacity purposes and/or desirable to improve school access. To accommodate a potential school in the Planning Area, a school is permitted in the northwest portion of the Planning area.

New residential development under the Neighborhood Plan will be subject to statutory developer fees that must be used to provide

physical capacity at public schools to serve the population generated by new development. The District can use statutory developer fees for the construction or acquisition of additional school facilities, remodeling existing school facilities, or adding portable classrooms to existing school sites.

The City and District will continue to coordinate in the monitoring of school needs in the Isabel Neighborhood and Livermore in general.

13. Rancho Las Positas School is located about 1.6 miles away, while Junction Avenue School is located about 2.5 miles away.

FIRE

The Livermore-Pleasanton Fire Department (LPFD) provides fire protection services to Livermore and Pleasanton. The closest stations to the Isabel Neighborhood are: Station #10 on Airway Boulevard, Station #7 on Rincon Avenue and Station #9 on Concannon Boulevard. The LPFD has indicated that these existing nearby fire stations will provide sufficient coverage to the Isabel Neighborhood under build-out of the Plan.

Station #10, however, is on a long-term lease from Livermore Municipal Airport. In the event that the lease is terminated, LPFD would require a station in the Isabel Neighborhood on a site of about one acre. However, the City and Livermore Municipal Airport do not have any plans to terminate this lease, and therefore the Plan does not show a location for a fire station at this time.

Another aspect of fire service is the type of truck needed to serve taller buildings (over 30 feet). This requires “aerial ladder access” from a truck. LPFD currently has two aerial ladder trucks that can serve compact neighborhood streets with taller buildings, and recently purchased two new trucks for this purpose. LPFD currently reviews development proposals to ensure that there will be adequate fire flow capacity, fire truck access, hydrant spacing, and building design. New development under the Plan would be subject to this review process.

LIBRARY

The City has one main library at the Civic Center and two branch libraries: Springtown and Rincon. The branch libraries have limited service hours, and Springtown has an Easy Access self-service system for after-hours access. There is no established industry standard for the amount of library space per capita of population. Since population growth under the Isabel Neighborhood Specific Plan is accounted for under the remaining General Plan capacity, it is expected that existing library facilities would accommodate the additional demand for library services.

As library services continue to evolve, one option for providing services within the Isabel Neighborhood is to establish a satellite, self-service center with a meeting room to conduct periodic story times, community book discussion groups, and other staff-led programs. This type of facility could be integrated with another public or non-profit use such as a community center or Las Positas College, or be programmed into a ground floor flex space designated for community use. Since existing library facilities can accommodate the additional demand for library services, a self-service center is not included as part of the Specific Plan.



Public libraries are essential community services. The main library at the Civic Center (top and center) and the Rincon branch (bottom) library would both serve the Isabel Neighborhood.

POLICE

The City of Livermore increases Police Department staffing as needed to keep up with population growth. Therefore, the Police Department would need to increase staffing to serve new development in the Isabel Neighborhood. Currently, the officer-to-resident ratio is a little over one officer for every 1,000 residents. With a population increase of about 10,000 residents, the Department would need an additional 8 to 10 officers to adequately patrol and provide services to the residential areas of the Isabel Neighborhood. Additional officers would be needed to adequately cover the commercial uses on Main Street and the Retail Center, as well as the increase in vehicle/foot traffic, daytime population (workers), large parking lots, and special events/programs in the Neighborhood. For example, new uses serving alcohol that may locate in the commercial areas would require additional police coverage. Police officers would likely provide a mix of foot, bike, and vehicle patrol to respond to incidents and deter property crime in the Isabel Neighborhood.

To serve the overall demand for increased services from both residential and commercial development, the Department estimates a need for up to 15 additional officers by buildout. Given this level of police services and distance to the main Police Station, the City will evaluate the need for a small police substation as the Plan builds out. The facility should include an office, break room, restroom, interview room, and storage for equipment and

bikes. The small substation could be incorporated into the Valley Link station, within an existing or new fire station, or other public/commercial building.

Valley Link and the City will work together to design the Isabel station, parking structure, and immediate area to include security measures, which may include but are not limited to surveillance cameras, alarms, lighting, and police patrols. In addition, the Isabel Neighborhood Specific Plan incorporates crime prevention measures, including design features that promote “eyes on the street.” Visibility reduces the potential for criminal activity and enhances comfort. Example measures include:

- Incorporating a mix of uses that generate activity throughout the day;
- Designing buildings with entrances and windows facing the street;
- Providing enhanced lighting at parking lots, walkways, and bus stops;
- Designing the small plazas at the Valley Link station to serve circulation needs and provide waiting areas, while designing the large plaza on the Retail Center site to accommodate community gathering functions (such as special events); and
- Designing public art and streetscape features to minimize “lurking spaces” and barriers to sight lines.

See Chapter 5, Urban Design, for specific design standards and guidelines relating to the design of public spaces.

MATERIALS COLLECTION

Livermore Sanitation, the City’s exclusive franchisee, collects and transports solid waste, including trash, recyclables, and organic materials. Livermore Sanitation provides single-family

residences with wheeled carts for weekly collection of materials, as well as individual pails for in-house collection of food scraps. For multi-family unit residents, they offer bins and/or carts and individual pails for in-house collection of food scraps, in addition to educational materials to promote recycling and diversion and a small recycling bag to facilitate in-unit collection of recyclable materials. They also provide bin and/or cart service to commercial businesses for collection at least once a week.

Livermore Sanitation reviews development proposals to ensure that there will be adequate truck access to collect waste materials from bins. The City also has policies related to materials collection and enclosures to address fire code, drainage, circulation, and visual considerations (Section 6.03.130 of the Livermore Development Code and Chapter 8.08 of the Livermore Municipal Code).

Livermore Sanitation takes trash to the Republic Services Vasco Road Landfill for disposal under a contract with the City that expires December 31, 2023. All recyclable materials are currently processed at the Alameda County Industries facility in San Leandro, while all organics are currently processed and composted at Recology's Blossom Valley North facility in Vernalis.

Materials management in Livermore is subject to several regulations at the state, county, and local level. In 2007, the City adopted the goal to divert 75 percent solid waste from landfills (City Council

Resolution 2007-225), consistent with Alameda County Measure D (1990) and General Plan policy. The California Green Building Standards Code (CALGreen) requires developers to recycle construction materials and divert construction waste from disposal, as feasible.

The City adopted the Alameda County Waste Management Authority (ACWMA)'s Mandatory Recycling Ordinance (MRO), adopted in 2012. The MRO requires: businesses, institutions, and multi-family properties with five or more units to sort their recyclables from their trash; multi-family properties and businesses/institutions that generate food waste to sort the organic materials from their trash; and sufficient services to handle the materials generated by the ordinance. The MRO is intended to help Alameda County reach the long-term goal of landfill obsolescence through effective recovery systems and redesign of products. Given the increase in organic materials generated by the MRO, StopWaste has been addressing longer-term planning for organics infrastructure, which includes annual reporting to the State, estimating future demand for organic materials in Alameda County.

The Isabel Neighborhood Specific Plan will increase demand for collection and disposal of trash, as well as processing capacity for organics and recyclable materials. The incremental increase in demand has generally been accounted for under the General Plan. The City expects to accommodate the current and future disposal and recycling

needs in the community, based on current growth estimates, trends, and regulations.¹⁴ Accordingly, the City will update the franchisee agreement for collection services, as necessary; renegotiate the expiring contract with the Vasco Road Landfill or go out to bid to secure use of a different landfill; and work with StopWaste to accommodate the incremental increase needed for organic materials processing. For these reasons, landfill space, organics capacity, and materials collection are not expected to be limiting factors for the Isabel Neighborhood Specific Plan.

New development under the Plan will be subject to existing materials management. The Plan includes additional policies to further reduce per capita trash, listed below. Refer to Chapter 5, Urban Design, for design standards and guidelines related to collection and processing of all materials. As the Plan is implemented, the City will update requirements for collection and processing of all materials to reflect new regulations and the evolving nature of the materials management industry.

GOALS AND POLICIES

G-PF-2: Promote adequate and accessible educational facilities for Isabel Neighborhood residents.

P-PF-21: Work closely with the School District

14. City of Livermore, Community Services and Infrastructure Report, 2017.

to monitor student enrollment and school facility needs to ensure accommodation of the future student population in Livermore.

P-PF-22: Work with the School District, LARPD, Livermore Amador Valley Transit Authority (LAVTA), property owners, and developers to create and/or improve safe walking/biking routes to the public schools serving the Isabel Neighborhood.

- Incorporate school access into the Neighborhood's Transportation Demand Management program (described in Chapter 3, Transportation). Strategies to consider include LAVTA public bus, school busing, carpooling programs, Walk/Bike to School Days, a Walking School Bus program, and bicycle trains.

G-PF-3: Maintain Livermore as a safe and livable community.

P-PF-23: Ensure that new development in the Planning Area adequately addresses public safety considerations in building design, site planning, and business operations.

P-PF-24: Work with the LPPD to monitor the need for a new Fire Station if Station #10 needs to be relocated and/or additional equipment is needed to serve the Isabel Neighborhood.

P-PF-25: Ensure that LPPD and the Police Department have sufficient staffing to serve all new development and associated population growth in the Isabel Neighborhood.

P-PF-26: Coordinate with the Fire Department to incorporate a small police substation, for internal uses only, into another public facility. The facility should be large enough to include an office, break room, restroom, interview room, and storage for equipment and bikes.

G-PF-4: Provide materials collection services that are safe, sanitary, environmentally acceptable, efficient, and affordable.

P-PF-27: Work with residents, businesses, LARPD, and the City's franchise hauler to exceed the City's 75 percent waste diversion goal in the Isabel Neighborhood.

- Design new development to make recycling, composting, and organic material collection as convenient as possible for residents, employees, and visitors.
- Reduce the amount of materials that must be processed through implementation of recycling programs, composting, source reduction (such as packaging), purchasing policies, and manufacturing processes.
- Continue to implement educational and outreach programs on available diversion programs and best practices.
- Encourage businesses to participate in the Bay Area's Green Business Program.
- Support the expansion of organics capacity in Alameda County.

P-PF-28: Continue to work with the current materials collection franchise hauler in the review of development projects to ensure compliance with materials collection requirements.

- Ensure that streets and alleys are designed to allow collection vehicles to make safe, unobstructed turning movements.
- For residential projects that will have wheeled cart service, ensure that streets and alleys are designed to accommodate the placement of carts on the street during collection day.
- Periodically update the interior and exterior trash collection standards to reflect current goals, regulations, and best practices, particularly for multi-story buildings in the residential, Office, and Ground floor Retail/Flex areas of the Isabel Neighborhood.
- Refer to StopWaste resources such as the Recycling Guidelines for Multi-Family Housing Design.

4.4 UTILITIES

New development will generate demand for additional water supply and associated infrastructure: potable water distribution, sanitary sewers, wastewater treatment, and recycled water. This development will also increase demands on storm drainage facilities, electricity and natural gas systems, and telecommunications infrastructure. This section provides an overview of the physical infrastructure and related services that will be required to accommodate projected demands, based on the detailed analysis in the Draft EIR.

WATER SUPPLY AND INFRASTRUCTURE

Water infrastructure consists of several components. First, potable water enters the water distribution system, which is comprised of reservoirs, pumps, valves, mains, service laterals, and meters. Then, wastewater is conveyed through the sanitary sewer system, which consists of pump stations, pipes, force mains, laterals, manholes, and cleanouts. The wastewater is treated at the Livermore Water Reclamation Plant. Some of the treated wastewater is redistributed to a portion of the city as recycled water, while the remainder is released to the Livermore-Amador Valley Water Management Agency pipeline for disposal in the San Francisco Bay.

Zone 7 is the water wholesaler for most of the Tri-Valley. Zone 7 sells water to the City of Livermore (Municipal Water) and California Water Service Company (Cal Water) for distribution to end users (e.g., residents, businesses, etc.). Zone 7 has two pipelines/easements within the Planning Area. The Altamont Pipeline runs easterly along E. Airway Boulevard, from Isabel Avenue to beyond Portola Avenue. The Cross-Valley Pipeline runs easterly along Kittyhawk Road to a pump station located at the corner of E. Airway and Isabel Avenue, then southerly along Isabel Avenue. Any work within Zone 7's easements will require an encroachment permit. The City of Livermore manages the network of sanitary sewers, Water Reclamation Plant, and recycled water system. Most of the Isabel Neighborhood is within the Municipal Water service area, while the portion south of I-580 and east of Isabel Avenue is within the Cal Water service area. The portion within the Municipal Water service area is also part of the recycled water system, with "purple pipe" mains in all main roadways.

Zone 7, the City, and Cal Water prepare Urban Water Management Plans (UWMP) to monitor water supply and demand for the following 20-year period. The agencies completed the mandatory five-year update in 2015/16. The City is currently updating its Water and Sewer Master Plans to evaluate specific infrastructure needs. As part of this effort, the City has updated its projections of water demands citywide and with the

Isabel Neighborhood Specific Plan, compared to the adopted UWMP. Based on the adopted UWMPs and updated projections, Zone 7 has indicated that there is sufficient planned water supply at this time to serve the City's General Plan anticipated growth, which accounts for development under the Isabel Neighborhood Specific Plan.¹⁵

New development will be responsible for installing underground pipes and connections to the existing water distribution and sanitary sewer systems as part of project construction. The capacity of the existing systems and the anticipated tie-in locations of new piping were evaluated to determine the need for specific improvements to accommodate new development under the Isabel Neighborhood Specific Plan.

The evaluation determined that the potable water distribution system is capable of meeting the increased demands related to storage capacity, pumping capacity, pressure regulating station capacity, and pipeline capacity.¹⁶ Sanitary sewer upgrades, however, will be necessary. These include upsizing five segments of gravity mains and increasing the capacity of the existing Airport Pump Station.¹⁷ Several of these improvements are already planned to serve growth under the

15. City of Livermore: Isabel Neighborhood Specific Plan Water Supply Assessment, West Yost Associates, June 2017, page 46.
16. Isabel Neighborhood Specific Plan Potable Water System Evaluation, West Yost Associates, May, 3, 2017, page 8.
17. Isabel Neighborhood Specific Plan Sewer System Evaluation, West Yost Associates, May, 3, 2017, page 8.

General Plan, while three of the mains need upsizing for the additional development allowed under buildout of the Isabel Neighborhood Specific Plan.

It is estimated that the Isabel Neighborhood would generate about 200,000 gallons of wastewater per day, under build-out conditions. The Water Reclamation Plant is currently treating 6 million gallons per day (MGD), but has the capacity to treat 8.5 MGD (average dry weather flow). The City's Capital Improvement Program includes expansion of the plant to meet projected flows under build-out of the General Plan in 2025. With this expansion, there will be sufficient capacity to accommodate demand from Isabel Neighborhood development, as well as other planned growth citywide.

Offering recycled water for irrigation is a key strategy for reducing demand for potable water and increasing resiliency during drought conditions. Since the Isabel Neighborhood is currently served by the City's recycled water system, it is an ideal location to focus new development from a water planning perspective. In addition, multi-family residences tend to utilize less water per household and per area of land. The City's existing policies related to water efficiency and conservation will further reduce water demand and maintenance needs resulting from new development.

The Water Reclamation Plant has capacity to produce over 2,000 million gallons of recycled

water per year, although the City used only 760 million gallons in 2015.¹⁸ Therefore, there is capacity to serve new development within the Isabel Neighborhood, which will be responsible for connecting to the purple pipe mains. No upgrades to existing recycled water infrastructure are necessary to accommodate projected demand.

According to the Infrastructure Element of the General Plan, the approval of new development is conditioned on the availability of sufficient water supply, storage and pressure requirements and adequate long-term capacity of wastewater treatment, conveyance and disposal facilities to service the proposed development. New development will be subject to fees to cover the fair share cost of infrastructure upgrades related to the water, sewer, and wastewater treatment systems.

STORMWATER

The City's stormwater drainage system conveys runoff from developed areas into creeks, thereby protecting life and public property from flood hazards. The City of Livermore maintains the underground pipes that comprise the storm drainage system, as well as some of the creek channels. Zone 7 Water Agency owns and maintains some of the regional infrastructure for flood control, which collects the City's storm water discharge. Within the Planning Area, Zone 7 owns and maintains the Collier Creek

18. 2015 UWMP for Livermore Municipal Water, p 36.

from I-580 south to its connection with Arroyo Las Positas. Zone 7 only owns and maintains the north side of Arroyo Las Positas from Isabel to the crossing under Airway Blvd. In addition, Zone 7 owns a portion of Collier Canyon Creek.

As a result of the Plan, changes in land use will potentially impact stormwater runoff quantity and water quality. Development tends to increase runoff discharge rates due to the increase of impervious surfaces (i.e. roofs, walks, roadway and parking pavement), which prevent the natural infiltration of stormwater into soil. Runoff can result in detrimental environmental impacts if not managed properly. Current standards under the Municipal Regional Stormwater Permit (MRP) require new development to detain storm runoff to pre-development rates and treat runoff before it leaves the site using Low Impact Development methods. The City of Livermore enforces MRP requirements as part of the development review process. In addition, the City regulates the floodplain in accordance with the natural flood insurance program and community rating system class 9 standards. To mitigate for future flooding impacts within and around the City, there are four flood protection improvements that will be completed separately from this Plan. Outside of the City limits and east of Las Positas College, the City is proposing a debris and desilting basin that will mitigate for flooding that occurred in the Planning Area in early 2017. Within the Planning Area, the City is actively working on:

- Restoring an environmental mitigation basin that was damaged by silt from storms in early 2017, located where Collier Canyon Road shifts to the northeast, intercepting with Collier Canyon Creek;
- Restoring the capacity of a portion of Arroyo Las Positas as it travels through the Las Positas Golf Course, west of Airway Boulevard;
- Desilting the portion of Arroyo Las Positas south of Lindbergh Avenue and west of Nissen Drive to restore the capacity and the sections east of Airway Boulevard to Isabel Avenue.

The Plan includes additional policies related to runoff rates and quality, listed in the goals and policies on the following pages.

ELECTRICITY AND NATURAL GAS

Pacific Gas & Electric (PG&E) provides electricity and natural gas to the Planning Area. PG&E has an obligation to provide the public with a safe and reliable energy supply as mandated by the California Public Utilities Commission (CPUC). As the franchised provider, PG&E is tasked with providing service now and into the future. They charge connection and user fees to cover operational costs and infrastructure improvements.

New development under the Isabel Neighborhood Specific Plan will be responsible for connecting to the electricity and natural gas systems and

paying applicable connection and user fees. All new and existing utilities shall be placed underground; however, PG&E lines greater than 60 kv will remain above ground. Currently, all existing electric infrastructure within the Planning Area has already been placed underground, with the exception of approximately 1,000 feet of overhead distribution and service electric lines along Isabel north of I-580. These lines will need to be placed underground during development of the Planning Area. Depending on the specific pole location, Caltrans approval may be required.

TELECOMMUNICATIONS

Telecommunications services include telephone, cable, internet, and wireless/cellular services. The California Public Utilities Commission requires service providers to anticipate and serve new growth. Accordingly, providers upgrade their facilities and technology to remain in conformance with regulations and serve customer demand in Livermore. For example, Comcast upgraded some of its cable infrastructure with the installation and use of fiber optics.

In recent years, wireless service providers have been applying for and installing new antennas to increase cellular service and data coverage to meet growing demands associated with smart phones. All telecommunication applications must be consistent with Section 6.02.100 of the Livermore Development Code, as it exists now or is amended in the future.

New development under the Plan will incrementally increase demand for these services. Consistent with the Economic Development Strategy in Chapter 2, Land Use, the Plan encourages modern technology and infrastructure, particularly in the Innovation Hub area. To best meet goals for high quality design and innovation, new development should consider and incorporate telecommunications facilities such as wireless antennas and fiber optics in the early stages of planning and design.

GOALS AND POLICIES

G-PF-5: Provide sufficient water supplies and facilities to serve new development under the Isabel Neighborhood Specific Plan.

P-PF-29: Continue to coordinate with Zone 7 and Cal Water to monitor and plan for the City's future water needs.

P-PF-30: Require new development projects to construct an adequate potable water distribution and sanitary sewer systems and pay applicable fees to construct necessary facilities, as identified under the Isabel Neighborhood Specific Plan and the City's Capital Improvement Plan.

P-PF-31: Connections to the water distribution and sanitary sewer systems should occur concurrently with construction of new roadways to maximize efficiency and minimize disturbance

due to construction activity.

P-PF-32: Require new development to install water efficient appliances and fixtures such as low-flow faucets and toilets.

P-PF-33: Require new development to comply with State and City's mandatory water efficient landscape ordinance (WELO).

P-PF-34: Require new development within the Municipal Water service area to connect to the recycled water system and to use recycled water for landscape irrigation, where economically feasible.

P-PF-35: Allow the use of rainwater harvesting systems, consistent with regional permit

requirements.

P-PF-36: Restaurants and other uses that discharge grease into the wastewater treatment system shall be required to reduce impacts through individual or collective pretreatment facilities.

G-PF-6: Develop a stormwater drainage system that maintains the health and safety of residents, provides flood control, reduces long-term maintenance costs, minimizes pollution, and enhances aesthetic quality.

P-PF-37: Design new streetscape and landscaped areas in the public right-of-way for stormwater management and the efficient use of water through:

- The installation of low-maintenance, drought-resistant plant palettes;
- Use of large retention basins;
- Use of low-flow irrigation systems; and/or
- Use of bioswales and rain gardens in planting areas, curb extensions, and other green infrastructure.

P-PF-38: Require new development to incorporate low impact landscape design, such as natural drainage systems and groundwater

recharge features, consistent with stormwater permit requirements.

P-PF-39: Continue to partner with Zone 7 to improve and maintain the flood control system.

P-PF-40: Allow stream modifications associated with new development only if necessary to better contain flood flows, restore creek conveyance capacity, enhance groundwater recharge, stabilize creek beds and banks, control erosion, remove sediment and debris, provide public access for maintenance and emergency vehicles, and/or restore creek natural habitat.

- Any stream modifications and flood control structure improvements shall be done in accordance with the National Flood Insurance Program and Community Rating System Class Standards and appropriate engineering design, resource agency approvals, and current environmental restoration best management practices.

G-PF-7: Facilitate the development and maintenance of all utilities at the appropriate levels of service to accommodate the City's projected growth.

P-PF-41: Ensure that utilities (i.e., electricity, telecommunications, and cable) are available to serve new development in an environmentally responsible, aesthetically acceptable, and safe manner. However, the ultimate responsibility for ensuring that the utilities are available to

support new development rests on the sponsor of proposed projects.

P-PF-42: All new development must install electric-only appliances and HVAC (e.g. no natural gas heating, cooling, or cooking).

P-PF-43: Require new development to place underground all utility distribution lines, including new and existing aboveground utilities located in the abutting street right-of-way (consistent with Section 4.02.090 of the Livermore Development Code as it exists now or is amended in the future).

- The City shall work with PG&E and other public agencies to underground existing overhead utility lines that are not adjacent to a potential development site (i.e., the Change Areas described in Chapter 2, Land Use).

P-PF-44: Encourage new development to consider and incorporate telecommunications facilities into the initial building design.

- Industrial and public buildings should be designed to accommodate wireless antennas in a manner that integrates with the architecture.

P-PF-45: Support the development of a fiber optic network in and around the Innovation Hub.